

**Ethno- and Historical Geographic
Studies in Latin America:
Essays Honoring William V. Davidson**

*Edited by Peter H. Herlihy, Kent Mathewson,
and Craig S. Revels*

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ETHNO- AND HISTORICAL GEOGRAPHIC STUDIES IN LATIN AMERICA: ESSAYS HONORING WILLIAM V. DAVIDSON

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Introductory Essays

William Van Davidson, Ethno- and Historical Geographer of Central America

Peter H. Herlihy, Kent Mathewson, and Craig S. Revels

This volume honors William “Bill” V. Davidson, one of geography’s most committed Latin Americanists, and the foremost authority on the geography of Honduras past and present. It opens with two introductory essays, followed by 15 essays based on the authors’ field and/or archival work in Latin America. Of these 15 essays, four were presented as papers in a set of three special sessions in Davidson’s honor at the 2003 meeting of the Association of American Geographers in New Orleans.¹ All the fifteen have been selected as representative of the topical and regional interests pursued by Professor Davidson during his career to date. Our introduction demonstrates how his southern boyhood roots led him to become a professional geographer, and how his wanderlust for foreign lands and peoples led him to choose geography as a career. We outline this distinguished journey and then characterize his particular brand of “Berkeley school” cultural-historical geography, called “ethnogeography,” that is emblematic of much of his scholarship. The introduction concludes with an assessment of the contributions of the authors to these areas of geography.

Festschrifts often salute scholars at the end of their active careers. Bill Davidson is indeed retired from his long-time tenure (1975-2002) in the LSU Department of Geography and Anthropology, but he is far from retired from his even longer-termed passion for researching and writing on the ethnogeography and historical geography of Honduras and neighboring lands. In his “post-retirement” period, he is bringing together strands of research that have been years—even decades—in the spinning and pulling them together into major research publications (with more planned). Like Carl O. Sauer (his academic grandfather), or Robert C. West, his close colleague for a quarter of a century at

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LSU and one of Sauer's most accomplished students, Bill Davidson's "retirement" phase will likely yield some of his most memorable and important work. But while we can look forward to what is to come, we can also look back to where Bill Davidson came from and how he came to be the respected scholar, esteemed mentor (to many practicing geographers including seven contributors herein), inimitable teacher (to literally thousands of LSU students—over 20,000 by one estimate), and great friend and colleague to virtually all who have come to know him, whether on campus or on the court, in the field or at conferences, or through shared enthusiasms for a constellation of Central American material realities—from *ceibas* and *cayucos*, to *catrachos* and *caribes*, to *Flor de Caña* (¡*Oro y de Honduras por favor!*) and *cuzusa* and beyond.

Upper Delta Origins: Holly Grove to Memphis and Beyond

Bill Davidson's personal background in its largest relief is not unusual for a North American geographer or for a Latin Americanist ethno-historical geographer in particular. He shares with many of his counterparts in the first few generations of North American academic geography extended rural and small-town roots. What he does not share with them is that his beginnings were not in Michigan or the greater Midwest of map and mind, but in eastern Arkansas, and more specifically the small Delta town of Holly Grove. Never amounting to more than a thousand people, and within an easy walk to the swampy forested bottomlands of the White River (where Ivory-billed Woodpeckers have been recently "rediscovered"), Holly Grove and its surroundings was an ideal laboratory for early autodidactic geography training and field experience. His extended family, which included parents and grandparents along with a dozen aunts and uncles with careers in farming, forestry, medicine, education, and railroad conducting, undoubtedly influenced his interests in the outdoors and the wider world. But the single-mindedness that he set out to explore his home geography and at the same time learn about the world at large was beyond mere familial or neighborly influences.

Boyhood play included hunting, fishing, camping, and rafting in the White River floodplain, and pouring over maps of the world to memorize toponyms and fantasize future trips to far away places. By the fourth grade, he had his sights set "on becoming a cartographer, or a geographer," and since these professions didn't seem to involve "farming, fishing, or hunting," at least in the local estimation, declarations of what he would do once he grew up were probably more mystifying than prophetic to his audiences. This oddness was reinforced by his sport of having people quiz him on "geography questions" while on his newspaper route. Handing them his pocket atlas, he challenged them to stump him with questions about geo-facts and figures—from city rank sizes and populations, to place coordinates and countries' contiguous neighbors, to details about river systems and mountain

ranges. By adolescence, his reputation for both curiosity about the local surroundings and his precocity about the larger world put him solidly into that special small-town status of someone who was likely to “go places.” In the short run, though, it wasn’t all that far away.

The Davidson family moved to Memphis for the last two years of Bill’s high school days and his older brother Junius began college there at Southwestern (now Rhodes College). Junius was following family tradition. Their father (Junius Jr.) had graduated from Southwestern at the start of the Great Depression. He found employment as a salesman—first traveling for American Tobacco, then Pitney Bowes, and finally for Soderhamm, a Swedish company manufacturing heavy equipment for the Southern forest products industry. These jobs took his father to cities and towns, forests and farms throughout the central South. His family was treated to a steady narrative—in installments—of anecdotes and observations of life and landscapes beyond Holly Grove and Memphis. It was natural then, for Bill to follow his father and brother in matriculating at Southwestern, a Presbyterian college with a high-minded emphasis on the Liberal Arts and preparing a regional clientele for leadership roles in business, public affairs, and education. He majored in Political Science and served as President of the Student Body and captain of the tennis team.

Following graduation in 1962, he spent the summer in India on a fellowship participating in the Experiment in International Living, and then began working as Field Representative for Admissions and Alumni Affairs at Southwestern. Like his father under a somewhat different charge, he was given license to roam the South in search of fresh student recruits and alumni donor dollars. After a year, he moved back across the Mississippi and up into the Ozarks to begin law school at the University of Arkansas in Fayetteville. After a semester there, he transferred to the law school at Memphis State, also to be closer to his bride-to-be, Sharon Solomito. But before shifting from Arkansas to Tennessee, he made his first major trip to Latin America.

Before beginning law school in fall 1963, Bill spent the summer traveling in a single-engine airplane throughout Middle and South America. His uncle, Thayne Muller, was an avid pilot and Arkansas rice farmer, who had great interest in his nephew’s geographical interests and adventures. So when Bill proposed that they do an extended single-engine airplane tour of mainland Middle and South America, he was all for it. Bill spent months planning the trip and securing all the necessary *permisos* to visit all the states of the region save for the three Guianas. Together with his brother, Junius, the three spent the summer flying from point to point on the itinerary that Bill had developed. They flew through Mexico and down the Central American isthmus to Colombia. From there down the Andes to Ecuador, Peru, Bolivia, and Chile, over the Andes to Argentina, Paraguay, Uruguay, and Brazil, and then over the Amazon to Venezuela and home after island hopping in the Caribbean. Highlights included inspecting the Panama Canal, watching the tidal

bore in the Guayas River, joining the August pilgrimage to Copacabana on the shores of Lake Titicaca, following desert trails in the Atacama, crossing the Gran Chaco, watching the falls at Iguazú, swimming at the beaches around Rio, and buzzing the mists at Angel Falls. Their only “serious” project was to locate the past and present settlements of the Uru Indians in the Bolivian altiplano that they found south of Lake Titicaca.

Geography Becomes a Career

His aerial “*Wandersommer*” over, and law school underway, this soon proved less than a satisfactory start to a lifetime career. Before he could get to the meat of it—criminal and constitutional law and legal theory—there were the small but obligatory potatoes of contracts, tax codes, torts, and business law. Constantly stuffed but still hungry, Bill increasingly found his mind looking beyond the legal tracts to faraway places and exotic literatures. The epiphany came one day during his third semester while browsing the library stacks in this state of mind; he stumbled upon Jim Parsons’ article on the English-speaking settlements of the Western Caribbean. Swept away by Parsons’ clear prose, but also by the invitation to join him in tramping back through history and across distant landscapes, it provided at once a kind of intellectual satiety he was looking for, and sparked an appetite that demanded more.

On an otherwise cold and rainy day in Memphis, it was the clarion call to action and redirection he had been unconsciously waiting for. Shortly thereafter, he went over to the geography department at Memphis State and signed up to audit two graduate courses. Both were in physical geography—geomorphology and climatology. John Corbett, a recent Florida Ph.D. graduate, taught the geomorphology course. Corbett’s dissertation was on the geomorphology and biogeography of the Grand Prairie of east Arkansas, a region Davidson knew well. John Sobel taught the climatology course. A Michigan Ph.D. graduate with a background in Latin Americanist geography, Sobol’s dissertation was on Chilean industrialization. These two geographers, and others in the department, soon saw that their moonlighting law student was not only more enthusiastic than their regular charges, but that he was the best student among them. Still, they were probably surprised by his offer at the end of the spring semester to drop out of law school if they would admit him to their master’s program in the fall. Not only was he admitted, but offered an assistantship as well. Other faculty at Memphis State during this period included several graduates of the University of Chicago with concentrations in economic geography. No one on the faculty shared his predisposition toward Latin Americanist historical-cultural approaches and topics, but he was not dissuaded. With these details in the bag, he and Sharon set off for Cozumel during summer 1965, for his first fieldwork experience as a would-be geographer.

During the 1965-1966 winter holidays, Davidson headed to the Dutch island of St. Eustatius with friends from Memphis. Besides a wintertime break, the objective was to locate lost cannons that had fired

the “first salute” to recognize the new United States of America in 1776. Upon learning of that impertinent action, the British destroyed the offending fort and threw several cannons over the southern cliff of the island. Davidson and his group recovered three of the cannons from the beach rock where they had been embedded for almost 200 years. Earlier reconnaissance in August 1964 while returning through the Leeward Islands from his honeymoon at Canaima, Venezuela (again courtesy of Uncle Thayne and his plane), and library research in Memphis for a term paper, provided the background for this expedition.

The Cozumel reconnaissance of 1965 was followed by a second season the next summer. His 1966 fieldwork resulted in a thesis directed by John Sobol on “The Settlement Patterns of Cozumel Island, Mexico” (1967). Davidson recalls these two summers on Cozumel with Sharon as among the most satisfying of his life. As he (2005) describes it:

“Tourism was in its incipient stages then, pre-Cancun, and life on the laid-back Caribbean isle was still rural, Mexican and Mayan, and cheap. We walked over the rocky, coralline island, in search of remnants of the aboriginal Maya period and the plantations of the henequen era, got treed by jabali, made sketch maps of the trails, adotorios, and cenotes, ate lots of panuchos y salbutes, and wandered in the dense low forest behind my guide, Manuel Angulo Vivas. Manuel never stopped telling stories of the old days in Yucatán. On the trail, I was tired most of the time, but remember how rewarding it was to stumble upon an unrecorded ruin, cenote, or cave opening.”

He also was excited, sometimes after several days in the field, to return to San Miguel, the little village where he and Sharon rented a house. Sometimes she accompanied him on field excursions, but often elected to stay at home—a practice that has continued to the present. Among the many things that Bill learned from Manuel’s recountings was that he had worked some ten years before on the mainland with a geographer he called “Mr. Clinton.” Back in Memphis, Davidson figured out that Manuel’s “Mr. Clinton” was Clinton Edwards, Carl Sauer’s last Latin Americanist doctoral student at Berkeley. Edwards’ masters’ fieldwork and thesis, funded through the Berkeley Geography Department’s ONR (Office of Naval Research) reconnaissance studies, was on “Quintana Roo: Mexico’s Empty Quarter.” It was only natural then, that he sought out Edwards for advice on his Cozumel studies, and looking ahead, as a potential Ph.D. advisor. In the fall of 1967, Davidson enrolled in the doctoral geography program at the University of Wisconsin-Milwaukee.

Milwaukee’s geography department in the late 1960s and 1970s had one of the best concentrations of Latin Americanist geographers anywhere. In addition to Clint Edwards, primarily a Mexicanist historical geographer, but with broader interests in maritime material culture (watercraft) throughout the Americas, there were also the UCLA-trained settlement geographers, Robert Eidt and Norman Stew-

art and the German-Argentine climatologist Fritz Prohaska. All three had strong records in South American research. In the late 1960s, the university provided strong support for its new Ph.D. program in geography and its newly established Center for Latin American and Caribbean Studies. Efforts were also made to link both the geography program and the CLACS with their counterparts at the University of Wisconsin-Madison. Joint seminars and events helped to create a dynamic two-campus community of Latin Americanists including geographers. For example, Davidson and fellow Milwaukee students, including Mário Hiraoka, took courses with William Denevan and Henry Sterling at Madison. Davidson and Hiraoka also jointly purchased a house together, providing a locale for informal geography gatherings.

Davidson's original plan to continue the Yucatán research trajectory, however, was altered after the first semester in fall 1967. Both Edwards and Davidson decided that a historical study of the Bay Islands off Honduras would be a more compelling topic, one that had largely escaped geographers' scrutiny – save Parsons' pointing out their neglect. Davidson spent time there in the summer of 1967 (just before beginning the Ph.D. program) with Uncle Thayne and Lucius Burch, a friend from law school, on a diving and land-purchase trip to the Bay Islands. The NDEA Title IV Fellowship that he won to support his doctoral program also had support for field research. He spent each summer from 1968 through 1970 in the Bay Islands doing his dissertation field research. Escaping the Wisconsin winter, the Davidsons (now including son Andrew) spent much of 1970-1971 at the University of Southern Mississippi in Hattiesburg where Bill taught classes in geography. The academic year 1971-1972 was their last in Wisconsin – a year spent finishing his dissertation. Davidson filed his dissertation "Historical Geography of the Bay Islands, Honduras: Anglo-Hispanic Conflict in the Western Caribbean" in the spring of 1972. Upon graduation, it was back to Arkansas and an entry-level position in geography at Arkansas State in Jonesboro.

South to Louisiana and a Distinguished Career

After a couple of years of undergraduate teaching, Davidson began to look for positions that would allow for more research time and graduate teaching. An ideal position given his interests in Latin America, coastal studies, ethno- and historical geography, anthropology, and living in the South, opened up at Louisiana State University in Baton Rouge where geography and anthropology are combined in one academic department. While competition for the job was considerable, Davidson interests complemented existing strengths best, especially his island studies and coastal orientation, along with his growing commitment to Central American ethno- and historical geography. Perhaps the deciding factor was his proven facility in the classroom, particularly in conducting – almost in the orchestral sense of the word – large classes of undergraduates. The department had always emphasized graduate education as its subsidiary mission after primary research. Servicing the

undergraduates was not given much priority, except when there was periodic outside pressure to “increase the numbers.” Davidson shored up the department’s performance in this arena splendidly. He taught popular courses, starting with introductory world regional and human geography, and later “inherited” Kniffen and Newton’s “Elements of Cultural Geography” and West’s “Spanish America” and “Indians of Middle America.” He once even taught a special course on the “Geography of Jimmy Buffett” that garnered mention in *Rolling Stone* magazine. Had he done little more than teach these key courses for 27 years, it would have been contribution enough to the departmental commonweal. However, his contributions to extramural instruction, mentorship, service, and scholarship proved equally meritorious. In each of these arenas he performed as he does on the tennis court, with admirable grace and seemingly little effort, but to great effect and almost always with winning results.

Field research and student field trips were always on the agenda for Dr. Davidson. One of the main pillars – even pedestals – on which the LSU geography program rests, has been the devotion to field studies, especially involving students. Davidson certainly holds the LSU record and has few if any equals among United States geographers in taking students abroad to Latin America. During his nearly three decades at LSU, he averaged one formal trip per year, and went many more times with a few students informally in tow. Many of the formal trips were conducted as courses for credit with projects and papers. The less-formal were normally the more adventurous trips made with graduate students that brought seminar-room ideas face-to-face with the sometime stark reality of the geography at hand. For example, Herlihy, Brady, and Sampson will never forget their float down the Río Wampú on tiny balsa log rafts to reach the Tawahka Sumu homelands in the heart of the rain forest corridor of Mosquitia. One might imagine, collectively, that these excursions generated a great stock of stories and anecdotes that still provide instruction and entertainment when tapped and recounted in the right company and conditions.

Davidson was the major professor for 36 LSU graduate students. This has led to 10 doctoral dissertations and 21 master’s theses on Latin American topics, all based on original fieldwork. Doctoral topics have included indigenous geographies in Panama, Caribbean pirates, and in Honduras, colonial roads, the port of Trujillo, the mahogany trade, and Moravian as well as evangelical Protestants. The master’s theses he supervised cover an even greater collection of cultural geographic topics across a wider regional span. They include salt making in Nicoya and charcoal making in Mexico, guavas in Colombia and coconuts in Honduras, gathered plants in Jalisco and kitchen gardens in Nicaragua, causeways in El Petén and folk houses in Belize and also Honduras, Confederates and Mennonites in Belize, and Jews in Suriname. Themes involving material culture and ethnogeography loom large.

His service record has been far too generous to leave to simple tabulation. At the departmental, college, and university levels he did the standard time tithing, but it was in the informal service sec-

tor that his contributions really counted. There, he was a constant and conscientious aid to all who needed assistance, whether it was academic or otherwise. He and Sharon opened their house, poolside cabaña, and expansive grounds to departmental functions, visiting faculty, prospective students, and most generously to resident graduate students (and some faculty) in need of a few weeks or months of lodging in between apartments or houses. There were certain times when one almost needed a reservation! Airport runs all the way to New Orleans could be arranged with the slightest of hints. Their generosity was so routinely dispensed as to seem almost unremarkable—but it certainly made its mark on all who were its beneficiaries.

Beyond the university his many services performed on behalf of Latin Americanist geography include U.S. alternative delegate to the O.A.S. Pan American Institute of Geography and History; general geography editor of the U.S. Library of Congress' *Handbook of Latin American Studies*; Fulbright scholar and long-standing reviewer of Fulbright and Title VI programs involving Latin America; consultant for various projects in Central America. In 1998, he was elected honorary member of the Honduran Academy of Geography and History, the only non-national so honored.

His service to the Conference of Latin Americanist Geographers (CLAG) has been equally meritorious. He has been a board member twice, and oversaw the scholarly yearbook production when it was published at LSU in the 1980s. His service extended to the organization of two international CLAG conferences; by all accounts two of the best CLAG meetings ever—1987 in Mérida, Mexico and 1996 in Tegucigalpa, Honduras. For both, he expended great effort, in a seemingly effortless way, to ensure that no unnecessary expense was incurred by the conference-goers. In this regard, he set a standard that subsequent organizers have not matched, nor are they likely to in the future. He is slated to help organize at least one more CLAG meeting—this one in Granada, Nicaragua, in January 2009.

Like his teaching and service contributions, his research and publishing record puts Honduras and its ethno- and historical geographies at the core. Most of his earlier publications naturally flowed from his thesis work on Maya landscapes and his doctoral studies of the Bay Islands' historical geography. While teaching in Arkansas he did put an eye to some local cartographic and archaeological questions and published the results, but his main focus was, and always has been, on the Western Caribbean and its rimland—the land/water arc fringing the eastern Yucatán peninsula south to the base of the Gulf of Honduras and Guatemala's brief Caribbean coast before right angling sharply eastward along Honduras' northern littoral, then taking yet another sharp turn south along Nicaragua's Miskito coast down to Costa Rica. Like his native Arkansas and western Tennessee, Davidson has come to know large portions of the region intimately. Honoring one of geography's oldest traditions, the pedestrian survey, Davidson has walked long stretches of the coast, as well as undertaking numerous overland and backcoun-

try hikes and canoe trips. This foot and paddle work has allowed him to meet local folk on their own terms, and in turn, travel to places that have (or *had* in many cases) not yet been steamrolled flat by modernity.

After 27 years of teaching, taking students to Latin America, and pursuing his own research interests at LSU, Bill Davidson “retired” in May of 2002. Of course the occasion had to be observed, and several events were planned to celebrate his LSU career. A weekend in late spring—April 19-21, 2002—was chosen and a mini-symposium was held in his honor at Hill Memorial Library that Friday afternoon. Four of former students—Scott Brady, Clifton “Skeeter” Dixon, Peter Galvin, Peter Herlihy—and former UW-Milwaukee classmate Bill Woods toasted him with edifying and entertaining paper presentations on appropriate topics. But the main event was a surprise appearance by Clint Edwards, his former Ph.D. advisor, who put it all in perspective. That evening, the LSU French House was the scene of more toasting and roasting with a barbeque banquet including a Cajun pirogue filled with ice and beer. Soon after, Bill and Sharon moved back to Memphis, where he set up shop to continue his Central American research and publication.

Ethnogeography: Then and Now

Bill Davidson’s identity and location within geography, along with many of his students, would seem to be straightforward—they are first and foremost Latin Americanists, with a strong concentration on Central America. They all comfortably fit within the precincts of traditionalist cultural and historical geography. In fact, Davidson together with his students constitute one of the main cohort groups of geographers practicing within the Sauerian or Berkeley school mold, albeit with LSU’s own distinctive inflections. In addition to these appellations—cultural, historical, and Latin Americanist, Davidson and several of his students also identify themselves and their work with the term “ethnogeography.” The field of ethnogeography dates to the development of the discipline of geography in the U.S. at the turn of the 20th century. “Ethnogeography” is, in many ways, an American hybridization of an older European “anthropogeography” that so strongly influenced its initial development. Ethnogeography has its intellectual roots in Sauer’s formulation of an American anthropogeography, thereafter, the “Berkeley School” of geographic thought. Sauer promoted his hybridization of the German field that was historical in orientation, looked at the impacts of human activities on environment, focused on rural areas and on non-Western or ethnic societies. Sauer’s view of geography held “environment as a cultural value, environmental change as independent of culture, habitat modification by human action, culture origins, culture survivals (marginal peoples), and diffusion of culture” (Speth 1999:192).

When Bill Davidson began work at the LSU Department of Geography and Anthropology in 1974, the two senior cultural and historical geographers were Fred B. Kniffen (Ph.D. 1930) and Robert C. West (Ph.D. 1946). Both had received their doctoral training in geography

under Sauer at Berkeley, as had Davidson's own dissertation advisor, Clint Edwards. Both had also chosen topics in Mexico for the dissertation research, though Kniffen shifted to North American topics once in place at LSU. Other LSU faculty at the time with Berkeley degrees or affiliations included Jess Walker (Kniffen advisor), Donald Vermeer (Berkeley Ph.D.), Milton Newton (Kniffen advisor), and Sam Hilliard (Andrew Clark advisor). Thus, he found himself in congenial company. Not only this, but both Kniffen and West in distinctive ways identified with the useful if somewhat underdefined term or concept of "ethnogeography." Davidson soon began to also see himself and his work in these terms. For example, in 1977, he published a review article on "Research in Coastal Ethnogeography: The East Coast of Central America." Davidson's research and teaching skills made him a good fit for the hybrid department, and he expanded Kniffen's and West's emphasis on material culture traits as the core concern of ethnogeography to include historical reconstruction of indigenous ethnogeographies through toponymic analysis, archival records, and landscape interpretation.

The meaning of the term ethnogeography has changed considerably over the past century. Samuel A. Barrett first used the term in *The Ethno-Geography of the Pomo and Neighbouring Indians* in 1908 (Davidson 1977:283). Barrett studied with Alfred Kroeber and was the first student to earn a Ph.D. degree from the Berkeley Department of Anthropology. His study, based on extensive field research, delimited the boundaries of the Pomo language group, determined the different dialects, and showed their relationships and territorial limits, as well as locations of ancient and modern villages and campsites. At first, ethnogeographers mapped the distributions and spatial movements of ethnic populations. Fred Kniffen followed in Barrett's footsteps, taking courses with Kroeber and doing his own study of the Pomo (1939). Presumably Kniffen's own identification with ethnogeography as a variant of cultural geography was sparked by these early association with Boasians such as Kroeber and Barrett, and more importantly, with the native people he studied. Once implanted in Louisiana, with its relative dearth of indigenous subjects for study—though Kniffen did study Louisiana's Indian groups (Kniffen, Gregory, and Stokes 1987)—he turned to other ethnic groups and focused on other material culture traits, especially house types. Like Sauer, Kniffen found theoretical grounding in the work of German geographers such as August Meitzen for his pioneering efforts in studying folk housing and the ethnogeographic patterns of material culture in the eastern U.S. (West 1990).

By the 1950s, Robert West had also begun to see portions of his work and interests subsumable under the rubric of ethnogeography. At the annual meeting of the Association of American Geographers in Los Angeles in 1958, he presented a paper on "The Lenca Indians of Honduras: A Study in Ethnogeography" (West 1998). "Ethnogeography might be defined," he said, "as that part of human geography which deals with the complex of material culture relating ethnic groups to their physical

surroundings” and he notes that the field had been neglected, because other disciplines like anthropology and sociology do not consider the human-land relationships (West 1998:67). In a later assessment of the status of ethnogeographic work in Latin America, Davidson (1981) reiterated but also redirected West’s directive in including study of any of the non-dominant ethnic groups in Latin America, not just Amerind groups. Thus the immigrant elements from Europe, Asia, and Levant as well as African-descended populations would be logical topics for study. In a follow-up assessment a decade later (1992:189-190), Davidson averred that an “applied ethnogeography” might be in our futures.

Ethnogeographic scholarship and its definitions have not been static over the past century. Contributions to the geographic literature on indigenous and Afro-descendant populations with a focus on indigenous land rights and more humanistic understandings of “ethnic” people now characterize a considerable body of scholarship (Herlihy 2008). Initially, ethnogeographers looked at culture traits and complexes through the lens of culture history to see how they fit into landscapes and culture areas, usually to tell a story about people and place. More broadly now, they focus on past and present geographical and ecological conditions of culture groups and changes over time in their geographic patterns, cultural landscapes, and cultural ecologies (Samson 2002:76). Ethnogeographers continue to look at the past peoples and places, often to explain the present, but this volume demonstrates they study archaeological, aboriginal, historic, peasant, indigenous, and contemporary peoples in the past, present, and future. Like their academic forebears, they use a diverse package of field, archival, and lab approaches with participant observation and now more collaborative and participatory approaches.

A good case can be made for ethnogeography to be at the core of current efforts at renovating regional geography and recasting foreign-area-studies initiatives. In this context, ethnogeography is poised for a “renaissance of relevance” in the 21st century. Ethnogeographic perspectives can provide a reconstituted regional geography, particularly of foreign areas, a crucial and largely missing dimension – that of field-derived “cultural awareness” – in efforts to map the “human terrain” of regions of the world fraught with intelligence failures, international misunderstandings, ethnic conflicts, religious and political terrorism, natural disasters, and other challenges to peace and prosperity (Herlihy et al. 2008). Counterpointing the endemic geographic ignorance that is said to be a national trait of the U.S., is the increasing awareness that national security and prosperity depend on greater and more sophisticated levels of geographic knowledge at all levels of society, but especially in the educational, governmental, and defense arenas. While there have been impressive advances in the technological applications of the mapping sciences and in new modes and capacities in measuring and modeling in branches of physical geography, progress in cross-cultural understanding and basic cultural and ethnogeographic awareness seems at a standstill, or even in reverse if

recent U.S. foreign relations and policy in the eyes of the world are a measure of this. The most glaring gaps in our overall geographic knowledge may well be at the “ethno” scale (Herlihy et al. 2008).

Beyond the arguably parochial concerns of U.S. national well-being, in today’s Latin America, ethnic or indigenous homelands coincide with globally important biological diversity and they hold some of the most significant resource areas for forests, minerals, hydroelectric dams, and reservoirs in the region. They house cultural heritage sites and practices that attract ecotourist dollars, making major contributions to national economies in many countries. These homelands, however, experience conditions of poverty that encourage out-migration and they are areas where rebellions are fomented, drugs are produced, resource pirates traffic. Today, indigenous peoples’ demands for land tenancy and territorial autonomy are beginning to challenge neoliberal economic policies and attendant political regimes throughout the region. Ethnogeographic research at the beginning of the 21st century situates indigenous peoples within a globalizing Latin America, focusing on how state and transnational institutions impact their resource use and land rights.

It is the editors’ hope then, that this volume not only salutes one of Latin Americanist geography’s most avid and effective mentors and scholars by presenting a rich collection of chapters celebrating field-derived and inspired work in the ethno- and historical geography of Latin America, but also helps further develop and extend the ethnogeography that Kniffen, West, and Davidson so artfully and expertly practiced.

The Contributions to this Volume

Contributions to this volume reflect only a sample of the scholars and students influenced, in one way or another, by Bill Davidson, or who have influenced the honoree. While in no way do these chapters cover the entire range of Davidson’s interests or influences, they do provide a good selection from the ethnographic research that he promoted greatly through his studies and his students. The contributors are all university-based geographers and two anthropologists from institutions across the U.S. and one in Canada. The majority of the authors are academic descendents of Carl Sauer and largely identify with the Berkeley school approach to Latin Americanist geography (Brown and Mathewson 1999). The rest also demonstrate affinities for this perspective as well as expanding ethnogeography’s scope.

The chapters are grouped into three sections. The first is our introduction, followed by Daniel Gade’s musings on dissertations in Latin Americanist geography.

The second section focuses on Central America. The authors are all geographers save for anthropologist Laura Hobson Herlihy. All enjoyed significant interaction with Davidson as graduate students, between field and classroom, or as a LSU colleague in the case of Fred Wiseman. Six of the contributors in this section completed their Ph.D. degrees under Davidson’s supervision, including his first and

last doctoral students—Peter Herlihy and Craig Revels. The third section extends the terrain to Latin America at large—principally South America, but also Central America and Mexico. The contributors are all close professional colleagues of Davidson. They include fellow students at the University of Wisconsin-Milwaukee—Mário Hiroaka and Bill Woods—and his former instructor at the University of Wisconsin-Madison, Bill Denevan. His LSU colleagues, Kent Mathewson and anthropologist Miles Richardson, are joined by University of Texas-Austin geographer Bill Doolittle to complete the ensemble.

Following the editors' introduction, Daniel Gade puts the volume in perspective and context with his wide-ranging and sober look at Ph.D. dissertations in Latin Americanist geography. Moving far beyond a cataloging of themes and topics, Gade explores the underlying currents of graduate research in Latin America, discussing in detail the role of mentors and institutions in the maintenance of a strong Latin Americanist tradition in geography, and the evolution of scholarly research agendas within that tradition. This chapter salutes one of Davidson's most useful contributions to Latin Americanist geography and its recent historiography. Davidson (1980) compiled a "Cartographic Guide and Bibliography of Theses and Dissertations, 1909-1978" for the Tenth Anniversary Meeting of the Conference of Latin Americanist Geographers in Muncie, Indiana (April 1980). Novel when it appeared, it sorely deserves updating. Gade does this in a more interpretative but less comprehensive fashion.

Beyond the "irreverent musings," Gade cautions us that, in the long run, the maintenance of the discipline in American higher education will mean moving back to the classic core and he sees the doctoral dissertation as the opportune stage at which to get geography back on track. The dissertation is the vehicle for a regional geography that involves the power of synthesis to understand place and process and, observes Gade, "this is essentially what Bill Davidson did, and it opened for him a lifetime of research on Central America to a level of expertise that also helped make him one of best mentors in Latin Americanist geography." Recognizing the power of multi-scale regional synthesis "to conceptualize the geographical essence," in the end, Gade suggests a commitment to human-environment synthesis, creative work on the regional concept, and the primacy of high scholarly values would be worth pursuing.

The Central American section stands as tribute to one of the great themes of his research, namely the complex ethnogeographies of Central America's indigenous peoples, past and present. The scholarship presented by these geographers and anthropologists (most who learned from him in both the field and the classroom) is a strong testimony to the excellence of the mentor's craft.

The opening chapter by Peter Herlihy and Frederick Wiseman combines archaeological, archival, and field research, as done in ethnogeography, to understand the use of the ancient practice of cultivating dooryard orchard-gardens (*huertos* in Spanish) by looking at present and past Yucatecan Maya peoples. In doing so, they solidify our

understandings of these gardens as the most common agroforestry systems among the Ancient Maya. Planting them in their historic context, archival studies demonstrated these were highly nuanced ecological adaptations perpetuated by the Maya that the Spaniards had to destroy to solidify conquest and colonial power. These cultivated spaces so firmly tied natives to places in the Yucatán Peninsula that the Spaniards developed a scorched-earth policy cutting and burning *huertos* to facilitate resettlements (*reducciones*) for administration.

Derek Smith's chapter reports on not so different resettlement of tropical forest peoples that occurred in Nicaragua during the Contra-Sandinista war of the 1980s. Here, settlements were abandoned, but dooryard orchard-gardens were left untouched. After the war, during resettlement in the early 1990s, the indigenous Mayangna (Sumu) populations used dooryard orchard-gardens as "markers" of their former lives in their rain forest Río Bocay homelands. Smith's chapter is an ethnogeographic study in the classic mode. It explains the changing spatial distribution of this indigenous population. Beginning with careful consideration of Mayangna past and present distribution, Smith proceeds to evaluate their current status as a minority group, focusing on recent efforts to delimit and protect their homelands. In turn, he shows that the identification of indigenous land rights provides a foundation for addressing the twin challenges of conservation and protection of indigenous rights in Nicaragua and elsewhere in Central America.

Joby Bass explores the nature of Garífuna ethnicity in Belize in Chapter 5. Beginning with changes wrought in traditional village settings by the impacts of Hurricane Hattie, he documents the transitional nature of Belizean landscapes, particularly in the face of modernization and increasing outside cultural influence. Focusing on the villages of Hopkins and Sittée River in the Stann Creek District, Bass shows the "local ecological setting" as one of the important identifiers for an ethnic group, demonstrating their common self-perception and shared traits. He demonstrates how ethnic group identity is symbolized and maintained by "markers" specific to that group that can become "carriers" of ethnic identity. In this case, Garífuna ethnicity is linked to its seaside landscape and ecological settings. Bass contends that how different ethnic groups relate to the environment can be due to the role of the environment in their identity formulation.

The following chapter presents a deeper exploration of the nature of ethnic identity in contemporary Central America. Laura Hobson Herlihy focuses on the discourse of "race" among the different Miskito, Pech, Tawahka, Garífuna, Creole, and Ladino peoples of the Río Plátano Biosphere Reserve (RPBR) in the Honduran Mosquitia region. Drawing on years of field research, the Miskitu-speaking anthropologist found that Miskitu people describe their socioracial identities as being essentially "mixed" through the everyday discourse they use to reproduce anti-Black and anti-Indian racist ideologies that began during the colonial era. Her novel data demonstrates "ethnic terms

of reference," including stereotypes and ethnic slurs, that Miskitu individuals use to distinguish themselves from the other Black and Indian groups in the Plátano Biosphere. These ethnic markers, she says, reveal the degree to which Plátano Miskitu individuals perceive their membership status in either Black or Indian identity groups. Here, race is a constructed category to which individuals have primal attachments that, she says, can get roused up during interethnic interactions.

Davidson's scholarly contributions are emblematic of the Berkeley school adage that "it pays" to keep going back to a place and people. In Chapter 7, Kendra McSweeney reflects on knowledge gained from what she calls "return fieldwork" to the same remote indigenous Tawahka Sumu communities along the middle Río Patuca of the Honduran Mosquitia region. She reflects on the impacts her research has had on her relationship with these villagers. "Return fieldwork" can yield better understanding of place-shaping processes while offering new perspectives on old problems, cautioning us about new problems, responsibilities, and commitments. She emphasizes that a return strategy allows researchers to reassess their prior convictions and assumptions about a place and its people.

Research in ethnogeography, as we have discussed above, explores and maps archival sources to understand the past and the present and archival research may be the most widely used approach in the field over the past century. In Chapter 8, Scott Brady combines field and archival research to understand the challenges of forest use and regulation in the indigenous Lenca highlands of western Honduras. In a study that arose from his "return fieldwork" to the region, Brady employs the municipal archives of the Municipio of Guajiquiro to document changing patterns in forest use, particularly in the context of increasing pressure for conservation of forest resources within Honduras as a whole. Brady shows how municipal residents utilize forests within the protected area as their principal timber supply, considering how these needs, along with growing demands on local water resources, should be understood locally and incorporated into management initiatives.

Ben Tillman brings forward one of Davidson's longstanding research interests in his chapter on the plaza landscapes of Honduran towns. This is a classic ethnogeographic study of a material culture complex as related to an ethnic group's interactions with their physical surroundings. Tillman shows the grid-pattern model of plaza-church, as generalized in textbook illustrations, existed in only 52 percent of municipal capitals; and 54 percent of these grids varied more than five degrees off of north. Using many of Davidson's own notes and photographs, coupled with his own extensive field and archival research, Tillman considers the various permutations of the grid-pattern towns in Honduras and he contemplates the plaza-church relationship as a marker for understanding the cultural landscapes of Honduras.

In Chapter 10, Mark Bonta portrays the spatial identity of the Ol-ancho region of eastern Honduras. In so doing, he paints a culturally

autochthonous department that has long intrigued and lured geographers and explorers. He begins with a tribute to Bill Davidson's fascination with Olancho and his unwavering support for the study the author undertook there. His prose aims at capturing the region's "spatial identity," showing Olancho and *Olanchanos* as being distinct from Honduras and *Hondureños*. Based on a section of his dissertation that explores the region's "spatial identity," Bonta considers both the real and the *faux* mythos that simultaneously attracts and repels local people as well as outsiders considering what it means to be an *Olanchano*.

The following chapter, by Taylor Mack, further exemplifies the tradition of combining detailed archival research with firsthand field knowledge of place that characterizes the historical approach to ethnogeography. Mack details the geographical site and situation giving rise to the colonial port of Omoa. The port was one of the 18th-century fortified sites the Spanish established to control trade and contraband along Central America's Caribbean Coast, as proposed by the Spanish engineer Luis Diez Navarro. He then illustrates how the evolution of a cultural landscape can quickly change an advantageous physical landscape into one that is problematic, resulting in the silting and eventual abandonment of the port. Ironically, Diez Navarro's failed fort site that was designed to keep foreigners out, now attracts them as tourists.

Craig Revels' Chapter 12 reflects Bill Davidson's well-known enthusiasm for place-names as elements of the cultural-historical landscape. Tracing place-names specific to mahogany extraction during the 18th and 19th centuries, Revels identifies distinct patterns in the landscape that testify to the cultural and physical underpinnings of the mahogany trade in northern Honduras. He tells us that the legacy of place-names is surprisingly small and most of the remaining ones are from English-speaking cutters who inscribed banks, booms, and creeks on local landscapes, and whose cultural legacy persists despite decades of Spanish-speaking influence.

The final section of the volume takes the reader to regions beyond Central America, from Sonora in the north to Amazonia in the south, but on topics grounded in ethnogeography and the Berkeley school perspectives.

Kent Mathewson's chapter on the post-colonial formation of a regional "tri-racial" ethnic group, the Montubios of the Guayas Basin of coastal Ecuador, has resonances with similar processes in Central America and elsewhere in South America. Identity construction is a compelling topic for ethnogeographers, as we have seen by the many related contributions in this volume. Here Mathewson shows Montubio culture derived from fieldwork in coastal Ecuador during 1979-1980, when he was mapping and excavating ancient raised field complexes in the Guayas Basin, particularly around the Babahoyo River town of Samborondón. His study employs core ethnogeographic concepts to investigate the foundational material cultural traits and complexes of this hybrid ethnic group, demonstrating cultural inheritance passed from pre-Columbian times. "*Montubio* is not a racial category *per se*," says Mathewson, "the aura of either (or both) Afro and Amerind descent combined with Euro-ethnici-

ty is implicitly part of the mix.” His discussion focuses on four economic elements—agriculture, ceramics, fishing, and canoe building—and their related ecological interactions and links to the pre-Hispanic past.

In Chapter 14, Mário Hiraoka and Stephen Thompson focus on land and life in another basin—the Amazon. Their emphasis lies in understanding the evolving context of contemporary land use and they document the causes and consequences of Amazon floodplain cattle ranching based on findings from the Brazilian Municipality of Parintins in eastern Amazonas State along the Middle Amazon. Based on decades of field experiences, the authors outlined the emergence of cattle ranching as the economic mainstay in this riverine region, underscoring the significance of the *várzea* (floodplain)-*terra firme* (interfluvial) interface for herding, describing the distinctive rancher groups involved and ecological dimensions of their ranching practices. The study emphasizes the complex and challenging nature of social and economic frameworks in the region, and the importance of understanding these frameworks for managing similar regions in Amazonia in the future.

In their chapter, Bill Woods and Bill Denevan demonstrate how geographers can employ archaeological research methodologies to investigate past ethnogeographies, in their case to show how pre-Columbian peoples lived in Amazonia. Succinctly recounting the evolution of “dark earth” studies in the region, the chapter establishes a valuable bibliographic resource and testifies to the far-reaching abilities of human cultures to shape the world around them. Specifically, the authors focus on the initial century of Amazonian dark earth publications that is a period largely before modern scientific research, but one often marked by great insight. These studies promise valuable insights into the nature of human use and occupancy of the Amazon. Increasingly these “*terra preta*” soils are being given high profile in scholarly and professional discussion about the region’s “sustainability,” whether past, present, and future.

In Chapter 16, William Doolittle discusses a core feature of ethnogeographic research—again without using the term—using archaeological settlement-patterns data to confirm the historic archival record or, conversely, the use of the historic archival data to confirm the locations of past habitation sites. Employing archaeological methodologies to understand past peoples, Doolittle discussed the archival record left by the Europeans in the Sonora Valley of northwestern Mexico and compares it to field data he gathered and published two decades ago in his study on the *Pre-Hispanic Occupance in the Valley of Sonora: Archaeological Confirmation of Early Spanish Reports*. Doolittle found evidence of over 160 habitation sites, ranging from 20 individual houses to 130 small hamlets (*rancherías*), four sizable villages, and two regional centers. The results, including pit houses and settlement distributions closely matching those descriptions of the early Spanish explorers, supporting the controversial notion of a “statelet” level of political organization in this part of

prehistoric eastern Sonora. Juxtaposing his key findings with the contentions and claims of others, Doolittle illustrates the dangers of misinterpreting and misreading any research, particularly that shaded by preconceived notions, and he posits that all scholars would be well served to develop more insightful and empathetic interpretation skills.

The final chapter is by Miles Richardson. Richardson applies the lens of postmodernism to the imagery and meaning of religious iconography in the Americas. With a geographer's sensitivity to place and space, he traces the origins of the Black Christ and darkened representations of the Virgin Mary. Ranging from Europe to the Americas, considering the meaning of language, representation, and knowledge as they emerge from the context of these two key components of religious life, he offers an alternative reading that the colors speak less of candles and the past and more of the existential preoccupations with human death and fertility. His conclusion suggests that, rather than accepting the simple claims of material origin commonly associated with these icons, it is instead more powerful and meaningful to view them as evolving and nuanced representations of the larger human drama.

Summary

As the contents of this volume and the testimonies proffered—both direct and indirect—demonstrate, Bill Davidson's contributions to LSU geography and anthropology through his own research and publications, his teaching and mentoring of students, his stewardship of the department while chair, and perhaps more than anything his unfailing goodwill and exemplary academic citizenship had profound impacts. Similarly, his contributions to, and participation in, the community of Latin Americanist geographers has been as constant as it has been multifaceted. While we no longer enjoy his congenial presence at LSU, his contributions to Latin Americanist geography continue to unfold. In "retirement" he has completed and published one of his long-time major projects—a stunningly researched and produced historical atlas of Honduras (2006). He has another book in the wings—this one on black Christs of Central America. It promises to be an astute survey and interpretation of these iconic and somewhat enigmatic religious material culture features. Beyond this? One could speculate, but we suspect that Bill Davidson's many fans, friends, and family will be content to just wait and see. Whatever tack and trails he takes, it is safe to say that it will be a familiar trajectory—well rooted in the cultural, historical, and ethnogeographical traditions that we have discussed in this introduction, and that are threaded throughout the chapters that follow. And unless he surprises us completely, the geographic grounds will be once again well south of the U.S. border, within the lands and among the peoples that he has come to know so well over nearly a half century now.

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We wish to acknowledge the aid and encouragement of a number of persons who helped in both obvious and opaque ways to launch this project and then to see it to completion – however deliberately or leisurely (depending on one’s perspective) it moved along. Regarding the pace as well as the first-cut editorial duties, the editors take full responsibility for these – both of omission and commission. For the later stages, Charlotte Cavell, former managing editor of *Geoscience Publications*, deserves full credit. Not only did Charlotte’s expert hand guide the initial preparation, but she kindly agreed to oversee the final preparation for printing after her formal employment with *Geoscience Publications* ended. Similarly, Craig Colten, interim chair of the LSU Department of Geography and Anthropology was extremely helpful with his intervention on behalf of this project in its later stages. Current chair Patrick Hesp also has facilitated the completion of volume, and for this we are similarly grateful. Assistant to the chair Linda Strain clarified procedures and cleared the way at many turns – for which we are very much indebted. As always, Mary Lee Eggart produced yet another fine example of her graphic artistry in designing the cover.

Lamentably, this volume – number 40 – may be the last in the *Geoscience and Man* series. Shifts in funding priorities, especially in the wake of Hurricane Katrina, led to a significant “downsizing” of *Geoscience Publications* operations. Since its initiation in 1970 the *Geoscience and Man* series recorded regular appearances for a number of years.

While the future of *Geoscience Publications* is uncertain, its record and legacy is abundantly clear. It hosted a number of symposia collections and special numbers that featured some of cultural-historical and physical geography’s premier practitioners as well as LSU’s own faculty and distinguished alumni. Many of these pieces have been cited widely and some are considered classics. One only has to flip through the tables of contents to see: Carl Sauer on fire; Karl Butzer, Jonathan Sauer, and William Denevan on physical topics; E. Estyn Evans and Henry Glassie on material culture; James Deetz and James Griffin on archaeological matters; Yi-Fu Tuan and Anne Buttimer on humanistic themes; B.L. Turner II and James Parsons on Mesoamerican problems, James Blaut on philosophical questions, Robert West on a panoply of Latin American topics, and finally Geoffrey Martin, Fred Lukermann, Michael Williams, and a number of others all on Carl O. Sauer. Which brings us close to closing the circle with this volume. Here, our hearty and heartfelt salute to Bill Davidson echoes back through the collected pages of *Geoscience and Man* evoking not only the some of the best of what geographers had to offer in the last third of the 20th century, but pointing the way toward how Davidson’s example and the examples provided by the contributors of this volume can keep it alive and well into this new century.

Notes

1. The chapters by Brady, Mack, Revels, and Richardson are based on papers presented in New Orleans, while Bass, Herlihy, McSweeney, and Smith also presented papers in the sessions there but on different topics; other presenters Clifton Dixon, Peter Galvin, and Michael Steinberg made presentations honoring Bill but did not contribute to this festschrift. See the AAG 2003 *Annual Meeting Program, 5-8 March 2003, New Orleans*, for further details.

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Irreverent Musings on the Dissertation in Latin Americanist Geography

Daniel W. Gade

Cogitating the dissertation in the Latin Americanist enterprise in North American geography has elicited issues of knowledge generation, disciplinary trends, and social practices of authorship, mentorship, and institutionalization. Over the years, dissertation topics have become more specific, but the permissible themes have greatly widened in scope. By way of example, dissertation titles are analyzed and critiqued to place them in their time and to suggest how the diversity of subject matter now accepted reflects changing ideas about the discipline at large. Most dissertations are not turned into books and the scholarly outcomes and directions of their authors cannot be predicted. Mentors too have different sets of priorities and the departments and universities that sustain these programs vary widely in their commitment and expertise on Latin America. The long-term future of geography and, by extension, Latin Americanist geography, depends on several factors, among which is the implementation of strong scholarly values at the dissertation stage.

The real underpinnings of Latin Americanist geography in the United States lie in the Ph.D. dissertation. It is at this stage that a student begins to take specialist knowledge seriously and to recognize the meaning of the knowledge frontier. These erudite, if sometimes inchoate, treatises have collectively been the source of most of the knowledge about Latin America generated by geographers. The degree awarded for the successful execution of that body of work also becomes the certifying point of entry into the specialist realm of those who consider themselves Latin Americanists. A dissertation carries with it a range of meanings to their author, mentor, and interested reader. The theme represented and the title painstakingly crafted to convey the specific content reveal as much about the social practice of aca-

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demia and of Latin Americanist geography as it does about the author.

The dissertators themselves, the mentors who supervised them, and the university departments that provided the sub-institutional structure in which they are prepared, are all participants. The dissertation phenomenon depends on the availability, support, and commitment of all three components, though only years later can the author clearly appreciate how the mentor and institution enabled or constrained the research project. Unlike articles written by co-authors—now comprising about half of the articles in some journals—dissertations are written by one individual. So far, no Ph.D. degree has been awarded to a team. Moreover, in spite of the applied character of some of these documents, dissertation authors are in the end their own beneficiaries. Dissertations help to answer fundamental questions of what is geography at any point in time; who are the geographers who do that; and why they research what they do.

William Davidson's (1980) *catalogue raisonné* of doctoral and master theses on Latin America originally stimulated my thinking about the dissertation phenomenon in Latin Americanist geography. Davidson listed the title, author, date, country and region of works prepared at U.S. universities from 1909 to 1980. He also mapped their fieldwork locations and tallied the numbers by country. Although Davidson made neither annotations of content nor analysis of trends, this publication documented for the first time a sense of the growth and diversity of Latin Americanist geography through most of the 20th century. The full title of the dissertation permitted a reader to reflect on the subject of the work, as well as on the author's exact wording. Subsequently, Bushong (1984) provided a solid discussion of dissertations in Latin Americanist geography from 1907 to 1981, communicating information about subject area, mentorship, department, and gender. In this essay, I have made other kinds of relevant comments that are intended to elucidate understanding of the dissertation as a social practice not just of Latin Americanist geography but of the whole discipline.

Titles and abstracts (since 1980) retrieved online from Dissertation Abstracts have permitted an update of Davidson's list.¹ However, I have left aside all master's theses from my discussion, though some are excellent contributions and a select few provide the basis for later book-length monographs (e.g. Mathewson 1984). Most master's theses however, are probatory exercises designed to test apprenticeship in research. They are normally not judged by the standards of originality and thoroughness that characterize the dissertation; moreover, most terminal M.S. /M.A. students do not subsequently become professional geographers, at least not with that job description. The distinction between master's and doctoral degrees grows out of the fact that only half of the people who go to graduate school get a Ph.D. Those who do not survive the cut learn that simply reveling in the life of the mind is not enough.

Attention to dissertations is part of a degree requirement, and forms part of a larger effort to monitor the state of Latin American-

ist geography. This effort has various formats. Every two years, the *Handbook of Latin American Studies*, prepared in the Hispanic Division of the Library of Congress, publishes a collection of annotations of notable published work that includes the subject: geography of Latin America. In one recent volume, six contributing geographers have provided 548 annotations of monographs, reports, and articles on Latin America (Boudin and McCann 2003).² Based on the many publications screened out of consideration, that number represents less than half of the scholarly production that theoretically could have been annotated.

Over the years others have summarized and critiqued the literature that geographers produced on Latin America (Parsons 1964, 1973, 1992; Robinson 1989; Mathewson 1993; Zimmerer and Langstroth 1993; Knapp 2002; Robinson, Caviedes and Keeling 2004). These periodic reviews provide a sense of what has been accomplished as have essays that consider Latin America as a scholarly focus (Robinson 1980; Gade 2002a). When taken together, these assessments suggest that Latin America is the most vital and cohesive regional specialty in American geography outside the United States. The meetings and publications of the Conference of Latin Americanist Geographers, formed in 1970, are both a result and cause for this vitality.

In some ways, dissertations are better guides to the content of the discipline than are journals. Serials are thematically specialized and selective in the manuscripts they accept. Given the fact that most geographers publish relatively little, the dissertation becomes an index of actual research accomplished in this regional subfield, more than does the published literature. Doctoral disquisitions sometimes get cited, most usually by the same individuals who prepare them, but hardly ever do the social practices surrounding the Ph.D. effort get printed commentary. Kenzer's (1989) *vade mecum*, designed to guide students on their professional paths, scarcely mentioned the written requirement of the doctorate. Thus my remarks ("*cavilaciones pertinentes e impertinentes*") are meant to provoke thinking on the dissertation, some of which is widely shared among colleagues and others of which reflect a more idiosyncratic perspective. Trying to understand change is part of this effort based on more than four decades of memory, experience, and attentiveness to diachronic phenomena of all sorts. Examples are drawn from Latin Americanist geography, but most of the comments, criticisms, and judgments apply equally well to the whole discipline. To indulge in thinking about such matters requires a balance between detachment and engagement and a certain nonchalant impiety toward established patterns and conventional beliefs. Nothing in a discipline, if it is to be a vigorous arena for knowledge formulation, can afford to be sacred.

Dissertation Themes in Latin Americanist Geography

Like the discipline of geography as a whole, Latin Americanist dissertations go with the flow of grand ideas, accepted paradigms and larger societal concerns. It is part of the way humans think that most scien-

tists reinforce the systems of thought which dominate their epoch. Since Thomas Kuhn (1962) first elaborated that idea, the bandwagon mentality has been more precisely noted as a normative part of academic understandings. In pre-1965 Latin Americanist geography, the dissertation staples were straightforward studies of land use, resources, transportation adjustments, and population as manifested, for example, in the theses of Nunley (1959), Gonzalez (1962) and Pedersen (1965). Some combined more than one theme, for example, Alexander's (1955) hybrid thesis of a landform study and a regional geography of the island of Margarita.

In the 1960s and 1970s, quantitative-based studies (e.g. Wilkie 1968; Lentnick 1965; Jones 1973; Dawsey 1975), gained a seat at the table. Nevertheless, positivistic approaches never gained predominance in studying Latin America. Weak development of statistical sets compared to the United States also introduced questions about their reliability. In addition, the Sauerian influence meant that cultural-historical geography continued to maintain a strong profile during that period. Included among its ranks were those hostile to the idea that quantification equaled truth. Classic Sauerian approaches (e.g. Barrett 1970; Wilson 1972) tended to have fairly broad scopes and little theoretical elaboration as compared to later, more focused, geography dissertations (e.g., Young 1995; Brannstrom 1998; Steinberg 1999; Aagesen 1999; Revels 2002; D.A. Smith 2003). Some recent theses have investigated the realm of representation and performance that no one in the 1950s or before would have conceived of as geographical. Among those is Perez' (2001) study of Haitian culture "as embodied in spatial practice" in which a voodoo ceremony was included as part of her participant observation; and that of Bosco (2002) who reported on the symbolisms inherent in the kerchiefed *porteñas* seeking justice with their scheduled appearances on the main plaza of Buenos Aires, and Olson (2005) who sought to shed light on differences between Catholics and *evangélicos* in the southern zone of Cuzco Department (Peru).

The shift toward much more specific formulation of problem might be seen by comparing Rees (1971), who put Indian forest use into a broad perspective, with that of Klooster (1997) who has asked a series of precise questions concerning forest conservation in Oaxaca. *Chinampa* agriculture would itself be considered a very specialized adaptation, but Crossley (1999) focused his dissertation on understanding its water supply. Johns (1996) studied cacao growing in Bahia State, Brazil, as an productive and sustainable agroecosystem, which is quite different from how one conceptualized it 50 years ago. Development or conservation agendas are now studied by analyzing bureaucratic organizations engaged in these endeavors and their success in meeting objectives (Kesse 1996; Sundberg 1999). Remote-sensing techniques offer an efficient way to evaluate resources and land cover (Messina 2000; Ramirez Aliaga 2002). Repeat photography enabled Bass (2003) to compare in some detail nearly half a century of landscape change.

Regionally, Mexico continues to be the country of major attrac-

tion for dissertators from the North, but measured in terms of size or population, a small country like Belize has probably gotten more attention. Between 1961 and 1999, 11 geographers prepared their Ph.D. dissertation on tiny Belize. As a region, the Amazon attracted a burst of intellectual energy in the 1990s to clarify such matters as household livelihood (Coomes 1992), agriculture and soils (Swales 1999; WinklerPrins 1999), and development (Simmons 1999).

Latin American dissertations include a few thematic idiosyncrasies of the dissertation genre on Latin America that are worth noting. Four dissertations (Calkins 1974; Kent 1983; Dixon 1989; J.C. Brown 1999) have, rather remarkably, investigated aspects of beekeeping in Latin America. Also anomalous, compared to geography as a whole, is the interest in prehistoric topics (Denevan 1963; Romanov 1972; Kus 1972; Turner 1974; Mathewson 1987; Treacy 1989; Brooks 1998). In terms of genre, perhaps the biggest break from convention is that of White (1981) whose dissertation consists mainly of three long fictionalized stories preceded by an essay on the "narrative landscape," defined as an array of events that occur in a particular place. White lived for a year in a Quechua speaking community in remote Vilcabamba (Peru), during which time he planted his own crops, learned Quechua, became a *compadre*, gave veterinarian treatments to neighbors' livestock, and explored one of the more remote parts of the Department of Cusco. A few geographers have published a place-centered novel (e.g. Curtis 1996), but not to satisfy a thesis requirement. Rare too as a genre for a Latin American geography dissertation is biography, which makes Yacher's (1999) work on Henri Pittier, a Swiss geographer who made contributions in Venezuela and Costa Rica, stand out.

Latin Americanist dissertations in general reflect a progressive broadening of subject matter coming under the ken of geography at the same time that the scale or scope has become progressively narrower. All buttons of the geographical imagination are pushed without restraint, though some of them are actually ideas borrowed from research done in other fields. If Clawson (1976) documented the growth of non-establishment religious patterns in one Mexican community, Kinman (1996) carried the microscalar several steps further by focusing on one healthcare facility in one small town in Bolivia. Heavy investment in interviewing is also indicated in Schroeder's (1995) study that sorted out the household strategies of poor women in Tarija, Bolivia. Wolford's (2001) assessment of Brazil's *sem terra* movement is less a detailed study of land tenure than it is of the power of ideology and in that sense shares the politicized thinking discussed by Bobrow-Strain (2003) in Chiapas. Perritt (1988) studied pesticide use among 90 small farmers in Rio Grande do Sul. These studies manifest the current elasticity of geography's epistemological boundaries, an openness and *laissez-faire* now shared in other disciplines. Historians now pay attention to environmental matters; anthropologists use geographic information systems (GIS) and write about space, place, and landscape; geologists

study not just volcanoes and earthquakes, but also their human impacts.

At the same time, the most obvious realm of research for geographers—the characterization of places and regions—continues to be largely ignored. That approach is quite different from the use of a portion, tiny or large, of Latin America as the spatial matrix for probing a topical systematic pattern or process. Regional synthesis of Latin American places resulting from the historical evolution of the complex interplay of factors highlights the originality, individuality, and personality of Latin America. Many Latin Americanists who presume specialist knowledge are ignorant of the many distinctive regions that make up the realm. Unless they have been there, most Latin Americanists would not be able to describe in much detail the oasis of Argentina's San Rafael; the Brazilian island of Fernando de Noronha, Lake Titicaca Basin straddling Peru and Bolivia, or the Mexican coast of Tamaulipas. Knowledgeable synthesis of place informed by a trained geographer's grasp of connectivity, process, and pattern is the potential topic for a thousand dissertations. Especially important is the need to understand regional formation, which implies an historical perspective.

Two explanations may account for this disregard. Regional synthesis requires breadth of training to which many graduate programs are no longer committed. By configuring physical and human geography as separate specialty paths, most human geographers under the age of 40 have the knowledge of physical processes equivalent to a first-year textbook on the subject. Moreover, exponential growth of knowledge has fed greater specialization, which works against the mastery of convergent knowledge required for regional synthesis. Each year there is more to know. If one compares the listings in the major geographical bibliographies, graduate students in geography in 2003 had, theoretically at least, three times as much disciplinary literature to absorb as existed in 1953. Secondly, effective regional synthesis of the kind that evokes sense of place requires a degree of literary talent. Relatively few geographers develop that skill, which, if they could, would do much to broaden the visibility of the field to the larger audience of educated lay people, who through avocation or profession, also want or need to also learn about places in the world. Those who speak or write most disparagingly of regional geography are those whose published work demonstrates the least capacity for evocative description or geographical synthesis.

Title Analysis of Latin Americanist Dissertations in Geography

Titles are the most direct and shortest way to convey the content of a dissertation. Titles usually tell the subject, regional context, and, implicitly if not explicitly, the method. They also convey, more subtly, some of the intent, desire, and state of mind of the writer. A dissertation interweaves language, thought, and reality each of which lacks commensurability with the other. Over the past century, titles have narrowed in scope to reflect the more restricted focus of disserta-

tion topics. Seen from the present, one can only gasp at the audacity of McBride (1921) to title his thesis "Land Tenure in Latin America." Actually, however, McBride devoted his attention to Bolivia and Chile, two countries in which he had lived for an extended period of time as a Protestant missionary. Isaiah Bowman (1909) titled his opus "The Geography of the Central Andes" in order to shoehorn into one package two big, though different, geographical ideas of that era: Davisonian geomorphic processes and human adaptation. Nystrom's (1942a) dissertation on Suriname (then called Surinam) also had an unfocused title: "Surinam: A Geographical Study." The subtext, however, was to provide information on the resources of this multi-ethnic chunk of territory about which little had been written in English. The German 1940 invasion of the Netherlands left the fate of its South American colony in the balance and caused anxiety in the United States that its deposits of bauxite, a strategic war materiel, would fall into German hands. The Netherlands Information Bureau in New York published his thesis almost immediately (Nystrom 1942b). More recently, Smith (1994) not only overgeneralized her title that complicates bibliographic retrieval, but also introduced undesirable redundancy.

A dissertation title can often be turgid or convoluted for the dissertator has primarily in mind his or her examining board of four or five people. It becomes easy to understand why a layperson reading a title would jump to the conclusion that such a work was impenetrable. Even serious readers can be put off by the sprawling prolixity of the first thing they read. Needing a red pencil they never got were the titles of Bennett (1959), Drewes (1957), Slutsky (1959), and Fadiman (2003). Redundant verbiage is sometimes part of an unconscious strategy used to stake out a geographical turf for the subject (Stewart 1963; Gade 1967) or to shoehorn into it the specificities of content (Zimmerer 1988; Prell 1992). Rainey's (2001) title is weighed down by word repetition. In most cases, the essentials of a dissertation can be neatly communicated in 12 words or less. Examples of concision and clarity are the titles of Bergman (1974), Brooks (1998), Veblen (1975) and Winberry (1971). Mack's (1997) elegant title defines its time and space, but also conveys in a spare two words its more specific theme. Use of the colon, which preempts several filler words right off the bat, is now standard practice. West (1946) was the first geographer to put a colon in a Latin American title.

Titles that carry metaphorical phraseology are sometimes apt and occasionally not. Salazar's (1995) "in sickness and in health" seems like an unnecessary cliché, as do the first three seemingly gratuitous and puzzling words of Wilder's (2002) thesis. Greenberg's (1996) allusion to Brillat-Savarin's aphorism of "you are what you eat," is meant to suggest that Indian identity is related to what they grow and consume. Keeling's (1992) use of the phrase "you cannot get there from here" refers to the spoke-and-hub system of transport, but that holds in quite a few countries, not just Argentina. Whitesell's (1993) clever *double entendre* of "changing courses" refers to both the meanderings of the Juruá River

and to the shifts in economic orientation that has occurred in the valley. Perramond's (1999) "desert meadows" has evocative power to anyone who knows Sonora. Bechtol's (1969) "where men ride tigers" conveys the free-wheeling capitalistic practices involved in Guatemalan manufacturing. In a long list of ponderous titles, the rare playful or ironic title stands out. Ketteringham's (1972) UCLA thesis title might evoke to some a Biblical analogy of traveling to Bethlehem, but the Hollywood star mentality so pervasive in Los Angeles makes it more likely that the title is an allusion to a Bob Hope-Dorothy Lamour road movie of the 1940s.

Certain words used in titles can puzzle, confound, or vex. Nelson (1959), besides using the word "geography" twice, unintentionally caused the reader to question what exactly "balsa" referred to: the tree (*Ochroma lagopus*), the raft made from its wood, or the more general Spanish term for raft made from any kind of wood. Ruddle's (1970) use of the term "autosubsistence" raises the question how that word differs from simply "subsistence," which means producing one's own food. Field (1966) used "reconnaissance" in his title, but isn't that what one does first before the fieldwork actually starts? Smole's (1964) thesis coined an expression, "owner-cultivatorship" that has surely puzzled some potential readers whose knowledge of land tenure starts at zero. Tricky adjectives flummox. If Diniz' (2002) use of "volatile settlement" is supposed to mean that which is unstable or transient, he should have said so.

Other kinds of miscomprehension innocently lurk in titles. Owens (1977) used the phrase "Indian missions" in his work on the historical geography of Paraguayan settlement. Since European priests set them up, should they not instead be called "Jesuit missions"? Sometimes a title should not be interpreted too literally when, for example, one takes note of Nelson's (2000) "remaking gender and citizenship." The abstract confirms that it is not at all a disquisition about Mexican Indians who have undergone a sex change and taken on United States nationality. Where is the line between too much specificity in a title and not enough? The latter leaves the reader guessing about its content, which does not help bibliographic retrieval. A reader of Taylor's (2003) work "Surviving Utopia" may wonder just what this reference, in fact, applies to, given the manifold problems of the Guatemalan district described in the abstract.

It took reading Whitley's (1976) work with "certain tame birds" in the title to clarify that it deals not with Aztecs keeping turkeys or Mayans teaching parrots to say catchy phrases in Kekchi, but with three lesser known species of birds. Scanners of Kimber's (1969) dissertation title might wonder what time frame is implied by "recent historical plant geography." To a geologist, "recent" starts 10,000 years ago. Finally, terms in a title can provide a clue to the period in which they were written. Two dissertations with "spatial organization" in their headings both date from the early 1970s (Elbow 1972; Walton 1974). Before gender-neutral words entered academic practice, "man," as in the dissertation headings of Daugherty (1969), and Bahre (1974), to mean "people" seemed innocent enough. Timing also helps to explain the work of Hiraoka (1974)

who conducted research on pioneer settlement at a period when that was considered an important theme in Latin Americanist geography. Methodological approaches are most vulnerable to paradigm shift, so that the application of positivism yesterday and the infatuation with social theory today serves as a reminder that the history of the discipline is littered with discarded ideas that once seemed like eternal verities.

Dissertation Authors

The title, text, and bibliography always, in the end, lead to the author and that is why a 10-page thumbnail sketch of the dissertator's mind, background and field experience would help readers to better understand the work presented. Unfortunately, aside from a brief preface of acknowledgements and sometimes a perfunctory page of cold educational listing at the end, a geography dissertation provides little information about its author. Geography as a discipline has disembodied the product from the researcher. No retrievable collection of personal experiences that connect the dissertator and the topic is yet available. Reflexivity can answer deeper questions about motivation that have remained unexplored to the detriment of graduate students planning projects and also to historians of geography trying to characterize the field. Testimonials from those who have approached graduate work as an irresistible intellectual adventure seem especially useful, since an intense passion for inquiry is essential for a geographer to formulate new things about the world (Gade 2002b).

In the life of a graduate student, the key scholarly hurdle is the dissertation. In contrast, course work is usually a "piece of cake." Besides the demand for a certain level of originality, completion of this project requires determination to overcome a series of obstacles. They include, depending on the author, dealing with writer's block, negative and sometimes searing criticism, periods of solitary confinement, and conceptualizing maps when one is not cartographically inclined. Not a few dissertators have had writing problems, which slowed the effort and undermined self-confidence. Abundant anecdotal information occurs in every department about the rude awakening of students embarking on the writing phase and only then recognizing their deficiencies in written expression. Getting dissertators to prepare a well-written text remains one of the challenges of the Ph.D. process.

If professors gave line-by-line textual criticism of every paper submitted beginning the first year of undergraduate study that would not be a concern. But high-intensity substantive criticism of written expression is not normally dispensed even to majors in most university departments. Students assume they are successful writers when they go through the university harvesting "A" grades on their papers. Courses that highlight writing skills open the realization of graduate student lack of preparation in writing. DeLyser (2003) reported how a mutually supportive geography class at Louisiana State University focused on writing substantially improved the students' abili-

ties to parse a clearly organized paragraph. Feedback at all levels is essential and even a competent writer needs to have her or his work scrutinized at a draft stage. Still, a Ph.D. examining committee, vetting submitted drafts of a dissertation, does not necessarily ensure that the quality of a final version is well written.³ Even with that attention, quite a few finished dissertations remain amateurish productions.

Many treatises do not, for example, have a story that would make one want to read it nor do they have a powerful or simply thoughtful conclusion that draws out the larger meaning of the findings. Dissertation prose also frequently lacks any literary polish, sometimes painfully so, and one comes to the belief that graduate programs do not teach students to write. Those Ph.D.s who become professionals in the discipline and turn into good writers do so through their own effort of submitting pieces of writing and learning by trial and error what constitutes an acceptable submission. Those early in their careers who are put off by a series of rejection slips frequently stop their attempts to publish. Besides the written aspects of the dissertation, advanced graduate students also bring quite different objectives to their projects. Some brave souls, idealistic in their approach to scholarly activity as a sacred vocation, tackle a large, complicated chunk of knowledge that requires substantial mental and physical effort over a period of years. They stand in sharp contrast to the entrepreneur who, seeing the dissertation as the big hurdle to getting a certifying degree, calculates both an acceptable topic and the makeup of a pliant committee. With luck, researching and writing to filing the thesis can occur all within a year. An expedient path is assumed to be the sensible one, especially if they psychologize the composition of their examining committee and instinctively know how to propitiate various deities. The annals of the graduate experience are full of cases where advisors and sometimes other readers have, in a test of wills, forced students to make idiosyncratic revisions if their work is to be approved.

Professors commonly suggest potential topics to graduate students, who learn from that the expected scope of a dissertation. If, however, the former seeks to impose a topic, the long-term consequences are negative.⁴ Many dissertations that start with a supervisor's idea do, of course, get completed, thanks in part to the encouragement and attention of that professor who has a strong personal interest in the topic. But such professors may also insist on co-authorship ("to lend authority") on publications based on fieldwork carried out by subordinates. The feudal analogy might fit: serfs till the soil; lords reap the profit. This practice now seems to have declined, perhaps because publicity derived from lawsuits have made subordinate researchers more aware of their rights.

More than writing skills, the Ph.D. candidate needs to manifest self-starting ability. The "big science" research project proposed and carried out by a professor typically has directed students to specific topics or research venues. An early example was the federally funded Puerto Rico Rural Land Classification Program in the 1950s led by Clarence F. Jones

and Rafael Picó. Nineteen Ph.D. dissertations came out of that program in that decade, 10 of which were from Northwestern University. But only one of those dissertators, J. Augelli, made substantive subsequent contributions to Latin American geography. Jones (aka "Pappy") "suggested" most theses topics for which he held the disbursements. A smaller but more recent example of an overarching project is the land-change project in Southern Yucatan (Turner, Geoghegan, and Foster 2004). Between 1998 and 2004, six of these overlapping dissertations far exceeded anything done by the principal investigator on the project (Ogneva-Himmelberger 1998; Klepeis 2000; Vance 2000; Manson 2002; Chowdhury 2003; and Schneider 2004). A decade will be needed to determine how directives to students affected the scholarly directions and productivity of those involved. In other disciplines, large team projects have not been a format that tests the self-starting ability of budding scholars.

Publication of the dissertation is a desideratum for the author, mentor, and department each of whom gains from seeing it in print. To some students, filing a completed dissertation is equivalent to having it published and is typed in under "publications" on their curriculum vitae. It becomes in their own mind "the book," partly because it is generally available for purchase. Dissertators who conceptualize a completed thesis as a form of property that requires copyright may be more set in their thinking than those who see authorship as a reward for simply having passed muster with their gatekeepers. The national microfilming and clearinghouse service, the University Microforms International in Ann Arbor, not only sells copies of most dissertations, but each filed work now receives its own ISBN number just like a regularly published book. Although microform dissertations are not generally accessioned to library collections, an acquisitions request from a scholarly library puts it not only in their catalog, but also in the World Catalogue (OCLC).⁵

Thus the work of Offen (1999) is filed at the New York Public Library; all 545 pages of Brooks (1998) can be read in Gainesville, Florida; and Herlihy (1986) has his thesis available at the Smithsonian Institution, interested as the organization is in everything Panamanian. Some older dissertations, never published but full of valuable information, have a larger accession record than one might expect. For example, the World Catalogue lists 13 libraries that have accessioned Romanov's (1973) insightful work on Mayan roads in the Yucatan, and 21 libraries possess a copy of Henkel's (1971) much-referenced but unpublished field study of the coca economy of the Bolivian Chapare. At some point, the technological frontier could make the complete dissertation inventory electronically and instantly available to all. Indeed, it is also conceivable that dissertations may in the future be available only on CD-ROMs; some might even take the form of videos.

With the exception of the University of Chicago, geography programs in the U.S. have not produced a series that has included all approved dissertations. Between 1948 and 2002, the University of Chicago Research Series in Geography accumulated 242 volumes, more than 90

percent of which were dissertations. Eleven of them have been on Latin America. Accessioned as a standing order in many university libraries, the mostly lithographed volumes in this series have made their authors more visible to the world of scholarship than most dissertators. But wide distribution has also exposed these works to intellectual scrutiny. Few are magisterial; some might have become so if, with longer gestation and more data, they had been turned into a real book.⁶ At least a dozen Chicago Ph.D. dissertations in this series resemble an ordinary master's thesis in terms of data and originality. Quite a few authors included in this series have gotten tenure and promotion largely on the basis of this pre-professional form of publishing. It is surprising, then, that more geography departments did not follow this route, if only to boost their Ph.D.s in American academia. In the long run, however, it did not assure the survival of the University of Chicago Geography Department.

Certainly less than a tenth of geography dissertations pass through an editorial process of a publisher and come out as a monograph. Publishers, of course, help make those decisions by refusing most of what they receive, but authors also account for this by failing to submit their work. Such non-response is puzzling, for the motivations to do so would seem to be high, but it is a reminder that publication confuses two elements that, in themselves, are quite different: the ability to write and the opportunity to write. For energetic new Ph.D.s who enter tenure-track positions in universities, the published book is an ideal piece in the consolidation of their career. The more common practice has been for the young scholar to mine for articles his or her dissertation for several years after—and sometimes before—its completion. Not infrequently these articles duplicate or overlap each other, creating an undesirable redundancy.⁷ Grouped together, these extracted sections have often been sufficient to persuade tenure committees to vote in their favor. Productivity expectations have substantially increased in most four-year academic establishments from before 1960 when, at certain kinds of institutions, successful completion of the dissertation was seen as a serious intellectual achievement in its own right. Simply being a “doctor” was sufficient to get tenure. Rising expectations driven by a buyer's market have created incongruencies of faculty voting to deny tenure to younger colleagues by imposing standards that the former did not themselves have to meet. Possibly up to half of the people who became full professors in Ph.D.-granting geography departments before 1980 would not get tenure today.

The transformation of a dissertation into a “real” book is psychologically harder than writing a series of articles. To some, their dissertation represents a laboriously constructed package, approved, filed, and not to be tampered with again. But from the perspective of the professional editor, a dissertation is a piece of writing that is only practice for the book. Armstrong (1972:46) made the sardonic point that: “the dissertation is not a fact in the world of facts, but only a fact of the author's education.” Often the quality of writing distinguishes one

from the other. In many, however, there is a “dissertation rhetoric” that many editors hate, involving informational redundancies like literature reviews and slavish use of footnotes where they are not needed. Some dissertations also reflect the ego of the supervisor who has insisted on sections or citations that reflect the advisor’s close involvement in the work. These excesses are often explained by the fact that the dissertation is written for a tiny but all-powerful audience who determines if it is acceptable. Thus most dissertators do not realize at filing that for their opus to be publishable, they first need to excise its “assorted lump of goo and glop” (Joshi 2004:23). Questioning the formulaic way of preparing a dissertation, Arreola (2004) has suggested that the craft of writing become a serious part of a geography student’s education and training. If these could abandon pedantry and conformity to focus on assembling compelling narratives that could reach the educated public, the discipline would find a whole new constituency.

A dissertation on Latin America can be, for some, a take-off point for a lifetime career studying Latin America and, for others, not at all. If it is, research topics inevitably permutate over a research trajectory. One question answered prompts another, often just as interesting, thus nudging the thematic focus in somewhat other directions. If a dissertation is used as a baseline for a time period, the flow of these permutations can be seen in individual trajectories. Over two decades, Herlihy (1986) has moved from studying resource use, protected areas, and homeland definition in Panama to developing participatory mapping for conservation work elsewhere in Central America, and for studying land-titling in Mexico. The common thread in all this work has been native peoples. Over three decades, Davidson (1972) stepped from the Bay Islands of Honduras and its minority English-speaking population to focus on the mainland indigenous people and eventually to consider the complex ethnogeography of the whole of Central America.

Denevan’s (1963) study on the Llanos de Mojos went beyond the normal achievement of completing a dissertation on Latin America. In 1961, working with oil-company geologists, he actually discovered the prehistoric raised fields that then became the focus of his study, a sequence that few dissertators can hope to duplicate. That work led, over the next four decades, to answering other pre-Columbian artifactual enigmas of land use in both the Andean highlands and the Amazon lowlands. Over half a century, West (1946) moved from the historical geography of mining in Parral to other Mexican topics, such as *chinampa* organization and Tarascan identity, as well as to several Louisiana-bound themes. Later he researched mining history and mangrove swamps in the Chocó of Colombia before returning to Mexico, mainly Sonora, in his later years. Smith (1977), whose fundamental interest was in resources not transport, wrote a dissertation on the Transamazon highway, a project that launched him into more than three decades of other research topics about northern Brazil’s resources and habitats and also beyond.

Many new Ph.D.s put their dissertations aside and never go back

to it, not even to repeat that kind of fieldwork. Others see their dissertation as a simmering *caldo de cultivo* that undergoes refinements and accretions before it gets published as a totality. A classic example of this exquisite persistence is the extraordinary monograph of McBryde (1947) on Guatemala, the core of which was a Berkeley dissertation filed in 1941. Its germ began in 1927-1928, when travels in the company of Franz Blom sparked McBryde's fascination with the Maya world. In 1935-1936, McBryde undertook fieldwork in the Guatemala highlands for his dissertation; this he followed up by additional observations made during a return trip in 1940-1941. The war years delayed its publication, but not his thinking about the analysis, organization, and presentation of his data. The result of that forbearance was a masterpiece of cultural-historical geography and ethnography.

Two other Berkeley Ph.D.s made a lasting impact by publishing their work with much less of a time-lag than McBryde. West's (1946, 1949) thesis on Parral, Mexico appeared as a monograph only three years after filing. West—an unusually self-directed individual—carried out his project over the initial objection of his mentor Carl Sauer (Anderson 1997:8). In the end, West proved Sauer quite wrong for doubting that West could make sense of the archives. The French historian Pierre Chaunu (1969:355-56) lauded the monograph as did Lockhart (1999:56) who deemed it the "...first close-up portrait of the operation of any branch of Spanish American production or commercial mining..." West's dissertation was influential in promoting further studies by others on mining history. West's fellow graduate student at Berkeley and lifelong friend, J. Parsons (1948, 1949) himself prepared an extraordinary monograph on the irrepressible people and fragmented land of Antioquia in western Colombia. This dissertation on Colombia—the first in geography from a North American university—benefited from the contacts that Carl Sauer had made in Medellín in 1942. Thanks to Parsons' earlier occupation as a journalist, the thesis was written so well that only small changes were necessary for it to be published the following year. The work was revised and published as a second edition in 1968. Three editions in Spanish (1950, 1961, and 1979) have solidified it in Colombia as a classic work.

Other examples of a successful transition from dissertation to book can be cited. More than three decades after Siemens (1964) filed his dissertation on Veracruz, he published an historical geography of the state (Siemens 1996). Kimber (1969, 1988) chose an ambitious biogeographic topic when she went to the Caribbean in the early 1960s. After revisiting, rethinking, and rewriting, she published her book on Martinique two decades later. Hecht's (1982) dissertation on conversion of Amazon forest to pasture led to an acclaimed book on landscape changes in Amazonia (Hecht and Cockburn 1989). Policymakers made use of it and Hecht gained recognition as a leader in the broad field of resource conservation. In Berman Santana's (1993, 1996) dissertation-to-book transition, not even a word of her title was changed. The work

of Treacy (1989, 1994), who died in the same year that he finished his dissertation, was translated into Spanish and published in Peru as a fitting memorial to his excellent scholarship and love for the Andes.

Good books follow long gestations, the seeds of which were often planted in graduate school. In many cases, such a book represents the most substantial piece of scholarship that a geographer produces, for it profits from two phases of a scholar's life. Amassing large amounts of fieldwork data flows from youthful enthusiasm, flexibility, energy and determination. A mid-career scholar, on the other hand, usually has more conceptual perspective on his or her work, additional background knowledge and better writing skills. It is uncertain, however, that the best dissertations are the ones that necessarily get published. Just as likely, an author's persistence accounts for why some dissertations eventually become published monographs and others, just as commendatory, do not. In the case of Bruman's (2000) book, we have the ultimate in scholarly persistence. Based on fieldwork in 1939 and filed as a Berkeley dissertation in 1940, this study of regional traditions of alcoholic beverages in aboriginal Mexico could not be considered for publication while World War II raged. Not until Bruman reached the age of 86 (some 60 years later!) was his book published.⁸ However, in this case, very little updated material or interpretation was added. Its value lies in its ethnographic salvage of an aboriginal cultural pattern now partially extinct. Another Berkeley dissertation, that of Zimmerer (1988) manifested the benefits of maturation when his path-breaking study of crop biodiversity was enhanced by conceptual refinements developed during the intervening years to yield an even stronger published volume (Zimmerer 1996). That example provides one persuasive reason why mandated publication of the dissertation as part of the degree requirement, such as the Chicago series, is not a good idea.

A dissertation on a Latin American topic does not bind the scholar to that realm for his or her later endeavors. Many geographers have had eclectic research agendas. Stanislawski (1946) worked on Mexico for his Sauerian-type thesis, but is better known for his books on Portugal. Hammond (1951) produced a geomorphology dissertation on Baja California, but did not work in Latin America after that. Wagner (1953) went from a thesis under Sauer on western Costa Rica to a series of offbeat and sometimes brilliant meditations about culture. Ford (1970), who wrote about Buenos Aires for his doctorate, has maintained an affinity for research on cities, but not confined to Latin America. Later rather than sooner, Johannessen (1959, 1963) spread his wings beyond the New World to South Asia when he got interested in intercontinental diffusion. Intellectual trajectories cannot be predicted from graduate school years, but it is equally true that if one had held on to the dissertation subject as one moved through the ranks, intellectual inquiry would have stultified.

Geographers from Latin America, one of the constituencies for graduate degrees in U.S. universities, rarely initiate projects outside the borders of their own country. The Brazilian Faissol (1956), who studied

at Syracuse under Preston James, wrote his dissertation in Portuguese, the first and still only U.S. geography dissertation in that language. Córdova Aguilar (1982) prepared his dissertation on the province in the Department of Piura where he was born. Among the list of Mexican geographers who have dissertated about their home turf are Córdova (1997) and Aguilar-Robledo (1999). Cultural familiarity rather than national identity also can explain some dissertation choices. Trilingual Catalan geographer Antonio Luna Garcia (2000) (a.k.a. in his native Catalonia, Antoni Luna i Garcia) did his thesis on "Ambos Nogales," border cities with the same name and both predominantly Spanish speaking.

If the Latin American dissertation facilitates *entrée* into Latin American research, it does not dictate it. Not all geographers who have become Latin Americanists wrote their Ph.D. thesis on the region. Several early formulators of specialty knowledge who did fieldwork there, in fact, started out elsewhere: Clarence F. Jones (port of Montreal), Carl Sauer (historical geography of the Ozarks) and Robert Platt (Bermuda). Living members of this group include Karl Butzer who wrote a physical geography dissertation on the Near East, but turned his attention to the historical geography of Mexico after he moved to Texas. James Curtis prepared a dissertation on a small California city, but subsequently expanded his horizons to investigate urban phenomena in Mexico, Cuba, and Brazil. Brian Godfrey's studies of Brazilian cities were preceded by a dissertation on San Francisco (California). Some geographers who have written dissertations on Latin Americans living in the U.S. have claimed inclusion of their work in Latin Americanist geography. Attention to this migratory phenomenon promises to expand as groups, legal and illegal, from Latin America have surged into the far 48 corners, including the orchard country of the Yakima, the blizzard-prone environs of Fargo, and dairy farms in bucolic Vermont. However, once that migration slows down or stops, the relentless assimilation of subsequent generations will tone down that regional connection to Latin America.

Ph.D. Mentors

The dissertation is an apprenticeship document that engages faculty members who gather around the supervisor to guide its execution. Just as students, the professoriate varies in its motivations, standards, and achievements and not all professors are successful as supervisors. Some are too overly specialized to attract graduate students while others make frequent career moves and do not stay put long enough to see a student through to the completion of a program. Still others are overdemanding in their expectations or lack the skill or devotion to critique effectively the mountain of prose deposited on their desks. Unusual but not unknown are those so self-absorbed in their own projects that they are unable to focus on anyone else's research efforts.

Two kinds of assiduous mentorship may be described: one involves the supervision of a heavy load of dissertations; the other requires working with dissertators who have demonstrated scholarly staying

power over the long term. The first achievement can be attributed to hard work, generosity with one's time, and a sense of duty to the department, university, or profession. The second, quite different, relies upon a faculty member's ability to make difficult intuitive decisions about a student's scholarly potential based on drive and motivation and the strength of one's innate curiosity that will compel him to pursue lines of inquiry entirely on his or her own initiative and without any special incentives. It is this curiosity that guarantees that these individuals will spin out research ideas and work independently without supervision. Why some professors take on students and others do not is an uncharted topic in the sociology of graduate education. Eminent geographers do not necessarily turn out eminent students.

By no means are all supervisors concerned, first and foremost, with training potential scholars. Many see their role as helping bright young novice geographers get over the thesis hurdle and launched in a career as a certified professional. These mentors—who often dominate departments with a didactic ethos—see the fine tuning of publicspeaking abilities, learning how to handle a classroom, and enhancing technical skills to be as important as the dissertation exercise. Consequences of this approach on graduate education included the failure to screen students carefully for scholarly potential with the result that high numbers of Ph.D.s do not continue an active research program. Corroborating evidence for this is sparse and indirect. Of the living North American geographers (in 2003) listed in the 1974 *Directory of the Conference of Latin Americanist Geographers* (Shirey 1974), only 11 percent of them have remained productive in Latin Americanist scholarship. In the decade between 1993 and 2002, only 13 articles in the flagship journal, *Annals of the Association of American Geographers*, were published on Latin America.

Scholarly attrition is often put in the context of a "light bulb gone dim," but much of the onus on the loss of interest among geographers in pursuing the frontiers of knowledge must fall on the advisor. If the professoriate is not rigorously selective, the Ph.D. degree will be awarded to individuals who lack sustained, internalized scholarly motivation. Without strong curiosity, a lifetime of productive scholarship is unlikely. It is not uncommon, however, for graduate advisors to inflate judgements about scholarly potential of their students, for young professors to meet the hurdle of the tenure process, and, once achieved, put their light bulbs on dim. Perhaps 20 to 30 percent of tenured faculty in Ph.D. programs fall into a situation of low scholarly performance for which there is no end of excuses.

Carl Sauer stands as the prime exemplar in Latin Americanist geography of a successful mentor. If that achievement is extended through generations, it becomes clear how crucial his role was in crystallizing Latin Americanist geography (Brown and Mathewson 1999). Sauer's hold on budding scholars has yet to be thoroughly explored, but comments in letters from students suggest that Sauer as father figure may have played a part. None of his Ph.D. students addressed him by first

name when they were students, and they may have early on resolved to never let him down. Part of that may also relate to the time when “rough professors met respectful students.” But Sauer did not give much guidance to students on how just how to proceed in fieldwork. In the end, the serious students were drawn to Sauer for the scholarly values he embodied. He communicated one big thing: if you have the gift of curiosity; follow that sense of discovery where it takes you. That freedom, however, may have been part of his evolution as a mentor. F. Simoons (Ph.D. 1956) and M. Mikesell (Ph.D. 1959) went to Africa for their projects, a part of the world about which Sauer knew little, but his early students, among them Fred Kniffen (Ph.D. 1930) and George Carter (Ph.D. 1942) appear to have received a heavier hand. Sauer came to realize that unless the student conceptualized his own project, his self-starting capacity remained untested. Sauer’s concern about professorial dictate was expressed in a letter he wrote to Wil-lits of the Rockefeller Foundation in which he doubted the worth of “collective and managed intellectual enterprises” (Sauer 1952).

Of course, credible supervisors of Latin American dissertations have not come only from the ranks of Latin Americanists. This disconnect is accepted with equanimity, for regional expertise is deemed to be less crucial than is topical coherence between professor and student. At UCLA, Joseph Spencer, himself a China specialist, supervised six dissertations on Latin America. Africanist Michael Watts at Berkeley also supervised six of them in just the decade 1993-2002. Drewes (1957), Licate (1981), Works (1984), Dorn (1989), Hayes-Bohanen (1998), and Freeman (2002) all had non-Latin Americanists as their dissertation supervisors. Conversely, those with strong Latin Americanist credentials have also supervised dissertations on other regions. Bill Davidson, as an example, served as the LSU advisor for dissertations about the U.S. and South Korea.

Departments as Facilitators of Latin American Dissertations

Since dissertations provide the most substantial mass of new findings in the discipline, geography departments, not editorial boards, deciding which manuscripts should have access to their scarce page space, are collectively in control of evaluating that knowledge. No Ph.D.-granting department enjoys total autonomy within its respective university, but most set their own agendas based on faculty interests and prioritized hiring decisions and graduate student admission. Determined graduate students can sometimes overcome their institutional settings, but most are forced to mold their projects to take advantage of available campus resources. Only much later can they appreciate how the institution has constrained or facilitated their project. Latin Americanist geographers are found in many places, but most of them have been trained by relatively few departments and selecting graduate students to the program. How departments arrive at the decision to engage a Latin Americanist or any other specialist involves privileged informa-

tion. However, it deserves elaboration, for relatively few departments in the U.S. have trained most Latin Americanists: predominantly Texas-Austin, UC-Berkeley, LSU, UCLA, Florida, Wisconsin, Clark, and Syracuse. A dozen additional departments that have trained fewer students in this area include Kansas, Oregon, North Carolina, Minnesota, Colorado, Arizona State, Arizona, Clark, Tennessee, Ohio State, Maryland, and Oklahoma. Still other departments from Hawaii to Washington to Illinois and elsewhere have tallied a few Latin Americanist dissertations.

The University of Texas-Austin has become since about 1990 the center of the universe for Latin Americanist geography in North America. Texas has taken over from UC-Berkeley, which awarded 55 doctoral dissertations in Latin Americanist geography over a 75-year period. Latin American geography at Texas got an early Berkeley connection when Donald Brand went there in 1949. In 2005, more than half of its 17 full-time faculty members had research interests in Latin America. In the calendar year 1999, all six Ph.D. recipients at UT-Austin wrote their dissertations on Latin America. Faculty and students there benefit from the presence of the largest University-wide Latin American studies programs in the country, as well as the availability of unusually strong library holdings, especially on Mexico. In most years, the University of Texas Press publishes more new scholarly titles on Latin America than any other U.S.-based university press.

Another strong Latin Americanist focus lies 700 km east of Austin on the Lower Mississippi. The Louisiana State University department got its start when Governor Huey Long in the 1930s appropriated money to hire young professors who had received their degrees at elite institutions outside the South. In contrast with his populist leanings, Kingfish Long's aspirations for his university were high and he was able to provide the conditions that attracted professors Russell, Kniffen, and West. Of the three, West was the first person at LSU to devote himself to research in Latin American geography (Mathewson 2002). Latin Americanist research there has benefited from the strong devotion to cultural-historical geography which was inherited from Berkeley but perpetuated, thanks to the unusual combination of geography and anthropology within the department. LSU's record of scholarship in Latin Americanist geography has consistently put it among the top five universities in North America in that category. Not only has LSU trained large numbers of Ph.D. Latin Americanist geographers — 35 between 1958 and 2002 — but the department has had a more active publication program in the past three decades than any other U.S. geography department engaged in Latin Americanist scholarship. Nearby New Orleans has long been a gateway, first by ship then by air, to Central America and Mexico. Bill Davidson took advantage of that location for more than 30 years, carrying out his research program in Central American ethnogeography and bringing students south across the Gulf of Mexico on field excursions.

Despite the example of continuity just described, academic commitments, whether at departmental, college, or university levels, to Latin

American studies are inherently fragile over the long term. Departments may take advantage of professors retiring, especially in periods of non-growth to dramatically change their focus. At the University of Oregon, between 1969 and 1977, six dissertations were written on Guatemala; in the next 25 years, only two others were produced on any part of Latin America. Attention to Latin America also declined at Berkeley and UCLA and their places in that regard were partly taken by the growth of scholarship at the two largest universities in Arizona. Between 2000 and 2004 inclusive, almost 20 percent of their combined 84 geography dissertations were on Latin America. Texas A&M is also poised to contribute substantially to Latin American geography. The large public universities in the southern tier of states have not only opportunities but also imperatives that derive from their location and shifting demography.

The bright stars identifiable in the Latin Americanist firmament lose some of their luster when it is recalled that in a distressing number of stellar universities, geography was forced to close up shop.⁹ No one reason can explain why about two dozen geography departments ceased operations. Given the highly competitive nature of American higher education and the financial pressures on institutions, it is not difficult to envision additional suspensions of departmental status in the future. Geography's disciplinary core is fuzzy, cognate fields increasingly poach, and some departments overemphasize technique at the expenses of intellectual substance. Compounding the risk of closure are deficiencies in scholarship at the tenured ranks that can always form a ready pretext, for "quality" is a nebulous concept and academic departments are notorious in deluding themselves about their achievements and importance to the mission of the university.

Conclusion

A survey of dissertations in Latin Americanist geography points to an expanding breadth of dissertation topics at the same time that the research projects themselves have gotten more specific. Growth of the subject range reflects the disappearance of the disciplinary boundary police as well as the fact that geographers, unlike historians, have not agreed upon the significant issues in their field. Concomitant to this range expansion of phenomena under purview is the shift away from the classic core concepts of the discipline. Intellectual slash-and-burn that elevates the trendy and relentlessly scuttles themes perceived as "old-fashioned" is intellectually pathetic. What is valued as so exciting today is, in five years time, met with eyes glazed over. In the long run, the maintenance of geography as an autonomous discipline will depend on moving back to the classic core.

The doctoral dissertation is the opportune stage at which to get geography back on the track to assure a long-term future for the discipline in American higher education. If Latin Americanist geography incorporated a major role for itself as a vehicle for a regional geography that involves the power of synthesis to understand place and process

it would serve as a model of what could be accomplished. That vision would, of course, keep in mind the fundamental tension between narrative and analysis, and would take into account the failures of a regional geography as it was practiced at an earlier time in the history of the discipline. In addition to some models of excellent regional geography, many past studies failed to effectively integrate the past with the present or physical processes with economic and cultural dimensions.

The doctoral project is an ideal vehicle to carry out this vision for regional studies. This is essentially what Bill Davidson did, and it opened for him a lifetime of research on Central America to a level of expertise that also helped make him one of best mentors in Latin Americanist geography. Regional synthesis at a variety of scales is an effective way to conceptualize the geographical essence that stands a geographer in good stead for a life of scholarship. In the process, one dissertation at a time would begin to fill in the huge void in knowledge about places in every country from the Río Grande/Bravo to Tierra del Fuego and the islands off the coasts. Turned into published books with bilingual editions, the products of this kind of research would find a market among educated people both in Latin America and North America. In the aggregate these works, well conceptualized, researched, and written, would solidify the identity of geography as a field-based subject focused on place synthesis. Out of those projects one could expect new insights about space, the interweaving of space and time, and the convergence of the human and the non-human into a whole. An obligatory chapter on authorial reflexivity would contextualize the research presented.

Contrary to present practice, these projects would involve the theoretical as an outcome of the empirical, a stint of intensive fieldwork that embraces a whole-year cycle, and a realization that the researcher is also a part of the story told. A project of this kind would be a launching pad to other topics elicited by the fieldwork but carried out elsewhere. This program would involve less specialization, rather than more; a rejection of the reductionist knowledge now apparent in many dissertations, and a greater emphasis on writing skills. For such an agenda to be successful, a more rigorous selection of those chosen to do it would be required. Quantity would give way to quality and the number of doctoral degrees would drop. If disciplinary survival were at stake in a forthcoming era, might its practitioners be forced to meet the challenge by refocusing its objectives? If so, a commitment to human/environment synthesis, creative work on the regional concept, and the primacy of high scholarly values would be worth pursuing.

Notes

1. Admittedly, abstracts are simple summaries of a much longer work, so that only by reading the entire dissertation can one make a sound evaluation of content and quality. In this subfield of Latin American geography, one person cannot read every dissertation flagged. Even members of dissertation committees have not always carefully read the work they are evaluating.

2. Space in this 969-page volume was allotted as follows (excludes the indices): Economics, 23%; Government and Politics, 22%; Anthropology, 21%; Sociology, 13%; International Relations, 10%; and Geography, 9%. Geography would have an even lower percentage if annotations were restricted to publications written by professional geographers.
3. Professors, even those who have fulsomely published, are not necessarily themselves models of good writing (see, for example, Limerick 1993:3).
4. If departments archived records on Ph.D. students who never finished their projects, more could be learned about their discipline of geography as a social institution and about the mores of particular departments.
5. In a sociological study of originality in scholarship, the following comment was elicited: "'When I see dissertation projects which are spin-offs of the advisor, I'm not sure about this person.' What she's not sure about is whether or not this person possesses any genuine intellectual interests or passion" (Guetzkow, Lamont, and Mallard 2004:204).
6. After the Chicago Geography Department was closed in 1992 and replaced with a "Committee on Geography," whose members were primarily non-geographers, the flow of geography dissertations slowed. The publication series still exists, but no longer accepts raw dissertations. Now controlled by the University of Chicago Press, all submissions must meet the high standards of this respected publisher.
7. Translation into other languages is not "incremental publication," because all the words are changed and an entirely different audience is targeted. For native English-speaking Latin Americanists, publishing their work in Spanish or Portuguese can be seen as a duty to return information to the country from which they got it.
8. J. Parsons called Bruman's dissertation "The most widely disseminated unpublished doctor's dissertation in the history of the Berkeley libraries" (Bruman 2000:xii).
9. Updating Dunbar's (1986) discussion, 60 research-oriented institutions in the United States belonged to the Association of American Universities in 2005, 45 of which have or had at one time a geography department and 34 awarded doctorates. In 2005, however, only 28 of those 60 universities had such a department. Since Dunbar wrote his article, those at California-Davis, Chicago, Columbia, and Northwestern have closed. Among the departments mentioned by Dunbar as closed earlier were Harvard, Michigan, Pittsburgh, Stanford, Virginia, and Yale.

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**Central American Sites
and Situations**

Ethnogeography of the Dooryard Orchard-Garden of the Indigenous Yucatecan Maya

Peter H. Herlihy and Frederick M. Wiseman

Dooryard orchard-gardens, a type of agroforestry, have probably always been an important part of the subsistence economy and cultural landscape of Maya peoples. These cultivated spaces, called *pakal* in Maya and *huerto* in Spanish, tied indigenous families to place, making it more difficult for the Spaniards to relocate them into settlements (*reducciones*) for administration. This study combines field research with archival and archaeological studies, as done in ethnogeography, to understand the use of this ancient agricultural practice among the present and past Yucatecan Maya, uncovering the Spaniard's scorched-earth policy of the 16th and 17th centuries that likely caused erroneous conclusions by contemporary scholars about their importance and use.

This research on the orchard-gardens of the Yucatecan Maya is emblematic of the ethnogeography tradition of the LSU Department of Geography and Anthropology, combining field and archival research in the study of the dooryard orchard-garden among the past and present Maya. Field research occurred during summer 1981, when Herlihy was Davidson's first Ph.D. advisee and Wiseman was an assistant professor in the department. All three had studied dooryards elsewhere in Central America. Davidson (1976) had researched the coastal Garífuna habitats and was very interested in their dooryard plants, especially the breadfruit and the Ceiba trees as cultural markers. Wiseman was then collaborating with geographer Bill Turner and anthropologist Peter Harrison on their National Science Foundation funded Pulltrouser Swamp Project on Ancient Maya agriculture in Belize. He (Wiseman 1973, 1978) had published his "artificial rain forest" model, proposing the ancients managed composites of cultivated fruit trees and other useful plants, encouraging archaeologists to look beyond the simplistic ramon tree-cropping hypothesis that

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was vogue at the time. Herlihy began studying dooryards working on his M.A. adviser Daniel W. Gade's National Geographic Society-funded Amazonian pet-keeping practices project in eastern Peru (Gade 1985), where they also visited the oldest European settlement in western Amazonia, Moyobamba (settled in 1539) renown for its expansive house gardens of exceptional antiquity (Denevan 1966, Works 1990).

The Department of Geography and Anthropology was then a stronghold of Latin Americanists professors and graduate students, and many had more than a passing interest in the dooryard plant and animal use of different ethnic populations. Geographers Kniffen, West, and Davidson — all of academic lineage from Carl O. Sauer — were greatly interested in the dooryard interface, as was Archaeologist William Haag. They all shared their thoughts openly with the authors, surely influencing what is presented here. In particular, West shared his detailed observations on the dooryard gardens of the indigenous Emberá, Wounaan, and Black peoples of the Colombian Chocó region (West 1957). Then, Davidson established the Robert C. West Field Research Grant to honor this great LSU Latin Americanist geographer, while providing funding for graduate student research. Herlihy was among the first West grant awardees in 1981, supporting the research presented here and also among the Emberá in Darién Panama (Herlihy 1986).

With Turner and Harrison's permission, Wiseman brought Herlihy on the Pulltrouser Swamp Project as a field assistant for mapping of the raised field complex. Herlihy and Wiseman developed the research presented here to consider the "ethnographic analogue" of the ancient Maya dooryard garden. Always bringing field and classroom together, with a good dose of fun, Davidson visited Pulltrouser Swamp project headquarters near Orangetown, Belize to see field operations firsthand. Then, both he and Wiseman encouraged Herlihy to present the research as a paper at the annual Conference of Latin Americanist Geographers at the University of Ottawa, Canada in 1984.

Introduction

This research was undertaken broadly to learn more about the dooryard garden among the Ancient and contemporary Maya, doing a case study focusing on the Yucatecan Maya. As a study in ethnogeography, we combined field research in Belize with archival and archaeological studies to understand the use and human-environment interaction of this ancient and contemporary agricultural practice. Our introduction differentiates agroforestry practices among the Maya to distinguish the place of the dooryard orchard-garden in their subsistence. Then, the dooryard orchard-garden is described among the present and past Maya populations, using field, archival, archaeological, and ethnographic evidence. The story told here makes somewhat startling revelations about an even greater prominence of dooryard orchard-gardens in the Maya cultural landscapes of the past, one so great it caused the Spaniards to develop policy of destroying them.

"Agroforestry" is a catchall term and intellectual invention that refers to a variety of agroecosystems that have overstory trees, woody shrubs, saplings, and some herbaceous crops below (Whitmore and Turner 2001:79-103). It might be called "agricultural forestry" or cropping that emphasizes trees. It is a multi-tiered crop system, or polyculture, in which trees, shrubs, and herbs occupy distinct microhabitats and ecological niches on a parcel of land. Agroforests are agroecosystems with self-reinforcing symbiotic and mutualistic characteristics (Jansen 1973). There are different types of agroforests, including large-scale agroforests, remote gardens, and dooryard gardens, but excluding orchards (that are actually monocultures).

Known by a variety of names, agroforests include outfields that Geographer Gordon (1969:69; 1982:73-78) characterized as "orchard-garden-thickets" among the indigenous Guaymí peoples of western Panama. Denevan and his colleagues (1984:346) described the "diverse, multistored swidden fallows" of the native Bora of Amazonian Peru. Farther east among Brazil's Kayapo Indians, anthropologist D.A. Posey (1982) described them as "forest fields." These large-scale agroforests emphasize domesticated and semi-domesticated tree crops cultivated alongside spared, wild forest trees with other long-term perennials and some herbaceous crops. Developed in outfields away from the farmer's home they contain species that can tolerate some degree of weedy encroachment. They receive normally only periodic care. Agroforestry plots pass through successional stages before developing into a polycultural forest-garden that mimics rain forest structure.

Another agroforestry type, called remote gardens, develops from the abandonment of house sites and represents former dooryard gardens that have been maintained as outfield agroforestry plots. They are also sometimes planted around outfield shelters (*ranchos*) used during planting, harvesting, and garden-hunting. A subtype might be recognized where farmers tend trailside plants (Posey 1982; Denevan et al. 1984), but this practice does not normally lead to the development of significant fields.

An additional agroforestry type, the dooryard orchard-garden looks similar. Called variously house, yard, kitchen, dooryard, or dooryard-orchard gardens, these fields receive greater care being nearby around the house, and can fill significant roles in subsistence production. As he often did, Sauer (1966:58) insightfully suggested that these "yard plants of village settlements are a neglected record of past cultural conditions and connections." Dooryard gardens attracted the attention of Latin Americanist geographers since Carl Sauer and his students began focusing research on these significant landscape features (Kimber 1966, 1973, 1988; Denevan 1966; Gade 1976; Gordon 1969, 1982; Works 1990; Padoch and DeJong 1991; McKillop 1992; Pulsipher 1994; Steinberg 1998, 2002; Keys 1999; Denevan 2000; Whitmore and Turner 2001; Doolittle 2003), but our purpose here is not a review of the literature.

This study in ethnogeography will examine the dooryard orchard-garden agroforestry system among the indigenous Maya of yesterday

and today. We used field research, ethnohistoric documents, historic and contemporary accounts together with archaeological data to situate this agroecosystem within Maya life. Despite the central importance of the dooryard orchard-gardens to Maya subsistence, conspicuously little attention has been paid to them in historic sources, given their obvious significance to Maya life. The lines of early chroniclers suggest, however, that the oversight may actually be the result of a systematic cover-up by Spanish authorities who regularly avoided reporting on their deplorable resettlement practices. And maybe this gap in the historic record led scholars of the Ancient Maya to speculate erroneously about the importance of the *ramón* as a tree crop in their past.

Agroforestry and the Maya Scholarship

Orator Fuller Cook, one of the early students of Maya agriculture, described the contribution of “tree culture” to the economy of the lowland Maya in the early 1900s. Noticing how the Maya used the surrounding forest trees, he (1921:325) proposed that an ideal for tropical agriculture is to develop “artificial forests” that yield food and useful products while maintaining or improving soil fertility. He took this idea a step further. Observing the widespread occurrence of the *ramón* tree (*Brosimum alicastrum*) alongside the underground storage chambers, called “*chultunes*,” Cook (1935:615; Puleston 1971) postulated that these were used by the prehistoric Maya to store the nut-like seed of the *ramón*.

The famous botanist Cyrus L. Lundell (1937; 1938) also contemplated the prehistoric use of agroforests by the Maya. During the 1930s, he observed the high frequency and sometimes dominance – atypical under native rain forest conditions – of tree crops of the Maya, and suggested the ancients also favored them. He (1937:10, 36) was personally convinced that the groves of *ramón* on old Maya sites were mainly because the aboriginal Maya planted them, thus giving the species a competitive advantage over other trees. Surveying forests covering Maya ruins in Petén, southern Campeche, and northern Belize, he (1938:38) found trees that he thought to be relics from former cultivation, including the familiar zapote (*Achras Zapota*), guayas (*Talisia olivaeformis*), mamey (*Calocarpum mammosum*), and avocado (*Persea americana*). He (1938:41) observed:

I found ramón groves (ramonales) covering the sites of every Old Empire ruin visited in Peten and Campeche, a fact which strongly indicates that the tree must have been planted by the ancients, even as it is now planted by the modern Maya...in every village of the modern Maya in the Yucatan Peninsula it is one of the most conspicuous trees, being planted in dooryards, along fences, and in streets.

Dennis Puleston focused on the Ancient Maya use of trees in 1967 while studying the function of *chultunes* at Tikal. He (1968, 1971:30) described a “phenomenal correlation” between the present distribution of the *ramón* tree and the remains of Maya house platforms, sug-

gesting that the trees descended from the dooryard plants grown by the Classic Maya. Subsequent recognition of the high nutritional value of the "nut" as a rich-carbohydrate food, coupled with the discovery of the staggering productivity of the trees, seemed to confirm the potential significance of them among the Ancient Maya.

Folan, Fletcher, and Kintz (1979:699-700) examined the distribution of *ramón* and other plant relict tree species growing around the Yucatecan Classic site of Coban. They proposed that certain economic and ceremonial trees were grown in gardens for Maya elite who lived around the high status vaulted architecture at the center of the site. They found 15 species that produced fruit, fiber, usable bark or resin, observing the frequency of these economically and ceremonially important trees diminished in the lightly inhabited limits of the site. This, they thought, indicated a direct relationship between status and certain species and quantities of trees.

Research has questioned the *ramón* thesis and the notion that the Maya elite held control over certain economic tree species grown in the ceremonial centers. Barrera, Gomez-Pompa, and Vazquez-Yanes (1977:56) concluded that the notable dominance of some of the above-mentioned economically important trees in the forests of the Coba region was a result of more recent selection by man in combination with the natural systems of regeneration, making particular reference to the *ramón* case. Lambert and Arnason (1982:298-299) considered that the distribution of such trees on the center of Lamanai, Belize was the result of their growth and reproduction requirements that are optimal on the ruins. Peters (1983; Alcorn 1984:487) suggested that *ramón* stands relate to the species' competitive advantage on limestone soils coupled with a continual input of bat-dispersed seed reproduction, but suggests *ramón* populations at Tikal appear to have experienced some degree of artificial selection. Turner and Miksicek (1984:181) cautioned that of the 15 species identified at Coba only *ramón* and *guayas* showed a strong statistical correlation with elite residences. They agreed that these probably reflected ecological conditions, in particular the local soil conditions over the site. Further, they point out that the Coba study fails to account for burning, culling, and planting practices of local farmers around the site. Overall, while these conclusions placed the *ramón* and "elite" tree-cropping thesis in a more realistic framework, they may have, in some ways, inhibited students from exploring seriously the broader contributions of agroforestry to the Ancient Maya.

Wiseman resurrected Cook and Lundell's ideas based on contemporary silvicultural practices and proposed that the prehistoric Maya did the same. He (1973, 1978:85-89) proposed that the Maya did not replace the forest, but instead selected and substituted useful species for wild species in various available ecological niches, thus creating "artificial" rain forests. This type of agroforestry, as opposed to individual tree crops, had been little explored for the Maya. Netting (1977:318-326) speculated on the importance of tree cropping and dooryard gardens to the Maya, but he had not researched them.

Barrera, Gomez-Pompa and Vazquez-Yanes (1977) wrote a very useful article on Maya management of the Yucatecan *selvas* (forests) where they distinguish the three agroforestry types in the present-day Yucatan of swidden fallows (*manejo de la selva*), dooryard gardens (*huertas domesticas*), and remote gardens (*arboricultura en dolinas*). Gomez-Pompa, Flores, and Sosa (1987:10) described the out-field “man-made” tropical forests (*pet kot*) of the Yucatecan Maya. Barrera (1980) produced an annotated catalog of Yucatecan Maya dooryard garden plants. Nigh and Nations (1980:15) described the “fallowed milpa” or “planted tree milpa” of the Lacandon Maya. Alcorn (1984) made observations concerning all three agroforest types throughout her study on the ethnobotany of the Huastec Maya.

Contemporary Yucatecan Maya

Various scholars and other observers have labeled the cultivated area around the Maya house a yard, dooryard, house, or kitchen garden. These terms, while descriptive, seem more appropriate for temperate, mid-latitude yard gardens dominated by annual crops; they do little towards describing the complex maze of plants surrounding and obscuring the view of a Yucatecan Mayan house. Close to the house, usually surrounding it, in a maze, useful plants are tended with care. The area is dominated by trees intercropped in a polyculture and little attention is normally given to the cultivation of annual crops.

The dooryard orchard-garden is a polyculture and multi-layered cropping system with a tiered, rain forest-like canopy. Reflecting on this landscape feature, the famous botanist Edgar Anderson (1954:22; 1971:136-140) noted the frustration of resorting to long phrases to describe the multitude of trees and more or less cultivated vegetation around the house and coined the terms “garden-orchard” or “orchard-garden.” Although not strictly defined, a “garden-orchard” probably places more emphasis on ground level annuals, like corn, that are intercropped with some trees, such as is the case with the higher elevation settlements of the Guatemalan and Chiapan mountains. Elsewhere around Mayan houses, trees dominate and little attention is given to annuals. In Spanish, from the times of the conquistadors onward, two terms have been used to refer to this cultivated area; *huertas* are dooryard vegetable garden and *huertos* are the yards cultivated with trees and shrubs. The Maya use one inclusive term, *pakal*, to refer to both the plants and cultivated area around the house (Martinez Hernandez 1929:745).

The authors examined orchard-gardens of the contemporary Yucatecan Maya living around the Classic period archaeological sites of Pulltrouser Swamp in northern Belize. Pulltrouser Swamp is a large Y-shaped wetland depression covering about eight-and-a-half square kilometers of northern Belize, located about five kilometers north of Orangewalk Town between the Northern Highway and New River. The area has tropical monsoon climate with 1,300 to 2,000 millimeters of rain a year and a pronounced dry season from November to April.

This part of northern Belize is underlain by Tertiary and Cretaceous limestones, with localized river alluvium deposits. Basically, the area is characterized by a low rolling hilly terrain with karst topography, subsurface drainage, and sink holes (*cenotes*). The white to yellow, soft, chalky soils (*sascab*) around Pulltrouser resulted from limestone solution and deep weathering. Pulltrouser has probably had a swamp-like habitat with relatively permanent water since the time the ancients lived there. Vegetation associations are influenced by the water level of the swamp. The seasonally flooded low ground is covered with grasses and palmetto palm forest, while the drier uplands away from the depression have a medium height semi-deciduous forest that includes many economically useful species (Darch 1983; Johnson 1983).

Field research was completed in summer 1981 while the authors worked on the Pulltrouser Swamp Project. This was a U.S. National Science Foundation (NSF) supported interdisciplinary investigation of the relic prehistoric Mayan agricultural system of raised and channelized fields and associated canals found there, with anthropologist Peter D. Harrison and geographer B. L. Turner II as principal investigators (Turner and Harrison 1983). Five garden sites were selected from two present-day Maya settlements near the swamp. Four gardens were studied in San Luis; only a short walk west of the swamp, it was surely within the prehistoric hinterland of the inhabitants who built Pulltrouser's raised fields. Another garden was selected from the more-distant, less-acculturated community of Santa Cruz at Río Hondo to diversify the sample.

The villages of San Luis and Santa Cruz are quite typical of the present-day Maya villages in northern Belize and elsewhere on the Yucatan Peninsula. Their present-day inhabitants, however, are not descendants of Classic Maya who abandoned the southern margins of Pulltrouser Swamp. Rather, today's villagers descended from the Maya-mestizo populations that settled northern Belize during the second half of the 19th century after fleeing the northern Yucatan during the Caste Wars (Davidson 1987:13). Villagers speak both Yucatecan Maya and Spanish today. Villagers reported that the Belizean national census taken months before the field research for this study shows San Luis with 162 inhabitants in 34 households and Santa Cruz with 76 inhabitants in 9 households. Families are involved in mixed-subsistence production with cash-cropping and wage labor.

We studied the five sample orchard-gardens in considerable detail. Their area was measured, their plants and structures were plotted, drawn, and mapped, and their species composition was identified. The biomass characteristics of the orchard-garden species were measured, including the basal area, crown diameter, and height of tree species, with an estimate of the number of fruits. We also spoke with the family members present each day, questioning other community members informally. Most were quite curious about our work.

The *huertos* of the Maya households in San Luis and Santa Cruz are clearly defined by each household. Usually one family owns any

given garden and transfer of house ownership usually includes garden rights. Well-developed gardens are considered real assets, enhancing property value. Families have intimate ties to these spaces and the trees that have been tended for years or decades. While low stone fences often enclose orchard-gardens of northern Belize and the Yucatan, this was not the case in the small settlements of San Luis and Santa Cruz. Makeshift fences, midden piles, and outhouses were sometimes used to demarcate informally yard plots, but such boundaries are mostly unnecessary because community members recognize boundaries.

Huertos varied tremendously in size. The area cultivated around the house was normally more related to the personal preferences of the homeowner than with soil quality, land availability, or anything else. Some gardens occupied thousands of square meters while others only a fraction of that size. The density of cultivation varied greatly too. Some contained hundreds of plants while others less than a dozen. Tree crops dominated most dooryards. Some had a diverse array of species while others had only one or two species, often Old World citrus trees. The five representative gardens that we sampled ranged from roughly 2,000 to over 4,000 square meters in size (Table 1).

Orchard-garden development is not a formal affair given the deliberate attention like the cultivation of a *milpa* (slash-and-burn) plot. Rather, plants are first set out gradually during the initial house construction. Gardens contain plants reproduced both vegetatively and by seed. Saplings are sometimes dug from the forest to be transplanted into the dooryard. Young saplings raised from seeds in elevated tray-like platforms (called *azoteas* in Spanish and *caanche* in Yucatecan Maya) or now in tin and plastic containers are also planted in the farmer's yard. A well-developed orchard-garden takes a decade or longer to develop and the family understandably develops great attachment to the area.

While the dooryard might be considered an "intensively managed agroecosystem," garden care is quite informal. Plants are often watered, a sort of pot-irrigation, during early growth and excessive dry periods. Small trees may be protected from domestic animals, dogs, and children by makeshift fencing. Larger trees are pruned and kept free of tangling weedy growth and poles might support reclining branches. Beyond this and an occasional weeding or mulching, however, the area requires little maintenance.

The Maya dooryard orchard-garden is interplanted in a seemingly haphazard fashion. A forest-like polyculture develops as the garden matures. Biomass measurements of the five Belizean gardens show the gardens with a poorly defined stratification. Toward the top, tall fruit trees with heights reaching over 15 meters usually dominate. Mature *ramón*, avocado, guava (*Psidium guayava*), zapote, and guayas, among others occur at this level. Below, a poorly stratified B-canopy includes a wide range of medium-sized trees range from about 4 to 10 meters including *annonas*, achiote (*Bixa orellana*), pimenta (*Pimenta dioica*), Spanish plum (*Spondias* spp.), citrus, and more. Palms, like corozal (*Orbignyia cohune*),

Table 1: Dooryard Orchard-gardens of Yucatecan Maya, Belize

Scientific Name	Common Name	Wild Pop.	Hearth	San Luis:				Santa Cruz
				1	2	3	4	
New World Species								
<i>Acrocomia mexicana</i>	cocoyol	X						1
<i>Agave sisalana</i>	sisal		M.A.			1	18	
<i>Annona</i> spp.	anona	X	M.A.	11	2	4	2	10
<i>Bixa orellana</i>	achiote		S.A.	8	2		6	
<i>Brosimum alicastrum</i>	ramon	X	M.A.	1	5	1	2	2
<i>Bursera simaruba</i>	chaca	X	M.A.		1		3	1
<i>Byrsonima</i> sp.	nance	X	M.A.				1	
<i>Capsicum</i> spp.	chile		M.A.				7	
<i>Carica papaya</i>	papaya	X	M.A.					2
<i>Cedrela odorata</i>	cedro	X		2				1
<i>Chenopodium</i> sp.	epasote	X	M.A.					7
<i>Crescentia cujete</i>	jicaro	X	M.A.	1			1	
<i>Eryngium foetidum</i>	culantro					1		3
<i>Gossypium</i> sp.	algodon		M.A.					1
<i>Guazuma ulmifolia</i>	pixoy	X						1
<i>Hamelia patens</i>	kanan	X						2
<i>Hibiscus</i> spp.	flor						6	
<i>Manilkara zapota</i>	chicozapote	X						3
<i>Musa</i> sp.	plantain/ banana				1	5	84	
<i>Nicotiana tabacum</i>	tobaco		S.A.				2	
<i>Orbigyna cohune</i>	corozal		M.A.					2
<i>Persea americana</i>	aguacate	X	M.A.	1	6	1	8	13
<i>Pimenta dioica</i>	pimenta	X	M.A.			1		3
<i>Piper</i> sp.	ximaculam	X						22
<i>Piscidia</i> sp.(?)	habin	X						2
<i>Plumeria</i> spp.	flor Mayo	X	M.A.		3			
<i>Pouteria sapota</i>	mamey	X	M.A.	1	3		5	4
<i>Protium copal</i>	copal	X						1
<i>Psidium guajava</i>	guayaba	X	M.A.	2			2	11
<i>Sabal</i> sp.	guano	X			1		6	1
<i>Spondias</i> spp.	jobo/ ciruela	X	M.A.	4	1	4	1	1
<i>Talisia olivaeformis</i>	guayas	X	M.A.	2	1	5		11
<i>Xanthosoma</i> sp.	macal							4
<i>Zizyphus</i>		X				1		
(unidentified)	arnica					1		
(unidentified)	huevos							
	del toro	X						1
(unidentified)	ruda	X						2
Old World Species								
<i>Allium sativum</i>	ajo		O.W.					5
<i>Citrus aurantium</i>	agria		O.W.	2				7
<i>Citrus aurantifolia</i>	limon		O.W.	7				4
<i>Citrus sinensis</i>	naranja		O.W.		13	37	24	2
<i>Coco nucifera</i>	coco		O.W.		12	3	4	9
<i>Coffea arabica</i>	cafe		O.W.		13			
<i>Mangifera indica</i>	mango		O.W.		2	4	12	

[Garden Area: San Luis #1 had 3,096 sq. m.; #2 had 4,484 sq. m.; #3 had 2,304 sq. m.; #4 had 4,164 sq. m.; and Santa Cruz had 3,819 sq. m.]

cocoyol (*Acrocomia mexicana*), or *guano* (*Sabal* sp.), occur at various levels. On the ground, saplings and bushy perennials, like chile peppers, *macal* (*Xanthosoma*), yuca, and coffee may be grown. Patches of papayas, bananas, and plantains are sometimes cultivated. Truly herbaceous crop plants like corn, beans, squash are rare and the intercropped structure blocks much of the sunlight before reaching the dooryard soils.

A well-developed garden normally has considerable crop diversity. Native tree crops dominate and most are grown for fruits. Many, like copal (*Protium copal*), *chaca* (*Bursea simaruba*), and *ramón*, are not fully domesticated being cultivated from their wild state when seedlings are transplanted from the forest or another garden site. Modern Maya gardens have a certain number of Old World fruit trees, like coconut and the citrus, which may be quite important in certain gardens depending on the farmer's preference. Many dooryards have small plots of perennial crops such as plantains, bananas, *Xanthosoma*, and manioc that are maintained and harvested year after year.

The gardens produce a wide variety of useful products for the Maya. The dooryard fruits have considerable food value and these areas can provide a seasonal abundance of edible fruits. Fruits are consumed directly and also made into beverages. Roots, shoots, buds, and flowers also are eaten. Other plants have religious or medicinal uses that are deeply rooted in Maya culture. The orchard-gardens also provide important habitat and feeding ground for many wild animals, being an important habitat for Neotropical migratory bird species among the Mopan Maya of Southern Belize (Steinberg 1998). It may even someday provide a valuable tool for the conservation and management of tropical forests (Gómez-Pompa 1987), as well as a reservoir for crop diversity.

The *huerto* of one Yucatecan Maya family at Santa Cruz has a tidy, well-managed appearance (Figures 1 and 2). The size, species composition and appearance are similar to other orchard-gardens in the community and throughout the Yucatecan Maya area. It should not, however, be considered average or typical because the size, density, and species composition of any garden depends on the individual choices of the farmer and his family. The Santa Cruz garden is 22 years old and it has a well-developed canopy. Most of the dominants are native semi-domesticated trees. The orchard-garden contains over 100 different plants from over 30 different species (Table 2). Piper plants shade young saplings of avocado and there is one small patch of *Xanthosoma* and another with eight coconut trees (four mature and producing fruit). Citrus are also conspicuous understory trees.

Orchard-gardens Among the Historic Yucatecan Maya

Ethnographic accounts of the 20th century record dooryard orchard-gardens – similar to those of the Yucatecan Maya families around Pulltrouser Swamp – as a landscape component throughout most of the Maya area. Orchard-gardens have been described from very dif-

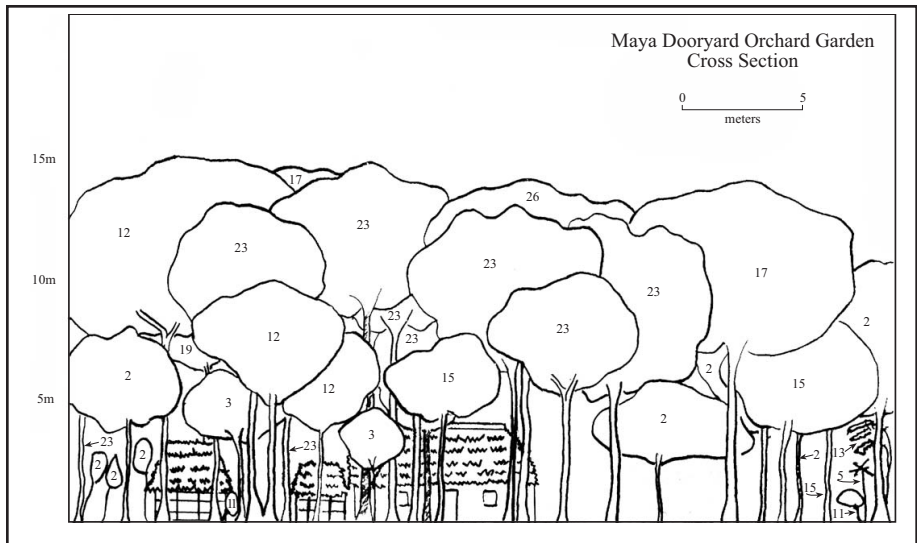


Figure 1. Plant distribution of a 22-year-old Maya dooryard orchard-garden at Santa Cruz, northern Belize. Numbers correspond to species list in Table 2.

ferent environmental settings. They have been cultivated in dooryards from the dry karst-shrublands of northern Yucatan (Redfield & Rojas 1934) to the wet, dense rain forests of Chiapas and the Petén (Lundell 1938) and even in the pine-covered highlands of Chiapas, Guatemala, and Honduras (Wisdom 1940; Gillin 1951). While our field observations demonstrate differences, especially in the mountainous Chiapas and Cuchumatanes uplands of Mexico and Guatemala, it is remarkable how similar the Maya *huertos* appear in structure and to a lesser degree in crop composition throughout their range. The intercropped structure probably enhances the ecological amplitude of this agroecosystem, but the care given them by farmers must also play a role.

The orchard-gardens have attracted more than a passing remark from some of the most celebrated Maya scholars. At Chan Kom village in northern Yucatan, the famous anthropological duo of Robert Redfield and Alfonso Villa Rojas (1934:47) described the attention that the Maya villagers there gave to their fruit trees and reported that seedlings are transplanted and grafting practiced. Robert Wauchope (1938) paid careful attention to the dooryard areas in his famous study of Maya house types. He (1938:133) noted how the Yucatecan Maya prized their fruit trees and he observed that a fairly wealthy Indian usually owned many trees on his property. Charles Wisdom (1940:58-59) described the small orchards that the Chorti Indians grew around their houses near the old Maya center of Copan and he noted that they watered them with small irrigation ditches and also commonly transplanted wild forest saplings. Indeed, throughout most of the Maya area, researchers, development workers, and other observers noted the considerable attention that the Indians place on their dooryard orchard-gardens.

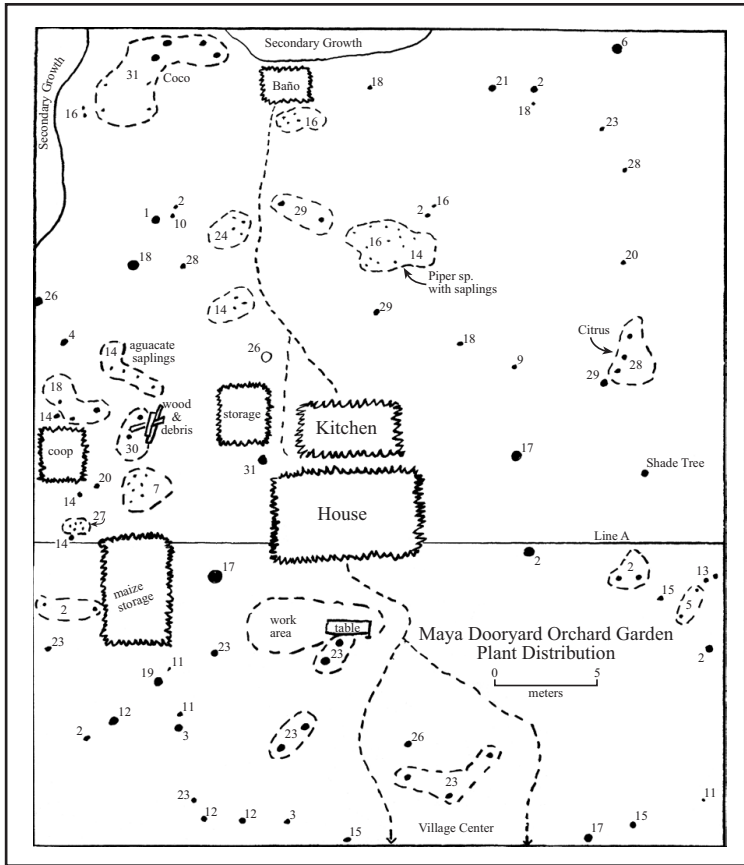


Figure 2. The cross-section view of a 15-meter swath of the dooryard orchard-garden of the Santa Cruz drawn to scale. It is the area enclosed in the front of the Maya house in Figure 1 from Line A to the edge of the dooryard. Numbers correspond to the species list in Table 2.

Some historic documents provide glimpses of how the trees were cultivated during the contact period. The earliest document to refer to the Maya dooryard gardens may be the native *Codice of Calkini* that was written at about the time of Spanish conquest (Barrera et al. 1977:57). The Motul Maya dictionary, thought to be compiled by the linguist Ciudad Real who accompanied the Franciscan Fray Alonso Ponce through Yucatan in 1580, defines the *pakal* as the garden or orchard-garden or inherited land where things are planted (Martinez Hernandez 1929:745).

One of the most widely recognized sources on the conditions the Spaniards encountered among the Maya is the *Relaciones Geográficas* that include accounts from towns throughout the Maya area. A standardized set of the King's questions was to be asked everywhere, but the information contained in any given *relación* varies according to the knowledge and experience of the informant. These documents com-

Table 2: Santa Cruz Dooryard Orchard-garden

Scientific Name	Common Name	#
New World Species		
1) <i>Acrocomia mexicana</i>	cocoyol	1
2) <i>Annona</i> spp.	anona	10
3) <i>Brosimum alicastrus</i>	ramon	2
4) <i>Bursera simaruba</i>	chaca	1
5) <i>Carica papaya</i>	papaya	2
6) <i>Cedrela odorata</i>	cedro	1
7) <i>Chenopodium</i> sp.	espasote	7
8) <i>Eryngium foetidum</i>	culantro	3
9) <i>Gossypium</i> sp.	algodon	1
10) <i>Guazuma ulmifolia</i>	pixoy	1
11) <i>Hamelia patens</i>	kanan	2
12) <i>Manilkara zapota</i>	chicozapote	3
13) <i>Orbignia cohune</i>	corozal	2
14) <i>Persea americana</i>	aguacate	13
15) <i>Pimenta dioica</i>	pimenta	3
16) <i>Piper</i> sp.	ximaculam	22
17) <i>Piscidia</i> sp. (?)	habin	2
18) <i>Pouteria sapota</i>	mamey	4
19) <i>Protium copal</i>	copal	1
20) <i>Psidium guajava</i>	guayaba	11
21) <i>Sabal</i> sp.	guano	1
22) <i>Spondias</i> sp.	jobo	1
23) <i>Talisia olvaeformis</i>	guayas	11
24) <i>Xanthosoma</i> sp.	macal	4
25) (unidentified)	huevos	
	del toro	1
26) (unidentified)	ruda	2
Old World Species		
27) <i>Allium sativum</i>	ajo	5
28) <i>Citrus aurantium</i>	agria	7
29) <i>Citrus aurantifolia</i>	limon	4
30) <i>Citrus sinensis</i>	naranja	2
31) <i>Coco nucifera</i>	coco	9

monly reported on the multitude of savory fruits grown by the natives. In the Yucatecan *Relaciones* (*Relaciones de Yucatán* 1898-1900), chroniclers listed about 20 different fruit trees (all still grown in dooryards today). They paid particular attention to those with tasty fruits or other useful materials prized by the invaders. Still, despite the implied cultivation of these in dooryards, there is conspicuously little discussion in their writings of how the trees were grown. This may, in part, reflect the content of the Yucatecan *Relaciones* (Moreno Toscano 1968), but such a conspicuous lack of descriptions of how these trees were cultivated in the Spanish crown's official report may not have been a mere oversight.

The importance of the cultivated dooryard garden to the Maya would have been well understood to the Spaniards. The seasoned conquistador Francisco de Montejo, who was responsible for much of the conquest in Yucatan, was undoubtedly an expert on the native Maya condition. He

(1870:87) wrote a letter to the King in 1529 explaining “the land is very populated with very large cities and very fresh villages; all are orchards of fruit.” Bishop Diego de Landa (1938:28-29), another keen observer of 16th-century Yucatecan life, detailed that “before the Spaniards won that land (Yucatan), the natives lived in villages...” that “... had the ground very clean and free of weeds, covered quite well with fruit trees.” The settlement dooryards, he recorded, were planted with trees for wine and they planted cotton, pepper, and corn. The natives, he observed, lived amidst their plantings. Other 16th-century observers of Yucatecan life recorded a similar Mayan settlement pattern with native households amidst their plantings (*Relaciones de Yucatan* 1898-1900, Tomo 11:47; Santillana 1938:201-202; Miranda 1953-54:355; Reina and Hill 1980:76; Miksicek et al. 1981). Nevertheless, while a conspicuous component of the prehistoric Maya settlement landscape and an important productive agricultural system, they were curiously not discussed by many chroniclers who otherwise gave considerable details about native life.

The Spaniards were notoriously quick to condemn what they considered the adulterous and barbaric practices of the natives, but seldom wrote of the atrocities they themselves committed. The dispersed settlement pattern of the indigenous population did not suit the Hispanic idea for civil administration and conversion to Christianity, so Spanish authorities resolved that the Indians should be reduced to villages (*congregaciones*) and not be allowed to live divided and separated (Lovell 1988:30; 1992:76). Indications of why the cultivated *huertos* were not discussed by the early Spaniards probably relate to this practice.

The 16th-century Yucatan conquistador, Juan Farfán, who was commissioned as an *encomendero* at Campocolche, south of Valladolid, observed that Indian populations were greatly diminished in the region, because they were compelled to leave their houses and move into missionary settlements to be indoctrinated to Catholicism and employed by the Church. Farfán (1938:256) wrote that the Indians, of course, did not want to leave their settlements and those that resisted were forcibly resettled by “burning their houses and cutting their trees and plants that they had at their houses, that had been planted by them.” Another 16th-century Yucatecan *relación* (Wauchope 1938:133) similarly recorded that when Indians resisted resettlement, the Spaniards set fire to the fruit trees around their houses to force them to vacate their communities.

By the early 17th century, the scorched-earth policy was in place. Even the Yucatecan Provincial Governor Antonio de Figueroa reportedly gave instruction during a 1615 resettlement campaign that “the fruit trees at Tzuctok and Ichbalche were cut down and the houses burned to discourage the Indians from returning to their old locations” (Scholes and Roys 1948:288-299). This scorched-earth policy must have been a widespread practice employed by the Spaniards to detach the Maya farmers from their homes and settlements. If the Maya of the early conquest period were anything like the Maya folk today, they developed an intimate attachment to their cultivated dooryards that they tended for years,

decades, or longer. By destroying the orchard-garden, the Spaniards attempted to sever the intimate tie the natives held with their homes, disconnecting the bond between people and place, allowing them to be more easily relocated into villages and indoctrinated to Spanish ways.

Agroforestry and the Prehistoric Yucatecan Maya

The historic evidence, coupled with the widespread use of agroforestry systems by modern Maya farmers suggests the importance of these agroecosystems to the Ancient Maya. Still, no firsthand accounts record what the Maya did at Pulltrouser Swamp and one can only speculate about the importance of dooryard orchard-gardens and agroforestry to the prehistoric Maya who lived there. Recent archaeological research, however, corroborates the importance of the dooryard garden, if indeed not agroforestry in general, to the Ancient Maya at Pulltrouser Swamp.

Archaeobotanical studies have recovered plant remains showing that the Classic Maya in the Pulltrouser Swamp area used a large number of economic species that are normally grown in dooryards. Excavations from the Classic period settlements around the site have documented the use of avocado (*Persea americana*), nance (*Byrsonima crassifolia*), hogplum (*Spondias* spp.), guava (*Psidium guajava*), cacao (*Theobroma* sp.), siricote (*Cordia dodecandra*), mamey zapote (*Calocarpum mammosum*), calabash tree (*Crescentia* sp.), sapodilla (*Manilkara zapota*), papaya (*Carica papaya*), and allspice (*Pimenta dioica*) (Miksicek 1983; Turner and Miksicek 1984; Pohl and Miksicek 1985:15). Elsewhere in the Maya area, archaeobotanical studies have also documented the widespread use of a variety of tree crops by the Maya even earlier during Preclassic times at Cuello, Belize and during Classic times at Tikal and Kaminaljuyu (Pohl and Miksicek 1985:15), as well as offshore on Wild Cane Cay, Belize (McKillop 1994).

The Ancient Maya at Pulltrouser Swamp were not limited by the productive constraints of slash-and-burn agriculture to produce their food. They manipulated the swamp's wetlands for hydraulic cultivation during Classic times. A network of about 300 to 600 hectares of canals and raised fields were built for agriculture adjacent to Kokeal by simply building up fill platforms and covering them with nutrient-rich topsoil. The development of the field-canal system at Pulltrouser coincided with the growth of the Maya population elsewhere. The raised-field system was probably abandoned about 830 A.D., around the time of the collapse of the central lowland civilization (Harrison and Turner 1978; Turner and Harrison 1981, 1983).

Maybe tiered tree-cropping was done on the raised fields at Pulltrouser or maybe even specialized cacao cultivation. Neither the size nor shapes of the Pulltrouser fields, or the emerging archaeobotanical evidence, however, suggested this to be the case. Pollen samples showed only maize and possibly cotton and amaranth on the wetland fields (Turner and Harrison 1981; Wiseman 1983). While willows serve an important structural component of the *chinampas* raised fields at Xochimilco outside Mexico City, it does not seem likely that the Pulltrou-

ser fields were used for tree crops. Turner and Harrison (1981:401-402) report that the channelized or border fields generally do not exceed 10 to 20 meters in length and 2 to 3 meters in width with a solum of about 30 to 50 centimeter. The more numerous raised or island fields, that account for 90 percent of the field and canal area, range from 80 to 750 square meters (with an average size of 500 meters) with about the same depth of solum. Below this rests gray fill material. It seems unlikely given the space requirements for the canopy and root stratification of an orchard-garden or agroforestry type system that the prehistoric Maya at Pulltrouser Swamp would have used these small, specialized raised-field surfaces for tree cropping. And why would the Maya spend time and effort to build elaborate surfaces for tree cultivation when orchard-gardens did well in the existing soil conditions of their house yards?

The question remains: did the Maya at Pulltrouser Swamp use agroforestry? If we look at the use of the modern Maya *huerto*, it suggests an analog of past agricultural practices. The contemporary situation, however, may distort realities of the past, resulting in misinterpretations of how the prehistoric Maya lived, as seems to be the case with the *ramón* example. The accounts of the soldiers and missionaries who participated in the earliest conquest and settlement of Maya lands lend more support for the contention that the prehistoric Maya also cultivated orchard-gardens. Well-developed orchard-gardens, like those described in the contact period documents, require decades to mature. Contemporary Emberá farmers elsewhere in Central America have maintained orchard-gardens for over a century (Herlihy 1986:126-130) and in South America (Denevan 1966:8) similar gardens may be 400 years old! Clearly many of the mature tree gardens that the early Spanish soldiers and missionaries encountered and described were planted by Maya farmers in late Post-Classic times, suggesting a much greater antiquity of the practice.

At Pulltrouser, the archaeological settlement data suggests a pattern indicative of a cultivated landscape. The settlement pattern at Kokeal (200 B.C.-A.D. 250), at the edge of the swamp, was quite dispersed with 117 mainly residential mounds dispersed over 1.8 square kilometers (Turner and Harrison 1981) allowing on the average 15,385 square meters for each house lot. While house platforms were grouped together in some parts and ceremonial-building clusters occurred, the dispersed pattern shows ample space for the cultivation of orchard-gardens. The pattern of dispersed settlements described elsewhere throughout the Maya area may also be the result of a cultivated landscape (Fletcher and Kintz 1983). Plant remains from Classic period settlements around Pulltrouser verify the use of certain trees that are also typically grown in the dooryard orchard-garden (Miksicek 1983; Turner and Miksicek 1984; Pohl and Miksicek 1985). And why wouldn't the Ancient Maya at Pulltrouser, like those in San Luis and Santa Cruz today, favor and cultivate their favorite and more useful forest species to have them around their homes.

Still, precautions should be taken when extrapolating about the importance of outfield agroforest plots or the artificial rainforest model to

Maya prehistory. Clearly the development of agroforests, whether in-field or outfield, requires considerable long-term attention and care by the farmer. While the outfield agroforestry practice of swidden fallow management is a component of modern lowland Maya subsistence (Nations and Nigh 1980; Barrera et al. 1977; Steinberg 2002), was it equally important in the past? Research elsewhere has shown that some indigenous farmers, who like the prehistoric Maya once cultivated extensive orchard-gardens around their dispersed family settlements (Covich and Nickerson 1966), have reduced their importance upon resettlement into villages. Now, they use outfield, fallow management to develop the so-called agroforest plots or tree gardens that they formerly tended in their dooryards (Herlihy 1986). With increasingly unfavorable conditions in villages for cultivating dooryard orchard-gardens, native farmers opt to grow fruit trees away from the village. Around the Mopan Maya indigenous reservation area of the Toledo District, Belize, however, Steinberg (2002:129) observed that population pressure on land resources means "extended fallows and orchard gardens with tree crops are now frowned upon because they take land out of the public rotation system while not producing returns for several years at the minimum."

We are not suggesting that the Ancient Maya did not create "artificial rain forests" and practice outfield agroforestry management, but rather to lend caution when considering the prehistoric context of this agricultural system that could have been as variable and influenced by resource use issues then as they are today. In conclusion, it can be said that the Maya at Pulltrouser, like those elsewhere, lived in dispersed settlements surrounded by their cultivated and semi-cultivated trees, similar to traditional Maya settlers today. The dooryard orchard-garden was one agroforestry system of the "managed mosaic" (Fedick 1996) of forest and field used by the prehistoric Maya and, while some trends suggests that they will likely continue to diminish in importance in the future, today they remain one of the most enduring and important symbols in the cultural landscape of the Yucatecan Maya.

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Ethnogeography of the Mayangna of Nicaragua

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This chapter examines the ethnogeography of the Mayangna of Nicaragua, focusing on how the areas they have inhabited have changed over time, and how their current distribution exacerbates their condition as a vulnerable minority. The region they occupied on the eve of contact is estimated through the distribution of surviving Mayangna toponyms, covering most of the central highlands and eastern lowlands of the country. Their geographic range contracted during the colonial period with the arrival of the Spanish and the establishment of haciendas, missions, and mining towns to the west; and the expansion of their powerful indigenous neighbors, the Miskitu, from the east. These and subsequent incursions led to complex changes in population distributions due to conflict, miscegenation, assimilation, and the disappearance of several distinct Mayangna groups. More recently, in the 1980s, the Sandinista-Contra conflict caused massive, albeit temporary displacement of Mayangna communities. Today, there are likely at least 12,000 Mayangna, living in about 35 communities. Their population is fragmented, and relatively isolated communities continue to become culturally integrated into the Miskitu population. They are also divided between three regional political units (one department and two autonomous regions), and are a small minority in each of them. The establishment of the Bosawás Reserve in north central Nicaragua in 1991 was an important step toward stemming the flow of colonists onto Mayangna lands, but resident indigenous communities have not been given a strong role in the administration of this protected area. A major grassroots mapping initiative has led to the delimitation and partial demarcation of six indigenous territories that have gained some recognition by the state. Support from the international community will continue to be important in the efforts of the Mayangna to secure their land rights, and, ultimately, survive as a distinct cultural group.

The present distribution of indigenous peoples in Central America represents a “geography of survival,” a mirror image of the geography of haciendas, missions, mines, mestizaje, and agricultural colonization. While indigenous regions continue to contract though en-

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croachment, many of the basic patterns established in the 16th and 17th centuries remain largely unchanged. For the most part, lowland rainforest regions escaped the brunt of conquest and colonization, because they did not have large, dense native populations or valuable mineral deposits to exploit, and were not suitable for European forms of land use. Their relative isolation, however, is dissipating, and they face a variety of incursions on their homelands, facilitated by road construction that erodes isolation and provides the links to markets for primary commodities. At the same time, the forest areas that they depend on to meet many of their basic needs have become a focus of international conservation efforts. Well over 200 protected areas were established in Central America by 1990 and virtually all of the largest of these are home to significant resident indigenous populations (Herlihy 1997:13, 231-235).

The central theme of this article is ethnogeography. This term has been used in a variety of ways over the last century, most broadly as the study of the relationships between ethnic groups and their physical surroundings, or as simply the geographic study of ethnic groups (Mathewson 1993:29; Samson 2002:75; West 1998:67). In the more narrow sense used here, a chief concern of ethnogeography is to document and understand the processes that shape the distribution of cultural groups (Davidson 1977:83). Forty years ago, there was little published information on the distributions of indigenous peoples in Central America, consisting mainly of a few regional maps with general boundaries of uncertain accuracy (see for example, Johnson 1948; Lehmann 1920), and in the absence of adequate field research there remained considerable confusion about basic cultural labels and divisions (e.g., Wassen 1967). We now have a much better understanding of present distributions thanks to a number of scholars (Davidson 1977, 1982, 1987; Davidson and Counce 1989; Gordon 1982:6-7; Herlihy 1989, 1992, 1997; Nietschmann 1969). Nevertheless, ethnogeography remains a worthwhile and rewarding subject of study due to the dynamic nature of indigenous distributions and the challenges associated with a more sophisticated understanding of the complexity of indigenous identities. Notwithstanding the potential dangers of falsely essentializing cultures by creating discrete ethnic boundaries where they may not truly exist, mapping the distribution of indigenous populations and how they change over time can tell us much about relationships between distinct groups. More importantly, distributions are intimately linked to issues of land rights and, ultimately, cultural survival.

This article discusses the ethnogeography of the Mayangna or "Sumu" of Nicaragua,¹ focusing on how the areas they have inhabited have changed over time, and how their current distribution in relation to neighboring cultural groups and different administrative boundaries exacerbates their condition as a vulnerable minority. The purpose of this article is to provide a broad overview, drawing from ethnohistorical information, published literature, census data, unpublished reports, and a variety of maps. I also make use of field observa-

tions made along the Río Bocay, a region in north-central Nicaragua that I visited in 1992 on an excursion led by William Davidson. I would like to here acknowledge his assistance navigating a relatively lawless frontier zone to reach the study area—a task that included getting past army checkpoints, as well as contending with former combatants in the aftermath of a violent civil war. I spent three weeks in the field documenting settlement and land-use activities in the Río Bocay region, followed by a week conducting interviews with indigenous leaders, government officials, and representatives of non-governmental conservation organizations in Managua. I returned to the region in 1996, making my way as far as Raití on the upper Río Coco, and over a period of three weeks was able to make observations during community meetings and training sessions held as part of a mapping initiative, and to conduct interviews with villagers, indigenous leaders, and members of non-governmental organizations active in the region.

The story that emerges from this overview is one of a resilient, yet vulnerable minority. The Mayangna, despite experiencing a dramatic contraction of their lands over the last 400 years, have maintained their own language, traditions, and identity. However, their survival as a distinct cultural group is endangered, in large part due to geographic factors. Their population is dispersed and fragmented, and relatively isolated communities continue to merge into neighboring populations. Moreover, they are a minority in every administrative unit in which they are found—including the Bosawás Biosphere Reserve, a large protected area in which the majority of Mayangna communities is found.

Mayangna Ethnogeography on the Eve of Contact

The current distribution of the Mayangna can be traced back to the early 16th century, although our knowledge of their distribution at this time is limited. The Caribbean lowlands and much of the mountainous central highlands of what is now Nicaragua remained largely unexplored, and the tumultuous changes that occurred during the early colonial period through warfare, disease, and miscegenation were left largely unrecorded. Where ethnohistorical information does exist, the spatial patterns of indigenous settlement remain difficult to reconstruct due to the sporadic nature of contact, inconsistent use of a plethora of ethnic terms, and problems associated with many of the geographic terms used (for example, vague references to “*tierra adentro*”) (Conzemius 1938; Newson 1987:33-36; von Houwald 2003:50-51). Sufficient ethnohistorical information was available for Newson (1987:27) to produce a map of the range of the Mayangna population in Nicaragua on the eve of contact, covering over two-thirds of the country, but remains very general.

At this time, there were some 10 closely related but distinct “Sumu” populations in Honduras and Nicaragua including the Tawahka, Panamaka, and Ulwa who survive today, as well as those known as the Bawihka, Kukra, Yusku, Prinzu, Boa, Silam, and Ku who no longer exist (Conzemius 1932:14-15; Herlihy 1995:36). The exact num-

ber of distinct groups, however, is uncertain, as are the relationships between them. However, they almost certainly shared a very similar way of life, living in small, dispersed, riverine settlements within a single, contiguous geographic area, practicing shifting cultivation with heavily reliance on root crops, complemented by dooryard gardening, hunting, fishing, and gathering (Newson 1986:69-74, 1987:64-75). Conflict between them was likely frequent and at times prolonged (Newson 1987:78-79), which would have likely led to shifting distributions over time and physical separation between hostile groups.

Where sufficient ethnohistorical information is lacking, a complementary method of documenting former ethnic distributions consists of mapping toponyms, which are sometimes more resilient to the vagaries of history than the people who produced them. Davidson and Cruz (1988), for example, mapped the limits of Tawahka place-names in Honduras, and West (1998:68) mapped toponyms in Honduras and El Salvador to ascertain the past distribution of the Lenca. A more detailed pattern of former Mayangna settlement in Nicaragua can likewise be mapped, drawing heavily from Incer's (1985:173-259) inventory of Mayangna place-names.² The location of 46 settlements from this list containing the term "was" – meaning "water" or "stream" – were obtained, either during fieldwork or from a variety of existing maps, including 1:250,000 topographic sheets, a 1:500,000 aeronautical chart, a 1:755,000 travel map (ITM 2002), a map of indigenous territories in north central Nicaragua (Stocks 1994), maps in journal articles (Buvollen and Buvollen 1994; Howard 1997; Williamson et al. 1993), or if necessary from a gazetteer (DMA 1985). The toponym distribution – while not entirely representative of past settlement given that toponyms were probably more likely to survive in some areas than in others – reaffirms that the Mayangna were one of the most extensive cultural groups in Central America at the time of contact, ranging from areas north of the Río Coco, southward through most of the central highlands and eastern lowlands of Nicaragua (Figure 1).

Early Contraction of the Mayangna Region

The geographic range of the Mayangna in Nicaragua contracted dramatically during the colonial period beginning with the arrival of the Spanish on the western coast and the establishment of haciendas, missions, and mining towns along an eastward-moving frontier. Gold was being extracted from the mountains of Nueva Segovia in north central Nicaragua as early as the 1520s, with mining settlements as far east as Jalapa and Jícaro by 1600 on what was likely the eastern periphery of Mayangna settlement (Floyd 1967:7; West and Augelli 1989:236). Native communities retreated, and slave raids were launched from the mining towns, extending impacts into neighboring zones (Newson 1987). Mercedarian and later Franciscan missionaries established *reducciones* in the central mountains along the frontier beginning in 1606, two of the more important being Matagalpa and Muy Muy (Floyd

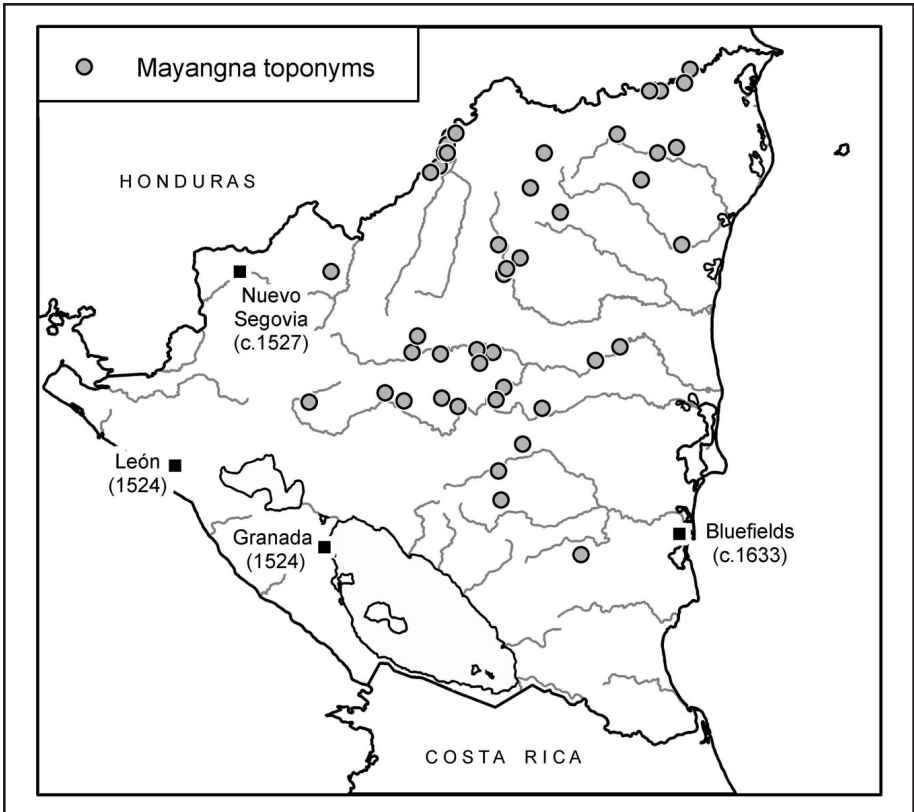


Figure 1. Mayangna toponyms in Nicaragua having "was" as a suffix (42), prefix (3), or infix (1).

1967:7; Helms 1989:424; Newson 1987:168). However, over the long-term, the missions were largely unsuccessful, due to revolts, attacks, desertion, and insufficient military support (Floyd 1967:64-65, 88-99; Newson 1987:168-169). During the colonial period, without further discoveries of valuable minerals or large, dense native populations to exploit, the rugged interior and humid lowlands to the east inhabited by the Mayangna were of little interest to the Spanish administration and remained isolated from western Nicaragua (Helms 1989:413).

On the eastern periphery of their range, the Mayangna were faced with the expansion of the Miskitu, indigenous neighbors who began in the 17th century to trade and intermarry with Africans and British, French, and Dutch buccaneers, planters, and others who arrived on the Caribbean coast (Helms 1983:179-181, 1989:422; Offen 2002:328-329). The Miskitu gained access to firearms and ammunition through a close relationship that developed with the British, and began to monopolize trade and dominate their indigenous neighbors (Conzemius 1932:13-14; Helms 1971:18-22, 1983:181, 1989:423; Newson 1986:42-45; Ni-

etschmann 1973:30-34). The Miskitu became very powerful, undertaking slave raids as far as the Matina Valley of Costa Rica and the Petén of Guatemala during the first half of the 18th century to meet demand for laborers to work on sugar plantations in the West Indies (Cooke 1997:175-176; Helms 1983:181-184, 1989:423). The region inhabited by the Miskitu grew dramatically in tandem with their military strength and population increases hastened through the abduction of women of other indigenous groups (Helms 1983:183, 186; M.W. 1732; Newson 1987:79). Although the impacts of Miskitu expansion on their neighbors are not entirely clear, it appears that Mayangna communities were subjugated or compelled to retreat upriver to inaccessible headwater regions (Bell 1899:3; Nietschmann 1969:93). The Miskitu continued to dominate interior Mayangna communities during the 19th century, forcing them to provide tribute items such as sarsaparilla, canoes, animal skins, and agricultural products (Bell 1899:58; Helms 1971:22; Olien 1988:45-46). Meanwhile, Miskitu settlement continued to expand along the coast and up major rivers, in particular the Río Coco, reaching the mouth of the Río Bocay, over 350 kilometers upriver from the coast, by the end of the 19th century (Sapper 1900:252). The Miskitu population continued to expand during the 20th century as well, as they “readily intermar[r]ied with foreigners... [and] assimilate[d] all races,” whereas among at least some Mayangna groups, marriages with people from other tribes were not permitted (Conzemius 1932:13, 147; Health 1913:50).

The movements of the Tawahka, Panamaka, Ulwa and other “Sumu” groups in response to Miskitu expansion remain only partially understood. Some of what we know comes from ethnographer Eduard Conzemius who conducted field research among the Mayangna and Miskitu from 1917 to 1922. His observations reveal the complexity of changing distributions and changes in the cultural geography of the region caused by warfare, miscegenation, and assimilation. For example, he reports that the Bawihka were living along the Río Bambana, a branch of the Prinzapolka, but only numbered about 150 people, largely due to conflict with Tawahka invaders (Conzemius 1929:64). He also notes how Panamaka intermarried with Tawahka in Karawala near the mouth of the Río Grande de Matagalpa; how the Ulwa moved to new headwater areas of the Río Punta Gorda; and how the Kukra had been displaced from the Río Kurinwas near Pearl Lagoon after an extended, violent conflict with the Miskitu (Conzemius 1929:65-66). He does not provide much information about the timing of these movements or how he obtained his information, but it seems unlikely that they date as far back as the late 17th century when significant disruptions likely began.

More Recent Incursions and Disruptions

The area occupied by the Mayangna was further reduced through the incursions of entrepreneurs beginning in the late-19th century. Loggers, gold miners, and rubber tappers arrived to remote Mayangna lands, causing them in at least some cases to retreat (Nietschmann 1969:93).

The few remaining Kukra speakers who formerly lived along the coast from Río Grande to Bluefields Lagoon, for example, were forced to move to the Río Siquia region when their lands were invaded by rubber tappers, leading them to merge with the Ulwa population there, and eventually disappear as a distinct cultural group (Conzemius 1938:926). In other areas where the Mayangna themselves were involved in collecting tree latex, changes in settlement occurred as new villages were established by families who fled collection zones, and by others who settled in previously unoccupied areas where tapping occurred (Zolano 1995:7)

Mining in the Río Prinzapolka watershed began as early as 1889 when the first gold panners arrived, and eventually led to the establishment of three mining towns in the heart of the Mayangna region – Rosita, Bonanza, and Siuna – resulting in an influx of newcomers, displacement, and pollution of their rivers (Cheng 1993:303; Tolvanen 2003:4-5). Logging activity on a large scale became more important on the Caribbean slope at the end of the 19th century with the exploitation of areas in the Río Coco, Río Grande de Matagalpa, Río Escondido, and Río Prinzapolka basins, and the provision of concessions to foreign lumber companies continues to be an issue of great concern to Mayangna communities (Acosta 1998:37; Avilés 1993:107-108). Agricultural colonization by small farmers began in the first half of the 20th century, but accelerated in the 1950s due in part due to displacement caused by the expansion of cotton plantations and ranching in western Nicaragua, as well as road construction in the mining region and elsewhere (Heckadon-Moreno 1997:206; Howard 1997:131; Kaimowitz and Fauné 2003:30). Wealthy landowners and private companies also displaced Mayangna communities by making use of the legal system to expropriate their lands (Avilés 1993:116). By the late 1960s, large areas of mestizo settlement developed in the mining region, along the route between Juigalpa and Rama, and downriver along the Río Grande de Matagalpa (Nietschmann 1973:16).

One might think that living in the most remote corners of the country would have provided safe refuge for the Mayangna, but this was not the case. In 1979, the Sandinista National Liberation Front guerrilla movement defeated the Somoza dictatorship and took control of Nicaragua. Within a few years, the Contras—an opposing force supported by the United States—became a serious threat to the new socialist government, and a long, bloody conflict ensued. For most of the 1980s, the Mayangna suffered massive disruption. The majority of their communities were abandoned or forcibly evacuated, and their lands became a theater of war. They found it impossible to remain neutral, and suffered abuses at the hands of combatants on both sides of the conflict (AWC 1987; Manuel 1988). The Ulwa, however, located farther south, escaped the worst impacts of the conflict.

The Miskitu played a key role in the war after 1981 when leaders demanding indigenous autonomy were arrested, precipitating the flight of some 2,000 Miskitu across the border to Honduras, many of whom joined Misura, an indigenous rebel force (CIDCA 1984:19, 22-23; Hale

1984:35). Soon after, in late 1981 and early 1982, after experiencing numerous attacks from the north, the Sandinista army forcibly evacuated over 30 Miskitu and Mayangna communities along the Coco and Bocay rivers (AWC 1987:7; CIDCA 1984:29-30; Hale 1984:35). More than half of people living in the region, however, crossed into Honduras where they settled in refugee camps or joined rebel forces (CIDCA 1984:30). To the south, the Mayangna community of Musawás was occupied alternately by both Sandinistas and rebel forces; intimidation, forced conscriptions, and assassinations prompted residents to abandon the village (AWC 1987:89). Most of the roughly 3,000 Mayangna refugees who were in Honduras during the 1980s stayed in camps at Tapalwás, near Mocerón, and Bil Almuk and Wawina on the Río Patuca (Davidson 1984). In Nicaragua, they were moved to new settlements known collectively as Tasba Pri (in the upper Río Kukulaya watershed), and to camps and government farms in the Departments of Jinotega and Matagalpa (Avilés 1993:109; Buvollen and Buvollen 1994:16; Nietschmann 1984:39).

Repatriation of Mayangna and Miskitu from Honduras began as early as 1983, after a general amnesty for all indigenous persons accused of counter-revolutionary activities was declared, but was at first slow due in large part to the dangers of crossing the Río Coco zone and continued distrust of the Sandinistas (AWC 1987; CIDCA 1984:44; Hale 1984:34). Resettlement gained speed, however, as the government began to respond to the demands for greater autonomy within the state, culminating in the 1987 Autonomy Law that recognized indigenous rights to communal lands and created the Region Autónoma del Atlántico Norte (RAAN) and the Region Autónoma del Atlántico Sur (RAAS) (Avilés 1993:116). An estimated 900 to 1,000 Mayangna returned to Nicaragua by 1987, although many were not able to immediately return to their former villages because of ongoing conflict (AWC 1987:15, 39-40). By the late 1980s, full resettlement was underway and was effectively complete when the Río Bocay region was resettled between 1990 and 1992 (Buvollen and Buvollen 1994:6). Interviews that I conducted in this region in 1992 revealed that the patterns of movement during the war were varied. Many fled to Honduras, but most were moved to cooperative farms in the Department of Jinotega and Matagalpa, splitting communities apart. Many later spent time at Tasba Pri only to later cross into Honduras, or stayed in Puerto Cabezas on the coast during much of the war.

For the Mayangna of the Río Bocay region, returning to their traditional lands represented the fulfillment of a long-awaited goal, but involved a difficult transition period. The only markers of their former lives were the surviving fruit trees and palms of dooryard gardens around former house sites. Their orange and coffee orchards were overgrown, their domestic animals had perished, and several people were killed or injured by land mines. Food was scarce until the first crops matured. Young people had lived most of their lives as refugees under very difficult circumstances. One person told me

that without the day-to-day knowledge one acquires growing up at home, he did not feel at all prepared for a traditional Mayangna way of life. The Moravian church had begun to provide some aid soon after families had resettled, supplying seeds, house construction materials, and other goods, but conditions at this time remained precarious.

Although for the most part Mayangna families in Nicaragua returned to former village sites, the war led to some changes in settlement. Some communities were abandoned, new permanent settlements were established, and others changed location (Buvollen and Buvollen 1994:5, 15-16). Villagers in the camps of Arenaloso and Españolina in the mining region, for example, did not return home, perhaps because they were among the few indigenous communities that were granted land titles (Anonymous 1993:3; Williamson et al. 1993:7). El Colombiano, a few kilometers northeast of Bonanza, was established in 1990 as a temporary site for returning refugees, but became a large, permanent village (Avilés 1993:110). Along the Río Bocay, the most significant change was a deliberate effort to create more nucleated settlements at Amaka and Wina to strengthen petitions for public schools and health clinics.

Contemporary Mayangna Ethnogeography

Today, after centuries of disruption, of the 10 or so Sumu "sub-tribes," only the Tawahka, Panamaka, and Ulwa survive, living in about 35 communities (Figure 2). The most populous group, the Panamaka, making up about 70 percent of the total Mayangna population, are found along the Río Bocay and the upper tributaries of the Río Waspuk and Río Bambana, while the Tawahka, making up another 20 percent, are located in the village of Wasakin and other villages that are also found in the Río Bambana watershed (Herlihy 1995:236; Williamson et al. 1993). Additional communities are found in a few isolated communities elsewhere. The Ulwa are concentrated in the village of Karawala, but additional families are found along some of the upper tributaries of the Río Escondido, in areas now heavily settled by mestizos. There is also a significant number of Mayangna—perhaps 5 percent of the total population—in Bonanza, Rosita, Bilwi (Puerto Cabezas), Managua, and other urban centers.

Mayangna settlement consists of both relatively small villages as well as dispersed hamlets of related families most of which are within easy reach of larger communities where public schools are located, and the total number of Mayangna settlements depends in part on how they are defined. The largest community is Musawás—the first Moravian mission settlement among the Mayangna, established in 1921—with a population of over 1,500 (Buvollen and Buvollen 1994:15; von Houwald and Jenkins 1975:65; Williamson et al. 1993:18). The total Mayangna population was estimated at just under 5,000 in the early 1980s, and then in the early 1990s one census placed their population at 10,740 and another at only 7,253 (Buvollen and Buvollen 1994:19; CIDCA 1982; Williamson et al. 1993:19). The national census of 1995 reports the total

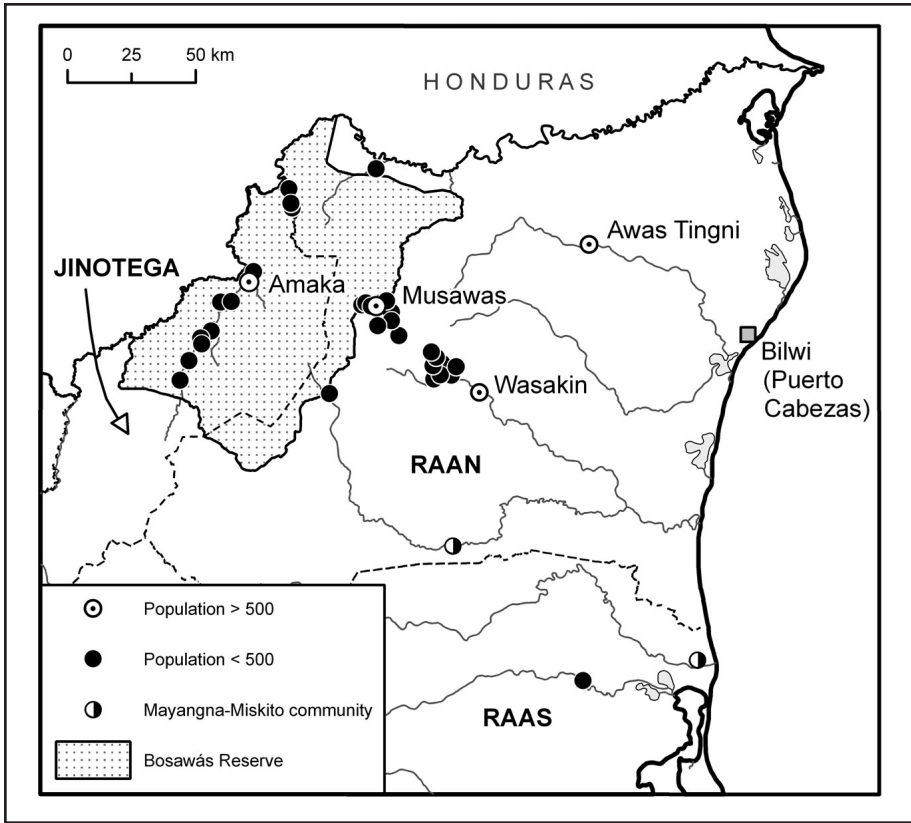


Figure 2. Distribution of Mayangna communities in Nicaragua.

population of “Sumo” speakers five years or older at only 6,226, which with conservative estimates of the number of Mayangna under the age of five and an annual rate of natural increase of 2.5 percent, would bring their population in 2005 to somewhere between 10,000 and 11,000 (INEC 1995:1). Accurate numbers are difficult to ascertain not only because of the difficulties of conducting censuses in areas with poor transportation infrastructure, but also because of the large number of people in eastern Nicaragua with mixed descent, whose cultural identity does not fit into a single category. Moreover, there may be a significant number of people who do not speak Mayangna, but who still identify themselves as Mayangna. Underreporting may also occur in areas where they face discrimination or for other reasons may choose not to reveal their ethnicity.

Whatever the exact total may be, the Mayangna population is relatively small, and fragmented. Transportation between the different zones is difficult, further undermining their ability to form and maintain a strong, united voice to defend their common interests. Nevertheless, the Mayangna established one of the first indigenous federations in Central America, called Sukawala (“Sumu Kalpapakua Wahaini Lani,”

meaning Sumu Brotherhood) in 1974 at a meeting in Bonanza, where representatives from 20 communities discussed shared problems and goals (Sukawala 1989:3). However, with limited funds, and geographically dispersed communities, Sukawala has encountered difficulties representing the entire Mayangna population. Mayangna communities along the Río Bocay were not effectively incorporated into the federation, for example, and there have apparently been instances when more than one set of leaders have claimed to be the legitimate representatives of the Mayangna population. Fortunately, the federation now receives support from non-governmental organizations and donor agencies that have covered the costs of assemblies and other activities.

The problems associated with a fragmented population are compounded by the geography of political and administrative boundaries. About 70 percent of Mayangna live in the RAAN, while roughly 25 percent are found in the Department of Jinotega, with most of the remainder in the RAAS (INEC 1995). Even within the RAAN where they are most populous, the Mayangna account for only 3 percent of the total population, a proportion that will likely decline over time with the continued arrival of mestizo migrants (Buvollen and Buvollen 1994; INEC 1995). Within the RAAS, the Ulwa make up an even smaller percentage of the total population (INEC 1995:64). Even within the smaller municipal units that have representation on the governing councils of the autonomous regions, they are small minorities far removed from the centers of political power. Communities throughout the autonomous regions are concerned about the actions of municipalities, some of which have laid claim to indigenous lands (Acosta 2003:43). Even within the RAAN, the Miskitu are becoming a minority and the political influence of more recent, non-native arrivals is further augmented by their association with the national political parties based outside of the region (INEC 1995:61; Stocks et al. 2000:11).

In addition to a weakened political voice, their fragmented distribution also makes the Mayangna much more vulnerable to the assimilating influences of more populous neighbors. Small zones of Mayangna settlement on the Lakus and Umbra tributaries of the Río Coco, for example, are found in close proximity to much larger Miskitu communities. Already, the Mayangna presence in Pankawas, on the Río Coco above the mouth of the Río Bocay, has disappeared through intermarriage with Miskitu (von Houwald and Jenkins 1975:82). In Karawala, 79 percent of people aged 40 or more years speak Ulwa, compared to only 18 percent of people under 20 years of age (Green 1999:17). Assimilation is also pronounced among the Mayangna in the village of Tungla on the Río Prinzapolka, where the Miskitu make up about 80 percent of the total population (Buvollen and Buvollen 1994:15-16). Here and elsewhere, intermarriage and the dominant use of Miskitu language pose a serious threat not only to their own language, but to their survival as a distinct cultural group.

Conservation and Indigenous Territories

In 1991, within two years of the close of the Sandinista-Contra war, concern about the "disorganized colonization" of the rainforests of north central Nicaragua led to the establishment of one of the most significant protected areas in Central America, the Bosawás Natural Resources Reserve, with an area of roughly 7,450 square kilometers (Republic of Nicaragua 1991). The "reserve" as it was originally defined is home to some 12,000 indigenous residents, roughly half Mayangna and half Miskitu, and numerous additional indigenous communities are located within just a few kilometers of its boundaries (Smith 1995; Stocks, 2003:348). These latter communities are now found within a buffer zone created as part of the enlarged, 22,950 square-kilometer Bosawás Biosphere Reserve ratified by UNESCO in 1997 (Kaimowitz and Fauné 2003:33; MARENA 2001). While Bosawás was established without any consultation with the resident communities, it should be kept in mind that it was done hurriedly by necessity, to preempt pressures to confer mining and logging concessions in the region. Unfortunately, very little government investment followed, and only a limited, ineffectual system of vigilance, enforcement, and education was initiated out of three small offices outside of the reserve (IRENA 1992:2-3). Within four years of its creation, an estimated 1,400 non-native colonists had entered the reserve (Stocks 2003:348). Logging became widespread, and continues to be undertaken largely by mestizo colonists who remove mahogany, tropical cedar, and other species for sale to intermediaries (Avilés 1993:38; Kaimowitz and Fauné 2003:31).

Agricultural colonization is an especially dire problem for the Mayangna living in the western portion of the reserve along the Río Bocay, fueled by the loss of lands that had been expropriated but then given back to former owners after the war; population growth and the associated subdivision of family lands; and perhaps most importantly, the mobilization of tens of thousands of ex-combatants who were promised land in return for putting down their weapons (Buvollen and Buvollen 1994:7; Howard 1997:131; IRENA 1992:3-4). According to local Mayangna informants, the colonization of lands beyond the village of Tunawalán that was underway in the late 1970s was suspended during the war, but resumed immediately afterwards. In 1992, 10 mestizo families were located along the river between Tunawalán and Wisos, and many more were colonizing the headwaters of the Río Wina (Smith 1993:42). At this time Ayapal, less than 10 kilometers from the southern boundary of Bosawás, had been recently targeted as one of four special "poles of attraction" for landless ex-combatants. Within a few years, I saw it transformed from a small settlement with little commercial activity into a bustling town complete with numerous shops and a cattle ranchers association. Ayapal continues to serve as a gateway for further colonization, forcing the Mayangna to retreat or live in zones that are now dominated by mestizos, many of whom have received support from armed groups that have operated with impunity in the

region over which the government has little control (Kaimowitz and Fauné 2003:35-36; Stocks 2003:348). The Ministry of the Environment and Natural Resources (MARENA), the institution responsible for the management of Bosawás, faced with inconsistent government policies and inadequate funding, has not been able to protect the forests of Bosawás, or the rights of the indigenous inhabitants of the reserve.

The establishment of Bosawás has, however, had positive outcomes through the increased attention it has drawn at the international level to rapid deforestation and the plight of the resident indigenous population. Since 1992, several North American and European non-governmental organizations and donor agencies have arrived on the scene to support development and conservation. This task has been challenging due to the lingering insecurity of some areas affected by the war, and efforts have tended to concentrate in areas where conditions have been more secure. The Río Bocay region was a particularly dangerous place until about 1997, vulnerable to armed groups based in neighboring areas to the south and west (Kaimowitz and Fauné 2003:37).

In spite of the dangers of working in Bosawás, the Nature Conservancy (with funding from USAID and in collaboration with MARENA) undertook a major initiative beginning in 1993 (Stocks 2003; Stocks et al. 2000:7). A primary goal of the multi-year project was to help Mayangna and Miskitu communities in the Bosawás region take the steps necessary to gain legal recognition of their traditional territories, something that was thought to be the best strategy for protecting biodiversity (Stocks 2003:348-339). The project also aimed at strengthening local institutions and empowering communities to become equal partners in the conservation of the reserve (Stocks 2003:348). A participatory approach was adopted whereby local investigators became the primary actors in collecting socioeconomic data, documenting oral history, and mapping traditional lands. One of the most significant outcomes of the project was the delimitation and partial demarcation of six indigenous territories.

The participatory mapping done between 1994 and 1999, directed by anthropologist Anthony Stocks, documented lands used by locally recognized, multi-community "sectors," rather than individual villages (Stocks et al. 2000:9-10). This approach, which recognizes the overlapping land-use areas and close kinship and other ties that exist between neighboring communities, was developed in earlier participatory mapping projects with indigenous communities in Honduras and Panama (Herlihy 2003; Herlihy and Leake 1997; MOPAWI and MASTA 1993). The mapping in the Bosawás region, however, unlike the previous initiatives, led to the definition of six discrete, mutually exclusive areas — three Mayangna territories (Mayangna Sauni As, Mayangna Suani Bu, and Mayangna Sikilta); one Miskitu territory (Miskitu Indian Tasbaika Kum); and two mixed, but mainly Miskitu territories (Kipla Sait Tasbaika and Li Lamni Tasbaika Kum).³ While transforming diffuse, dynamic, and overlapping zones of forest use into areas with permanent, fixed boundaries is problematic, it was an important, pragmatic step

necessary to pursue legal recognition of indigenous land claims. Nevertheless, mapping is never a neutral, objective process, and those who can exert power to their advantage will do so. For example, when Mayangna from Aran Dak on the Río Lakus attended a meeting in the Miskitu village of Raiti in 1996 to discuss boundaries, they were obviously intimidated and barely spoke. In the end, an earlier proposal for a much larger Mayangna territory including Aran Dak as well as the Río Bocay zone was reduced, and Mayangna lands in the Río Lakus zone were appended to a predominantly Miskitu territory. In some ways the decision made sense, but highlights the fact that delimiting indigenous territories will rarely if ever be free of difficulties. In the end, however, the final delimitation of territories was approved through a consensus of all territorial leaders (Stocks et al. 2000:14). The six territories have become formally recognized by the Comisión Nacional de Bosawás and the Consejo Regional of the RAAN, but await legal recognition by the central government through presidential decree (Stocks et al. 2000:15).

Discussion and Conclusions

"The Sumu have always felt themselves to be the legitimate owners of the land of their ancestors. They did not think that it was necessary to obtain land titles demanded by the modern bureaucracy. Their vital living space has shrunk steadily through the advance of their neighbors, Spanish or Ladinos on one side and English and Miskitos on the other side. The only form of protecting themselves against these threats would have been to legally mark the limits of their territory. When this necessity was realized, too late, they saw that a large part of their land was already in the hands of mainly foreign mining or logging companies."

- Unpublished Sukawala document dated January 1989.

The contemporary ethnogeography of the Mayangna in Nicaragua clearly reflects the major historical processes that led to steady territorial loss since the time of European contact: an eastward-moving frontier of Spanish settlement; the expansion of the Miskitu from the Caribbean coast; and more recent colonization by miners, loggers, ranchers, and peasant farmers. Their survival attests to the resilience of their culture, although it is true that many distinct Mayangna groups perished. The fate of the Mayangna now depends largely on their ability to assert their territorial rights, which have become inextricably linked with conservation. The majority of Mayangna communities are now located in the Bosawás Biosphere Reserve, and as such any discussion of their future as a distinct people is tied to how this protected area is used and managed.

There are many uncertainties about what Bosawás will mean for the resident indigenous communities over the long term. While the reserve is an important step toward stemming the flow of colonists onto their lands, the indigenous communities have not been given much control

over the administration of the reserve. The state has an important role in the management of Bosawás (for example, in enforcing protection of the reserve from colonization), but the intentions of various government branches remain unclear, and local people still have little real power to resist decisions contrary to their interests. The highest decision-making authority governing the reserve, the Comisión Nacional de Bosawás (that directs the activities of its executing agency, the Secretaría Técnica de Bosawás), is strongly influenced by the interests of stakeholders outside of the original, core area of the reserve. The commission is made up of representatives from MARENA and three other state agencies, another from the RAAN, the six mayors of the municipal seats in the buffer zone of the reserve, and finally, one from each of the six indigenous territories (MARENA 2001; UNESCO 2002). This is perhaps an improvement on the original membership when the commission was established in 1992, when it included only one Mayangna and one Miskitu representative, but remains inadequate—the balance of power remains in the hands of outsiders (Avilés 1993:140). Importantly, the *Ley del Regimen de Propiedad Comunal de los Pueblos Indígenas y Comunidades Etnicas* promulgated in 2003 provides the legal framework for the recognition of communal territories in Nicaragua, but dictates that indigenous lands within protected areas like Bosawás are to be co-managed between local communities and the state (Buss and Cunningham 2003:211-212). The management plan for the reserve, which was elaborated “in a participatory manner” including both local communities and municipal authorities (MARENA 2004), takes into account the extensive subsistence activities of the resident indigenous population, but the ways in which different stakeholders assert their legitimacy, exercise their influence, and interact to shape how it is implemented remains unclear. Outside of the reserve, Mayangna rights to their lands are even more precarious, as indicated by the case of Awás Tingni, where MARENA and the RAAN tried to push forward a logging concession despite a Supreme Court ruling against it (Acosta 1998:41).

The delimitation of the six indigenous territories in the Bosawás reserve has clearly been a positive step toward the survival of the Mayangna over the long term. Although some areas have been subject to mestizo colonization, particularly the southern portions of Mayangna territories of Mayangna Sauni Bu and Mayangna Sauni Bas, the physical demarcation of territorial boundaries, the training of over 100 local forest guards, and recognition of indigenous land rights by the Bosawás Commission and international agencies have helped slow further incursions (Stocks et al., 2000:15-17). Support from entities like the German Technical Cooperation (GTZ) agency, which has made significant commitments to conservation and development in Bosawás since 1994, will also continue to be important.

The ethnogeography of the Mayangna, or any group, can only be fully understood through an examination of the past. Their future will be shaped in large part by struggles over how to manage their lands and by

their ability to voice their concerns within a variety of different political jurisdictions and arenas. While they continue to face their own unique circumstances, their case is typical in many ways. They saw their lands contract dramatically during the conquest and colonial period, and more recently through the steady invasion of their lands by ranchers, mestizo farmers, and entrepreneurs involved in the extraction of natural resources as part of the ongoing integration of remote areas into a global economy. They are also faced with the establishment of a protected area that simultaneously offers the promise of stemming the influx of colonists onto their forested lands, while simultaneously generating fears that the role of outsiders in conservation management will undermine their autonomy and ability to govern their lands according to their own wishes.

Notes

1. I avoid using the term Sumu, a Miskitu designation that came into widespread use after the 1860s (Conzemius 1938:928; Helms 1971:18; Newson 1986:41). The term Sumu, however, is accepted among linguists for the language subfamily consisting of Mayangna – which includes the Tawahka and Panamaka dialects – and Ulwa (Green 1999:10-11; von Houwald 1980). Although it is problematic to use Mayangna as the ethnic label for all of these groups, I do so because it was approved as a common identifier at the general assembly of Panamaka, Tawahka, and Ulwa communities in 1998 (Antonio 1998). The Tawahka living in Honduras, a population of roughly 1,000 people living along the upper Río Patuca, are not discussed in this article. For more information on them see Herlihy 1993 and McSweeney 2000.
2. Incer (1985:160) provides a map of the Mayangna region in Nicaragua based on the distribution of toponyms, but is of a more general nature.
3. A seventh indigenous territory, Mayangna Sauni Arunka, located outside of the core area of Bosawás between the towns of Bonanza and Rosita, was defined later (Buss and Cunningham 2003:209).

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Ethnic Landscapes, Ethnic Ecology: Place Attachment and Ethnic Identity Following a Caribbean Hurricane

Joby Bass

Ethnicity is an ongoing process of identity and definition in relation to other groups. Group identity is often symbolized and maintained by markers or symbols specific to that group. These traits often become “carriers” of ethnic identity. In some cases, as with the Garífuna of Hopkins, Belize, ethnicity can be seen as also linked directly to a specific physical landscape or ecological setting. Consequently, how different groups relate to the environment can be due to the role of the environment in their identity.

In 1961, a Caribbean hurricane named Hattie crossed the barrier reef and crashed into the mainland coast of southern Belize. The high winds, torrential rain, and blowing seawater broke and uprooted trees, flooded farms, and tore apart houses. Many people were driven out into the storm as their hiding places were destroyed around them. Hundreds of Belizeans were killed (Setzekorn 1981). As the winds and rain died down, so too did the panic. Villages looked up to find their surroundings altered in a way that none could have imagined. Few buildings were left intact. Few trees were standing. What did remain was drenched and muddy. Life, uprooted like the hundreds of coconut palms, was no longer taken for granted.

The two villages of Hopkins and Sittee River, in the Stann Creek District of Belize are two of the places that Hurricane Hattie hit. In fact, a great deal of discussion of anything local is placed in a context relative to the storm. “Hattie,” they say, “when Hattie come troo, dey wasn’t nuh-ting leff!”, speaking matter-of-factly, respectfully, and maybe a bit nostalgically about this very personalized and personal event in their lives. To them, “Hattie” is more than a storm. “Hattie” is a thing, an entity, a source of destruction as well as of some sort

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of proud intimacy, like an acquaintanceship with a famous outlaw. Much of local history focuses on the event, the coming of Hattie. She has helped shape the lives of the locals. They don't dare turn their backs on her memory, nor on her potential pseudonymous return.

I began my research in Belize primarily because of the influence of Bill Davidson. I learned about Afro-Creole Caribbean populations from him in class. He introduced me to the Garífuna people; their landscape, culture, and geography. His inspiration led me to the coastal region of southern Belize for my first taste of field research. His scholarship helped me understand the area and people I was living amongst. *Saludos, Dr. D.*

To assess how the landscapes of these two villages were related to the ethnicities of their inhabitants, I visited them in the summer of 1997. Field methods, following archival research in the national capital Belmopan, involved empirical observations and ethnographic interviews. Though, of course, both of these methods are subjective and limited, it did allow me to gain significant insights into who the people in the villages are, how and why they responded as they did to the destruction of Hattie, and how ethnicity might be a part of this. Ultimately, the goal of understanding the relationships between ethnicity and landscape in the villages offers some insights into ethnic identity and the various aspects of its maintenance.

Belizean society is a conglomerate of different ethnic groups, a mosaic, perhaps (Davidson 1987). Belize's multiculturalism distinguishes it from other Central American countries. It is the only country in the area with a dominant African-based population, although immigrant *Mestizos* are now the largest ethnic group. The histories of the various groups in Belize vary. As well, the way that they live in the world varies. Occupations, houses, land use, and even settlement locations all vary between and according to ethnic groups (Morris 1883; Vernon 1964; Waddell 1961). This even applies to reactions to natural disasters such as the destruction of Hurricane Hattie.

Down the Southern Highway

Hopkins is a Garífuna village south of Dangriga in Belize's Stann Creek District (Figure 1). It straddles on a strip of sand between the Caribbean Sea and the expansive marsh behind. Hopkins, in many ways a typical Garífuna village, exhibits the traits that typically define Garífuna habitats in Central America (Davidson 1976). Coconut palms and mango trees shade the strips of houses that face the sea, though the tall coconut palms have recently been killed by lethal yellowing. The dry ground upon which the village rests is mostly open, with low, thick brush and abundant palmettos behind. Beyond this dry and sunny land lies the open marsh. Hopkins' quaint appearance, lying in the open shade of palm trees on the white sandy beach, is to some people the consummate image of the Caribbean village. This perspective is shared by outsiders as well as locals. The village is distinctly a Garífuna village. This Garífuna-ness is in the landscape.

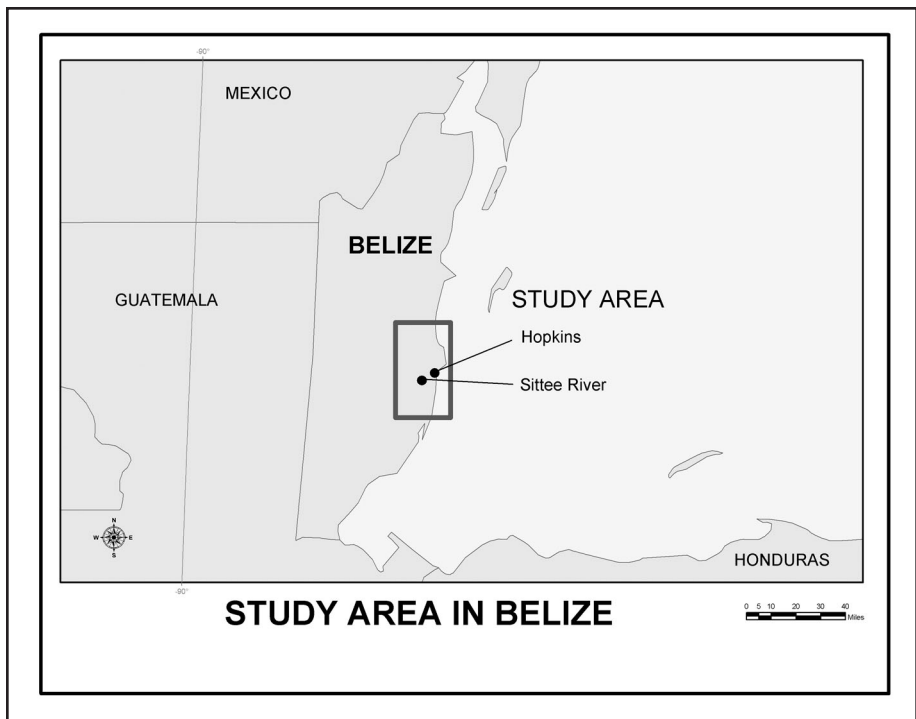


Figure 1. Location of study area in Belize.

As well, the village landscape may help maintain or perpetuate it. This landscape was and continues to be constructed by its inhabitants in a context of being Belizeans while also remaining part of the international ethnic community of the Central American Garífuna.

Three miles south of Hopkins, the village of Sittee River perches on the banks of its namesake, the Sittee River. Located approximately two miles inland from the river mouth, the village sits on the first habitable and arable land coming upriver from the sea. The narrow village faces the river and vegetation is thick. Many varieties of trees, shrubs, and grasses abound. Houses are dispersed and separated by up to 200 or 300 yards of thick, lush vegetation. First impressions suggest that Sittee River is not so much a cohesive village unit, but rather a group of farms along a river. However, it has village organization and is very much a Creole village.

As these two villages recovered from the destruction of Hattie and rebuilt themselves, they did so in different ways (Moberg 1992). Much of this difference seems to have come about because of who the inhabitants are. Their reactions to the destruction are instrumental in representing and recreating who the people are and how ethnic identity can be seen in the landscape. Further, these reactions may also offer insight into how landscape can, at times, be part of ethnicity. Comparing these two villages and their reactions to Hattie's destruction offers insight into the factors that help make and perpetuate ethnic identity. In this

case, as will be seen, the physical, ecological setting appears to be integral to the maintenance and perpetuation of ethnicity among some groups (Figure 2). Indeed, as Edward Relph (1981:57) asserted, "Landscape is the visual context of our lives. It has to matter to us because our social identity, perhaps even our personal identity is bound up with it."

Ethnicity

Ethnicity has conceptually replaced race as a way of seeing and discussing difference among human groups in the western world (Chapman 1993). Themes of ethnicity focus largely on sameness and difference, and their dichotomous relationship. Additionally, the difficulty of defining ethnicity may be one of its redeeming qualities (Royce 1982), as flexible, malleable definitions that approximate what we understand about a concept are much more congruent with human behavior and thus make for a much more acceptable form of comprehension than more rigid perspectives. Ethnicity has many dynamics, all of which must be considered to attempt an understanding applicable to actual people.

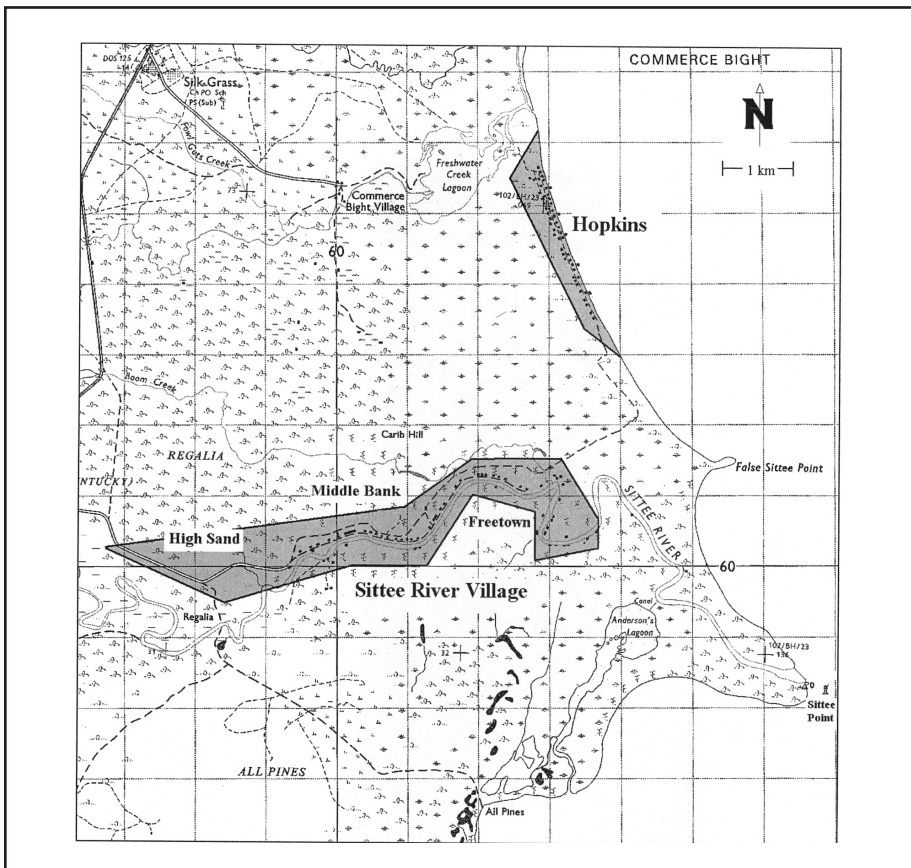


Figure 2. Study area of Hopkins and Sittee River villages, Belize (adapted from Directorate of Overseas Surveys 1973).

Commonality is key to ethnicity (Yinger 1994). The sharing of common traits is important, of importance for the observers as well as the observed, as observable commonality symbolizes and perpetuates inclusion and exclusion. What is being shared is not always agreed upon, nor are the reasons and motivations for this. The important aspect is ascription, both by group members as well as by "others" (Barth 1969). Reminick (1983) offered a list of factors that may be used to define ethnic groups based on work by LeVine and Campbell (1972) and Barth (1969): common heritage, common language, and communication intensity; group boundaries and proximity; status categories; common resource uses; and identification in contrast to other groups.

Of the above-listed factors, identification may be one of the most important, according to Fredrick Barth (1969). For him, difference is the key aspect of ethnicity. Ethnicity is a function of both isolation and interaction, based on the idea of boundaries. Ethnic groups depend on the construction and maintenance of boundaries between themselves and an "other" for existence. Thus, the sharing of a common culture (another problematic concept in itself) may in fact be a result rather than a characteristic of ethnic groupings. For Barth (1969:11), "what is important is the ethnic boundary that defines the group, not the cultural stuff that it encloses." These boundaries, he says, "canalize" social life and behavior. The ethnic features that are important are those that the actors themselves consider to be important and these are subject to change (Barth 1981). Conceptually, this seems reminiscent of the notions of habitus (Bourdieu 1984), structuration (Giddens 1984), and symbolic interactionism (Goffman 1959).

The most defining characteristic of ethnicity, then, may be a common self-perception, a feeling of "we" based on an us-and-them context presented in contrast to other groups whose presence offers continual stimulation and inspiration (Royce 1982). The presentation of this cohesion is mediated by culture: a system of shared symbols, signs, and beliefs that are learned through language and communication and are presented to others in a framework of communication for both behavior and understanding, both on the part of the presenters and the observers. According to Royce, without these distinct, specific, shared symbols and signs a group will likely not survive as a specific, distinct entity (Royce 1982; Reminick 1983). Royce made a case for compromise between the largely morphological/cultural approaches of a more traditional essentialism that preceded Barth and those following that emphasize boundaries that maintain cultural and ethnic difference (Royce 1982).

Echoing Barth, Royce supported his notion that we cannot know an ethnic group by content alone. However, she urged us not to ignore the "cultural stuff" in favor of boundaries and to look at both; content *and* boundaries. Royce argued that the cultural content, however dynamic, within ethnic boundaries is important, not necessarily as a list of traits, but for difference that is reinforced, maybe even created and perpetuated by its presence. The traits or characteristics visually

and symbolically maintain difference, although the traits may – likely will – change over time and space. “The ability of an ethnic group to maintain boundaries, hence survive as a distinct entity, may depend on its ability to marshal an impressive array of symbols” (Royce 1982:7).

Ethnicity is based largely on the existence of an “other.” Different scholars have used different criteria to attempt to define or delineate ethnicity or ethnic groups, but what seems to be the most commonly accepted criterion, as well as most difficult, is self-ascription; ethnicity is self-determined. This fits in well with Barth’s notion that boundaries between groups are actively constructed and maintained and that the differences across these boundaries are results of the boundaries as much as vice versa. To be sure, power and hegemony are involved. Differences may be produced, perpetuated, or exacerbated by the desire to maintain a difference across boundaries between the perceived us-and-them. Here, ethnicity is not a western product although the ethnic categories that we currently observe and reinforce may very well be. Moreover, these categories are often not as rigid as we assume them to be. As Eriksen (1993) pointed out, the individual has many selves and even their ethnic identity can be fluid.

In the context of a common self-perception and shared traits, the Garífuna and Creoles of Belize are different ethnic groups, although both groups share a common African heritage (Gullick 1979). Earlier scholars, due to their study approaches, have labeled the Garífuna, due to their history and cultural undertakings, as culturally more Amerindian than African (Taylor 1951). However, recent work in Belize has illustrated the strong African heritage that also exists among the Garífuna (Berger and Leland, unpublished manuscript; Franzone 1995; Humphreys 1992). In contrast, the Creoles are a larger but less distinctive group whose heritage is generally a mixture of Africans and Europeans with an emphasis on the European due to slave repression (Bolland 1986). With a broader and more diffuse heritage, Creole identity could be as much a function of who they are not as much as who they are, an assumption that is supported by my fieldwork as well as others’ (Young 1978). The Creoles of Sittee River and the Garífuna of Hopkins, then, belong to different ethnic groups. As such, what can we say about the ways that they construct their lived-in-worlds, about the “cultural stuff” on each side of the marsh that has served to keep these two ethnically distinct villages separate?

Villages as Ethnic Places

Sittee River is a Creole village. Hopkins is a Garífuna village. If these two places are to be seen as typical of two different ethnicities in Belize, they need to be similar to other settlements inhabited by their respective groups. Though every place is distinct and unique, between and among groups, these two villages do appear to have developed within the broader cultural, physical, and historical contexts of their respective groups.

Creoles at Sittee River

Belizean Creoles are Belizeans with any African ancestry. The Garífuna constitute the exception to this, though even this line or distinction is becoming somewhat blurred (Palacio 1995). The Creole ethnic group is derived primarily from enslaved Africans imported to the area by British Baymen. The Baymen were occupying contested territory between the Spanish and British empires. As the Baymen stepped ashore and shifted from plundering ships to an "honest day's work" of extracting logwood, they began to import labor. The Mayans who prehistorically inhabited Belize were largely gone. By the mid-18th century, British colonies in the Caribbean had accumulated large populations of enslaved Africans, particularly Barbados and Jamaica. The Baymen imported slaves, mostly from Jamaica and Bermuda, for logging operations (Bolland 1986). These African loggers quickly became the most populous group in the settlement (Camille 1996). Their first mention was in a 1724 account of a Spanish missionary, although some may have arrived earlier (Bolland 1986; Moberg 1992). Though the initial slaves presumably came from the West Indies, later shipments may have come directly from Africa. In 1823, three-fifths of the slaves of Belize were African-born (Bolland 1986).

The word Creole is used differently in different places but generally implies cultural and genetic miscegenation springing from colonial contacts. As Karen Judd's work shows, the word, coming from the Spanish *criollo* to mean "locally born," was originally used in Belize to distinguish between West Indies-born slaves and those born in Africa (Judd 1989). The term was gradually appropriated by free-blacks and coloreds as a form of self-identity as locals or natives. Eventually, the word "creole" came to identify basically anyone in Belize with any amount of African heritage, except for the Garífuna (Medina 1997). The British side of the mix is not forgotten. In fact, it is celebrated by some. As one Creole man in Sittee River told me:

The Caribs are a mix, African and Indian. Creoles are a mix too, but with British. They have a more unique way of life, more African way of living, while we are more to the British way of life, adopted from the British.

Sittee River developed in much the same colonial context as most Belizean Creole settlements (Figure 3). Colonial documents and maps indicate the presence of mahogany in the area in the mid-1800s. Toponyms such as "Boom Creek" also point to timber extraction in the settlement history. The oldest document I have located from Sittee River is a letter dating July 2, 1840, requesting a constable (Archives of Belize 1840). Though particular activities mentioned in the letter were limited to "smuggling" and "disorder," enough activity is implied to assume the presence of a settlement.

Locals in Sittee River typically point upstream to the recently preserved sugar mill of the Serpon Estate to explain their village's begin-

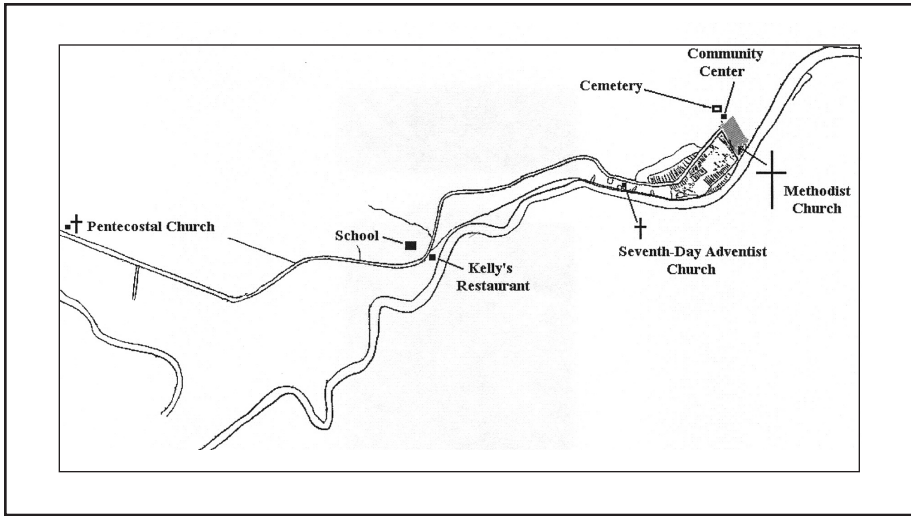


Figure 3. Sittee River Village, Belize.

nings. Sugar was introduced early on to Belize, most likely from Jamaica, and was present in the settlement as early as 1803 (Bolland and Shoman 1977). By the 1860s, the estates of Regalia, Serpon, Kendall, and Kramer were all established on the Sittee River, with Regalia showing 250 acres planted in cane in 1868 (Bolland and Shoman 1977:85). Other crops were grown as well. For example, the Kendall Estate just upstream from the present village produced coffee, cacao, bananas, oranges, mangos, and rubber in addition to sugar (Wright et al. 1959:118). Additionally, Morris noted on a trip up the Sittee River in 1882 that the Serpon and Regalia Estates operated sugar mills, the mill at Serpon having operated from 1863 -1890 (Morris 1883, Archives of Belize n.d.).

Apparently, Sittee River began as one of the many agricultural/extraction ventures established in the Stann Creek District soon after the settlers crossed the Sibun River in search of logging and agricultural sites, bringing groups of African and Creole workers with them (Camille 1996:51). In fact, the village probably began as a settlement hearth for the workers from the various estates along the river. According to one resident:

As far as we can tell, it's [village history] all tied to the sugar mill. See, the people that worked up there were all slaves. Those estates, you know, like Serpon, needed a lot of workers. Now most of us grow citrus, but that's how the place got started.

Garífuna (Black Carib) at Hopkins

The Carib Indians of South America were busy colonizing the islands of the Caribbean when Columbus arrived clad in metal armor and disease. The Caribs, along with the other Amerindians of the Caribbean, were subsequently wiped out in the seeming madness of Spanish colonization. By 1650, nearly all of the Caribs and other West Indians were

dead (West and Augelli 1976). Only small, isolated enclaves survived on the smaller islands in the Lesser Antilles. One of these, St. Vincent, was the site of the development of the Garífuna or Black Caribs, an Afro-Amerindian ethnic group that now lives primarily on the Caribbean coast of Central America, from Belize to Nicaragua (Davidson 1974) (Figure 4).

Some time in the 17th century, Africans arrived on Carib-inhabited St. Vincent. While sources vary, most scholars support the notion of a slave ship crash, likely in 1635 (Gonzalez 1988). The ship apparently sank near the island and the surviving "cargo" took refuge among the Caribs living there. The precise source, or even the number of sources, of Africans on St. Vincent is not certain. Gonzalez (1988) and Franzone (1995) discuss some of the different possibilities that exist. However, by the end of the 17th century, St. Vincent supported a population of Carib Indians with a sizable African element and likely miscegenation (Cosminsky 1976).

In 1797, the British, having reacquired St. Vincent from France in the colonial land shuffling that went on between European powers, finally defeated the Black Caribs in war after years of efforts to subdue and control them and take their land. As a result, 5,000 Caribs were rounded up and placed aboard ships, led by the H.M.S. *Experiment*, and shipped via the islands of Balliceaux and Bequia for Roatan in the Bay Islands of Honduras and British territory at the time (Taylor 1951; Franzone 1995). About half died during the journey. At Roatan, the rebel passengers were disembarked and left with a supply of local foodstuffs from St. Vincent (Kerns 1983). From Roatan, the Garífuna quickly took to the sea and subsequently established a disjunct strip of settlements along the coast from Pearl Lagoon, Nicaragua to Stann Creek (Dangriga), Belize, where the majority of Garífuna in the world are still found today (Davidson 1974).

On the Central American mainland, the Garífuna spread along the coast where they developed settlements in exclusively coastal sites, usually with a fresh water supply nearby (Davidson 1976). They supported themselves with a traditional slash-and-burn subsistence agriculture, based on crops found throughout the Caribbean such as cassava, coconuts, and plantains, and supplemented with fish (Brady 1990). This, along with other traits such as distinctive house types and cassava processing, identify them as culturally Amerindian (Taylor 1951)¹. From Roatan, Garífuna migrated along the Central American coast in search of livelihood. This migration occurred largely in a context of imperial rivalry and conflict (Gonzalez and McCommon 1992).

The first Garífuna arrived in the southern part of Belize in 1802 (Moberg 1992). They arrived just at the time that the settlers of the area began to look to expand their holdings south across the Sibun River (Camille 1996). Although feared at first, these first 150 immigrants proved themselves as a valuable labor force and, as more arrived, their presence was gradually accepted and even encouraged. Thirty years later, a number of Honduran Garífuna participated in a political upheaval against the Central American government of Morazan. When Morazan's forces won, many of the Garífuna, in fear of persecution, left

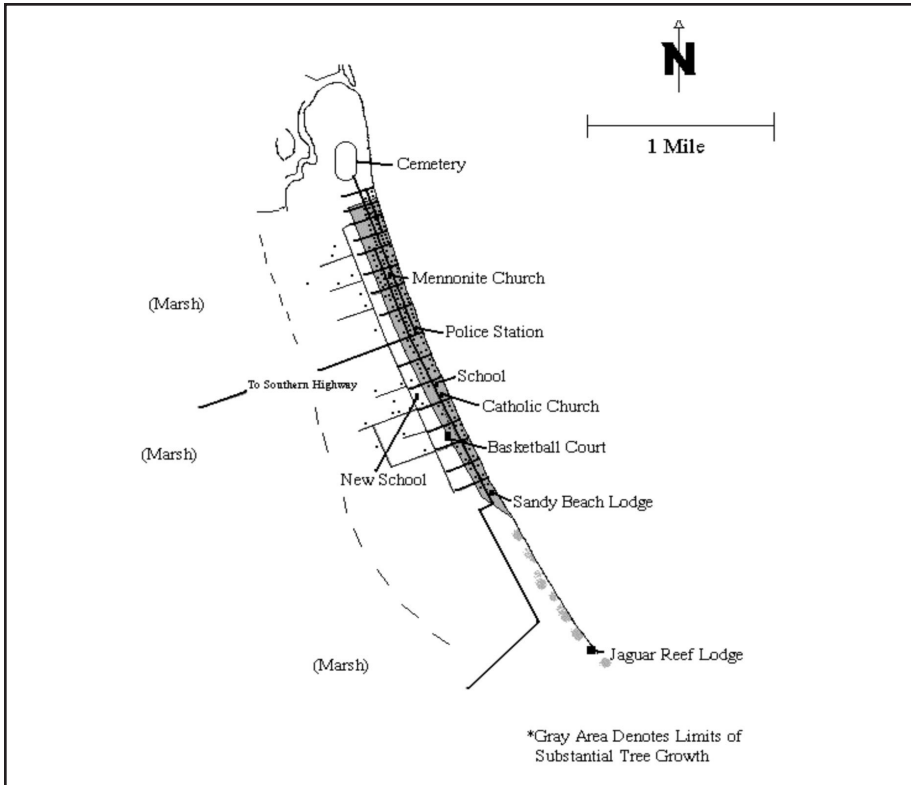


Figure 4. Hopkins, Belize.

Honduras and Guatemala for British Honduras and for the Mosquito Coast, significantly increasing the Belizean population of Garífuna and supplying a much desired labor source (Naylor 1989). This was probably the largest single movement of Garífuna into Belize, but not the last.

In March of 1937, representatives of the Honduran government began to brutalize a number of Garífuna of the north coast, primarily in San Juan (Durúbuguti), punishing their involvement in another oppositional political movement. Many of them were killed (Lopez G. 1994). The Garífuna under attack, mostly powerless against this onslaught, boarded dugout dories and set out across the Bay of Honduras for Belize, then known to them as simply "the colony" (Gonzalez 1979). As the overloaded dories arrived in Belize, many of the refugees settled in Newtown, a Garífuna village a few miles down the coast from Stann Creek Town (now Dangriga). Newtown was said to have been founded in the 1890s by people from Stann Creek. Soon after, in 1941, a hurricane swept through Newtown and destroyed it. The villagers moved down the coast to a new site, a former coconut *walk*, or farm that was abandoned because of storm damage. The colonial government subsequently leased this abandoned strip of beach to the Newtown residents and the

village of Hopkins was founded (Moberg 1992). Signifying their strong Catholic adherence, the Garífuna residents named their new home after a local bishop and leader of the Roman Catholic Church in Belize, F.C. Hopkins, who had drowned near Corozal in 1923 (Caiger 1951).

Sittee River Today

The muddy river slides slowly between its lush green banks. On one side, the north, are many small farms, mostly citrus orchards. A few giant farms spread out a bit farther upstream on what were once “estates” or large agricultural ventures. On the south bank are only a few houses, widely separated by thick bush. Behind them is more bush. The river and the village share the same name.

The Sittee River originates in the Maya Mountains, 30 or so miles inland from the coast and is generally navigable for about 20 miles. On the coastal plain, the river moves slowly through the tropical heat. Two miles upstream from the river mouth the houses start. This is the first place on the river with land suitable for living and farming. Closer to the sea, the land is too wet and marshy. The village is close enough to the river mouth that manatees often swim upstream from the sea to the settlement.

Although inundated periodically—the locals say about every five years—the land from the village to the mountains is good land. This natural levee upon which the village and its farms sit is some of the most fertile soil in all of Belize. On this flat, accessible land is a concentration of farms, and the remnant of a once thriving village set amongst hundreds of acres of citrus orchards. Every household in the village owns land and every household farms, many on some of the same land holdings from grants and surveys of the last century.

A red dirt road follows the river through the length of the village and a green thickness fills the narrow space between the two, with occasional openings. Grass and cane, mango, mamey apple, mali apple, custard apple, akee, breadfruit, and coconut trees, along with the ubiquitous *Cecropia*, crowd the river bank. Some of the sections of land along the river, empty since the hurricane of 1961, are overgrown with grass and weeds thriving in the inviting shade of breadfruit, mango, and coconut trees.

On visiting Sittee River Village, the village seems to appear slowly around you (Figure 5). Approaching the village from either end along the dirt road, an occasional house comes into view, surrounded by a grass lawn and a variety of food-bearing trees, ornamental shrubs, and other greenery. Maybe two or three houses sit together, in a group, usually a family assemblage. Citrus orchards line the road, some of them intercroppings of citrus and other crops, separated by thick secondary forest. An occasional sign advertising one of a few tourist lodges rises from the thick roadside grass.

Creole villages in Belize, considering the overall agricultural and extraction nature of the settlement, are generally along rivers, streams, or lagoons. This pattern is fairly consistent throughout the older settle-

ments that were part of the Belize economy (Wright et al. 1959:118) and is true in Sittee River. As well, local Creoles are still primarily engaged in agriculture.

Walking along the road in High Sand one day, I ran into Matthew, a young man who grew up here. He farms and does construction work and now owns his own land on the south bank of the river. He loves his village and, speaking of its virtues, told me, "This village is good. Here you are not rich but you can walk down the road and, if you are hungry, just pick some fruit. No one cares. In Hopkins, you pick up a mango and they yell, call the police on you." He is proud of the abundant variety of foods that grow in his village—*guava*, citrus, coconuts, breadfruit, jackfruit, akee, supas, bananas, plantains, *mali apples*, *mamey apples*, custard apples, pineapples, cashew, cassava, corn, mangos, and *cacao*, among others. He told me that everyone farms, as they have been doing here for nearly 150 years. Especially with the citrus, which took over in importance after Hattie, everyone in the village works for the harvest.

Since its colonizers first settled the area in the first half of the last century, agriculture has been its focus. It remains so today. The greatest difference is that earlier crops—sugar, coconuts, bananas, and cacao—have given way to an intensive concentration of citrus. As locals and outsiders alike told me, everyone in Sittee River is a farmer. The Mayan and *Mestizo* farmers who sell produce from the backs of their small pickup trucks in towns all over Belize do not visit Sittee River. The village offers these men no customers. In-



Figure 5. Town center, Sittee River.

deed, area residents frequently travel to Sittée River to buy produce.

The village is quiet. Houses are generally older and still of the Anglo-Caribbean clapboard cottage variety (Figure 6). Change is slow. Like many other villages in Belize, Sittée River only recently received running water and electricity. The water is stored in a raised concrete tower that looms over High Sand, the western end of the settlement so named for its relative elevation and soil type. These modern arrivals are serving to change daily life in the village. Water cisterns, though they still snuggle up to houses, are used infrequently if at all. Televisions and radios are a part of everyday life. Electric lights brighten the wooden houses after sunset. Refrigerators, possibly the most important arrival, have changed much surrounding food preparation, the most basic of human undertakings. Locals welcome the amenities.

One young mother told me that her village is nice and even nicer now that they have plumbing and electricity. She told me that nearly every person in the village is connected to the water system and that almost as many have electricity. Those who don't are mostly some of the oldest people. "Those old people, they like their lamps, I guess." She, like so many in the village, told me that although locals have historically moved away over the past generation when they are grown, some appear to be staying now that the village has these two amenities. She seemed hopeful that this trend will continue.

A local man talked to me while he and his two sons shoveled dirt into the foundation frame for the new cement house he was about to build. He told me the same things that others said, that people are fi-



Figure 6. Typical house and landscape, Sittée River.

nally beginning to stay in the village, that tourism is good, and that the electricity and plumbing make life more pleasant. On hot, still nights now, he can switch on his electric fan. The electric lights in his house are better, he says, as well as being actually cheaper to use than the older kerosene lamps. However, he is not completely sold on modernization. He knows about television and worries about some of the information it conveys. "It brings bad stuff with it; crime and such. We just hope that it does not get too bad here. But it will probably change, I think."

Tourism is the great hope for the village, though it offers only a handful of choices to visitors. About half of these are owned by locals. The rest are owned by outsiders, mostly from the United States. The greatest impact that tourism has had on the area is in the form of hope. Most visitors to the area stay on the beach in nearby Hopkins. Of those who do visit Sittee River, most of them are either spending one night before taking the trip out to Glover's Reef for a week-long visit or participating in the edu-tourism offered at a nearby biological research station. Although these visitors do provide income for the village, the impact cannot be great. Tourists were, after all, a rare sight in Sittee.

Many outsiders, mostly North Americans, are seeking and buying land in Sittee. Many of them come to the area intent on buying beachfront property but come to Sittee River after ascertaining the difficulty and expense of buying land in Hopkins. Outsiders indeed own a great deal of the land in Sittee, although most of it is undeveloped. Mr. Allen, who owns one of the two local stores, laments the land selling. However, he asked, why should they not sell it? He says that most of the young people from Sittee have no interest in the land. In fact, most of the young people from the village historically have moved away when they are old enough. Thus, when the old villagers are approached with land requests, why not sell it?

In spite of more outside contacts and encroaching modernization, Sittee River remains a sparsely settled agricultural village. Everyone farms and little else happens. Growth is minimal and slow. If speaking of modernization and development, most locals point towards Hopkins on the coast. Several told me that they routinely go to Hopkins to watch cable television — "I go to see the [Chicago] Bulls [the professional basketball team] because they are my favorite" — or "to drink and dance." Although Sittee River is indeed changing, it is changing slowly.

Hopkins Today

Arriving in Hopkins from the west, you leave the sunny heat of an empty, houseless marsh and enter a crowded strip of houses and small businesses, pushed up against the Caribbean coast. The village lines the beach, facing the virtually constant breeze of the Trade Winds coming off of the sea. Dugout canoes, here called dories, some of them with holes or rotting, lay on the sand in the shade of coconut palms. Fishing nets and plastic jugs fill their wet bottoms. Large fiberglass boats, called launches, as well as the occasional catamaran, also sit on the beach.

Lined along the coast, Hopkins faces the sea from its sandy beach ridge. The village seems to huddle against the sea under its shady protection from the tropical sun. A main road parallels the seacoast through the village with shorter ones crossing it at regular intervals, forming a long, narrow grid. The open marsh backs the village and, until recently, limited consistent transportation into or out of the village to the sea. Across the marsh are farms where local residents grow traditional crops in slash-and-burn plots along with, in increasing amounts, citrus trees.

The Garífuna of Central America typically live on the coast. It is from the sea that they came—both as Carib Indians plying the waters north from the Orinoco and as Africans aboard floating prisons—and from the sea that they have traditionally gained sustenance. Hopkins, with its farms behind the village and Freshwater Creek at its north end, is typical of Garífuna village sites. It sits watching the sea. As they say, “our people need to be by the sea. Most of us would rather die than live to the back” (Moberg 1988:39).

Garífuna settlements generally all exist within a specific local ecology, as outlined by Davidson (1976:90-91). The general pattern is that they are in coastal areas, usually with a stream, lagoon, river, or estuary nearby, near which they practice traditional forms of subsistence. This settlement pattern very likely hearkens back to their ethnic genesis on St. Vincent, where they lived near the coast, fishing and growing subsistence crops. Migrations subsequent to their removal from St. Vincent remained confined to this same coastal ecology. It was familiar and it was home. Hopkins, although one of the youngest Garífuna settlements in Central America, does not stray from this pattern.

Houses in Hopkins crowd the seacoast. The main street, littered along both sides with discarded plastic and bottles, parallels it. An all-weather road enters the village from the marsh. This has changed life there, as travel into and out of the village was previously limited to walking or sailing in dugout canoes. As vehicles and travel become more a part of life in Hopkins, the village seems to be increasingly facing the road instead of the sea. This road is also of considerable cultural and economic importance. Buses now service the village daily, allowing for Hopkins children to attend high school in Dangriga without leaving home. Travel to Belize City and back, once measured in days, is now commonly done in one day. Tourists are also an increasingly common part of the Hopkins landscape, arriving by bus or other vehicle. Vendors, most of them Mestizo or Maya, now visit Hopkins daily to sell produce or other household products.

The houses in Hopkins would have been, just a few decades ago, generally easy to classify. Most were raised palm or clapboard structures, many with cohune palm thatching for roofs. Many still are. As well, detached kitchen sheds still sit nearby leaking smoke from cooking fires. However, other types of houses also line the beach in Hopkins. In particular, flat-roofed cement houses, many built by *Mestizo* immigrants who may or may not speak English or Creole, are increasingly

common. In 1997, half of the houses in Hopkins and nearly all of the ones under construction were cement-block. Likewise, the new houses typically contain indoor plumbing, electricity, butane stoves, and indoor kitchens (Figure 7). Many of the detached kitchen sheds sit in varying states of decay. As well, residents of Hopkins with clapboard houses often go to great expense to stucco over the clapboard, in presumable effort to seem modern, thus successful. This change is illustrative of the modernization of Hopkins and the Garífuna landscape in general.

Some of the new cement houses in Hopkins are enormous by local standards. Several large, new two-story cement houses sit throughout the village. Others were under construction when I visited in 1997. Locals call them retirement houses, pointing out that most have been built by Hopkinsites who live in the U.S. but who plan to return to Hopkins in retirement. These houses, then, point to the role of global-local linkages in the economy and modernization of Hopkins.

In addition to the new and expensive houses, tourists, and increased travel, Hopkins is modernizing in other ways (Figure 8). The village had several stores. Several hotels and tourist lodges operated, many owned by North Americans. One of them, Jaguar Reef Resort, is a high-end resort for wealthy foreigners. Fewer residents farm for a living and many commute daily by bus to other service-related jobs in nearby Dangriga. A new cable television office offered nearly two dozen channels from all over, many from the U.S. Water and electricity have changed domestic life. Where women for-

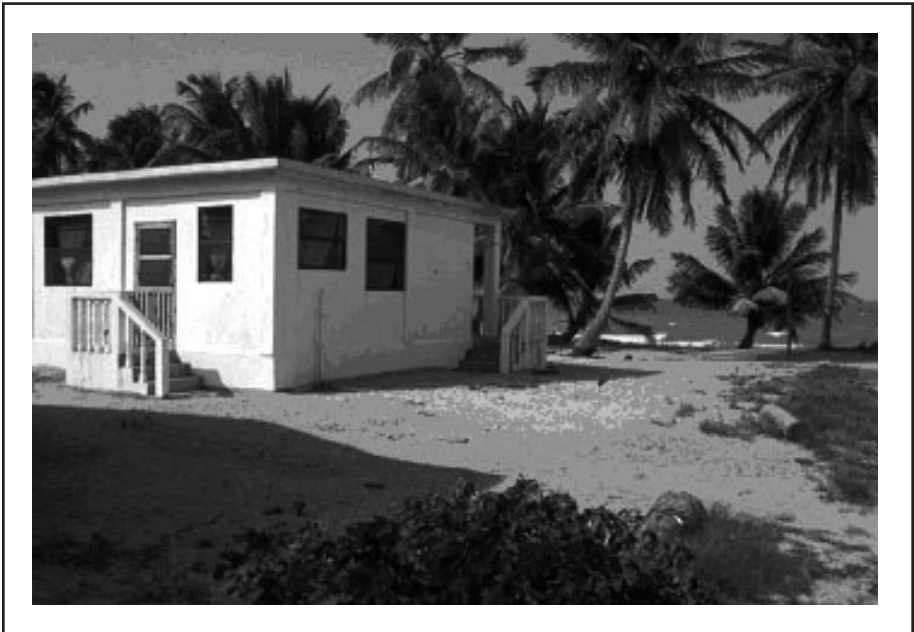


Figure 7. Typical new house in Hopkins.

merly walked south of the village to gather firewood daily, the butane truck now visits several times a week. Hopkins is modernizing.

Precise estimates vary but tens of thousands of Garífuna live in the United States. Many from Hopkins live in the U.S. One of the most important things that these migrants do for Hopkins is to send money back home to family members there. These remittance incomes are an enormous part of the economy in Hopkins and in other Garífuna villages (see Gonzalez 1979:260-261; Kearns 1983:51-53). The local cliché is that "every house in Hopkins has someone in the States sending money." Although not intensely dynamic or self-supporting, this has a remarkable impact on Hopkins. Many have moved from subsistence level agriculture to being relatively wealthy because of these remittances. Indeed, migrants from all over the world, including Belize, send millions of dollars back to their homes from the U.S. Even so, the Garífuna seem to be known for this in Belize, or at least among people in the study area.



Figure 8. Produce vendors visiting Hopkins.

Many Creoles have also ex-patriated to the U.S. from Belize. Though many from Sittee River made the move, one man from Sittee River pointed to Hopkins as he discussed the remittance practice with me.

That is more of a Hopkins thing. We don't do that. I have to give it to the Garífuna, they leave home and go to the States, they don't forget their families. They always are sending money back. We don't do that. I have three children in the States and I almost never hear from them. They don't send money back here.

Hurricane Hattie: Ethnicity and Ecological Place

The landscape of Hopkins is modernizing. The livelihoods of Hopkins are modernizing. The houses, foodways, and habits are modernizing. Comparing this to Sittee River, it becomes apparent that the two places are developing differently or at least to different degrees or at different speeds. At first glance, this may appear to be a simple matter of population. A larger population might support a larger, more dynamic, and more diverse economy. Even so, why are the population sizes different between the two places? Particularly in view of the populations of the two villages before Hattie, this may appear to be important and ethnic. Looking at the population changes after Hattie, we see that the reactions of these villages to the hurricane varied greatly. This appears to have been, in large part at least, a function of ethnicity.

After Hurricane Hattie released her fury on so many villages and homes in southern Belize, the government constructed several refugee villages to house local refugees. These villages were built a few miles inland from the sea for protection from future hurricanes. Just inland from Hopkins on the Southern Highway, Silk Grass Village was built to house refugees from Hopkins, Sittee River Village, and other places. The village was hot and sunny with a seasonal lack of available water. Though only a few miles away, it was extremely unlike Hopkins' beach environment.

The reaction of the Garífuna who relocated to Silk Grass emphasizes the strong affinity that these people have for the specific ecology within which they have always lived. Almost all of them moved back to Hopkins. Now the population of Silk Grass is only about 10 percent Garífuna (Moberg 1992:44). When Hopkins' predecessor, Newtown, was destroyed 20 years before Hattie, much of the land there was washed away. The site was deemed no longer acceptable for habitation so the village was relocated to Hopkins (Figure 9). The land at Hopkins was not similarly damaged during Hattie. Residents returned and the village was rebuilt. In fact, census figures show that in 1970 Hopkins hosted essentially the same population (601) as in 1960 (615), before the storm. Even though the village was destroyed in 1961, it maintained enough appeal to its residents to be rebuilt (Figure 10). They are beach folk. One man, an outsider living in Hopkins, said of the return, "It was their culture, you know, coconuts, cassava, fish." This return and rebuilding was not the case for many of the villages that Hattie destroyed.

In contrast, residents of Sittee River largely left after Hattie. Some did return to the riverbanks to rebuild and replant, but most did not. Some stayed in Silk Grass. Some simply went to Belize City, while a few migrated to the U.S. Part of this reaction may, by comparing it to the reaction of their Garífuna neighbors, also be seen as an ethnic-based response. Being Garífuna is linked with a specific local ecological setting. Being Creole, apparently, is not tied up with any ecological setting as much as it is with being Belizean. Thus, the riverside setting of Sittee River was not important enough to entice villagers to return to the destroyed village. Most left. Census figures show that in 1960



Figure 9. Sittee River abandoned house site.



Figure 10. Hopkins television office.

Sittee River (565) was essentially the same size as Hopkins (615). In 1970, Sittee River does not even appear in the census. Later, it never again equaled the size of its neighbor, Hopkins. In 1991, Hopkins'

population had grown to 810, compared to only 397 in Sittee River (<http://www.cso.gov.bz/statistics.html>). This demographic difference is surely also related to the different levels or degrees of modernization of the two places. It is also evidently related to the ethnicity of the two places. Most Creoles left Sittee River after Hattie. Most Garífuna returned to Hopkins. Hopkins has since eclipsed Sittee River as the dominant village and as the economic and cultural center.

To return to the conceptual aspects of ethnicity, perhaps this case study can help us better understand what ethnicity is and how different groups form and maintain their identity. Different groups use different traits to form their identity, their boundaries, and to maintain these. Place is inherently important to people (Richardson 1989). In this case, what we see is that a specific local ecological setting can be one of the important identifiers for an ethnic group, such as the Garífuna. Likewise, it might not be as important for other groups. Through assessing the relationship of a different group to its specific ecological setting, we see that it is not something that all use in forming and maintaining identity. That different ethnic groups exist is clear. How these different groups define and maintain themselves ethnically is, thus, less clear but no less important. Further, these relationships are important to understand in a rapidly modernizing and changing world in which both ethnic identities and ecological settings are also often rapidly changing.

Notes

1. A note of interest from Coe is the incredibly small number of plants in the Garífuna diet that are indigenous to Central America. Of 51 domesticates used for food by the Garífuna of eastern Nicaragua, only three are local domesticates. However, this may not be too puzzling if we keep in mind the foodstuffs that came to Roatan with the Garífuna from St. Vincent, part of their culture (Coe 1994).

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Neither Black nor Indian: The Discourse of Miskitu Racial Identity in Honduras

Laura Hobson Herlihy

This chapter focuses in on the discourse of “race” along the Honduran Caribbean Coast. Field research in the Río Plátano Biosphere Reserve examines the way indigenous Miskitu people describe their own socioracial identity as “mixed.” Research also demonstrates that Miskitu-speakers reproduce anti-Black and anti-Indian ideologies in everyday discourse. Data is presented on the ethnic terms of reference, stereotypes, and ethnic slurs that Miskitu individuals employ in the Plátano biosphere. Most blatantly, the Plátano Miskitu use “recursive markers,” such as skin color, sexual behaviors, and ancestry, to authenticate and distance themselves from the ethnic antipodes of Blackness and Indianness. The research findings more broadly contribute to cultural studies in the Americas, by documenting how the ethnic tropes of Blackness and Indianness are constructed and discursively performed in a borderland region where Latin American and Afro-Caribbean social identities collide (Wade 1997; Yelvington 2001; 2006).¹

The Miskitu Peoples

The Miskitu peoples (pop. 175,000) are the numerically largest, most expansive indigenous group in the Moskitia region, called La Mosquitia in Honduras and the Atlantic Coast in Nicaragua. The Miskitu speak their own language (a Misumalpan, Macro-Chibchan language) and trace their ancestry to an Amerindian group that intermarried with African and European populations in the 16th century (Helms 1971). Originally located at Cape Gracias A Dios, the Miskitu expanded during the colonial era to their current-day distribution, from Black River, Honduras to just southwest of Bluefields, Nicaragua. Mary Helms (1971) contends that the success of the colonial Miskitu was due to their domestic organization, where women mar-

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ried men of outside ethnic groups and transmitted Miskitu language and culture to children in matrilocal groups. Helms (1971) argues that matrilocal residential patterns were a successful way for women to pass down Miskitu ethnicity to younger generations when men were not of Miskitu ethnicity and when the men were away working.

In the last 200 years, international companies employed Miskitu and other indigenous men as laborers to extract Moskitia resources in a series of "boom and bust" economies (Conzemius 1932; Helms 1971). Similar to Caribbean social practices, Miskitu women and children remained at home while men worked away from their communities as wage-laborers. Companies initially extracted rainforest resources, such as gold, bananas, and mahogany wood, but more recently have turned to offshore extractive resources, such as sea turtles, shrimp, conch, and lobsters (Dennis 2004; Dodds 1998; Nietschmann 1997). The colonial and post-colonial Miskitu practices of ethnic exogamy, matrilocal residence, and the transmission of culture through the female line proved to be successful social adaptations to the coastal economy (Herlihy 2006).

More continuity than disjuncture exists between historic and modern-day Miskitu social and economic organization. Miskitu people in the Río Plátano Biosphere Reserve (northeastern Honduras) continue the practice of ethnic exogamy and matrilocal residence, while men work away from the villages as deepwater divers in the booming lobster economy (Herlihy 2005). Plátano Miskitu women intermarry with indigenous Pech, Spanish-speaking *mestizo*, and Central American English-speaking "Creole" and "Isleño" men that live in mixed communities with the Miskitu or come to the coast seeking employment in the lobster-diving industry.² Just beyond the southern limits of the reserve, the Miskitu inter-marry and live in mixed villages with the indigenous Tawahka Sumu peoples. Many of the groups in the Honduran Moskitia have assimilated to the dominant Miskitu cultural practices and now speak their language.

Ethnohistorians have addressed the mixed and malleable nature of colonial Miskitu social identity (Helms 1977; Olien 1989; Offen 1999, 2002). Helms (1977) believes that the Miskitu switched their identity from Indians to Blacks, and then, back again to Indians in the last 400 years. Despite their historic and modern-day practice of intermarriage, social scientists examining the contemporary Miskitu peoples have failed to address their mixed-race (Black-Indian or Afro-indigenous) identity. Wade (1999:213-214) affirms that the "Black vs. Indian" divide in the literature presents an obstacle for scholars who study mixed groups. He claims that the Black-Indian binary forces researchers to choose between two disparate approaches: studies on Blacks focus on race, racism, and slavery related issues, while those on Indians highlight indigenous peoples within the context of the nation-state. This seems to be the case along the Central American Atlantic Coast, as social scientists have compartmentalized Garífuna (Black Carib) and Miskitu identities, primarily representing the

Garífuna as Blacks in the African diaspora and the Miskitu, as Indians in revolutionary Latin America.³ National and international Black and indigenous movements also have influenced the identity of both groups (England 2006; Hale 1994; Mollett 2006; Pineda 2006).

Especially since the Nicaraguan revolution (1979-1990), researchers have represented the Miskitu as Indians within the *mestizo* nation-state (Diskin 1991; Hale 1994; Nietschmann 1984; Vilas 1989.) Having read so much about the Nicaraguan Miskitu “Indians” before beginning my field research, I was surprised after arriving on the north coast when Miskitu subjects did not physically look like stereotypical Latin American Indians. I also was confused when the Miskitu themselves told me that they did not consider themselves to be Indians. I remember the day I asked Enemecia, a woman from the village of Kuri, if she considered herself to be an “Indian.” Enemecia replied, “Indians? We are not Indians..We are *sambos*, *mestizos*, and *mulatos*, we are all mixed...We are Miskitu because we speak Miskitu.” (Herlihy 2003:3). This article explores Enemecia’s explanation of her identity and contests the representation of the Miskitu peoples as a homogeneous “Indian” group in the social-scientific literature. My conclusions consider possible differences between Honduran and Nicaraguan identities.

A Mixed-Race Honduran Miskitu Identity

Río Plátano Miskitu peoples call themselves “Miskitu” or “Wai-kna” (meaning man or human) in their own language. The majority of locals define the word Miskitu as meaning “mixed.” Other groups refer to the Miskitu by a variety of ethnic terms, some stressing their more Indigenous or African ancestry; for example English-speakers call them, “Miskitu Indians,” stressing their Amerindian ancestry, while Spanish-speakers call them “*zambos*” (“Sambos” in English) emphasizing their Africanized ancestry (see Table 2). When speaking informally in Spanish, all ethnic groups use the word “*zambo*” to refer derogatorily to a Miskitu person. The term *Sambo* is technically defined as the offspring of an Indian and a Negro. Miskitu men and women expressed to me that this term was an oversimplification of their identity. They do not exclusively consider themselves to be a mixture of Blacks and Indians, but a mixture of all past and present-day Atlantic Coast residents, including the British (Herlihy 2003).

Plátano Miskitu people can vary greatly in their physical appearance and skin color. Children commonly are separated into categories at birth based on skin color, “*taya pihni*” (white-skinned), “*taya pauni*” (red-skinned) to “*taya siksa*” (black-skinned). These descriptive categories are used to identify people throughout their lives. Mothers distinguish their children by color and age, such as “*luhpi pauni tara*” (my older red child). Because the Miskitu are such a mixed population, being Miskitu in Honduras reflects cultural and linguistic criteria, most important of which is speaking the Miskitu language (Herlihy 2003).

Ethnic Terms of Reference

Bill Davidson's interest in the ethno-linguistics of Moskitia is partially responsible for this field research. Davidson visited me and my geographer-husband (Peter Herlihy) on our *ersatz* honeymoon in Kuri, a small Miskitu community along the north coast of the Plátano biosphere. Davidson encouraged me to collect the ethnic terms of reference that the groups used to refer to themselves and others in their native languages. One of the terms I collected, "*kumaja*," was a term that the Pech use in their language to refer to the Miskitu. This eventually helped Davidson interpret the ethnonyms in the ethno-historic literature on Moskitia.

Combining interviews and participant observation, I collected and analyzed the broad spectrum of ethnic terms of reference used by the variety of groups locally (Table 1). In the pluri-ethnic reserve, each group has its own set of ethnic terms when speaking their own language. I then collected the ethnic terms that all group use in the reserve when speaking Spanish (Table 2).

The terms in Spanish reveal the socioracial categories to which Miskitu individuals ascribe themselves and others. These terms often imply higher or lower perceived status between groups, vary depending on either polite or derogatory contexts of a conversation, and displays inter-ethnic relations and the reserve. Most significantly, I documented that the Honduran Miskitu (as opposed to the Nicaraguan Miskitu) do not refer to or socioracially classify themselves as "Indians" (in English), "*indios*" (in Spanish), or "*indiyin*" (in Miskitu). In fact, the indigenous Garífuna, Miskitu, Pech, and Tawahka groups perceive and refer to the Ladinos (*mestizos*) as "*indios*" (Indians) when speaking in Spanish. This reveals one of the several compelling cases of identity inversion on the north coast of the RPBR (Herlihy 2002, 2003).

Table 1. Broad spectrum of ethnic labels (Herlihy 2002:148).

	<u>Recipient</u>					
	Miskitu	Pech	Garífuna	Ladino	Creole	Isleño
<u>Referent</u>						
Miskitu	Miskitu	Paya	Karibi	Ispael	Kriol	Musti
Pech	Kumaja	Pech	Karabe	Bula	Tersu	Turucawa
Garífuna	Idudu	Fayana	Garífuna	Muladu	Guio	Wadabu
Ladino	Zambo	Paya	Moreno	Indio	Negro	Caracol
Creole	Miskito	Paya	Carib	Spanish	Creole	English
Isleño	Miskito	Paya	Carib	Spanish	Creole	English

Table 2. Polite and derogatory Spanish terms of reference (Herlihy 2002:149).

High/Polite	Low/Derogatory
Miskitu	Zambo
Pech	Paya
Garífuna	Moreno/Negro
Ladino	Indio
Ingles Negro	Negro
Isleño	Caracol

Performing Blackness

Plátano Miskitu men and women often participate in discussions about physical attractiveness and race. Miskitu men normally describe a beautiful woman as being white, having a straight nose, and light-colored eyes. She may also be fat, have big calves, rounded eyebrows, and have straight or wavy hair. Lighter skin color was a sign of beauty and high social class (see, also Bonner 1999; Rahier 1998; Wright 1995). Ugliness was normally defined as having black skin, a wide nose, dark eyes, and being skinny with kinky hair. Darker skinned people are teased as being “*Karibi*” (Garífuna-like) or “*huba siksa*” (too black). Therefore, the Plátano Miskitu claimed that European traits constitute standards of beauty, whereas African traits represent the reverse.

While the Miskitu, Garífuna, and Creoles all have mixed-African ancestries, the Miskitu perceive the Garífuna as having the most African features: black skin, flat nose, black and frizzy hair; and the Creoles having the second most African features, but also retaining some European features, such as a sharp nose (Table 3).⁴ Miskitu men and women view themselves as having the least African features of the three groups, along with a variety of physical features, including black, red, and white skin and straight and frizzy hair. The Plátano Miskitu are also known for having eyes of all colors, including blue-green, hazel, and brown.

This table of perceived physical characteristics of self and other is from the Plátano Miskitu or emic perspective. It shows that the Plátano Miskitu perceive the Garífuna and Creoles as having more Black physical charac-

Table 3. Miskitu view of physical characteristics.

Ethnic Group	Nose	Hair Color	Skin color	Hair Texture
Miskitu	sharp or flat	black	black, red or white	straight or frizzy
Gringo	sharp	blonde, red, or brown	white	straight
Isleño	sharp	blonde or red	red	frizzy
Pech	sharp or flat	black	red or brown	straight
Tawahka	sharp or flat	black	brown	straight
Garífuna	flat	black	black	afro or frizzy
Ladino	sharp	black	red	straight
Creole	sharp or flat	black	black	frizzy

teristics than they do. From the Miskitu perspective, the perceived level of Blackness, from least to most is: Miskitu, Creole, and Garífuna (Table 4).

When speaking informally in Spanish, the Miskitu, Creoles, and Garífuna use the terms “*Zambo*” (to refer to the Miskitu), “*Negro*” (to refer to the Creoles), and “*Moreno*” (to refer to the Garífuna), calling forth each other’s African ancestries (Table 1).⁵ Although some Plátano Miskitu people are even darker skinned than many Garífuna and Creoles, the Miskitu locals deride the African physical appearance of members of these other groups. Conversely, the Garífuna and Creoles view the Miskitu as being less modernized and educated than they are.

Table 4. Level of Blackness.

Miskitu	→	Creole	→	Garífuna
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The Miskitu and Garífuna, two of the largest indigenous groups in lowland Central America, have settlement patterns that overlap around Black River, or “*La Criba*,” Honduras, with the Garífuna to the north and the Miskitu to the south (Davidson 1976, 1979, 1983; Herlihy 2001). In the colonial era, the Miskitu and Garífuna were pitted against each other throughout their alliances with the English and Spanish respectively. The Miskitu also resented that in the early 20th century, the Garífuna became more valued than the Miskitu in the banana industry (González 1988; Anderson 1997). Conflictive and rival relations still exist between the groups, especially in the northwestern corner of the Plátano biosphere, in Lasa Pulan, where Miskitu and Garífuna community lands overlap and conflicts over land rights have ensued (Mollett 2006). In the village of Kuri, located over 10 kilometers west of Plaplaya, the only Garífuna settlement in the biosphere, interactions between Garífuna and Miskitu individuals are not an everyday event. When Garífuna men or women are in the village, their interactions with the local Miskitu people are shrouded in accusations of witchcraft—both groups fear the other and a mutual distrust is pervasive.

Plátano Miskitu individuals participate in anti-Black discourses by using stereotypes and ethnic slurs. They often comment that Garífuna people “are lazy Blacks who sit around and eat cassava all day” and mock what they call their African “*punta*” dance, unintelligible Garífuna language, and loud way of talking. Miskitu men and women also resent Garífuna people for their greater participation in Spanish-speaking national culture—many school teachers in the region are Garífuna that generally speak and write in Spanish better than the Miskitu. The Plátano Miskitu, then, produce contradictory stereotypes about the Garífuna, claiming that the Garífuna are lazy Blacks and also that they have better jobs and language skills than the Miskitu people.

Laura Lewis (2000) found these same contradictory stereotypes about Blacks produced by the Indian and mestizo populations of Costa Chica (Guerrero), Mexico. Here, she showed the “*morenos*” (Black residents of San Nicolás Tolentino) had a higher socioeconomic status than the nearby Indians, yet the “*morenos*” were called lazy and poor businessmen, while the Indians were thought of as hardworking. Lewis (2000:905) concludes that these stereotypes parallel colonial and national ideologies that “repudiate blackness while idealizing Indianness.” The Miskitu in the Plátano biosphere similarly seem to have adopted colonial and national ideologies regarding Blackness and Indianness, and simultaneously project representations of Blackness on the Garífuna and, in this case, Indianness on themselves (Table 6). Mollett (2006) demonstrates that Miskitu residents in Lasa Pulan strategically mobilized their identity as Indians in an effort to claim lands from the Garífuna. Arguing that the Garífuna are Blacks (and not Indians), the Miskitu claim that the Garífuna are not native residents with ancestral ties to the region like they are.

Blackness and Sexuality

Pursuing the question, “who would you most like to marry and why?” led to Plátano Miskitu women’s opinions of blackness and male sexuality. In general, Miskitu women considered the three groups with African heritage (Blacks) to be the most passionate and, thus, the best lovers. Garífuna, Creole, and Miskitu men were said to be “*nari*” or “*lap-ta*,” these words translate literally to hot and spicy. When Miskitu women from the north coast villages talk about men, they inevitably make jokes and use sexual innuendos. Women even refer to the size of their sex organs, calling them different species of bananas and vegetables. The biggest species of vegetable, “*kaiura*” or *yuca*, refers to the Garífuna. In contrast, the women call the “*razas*” with European and Amerindian descent “*platu*” – one of the smaller species of banana grown locally.

Miskitu women in the RPBR claim that they fear being injured during intercourse with Black men, like the Creole and Garífuna, because of their oversized sex organs. While Plátano Miskitu women did not consider having a big sex organ sexually desirable, they did value a man who was “*lap-ta*” or hot and passionate. Miskitu women, then, found Miskitu men the most sexually desirable because they were “*lap-ta*” but did not have sex organs that were too big.

The song “*Tuktan Mairin Paikira*” (“Young Beautiful Woman”) was performed by two Miskitu men (Eucevio Guevara and Wilinton Suarez) in the north coast village of Kuri (Table 5). The song is narrated from the perspective of a downtrodden Miskitu man. The man is sad because his girlfriend, Karpiana, asked him to be her provider and then abandoned him. He tells the story of how Karpiana traveled to a new village and had sexual relations with various men in order to acquire money and resources that she originally asked him to buy.

Table 5. "Tuktan Mairin Painkira"/Young Beautiful Girl

<p>Tuktan mairin painkira sop kum na briwasi platuki na briwasi krownki nara briwasi tuktan mairin painkira Miskitu boi kum wiki kiamram kangban kan ai swira lukata tuktan mairin painkira Ispael boi kum wiki platka tara kaiki kan platu saura brisi aikbia tutan mairin painkira tisku mapa tawikan Kriol boi kum wiki kiamamra kangban kan ai swira lukata Kriol mita tawiki kaisa bara cuartora cuartora briwa ka tuktan mairin painkira Nikru traus daiki kan Nikru prak daiki kan tuktan mairin sibrikan tuktan mairin sip apia tisku mapa tawikan Nikru maka dusara pabula ba na kangbi kan ai Nikru dan pruna tuktan mairin sip apia tuktan mairin ini kan ai Nikru dan pruna tawa tawa ai taibram Nikru maka ai taibram pabula ba na kangbi kan Nikru dan pruna tawa tawa ai taibram Nikru maka playa ba ark ini kan ay Nikru dan pruna</p>	<p>Young beautiful girl you asked me to bring you to a shop you asked me to bring you plantains you asked me to bring you a crown young beautiful girl then a Miskitu guy arrived and he punished you you tossed away your shame young beautiful girl then a Ladino guy arrived after seeing all of his big money he gives you a little penis young beautiful girl in a little while it turned out a Creole guy arrived he punished you and you threw away your shame the Creole came back let's go to your room when he took you to the room oh beautiful girl the Garífuna took off his pants the Garífuna took off his shirt the young girl was scared the young girl couldn't a little while later it the Garífuna got a big erection like a tree he was touching the top of the mosquito netting oh Garífuna, you're killing me the young girl couldn't take it the young girl was crying oh Garífuna man, you're killing me slowly and forcefully he mounted me the Garífuna man was mounting me he was hitting the top of my mosquito netting you're killing me Garífuna slowly and forcefully he mounted me the Garífuna was already in my uterus the girl was screaming and crying oh Garífuna, I'm dying</p>
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Table 5 (the song text) mentions the sexual reputation of men from four different ethnic groups—"Miskitu," "Ispael" (*Ladino*), "Kriol" (Creole), and "Nikru" or "Karibi" (Garífuna). Content analysis illustrates Miskitu prejudices and racial stereotypes against those with African heritage—the Creole and Garífuna, perceived to be the most Black, are depicted as the most sexually threatening and dangerous. Are Plátano Miskitu individuals trying to distance themselves from their African ancestry by reproducing colonial stereotypes of the dan-

gerous and sexualized Black male? They seemingly have adopted the dominant discourse of colonial and imperialist racist ideologies, similar to other mixed groups along the Central American Caribbean coast (Medina 1997; Torres and Whitten 1998; Sharman 2001).

Performing Indianness

Miskitu men and women in Kuri define "*Indios*" or "Indians" as the historic and modern-day descendents of peoples that lived in the interior and on the Pacific side of the isthmus, like the ancient Aztec, Maya, and Inca. The indigenous groups of Moskitia possess the modernist belief that high cultures of the ancient American civilizations are the real or authentic Indians. Schoolchildren's textbooks have illustrations of Aztecs in native garb, pyramids, and codices to depict ancient Mesoamerican civilizations. In contrast to this, the Miskitu, Pech, and Tawahka see themselves as "*tribus de la selva*" ("tribes of the rain forest") and separate themselves from Mesoamerican and Andean ancient civilizations. Therefore, the Moskitia indigenous groups have co-opted the social scientific concept of high and low cultures.

The most famous "*indio*" in Honduras is *Indio Lempira*, a *Lenca cacique* (a group related to the Maya) who was defeated by the Spanish in a region bordering on Moskitia. Once a year in the Plátano biosphere, the coastal schools have an *Indio Lempira* pageant. Students compete to look the most similar to Lempira and his people. Local Miskitu teachers claimed that the Pech are the most authentic looking Indians because they have straight black hair, sharp noses, and reddish skin. Pech children were frequently chosen to represent each school district. In contrast to the more pure-looking Pech, the Miskitu children were rarely chosen to participate in the pageant. The Miskitu teachers explained to me that Miskitu children were not chosen because of their more Black features.

During the pageant, contestants don feathers, bows and arrows, and tree bark cloth—boys wore loin cloth and girls, fibrous skirts. The winner of the *Indio Lempira* contest was a Pech girl from the village of Las Marias. She sat in a bamboo throne and was carried in like an Indian princess, on the shoulders of young Pech boys dressed like primitive warriors. The indigenous groups in Moskitia appear to have incorporated colonial constructions of "Indianness" and publicly perform the primitive warrior and princess stereotypes.

Río Plátano Miskitu people do find some similarities between themselves and the Tawahka and Pech; they perceive all three groups to have been pure or autochthonous cultures in Moskitia before contact. As the local Miskitu say inclusively of the Pech and Tawahka, "we are all descendants from *tribus de la selva*." Plátano Miskitu people, however, believe that they were more advanced than the Tawahka and Pech during the colonial era, mainly due to their early association with European cultures and economies. Indeed, Miskitu individuals still invoke a bond between "*Meriki*" (Gringo or North American) people and themselves based on the common past—an historic alliance with the

British (Hale 1994). Through their alliance with the British during the colonial era, the Miskitu controlled the other indigenous groups in the region economically, politically, and culturally. They even raided the Pech and Tawahka tribes to capture and sell them as slaves (Conzemius 1932; Helms 1971). Miskitu individuals continue to see themselves as being more advanced than their Tawahka and Pech neighbors, who they stereotype as ignorant, docile, farmers and hunters.⁶

During inter-ethnic interactions, the Plátano Miskitu project images of Indianness on the Tawahka and Pech, while the Tawahka and Pech project images of Blackness on the Miskitu and often derided them for being Blacks, calling them “Zambos” when speaking in Spanish. From the Miskitu perspective, the perceived level of Indianness in the Honduran Moskitia is Miskitu, Tawahka, Pech, from least to most (Table 6).

Table 6. Level of Indianness.
Miskitu → Tawahka → Pech

The Plátano Miskitu view the Pech as being the most backwards indigenous group and claim that the Pech people flee into the “*monte*” to hide when visitors arrive to their villages. The Plátano Miskitu children laughed when they heard the Pech language and music on my audio-cassette tapes. They imitated the nasalized sounds of the Pech language and claimed it was “primitive.” In contrast to the Pech, the Miskitu view the Tawahka as being more similar to themselves—local myths and folklore also claim a common ancestry between the Miskitu and Tawahka. Petroglyphs support this on the middle-Patuca river (Conzemius 1932). Linguists and the Miskitu peoples alike consider the Tawahka language to be related to Miskitu.

The Miskitu appear to reproduce colonial and post-colonial stereotypes and images of the backwards Indian, similar to mainland Latin America (De la Torre 1999; Colloredo-Mansfeld 1998). The Plátano Miskitu identify the levels of education in Moskitia (from most to least) as: *Meriki* (Gringo), *Ladino* (*mestizo*), *Isleño* (Islander), *Kriol* (Creole), *Garífuna*, Miskitu, Tawahka, Pech. From the Miskitu perspective, education and socioeconomic status is associated first with Whiteness, then with Blackness, and least with Indianness. Indians, for example, are undesirable marriage partners for Miskitu women that perceive Indian men as being physically small, poor, and uneducated. Therefore, the Miskitu produce images that distance themselves from the more Indian-like Tawahka and Pech and, in this situation, align themselves with the physically larger and more economically savvy and educated Black groups.

Conclusions

The Plátano Miskitu people define themselves as a culturally and racially mixed group that intermarries with all other populations along the coast. Because of their larger population numbers and overpowering cultural and linguistic practices, Miskitu people absorb indigenous and ethnic others who become Miskitu. Thus, Miskituness is based on an ideology of almost aggressive intermarriage and assimilation of others with predominantly Indian or mixed-African ancestries. As a mixed group living in a pluri-ethnic region, the degree to which the Miskitu see themselves as either Black or Indian is related to the group with whom they are interacting in this multi-racial landscape. The research results demonstrate that Plátano Miskitu are considered more Indian when interacting with the Afro-Caribbean Creole and Garífuna peoples, but more Black when interacting with the indigenous Pech and Tawahka Sumu. Plátano Miskitu identity, then, is highly relational – individuals have the ability to construct “situational identities” (Herlihy 2002).

Disparate colonial systems of identity have intertwined on the Central American Atlantic Coast to create an intricate and hierarchical social landscape (Wade 1997; Yelvington 2001; 2006). The colonial hierarchy in Latin America and the Caribbean placed Europeans at the apex of power not only through the force of domination but through ideology that conflated blood and culture, positing the existence of inferior and superior human stocks: whites held the highest social and economic status, followed by *mestizos* and mulattos, then Blacks and Indians. From the Spaniard’s perspective, the Miskitu were a brutish people, a mixture of the two least prestigious social groups in the colonial legacy of Latin America (Helms 1977; Pineda 2006). Whitten and Corr (1999:225-226) contend that the Spanish perceived the *Sambo* socioracial identity to be imbued with danger, because of the lack of whiteness and the blend of savagery that it mediated.

Despite the fact that the indigenous Miskitu people experience racism at the international and national levels, and are called *zambos* by local Spanish-speakers in the biosphere, they themselves promulgate racist stereotypes, which at times they even project on themselves. It seems self-destructive, at best, for Plátano Miskitu men and women to reinforce the racist ideologies that keeps Blacks, Indians, and mixed groups like themselves at the bottom of the social hierarchy throughout the Americas. Mollett (2006:91) also reported that in Moskitia, “anti-Indian and anti-black ideologies continue to shape social-racial hierarchies” and have permeated subaltern discourses. Charles Hale (1994:202), claims that “resistance to subordination generally involves the assimilation of hegemonic ideas.” Following Hale, the Miskitu performance of anti-Indian and anti-Black ethnic markers may be viewed not only as accommodation but also as a form of resistance to the deep-rooted imprint of colonial, national, and early 20th-century United States racist ideologies that developed along the

Central American Atlantic Coast. More research is needed to understand the contradictory and complex ways that Miskitu discourse may also function to subvert racist ideologies in the borderlands.

The bi-national Miskitu peoples also present an excellent opportunity to study how ethnicity is constructed differently in two different nation-states. Over time, different national and "political identities" (Hale 1997) have developed for Nicaraguan and Honduran Miskitu-speakers. The Nicaraguan Miskitu (pop. 145,000) became internationally-known as "Indian" warriors during the Sandinista revolution and U.S.-backed counter-insurgency: they have politicized their "Indian" identity to confront the state (Nietschmann 1984). This research demonstrates that, in contrast to their Nicaraguan relatives, Honduran Miskitu-speakers do not perceive themselves to be "Indians."⁸ Interestingly, the Honduran Miskitu do refer to the neighboring Nicaraguan Miskitu as Indians; they claim the Nicaraguan Miskitu are more pure, more like their "original" ancestors, while seeing themselves as a mixture of all coastal groups that have assimilated to Miskitu language and cultural practices. The Honduran Miskitu people also claim that the Nicaraguan Miskitu dialect retains more English vocabulary and is more authentic than their own, which has mixed more with Spanish. In this case, Nicaraguan Miskitu people with more Anglo ancestry and linguistic features are considered more Indian than the Honduran Miskitu that have intermarried more with local Black populations and have adopted more Spanish linguistic influences in their dialect.

Newson discusses differences in socioracial identity among Miskitu populations (1986:22). She argues that the Nicaraguan Miskitu became Indians earlier than the Honduran Miskitu, who were thought of as a mixed "Negroid" group up until Central American Independence in 1823:

As a mixed racial group the Zambos-Mosquitos as a whole cannot be classified as Indians any more than mestizos, and this is particularly true for the Honduran sector of the Shore, where the negro influence was strongest. As such, the Zambos-Miskitos are not regarded as Indians at the end of the colonial period.

Karl Offen's (1999, 2002) historical and geographic research provides further details. Offen (2002) contends that the Miskitu peoples were divided into separate ethnic groups during the colonial era: the more pure "Indians" (the Tawira) lived in Nicaragua, while the group that was more mixed with Blacks, known as "Zambos-Miskitos," lived in Honduras, near the Black River. This research article supports Newson's and Offen's ethnohistorical perspective that posits that distinct Miskitu culture groups existed historically by arguing that the present-day Honduran Miskitu continue to comprise a separate culture group distinct from the Nicaraguan Miskitu Indians. As such, this article contests the representation of the Miskitu peoples as a homogeneous "Indian" group in the social scientific literature, and contributes to the emerging mixed-race identity of the Honduran Miskitu people (Herlihy 2002).

Notes

1. Hoetnik (1985) pointed out the challenges that researchers have in examining "New World" identity because many types of peoples were formed after the Africans peopled the Americas: Black African slaves, free Black men trying to escape oppressive Spanish social systems, and Blacks that had lived on plantations, all intermarried with Amerindian peoples and European colonists.
2. Most Honduran Miskitu live within the limits of the RPBR, established to protect the cultural and natural heritage of the region, an internationally designated protected area by the UN-MAB program. However, they are a threatened population in the broader national and international contexts (Gould 1998; Stonich 2001). Today they are losing their lands and resources as the Honduran government implements neo-liberal economic policies and the colonization front pushes further north into their autochthonous homeland. Platano Miskitu men also are exploited as fourth-world laborers in the international lobster economy; they suffer from health problems as lobster divers and are abused by Honduran businessmen with little legal recourse (Dodds 1998).
3. Afro-Anglo-Amerindian "New World" miscegenation created the groups today known as the Miskitu and Garífuna. The Garífuna intermarried with other Blacks and developed more Negroid features, while the Miskitu, who vary more in physical appearance than the Garífuna, intermarried with indigenous peoples, such as the Tawahka and Pech in Honduras (Loveland and Helms 1976). Loveland and Helms (1976:85-86) claim:

In spite of similar origins the Miskitu are usually today viewed as Indians (although the term Zambo, referring to an Indian-Negro admixture, was often applied by Spanish-speakers during the colonial period), while the Black Caribs are frequently considered an Afro-American population. A number of factors are responsible for this contrasting identification, not the least of which is the possibly greater degree of African Admixture in the Black Carib population and the greater retention of African elements in Black Carib folklore, religion, and music.
4. Creoles are mulattos with Afro-European ancestry. Many Platano reserve Creoles hail from the Honduran Bay Islands, especially Roatan. Creoles are called "*Negros de habla Inglesa*" by the national Spanish-speaking Honduran population. However, they refer to themselves as "Creole" in their own language, which is Central American English.
5. Miskitu-speakers refer to the Creole as "*Kriul*" and the Garífuna as "*Karibi*" (Carib) or "*Nikru*" (Black). See Table 1 on page 128.
6. While the Miskitu in the RPBR have adopted the colonial concept of the backwards Indian, they do not use the ethno-linguistic term "*indio*" in Spanish to refer to the Tawahka and Pech (Herlihy 2002).
7. I attended a 1997 conference—"The Cultural Identity of Indigenous People in Central America"—in La Ceiba. Toward the end of the conference, the sponsoring NGOs advised the nearly 25 groups represented to change the name of the conference to "The Cultural Identity of Indigenous People and Blacks in Central America." The more "pure" Indian groups like the Maya and Kuna thought they were changing the conference name to be inclusive of the Miskitu, Creoles (English-speakers of Afro-European ancestry), and Garífuna, all of whom appeared to have more Black physical features than the others. My roommate, a Honduran Miskitu woman, overheard a Maya woman expressing her belief that the Miskitu were a Black group. My Miskitu roommate later told me, "We're not Blacks, we're a Miskitu mix, but if whoever is paying for this conference wants me to be Black, then Black I am." The woman

spent her daily allowance that the conference organizers gave her and returned home, where her family and neighbors would not ever consider her to be Black.

I attended another conference in Bilwi (Puerto Cabezas), Nicaragua. "The Central American Seminar on the Territorial Rights and Legalization of Indigenous Territory" that was held in 1998. Here, Miskitu political leaders from Honduras listened to their Nicaraguan relatives refer to themselves as "Indians" (speaking in Miskitu); the Nicaraguans used the term inclusively when speaking to the group of visitors from Honduras. Annoyed by the term, one Honduran man mumbled, "Why am I an Indian? I'm a Miskitu man." (Herlihy 2002). This reminded me of the day in Kuri when Enemecia made these comments to be about her "Indianness" (p. 131 of this article).

8. The larger population of Nicaraguan Miskitu people also adopted the more indigenous spelling of their name about 20 years ago, when they became participants in Nicaragua's 1979 revolution and then, later, the U.S.-backed Contra War. The Honduran Miskitu, in contrast to this, have spelled their name with Spanish orthography—Miskito or Mosquito—until recently.

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Portrait, Landscape, Mirror: Reflections on Return Fieldwork

Kendra McSweeney

This chapter is a reflection on returning to a research site repeatedly, drawing on the author's field experiences in the Tawahka territory in eastern Honduras. "Return fieldwork" can be both rewarding and challenging. Familiarity with place, language, and local institutions can expedite the research process, and closeness to informants can be personally fulfilling. These same benefits, however, can also complicate research, by raising local peoples' expectations about the potential for assistance, and by demanding a higher level of researcher engagement and responsibility. A more profound challenge is facing up to the implications of the researcher's effective – if unconscious – embodiment of the legacy of all foreign engagement in the research locale. This last idea is explored by relating my experiences using historical photographs in recent research on landscape change in the Tawahka area. The photographs' content reveals a time of "gringo" hegemony in the region; unexpectedly, by returning the photos to the subjects' descendants 70 years later, I served to reproduce, not undercut, that power relationship. The experience also suggests that researchers in native areas take care to reconcile their own perspectives on change with what might be very divergent, if rarely heard, local views.

Recently, a graduate student asked me how long they should stay in the field while conducting research on rural livelihoods in Latin America. I suggested that it was important to stay long enough to ensure reliably close ties with local collaborators, develop a solid knowledge of the area, and, ideally, observe the dynamics of life through every season. Upon reflection, however, I think that the *length of time* in a given research site is arguably less of an issue than the ability to *go back* to a place of research. Indeed, geographers have argued for the importance and rewards of recurrent visits to particular landscapes over long periods. Return visits can yield better understanding of place-shaping processes and offer new perspectives on old problems. As James Parsons (1977:14) found, "it pays to keep going back to an area, a people." Other geographers have found

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the same rewards, but also point out some of the responsibilities and commitments implied by research that involves “many rounds of returning to communities over many years” (Stevens 2001:66).

This chapter is a personal reflection on the issues and insights that arise from repeated visits—what I call “return fieldwork”—to a remote research site in Honduras. The theme seems particularly apt for this tribute volume, for two reasons. First, it was on a field trip led by William V. Davidson that I first visited Honduras, and was exposed to his inspiring brand of fieldwork that prioritized traveling with and talking to everyday Hondurans. Second, Professor Davidson’s career is a testament to the quality of the insights that can be built through repeat visits to the archives and landscapes of Central America. In at least 35 trips to Honduras alone since 1967, his knowledge of that country is unparalleled. Besides his awesome knowledge of the Honduran landscape, there are no doubt many other rewards and challenges that return visits to Honduras have afforded Professor Davidson. I do not attempt to speak to those here. But I can guess at some of them, based on my own considerably more brief and localized experience of returning to a research base in an indigenous Tawahka community on the Patuca River in eastern Honduras (a region Professor Davidson knows well; see, for example, Davidson and Cruz 1995). From June 1994, I lived in this community for 22 months as half of a research team that included a Honduran biologist.¹ I returned in 1998 for five months of dissertation research (alone). Hurricane Mitch devastated the area in late 1998, and in 2001, I studied its recuperation during a three-month post-doctoral research trip (alone). In 2002, I returned again for two and a half months on a new research project (with a graduate student). Now, as I plan future research, I have been weighing the benefits and difficulties of returning again to this place.

Some of the benefits of returning are obvious. These include the immediate familiarity of place, people, and language. Fieldwork advances much more quickly when one does not have to learn a new set of local institutions, key players, transportation modes, and other conditions. There is also tremendous personal gratification in returning to work with old friends, to watch children grow whose birth you witnessed, to be able to bring gifts for a specific person or family. There is also no doubt that by returning to a particular place—especially remote ones—you accord its residents a tremendous respect. I cannot count the number of times that villagers emphasized that they were delighted that I had *come back*. Especially after Hurricane Mitch, people told me that my return contributed to their feeling of not being “forgotten.”

As Parsons (1977) noted, returning also offers tremendous opportunities to look with new eyes on a place. For me, every visit has yielded insights into some whole new aspect of life or landscape that I wonder how I never saw before. This is partly because *I* have changed in the interim—grown older, been influenced by the latest things I have seen or read—and partly because the people and place have experienced

physical, institutional, or other changes—such as Hurricane Mitch, or the ratification of the Tawahka Asangni Biosphere Reserve after a decade-long struggle (Herlihy 1993). For those who study the dynamics of land-use change, repeat visits are therefore an excellent opportunity to sequentially document their dynamics up close. In fact, long-term, sequential insights are often professionally rewarded by the academy, where in-depth longitudinal studies are relatively rare (Kates 1987).

Returning repeatedly to a research site also means returning to face the consequences of prior research. I was disquieted to find, for example, that my dissertation had been quoted extensively in a government publication whose conclusions my Tawahka collaborators denounced. While no researcher can ultimately control who uses his/her work, and for what purpose, the experience made me more careful about with whom I share my research products *first*, and how I can better communicate findings to the Tawahka verbally or visually (English-language reprints are woefully insufficient in this regard!).

Return visits also imply other, more prickly types of responsibility. This is particularly so when working among underprivileged and/or minority communities, where it is virtually impossible not to become involved in their struggles for social or environmental justice. Stan Stevens (2001:72) has described this in terms of “taking a stand with indigenous peoples and becoming involved in supporting them in a way very different from the role of a neutral academic observer.” For me, this has meant responding to requests to help fight a proposed dam project, in writing proposals for development assistance, in working to channel some of the outpouring of Mitch relief funds to the mid-Patuca area, helping to fund medical interventions, and in contributing to the financial support of Tawahka students in Honduran cities. Many geographers do much more (see Stevens 2001; Herlihy and Knapp 2003).

These actions have been personally fulfilling, but they can also considerably complicate the research project. Since raising CDN\$20,000 after Mitch, for example, I have been faced with requests to “send projects” to the Tawahka zone, based on the impression that I can turn on the money tap at any time. For some Tawahka, the fact that I have not done so has resulted in some bitterness. Similarly, the more fluent that I became in the regional *lingua franca* (Miskitu), the more comfortable local people feel in articulating their needs to me—for cigarettes, for cash loans, for help with a government form, to borrow a mirror, for a little sugar, some aspirin, or a sympathetic ear. Though innocuous on their own, these drop-in requests can amount to days in the field that feel lost in a fog of public relations.

Do these frustrations outweigh the tremendous access that local peoples offer into their lives in exchange? Absolutely not! Villagers’ willingness to answer questions, to have me tag along on any extractive trip into the forest, and their invitations to do the honor of cutting an umbilical cord make those minor inconveniences a tiny price to pay for, among other things, the career that the Tawahka’s willingness to work with me has allowed me to build.

What is much more disturbing, however, is what the luxury of being able to contemplate such tradeoffs implies about the deep asymmetry of fieldwork in remote, rural, and fundamentally impoverished places. During my doctoral research, when I was occasionally faced with what I considered excessive financial requests, I would protest that I was a mere student. But residents were always quick with retorts that combined something of the following: If you fly in an airplane to Honduras and live in our world, you have far more money than we could dream of. If it were not so, we would be visiting your country.

Simply put, my presence in their community speaks to my (economic) power; my return visits to my sustained power. After all, I visit voluntarily, and I can always escape the hardships of the place. Further, like it or not, this power is closely associated in local minds with that manifested by the visits of all *gringos*. (Both *gringo* and its Miskitu equivalent, *miriki*, are used in the Mosquitia to denote white, non-Hispanic people, regardless of their national origin or mother tongue. Outsiders' efforts to distinguish themselves as German or Canadian, for example, are usually met with ambivalence.) In effect, I contribute to the legacy of the steady stream of (privileged) outsiders—researchers, non-governmental organization employees, explorers, ecotourists, businesspeople, or missionaries—who have moved through this place for hundreds of years, and will no doubt continue to do so. No matter how much I may feel that my interactions might be qualitatively different from those of other foreigners, as a returning fieldworker I am still an actor in what some would call a fundamentally neocolonial project of exploring, converting, consuming, or researching this place.

Here, I hope to illustrate one way in which these power relations shape the research endeavor, and the ways they can be re-asserted even when the intention is to undermine them. I do so by describing aspects of my most recent return to Tawahka territory in 2002. During this trip, I was chagrined to finally pick up, for the first time, key nuances in the ways that the Tawahka thought about four issues of central importance for understanding their livelihoods and landscapes: cultural identity, the production of knowledge, notions of time, and relations of power. These insights were catalyzed by my experimental use of historical photographs to stimulate Tawahka discussions about changes in land and livelihoods over the preceding 70 years. In this chapter, I describe the approach, the insights that this foray into visual methodology provoked, and how the experience has helped to bring into sharp focus what for me are some of the most pressing, if ambiguous and conflicted, aspects of return fieldwork.

Historical Photographs in Geographic Research

The incorporation of historical, oblique (side-looking) photographs in geographic research is not new (Humbert 2001; Sidaway 2002; Jakle 2004). In Latin America, oblique landscape photographs from the early 20th century have been paired with contemporary

shots in fine-grained assessments of changes in land use and land cover (Works and Hadley 2000; Bass 2004). Others have used old photographs to recreate the travel paths of eminent geographers (Walker and Leib 2002), and to solicit migration narratives (Price 2001). But few geographers appear to have used historical photographs explicitly as a means to access local residents' own perceptions and interpretations of changes in their social and biophysical environment.

This is what I had in mind when I returned to Tawahka territory in 2002 with copies of 13 historical photographs. Most of them were portraits of Tawahka individuals, rather than the landscape shots more commonly used in geographic research. They had been taken in 1933 by Allen Payne, a member of a Smithsonian archaeological expedition to the middle Patuca that was led by the noted archaeologist William Duncan Strong (Strong 1934; see also Cuddy 2000; 2007). I had chosen the images from about 180 that were taken during the team's stay in the mid-Patuca. The images are preserved in the expedition's annotated photo album, which is now housed in the National Anthropological Archives in Maryland.² The existence of these photographs had been brought to my attention in 2000 by anthropologist Thomas Cuddy, then a Smithsonian Research Fellow. Only two images from the Tawahka series had ever been published (Strong 1934); the rest, as far as I knew, were unknown in Honduras.

My plan was to repatriate these long-lost photographs to the descendants of those pictured—an act I vaguely envisioned as “decolonizing.” In the process, I hoped that the Tawahka's own interpretations of both the images and their temporal context might shed some light on their perceptions of how their lives, livelihoods, and environments have changed over the past 70 years. In effect, I wanted to tap into what the anthropologist Gow (1991:3) has termed “history from within.” Although I had previously shared many conversations with Tawahka about the past, it seemed to me that the immediacy and detail of the photographs might awaken deeper and more specific reflections on local perceptions of time and change.

The photographs seemed to hold particular promise in this regard, for several reasons. First, they depicted a time that the historical record suggested to be one of particularly rapid change for indigenous communities in eastern Honduras. For example, the photographs include images of Tawahka individuals, families, and villages some years after their population was apparently brought to its lowest point by a smallpox epidemic (Cuddy 2000), and when the group's extinction appeared to be imminent (Harrower 1925; Conzemius 1932). But against all odds, the group was to survive, culturally, linguistically, and territorially (Davidson and Cruz 1995). The photographs therefore depict not the “last Tawahka,” but a core of survivors that were to eventually keep the Tawahka ethnicity alive by selectively intermarrying with neighboring ethnic groups (McSweeney 2002a). So it is significant that the photographs also depict Nicaraguan Miskito refugees as recent arrivals to

the mid-Patuca. Fleeing the conflicts between Sandino and U.S. Marines along the Río Coco (Brooks 1989), the Miskito were just becoming a significant cultural and territorial presence in the mid-Patuca when Strong's expedition met them.³ It is no coincidence that Tawahka genealogies show this to be a time when family trees increasingly incorporated Nicaraguan Miskito, whose settlements simultaneously circumscribed Tawahka territory from the north. At the same time, the multiple photographs of the Miskito are also a reminder of a particularly overt phase of U.S. intervention in the Mosquitia region, which would foreshadow the *contra*-Sandinista conflict that profoundly disrupted lives along the river 50 years later.

Second, although Strong's expedition notebooks suggest that he held what were probably typically normative and paternalistic views of the people he encountered (i.e., "our first Sumu" [Tawahka]; "a real Indian at last!"; Cuddy 2000:11), the photographs themselves are unusual. For one, many of the pictures are portraits that were shot surprisingly close-up (Figures 1-3), rather than at the mid-range distance preferred by ethnographers of the time (Johnson 1998). The effect is a high degree of intimacy and visual detail that is heightened by the fact that the names of the subjects were recorded, as were detailed notes on their relations to one another. The overall result is an unusually personal and accessible set of photographs. Second, the photographs appear much less staged than might be expected from contemporaneous images of native peoples. Most of the subjects appear to be relaxed; some are smiling. Not that some of the pictures are not *posed*: most of the portraits taken on the beach at Krautara show an identical background, as though individuals were asked, in turn, to briefly step in front of the fixed camera (e.g., Figures 1 and 2). The spontaneous nature of the photographs may reflect the fact that the expedition stopped only briefly in each community, where they "spent some time getting photos, trading...and fooling around" (in Cuddy 2000:10). Even so, these shots appear to be the only visual record of Tawahka individuals in Honduras prior to 1970 (see Adams 1972).

For all of these reasons, I was excited at the thought of returning the photos—or at least copies of them—to the descendants of those pictured. Tawahka families had often asked me for any pictures I might have of recently deceased children, parents, and siblings.⁴ In fact, photographs had always been one of the most tangible products of my research and widely appreciated as gifts. I therefore anticipated that photos of long-gone fathers, grandmothers, and great-grandparents would be particularly appreciated, especially by older folk who were likely to recognize many of the faces. Further, the Tawahka's remarkable internal growth since the 1930s meant that most of the more than 1,300 Tawahka now living along the Río Patuca could claim some blood connection to those in the photographs. In effect, these were photographs of the ancestors of the modern Tawahka communities. Finally, I hoped that the photographs might contribute to the ongoing efforts of Tawahka education students to create a Tawahka-language history of their people.

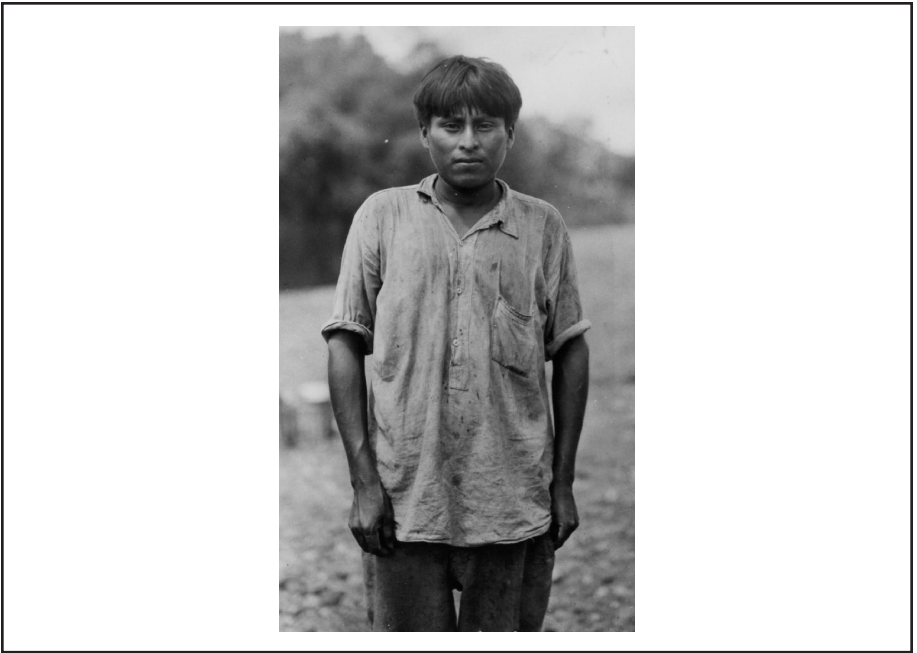


Figure 1. Is this Ramón Sánchez? Krautara beach, Río Patuca, Honduras, 1933. Photograph by Allen Payne (courtesy of the National Anthropological Archives, Smithsonian Institution, negative number 2002-16744).



Figure 2. Francisco Ordoñez and his wife, Victoria. Krautara beach, Río Patuca, Honduras, 1933. Photograph by Allen Payne (courtesy of the National Anthropological Archives, Smithsonian Institution, negative number 2000-8982).

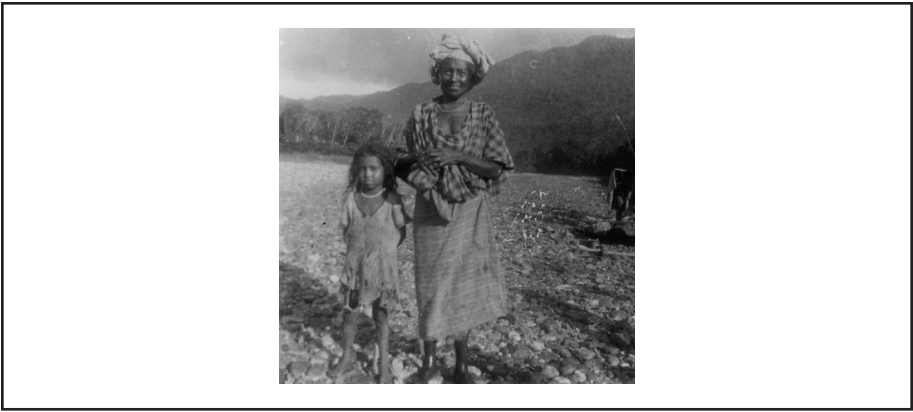


Figure 3. *Unnamed Nicaraguan Miskita refugee and child, on beach at Krautara, Río Patuca, Honduras, 1933. Photograph by Allen Payne (courtesy of the National Anthropological Archives, Smithsonian Institution, negative number 2002-16743).*

At the same time, I hoped that the photographs would advance my own research in specific ways. For example, the research grant that had allow me to pay for the photographs' reproduction (\$25 each) proposed to explore links between the Tawahka's demographic growth and land-use change in the region. In previous research into Tawahka demography, I had paid little attention to how the Tawahka themselves perceived their own population history, particularly regarding the increasingly inter-ethnic nature of Tawahka marriages. So I looked forward to using the photos to explore categories of identity used by local peoples themselves.⁵ I was particularly curious about whether the complex interplay of interethnic mixing, ethnocultural persistence, and inter-ethnic contests over land that I perceived to be important would echo in local peoples' own interpretations of the images of their forbearers.

Little did I realize how much the photographs would reveal, although in ways quite different from what I had anticipated.

Tawahka Interpretations of the Strong Expedition Photographs

In six weeks along the Patuca, I eventually showed the photographs in both impromptu and scheduled meetings with individuals, families and elders, and in random gatherings in the Tawahka's five communities. The photographs were spread out on porches, under trees, at the local church and school, and viewed by daylight, candlelight, and flashlight. Some observers—especially those with little formal education—required several moments to get a photo right-side-up. I estimate that I was present when some 200 people first saw the photos. In each community, a complete set of the 13 images was left with a community-designate, and individual photos with closest relatives of those pic-

tured. (Ironically, I took no photographs of these meetings because my own camera succumbed to humidity after less than a week in the field.)

During each meeting, I briefly explained that the photographs had been taken by a visiting *gringo* 70 years before, who then brought the pictures home. When he died, his effects had been left to an institution (which I described as a cross between a museum and a library) in Washington, D.C. I said that copies of the photographs were now available at the archive to anyone who wished to pay for them. I then listened, and sometimes videotaped or tape-recorded, as the photographs were interpreted and discussed. Depending where we were, conversation comprised a mixture of either Tawahka and Spanish, or Tawahka and Miskito. Occasionally I'd be asked to clarify something about the photographs: Was anyone pictured still alive? Were there more? Who was "selling" them? Because the obvious newness of the paper on which the images were copied led to some confusion about the actual age of the photographs, I often had to clarify the issue of their provenance, upkeep, and reproduction.

Not surprisingly, the images provoked considerable discussion. Older people were pleased to see that the photos confirmed what they remembered of how clothing had been worn by their grandparents. Many people considered the loincloths worn by children in the photos to be hilarious. Although today Tawahka women are embarrassed to be seen topless, the bare-breasted women in the photos were only remarked upon as offering evidence of the "styles" of that time. For many, looking at the portraits was obviously moving. One young man remarked, "it's like they're alive, and I'm looking at them." One woman cried silently at the sight of her long-dead father. The patriarch of one family, whose parents were depicted in one photo (Figure 2), said: "My mother, my father, they died a long time ago. And now I have them again."

Some responses to the photographs also suggested that viewers perceived some qualitative changes in their lives since the photographs had been taken. There were several comments about the previous abundance of fish and game compared with their paucity today. These comments were primarily stimulated by the picture of a member of the Strong expedition near the Tawahka village of Yapuwah holding up a recently caught freshwater shark—a species that has not been seen in the river since the 1970s. On the other hand, several women were quick to remark on how "dirty" people looked in the photographs; and how "sad" life appeared. "How much has changed in 70 years!" said a Tawahka nurse. One man specifically asked that I not show the photos elsewhere, particularly not in Miskito villages downriver. He was worried that the images might confirm old prejudices about the Tawahka as "bad people, dirty *Sumitos*..." (a derogatory term for the Tawahka used primarily by the Miskito).

Discussion also spontaneously turned to particular issues that I had been interested in, but in unexpected ways.

Cultural Identity

I was surprised at how repeatedly comments about the photographic subjects' skin tones cropped up, and how discussion shed light on the ongoing affirmation of Tawahka identity. One portrait was frequently, and approvingly, said to represent a "*puir*" (pure) Tawahka. I had never remarked the use of this term before, which appeared to acknowledge the high degree of inter-ethnic mixing that had apparently diluted these "*puir*" features in generations since. But even as this was acknowledged, the importance of ethnic purity was as quickly refuted by comments asserting that culture is "carried" by people, it is not inherited. One man stated categorically: "To have the culture, that is worth the most; blood isn't worth anything."⁶ I had never heard such a clear distinction made between genetic and cultural ascription, and it struck me as one that has been probably been central to the Tawahka's linguistic and cultural persistence against tremendous assimilative odds.

Knowledge

I was disappointed by the relatively few comments that identified specific ways in which people thought life and landscape had changed since the 1930s. As people talked about the photos, however, I was reminded that in both Miskitu and Tawahka, "to see" and "to know" are the same word. This linguistic flag marks the degree to which, as in many native cultures, knowledge is considered to be derived primarily from first-hand experience (Gow 1991:168). Thus, if one has not experienced a particular time, it is impossible to truly know it, nor, by extension, to have an opinion about it. As a result, most of the people who looked at the photographs were reluctant to assess how life must have been in the past. As I was frequently told, "*Como yo no miraba ese tiempo, no puedo decir...*" [Since I didn't see that time, I can't say...]. Instead, they suggested I talk to the one woman whose life *did* span both periods: a Tawahka matriarch known to be well over 80. When the opportunity finally arose to show Doña Rufina the pictures, however, she only squinted at them with failing eyes and declared: "Can't see a damn thing."

Notions of Time

Another factor that hindered any clearer articulation of the differences between "then" and "now" was that such comparisons imply a linear and unidirectional view of time. As I heard people talking about the photos, it became clear that a simple timeline did not order most people's thoughts about the past. Thus, places and people that the Strong expedition had photographed within a week of each other were not necessarily accepted as contemporaneous. For example, there appeared to be a common conviction that the village labeled as "Pitabila" belonged to a more distant time than did the remembered faces in the other photographs. That is, no one questioned the photograph's representational authority (i.e., that the picture showed Pitabila), but they summarily rejected its implicit temporal claim. Further, Pitabila was said to belong to a "bad" time in which

the people in the portraits were not considered to be a part. Interestingly, the hex experienced by that particular village was said to be of the sort currently visited upon Krausirpi (in which a relatively high number of people had died since Hurricane Mitch). The photograph of Pitabila, then, became a referent through which to understand modern goings-on. The photograph therefore suggested a much more complex and cyclical view of time than the simple one that shaped my research questions.

Power Relations

As much as the photographs' *content* shed new light on how Tawahka perceive identity, knowledge, and time, the most disquieting insight for me arose from discussions of the photographs' *provenance*.

One memorable exchange was sparked by the portrait reproduced in Figure 1. Strong and the photographer had written in their notes that the picture represented a young man in his early twenties named Ramón Sancis [or Sánchez]. Soon after I arrived in a Tawahka village in which many residents have the surname Sánchez, a group assembled to look at the old photographs. No one, however, recognized the face, so after a while I offered the name. After some consultation, they called over an older woman, probably about 45 or 50, who had been otherwise uninterested in all the fanfare. They told her that this was a picture of her father. She looked at it for a while, and then declared:

"That's not my father. My father had a beard."

People urged her to look again: the camera might have been at a strange angle; here, he is younger than when you knew him...⁷

But she would not budge: *"No creo [I don't believe it]."*

At this point, I interjected, and suggested that perhaps Strong had gotten it wrong: perhaps there had been some confusion, and that this was *not* a picture of Ramón Sánchez. At this point that the discussion took a revealing turn.

Impossible, they said. *Gringos* are smart, and they write things down properly. There was no mistake. Hadn't the man who took these pictures been clever enough to see that they continued to be sold, even after his death? Thus ensued a lively discussion about how *gringos* held on to other peoples' photos, and took care of them. We Tawahka would have let them rot long ago—and then how would we have known what our ancestors looked like? One woman summed it up: *"Los gringos mandan [gringos are in charge]."* I demurred. She persisted:

If it wasn't for gringos, Honduras would have nothing... the money for this Reserve, it's sent by foreigners [de afuera]. It's a political thing of the gringos, this reserve. You guys bought it. If it were [really] ours, we'd all have a paper [title]. Where are the papers? ... [She names her husband] was vice-president of FITH [the Tawahka federation]. They said everything clearly [to FITH]: the money comes from the U.S. This land belongs to the gringos! As long as it is like this, there are no papers, we will live like we live now [i.e., poor].

I had never heard—or rather, listened for—such an interpretation of land ownership in the region, or of the Tawahka Asangni Biosphere Reserve. In subsequent discussions of the photographs, I therefore paid closer attention to this train of thought. As long as the discussion was in Miskitu or Tawahka, I heard several echoes of this sentiment regarding exogenous control over Tawahka lands. For example, I heard mention that the management rules for the reserve (which were generally understood to involve prohibiting the sale of forest goods, and in rendering some areas off-limits to extraction) were designed so that *gringos* could come and enjoy the environment, even if it meant keeping the Tawahka poor.

I did not get the impression, however, that these ideas constituted most peoples' *primary* reaction to the photographs, nor that these ideas encompass *all* understandings of the reserve's management. But I did get the distinct feeling that this was not an uncommon view stirred up by the photographs, and that for many it constituted a reasonable assessment of their ongoing experiences of foreigners' interests in the region.

Historical Photographs as Mirrors, not Windows: Reflections on Return Fieldwork

Several years have now passed since the photographs were first “returned” to the Tawahka. I don't know if the images still represent mementos of *gringo* power; it does appear, however, that the photos may soon appear in a history of the Tawahka people co-authored by several Tawahka bilingual education students. I also know that the experience has come to represent several lessons for me about the challenges and implications of return fieldwork.

For one, it has made me think much more deeply about the persistence of foreign influence over Tawahka lands that I embody, consciously or not, with every return visit. After all, the photographs that I had naïvely thought I could “give back” ultimately served to reinforce the impression that all documents of value to Tawahka lives are out there somewhere in *gringo* hands. In essence, the photographs did not act alone as passive windows into the past (as I thought they would). Instead, they acted in concert with me and with Strong to align us in expressing *gringo* control over Tawahka pasts and futures. This was a troubling—if perhaps not surprising—realization to me.⁸ I had previously been well aware of the asymmetry in my own research relationships with residents of the mid-Patuca, but I had never felt it to be so conjoined with that of the other outsiders who preceded and follow me into this area.

I do not think, however, that the answer is to never return. Instead, I am looking forward to finding time to contribute more directly to the Tawahka's self-defined search for a more equitable relationship with outsiders. What form this might take is still unclear. It might incorporate more research exchanges between Tawahka and *gringo* students. Or perhaps a sustained program in which Tawahka youth can be trained in visual media in order to not just record the visual aspects of life that they consider important, but to store that information and control its distribution as well.

Second, the experience has somewhat undermined my confidence in interpreting the changes that return fieldwork allows me to see. Previously, the longitudinal nature of my research lent conviction to my assertions about the dynamics and drivers of what seemed to me to be the most urgent and proximate types of changes occurring in the Tawahka landscape: emerging land scarcity, an encroaching deforestation frontier, rising local populations. But the priorities and schedules within which I and other researchers have discursively framed and explained these events may be seriously out of sync with local perceptions and explanations of change. For one, discussions arising from the photographs suggest to me that my linear sequencing of specific events, and the priority I place on certain ones, may only partially reflect the temporal order and relative importance with which local people experience and prioritize changes in their lives and landscapes (McSweeney 2002b). These mismatches in temporal perceptions are far from trivial. Most “collaborative” conservation and development initiatives are premised on the unexamined assumption that all stakeholders hold a common way of thinking about the nature and pace of landscape changes such as forest conversion. Yet a common understanding should *not* be assumed. Geographers, whose interests in landscape *change* put *time* (as much as space) front-and-center in their work, must therefore be particularly prepared to listen for – and, through discussion, reconcile – differences in local and outsider narratives about history, chronology, and change. Without such attempts, local people are unlikely to comply with management edicts that rest on assumptions they do not hold.

Finally, the unexpected responses I received to the return of the photographs reminded me of just how restricted were the knowledges that I held about the people and places of mid-Patuca. After all, I had completely failed to anticipate what this particular research method would do, and what it would reveal. I would probably have been less surprised, however, had I read, prior to departure, more of the literature in visual anthropology (e.g., Banks and Morphy 1997) and in critical visual methodologies (e.g., Rose 2001), or had been trained to be more explicitly attentive to the politics of fieldwork (Sundberg 2003). But even so, the ultimate lesson for me is that return fieldwork, especially when it involves testing new methods, will always hold the promise of new insights, and, by extension, new questions. As a result, it also offers a particular type of intellectual challenge: the need to constantly reassess one’s prior convictions and assumptions about a place and the processes that shape it.

For all of these reasons, it would be *easier*, in some ways, to begin fieldwork anew in a different place, where one can indulge the illusion that its dynamics can be readily understood. But at the same time, I recognize that one of the pleasures of return fieldwork is the challenge to always question previous assumptions, and in the process, more responsibly represent and respond to the people and places that draw us back.

These are insights that Professor Davidson has probably long contemplated. But as those who have been in the field with him know,

his care at letting us discover these things on our own is one of the many reasons he has been such an excellent and influential mentor.

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Notes

1. We were both working as researchers for the NSF-funded "Honduras Forests Project" of the Harvard Institute for International Development (Godoy 2001).
2. These archives are part of the National Museum of the American Indian, which is, in turn, under the umbrella of the National Museum of Natural History. The annotated album from the Strong expedition is filed with the William Duncan Strong Papers, under "Smithsonian Archaeological Expedition to Northeast Honduras and the Bay Islands, [January-July] 1933" (see also <http://www.nmnh.si.edu/naa/features/strong.htm>). The entire collection includes some 407 images, with an associated list of photographic subjects; Strong's notebook contains further details relevant to image interpretation (summarized in Cuddy 2000; 2007). I ordered the images by mail, based on photocopies of the album sent to me by archive staff. Constrained by the high reproduction charge, I selected only those photographs that appeared to most clearly portray known people and places.
3. Strong (Cuddy 2000:19) wrote in his field journal that "This country is...simply overrun with Miskito from Nicaragua, all chased out by bandits, Marines, and National Guard fighting on the Wanks [Río Coco]. They have come across at Wankquivila [Wangkibila] and gone up Wampu, and up and down Patuca as far as Waspresni [Wasparasni]...They have been coming in for the last two years and are all along the rivers and streams...."
4. Understandably, parents appear to want photos of their children as mementos. But there also appears to be a dark side to this practice. For example, parents of one eight-year-old, who died suddenly after Hurricane Mitch, asked me to look for any photo I might have of her. They said that they would take the image to a local "seer" in order to determine who in the village had killed her (through witchcraft), and then to exact an appropriate revenge.
5. My optimism in the potential for using historical photographs for this purpose was also fueled by the remarkable book *Chávez Ravine, 1949: A Los Angeles Story* (Normark 1999). At the time, I was not aware of the National Museum of the American Indian's own efforts to connect their collections of

- old photographs of native peoples to the subjects' descendents, and thereby stimulate new narratives about what the pictures represent (Johnson 1998).
6. Interestingly, this same man is locally considered to come closest to bearing the characteristic features of a "pui" Tawahka. The view he voices regarding the reproduction of culture is also remarkably similar to that reported among Amazonian peasantries by Gow (1991).
 7. Such comments were typical: most people were remarkably astute regarding the potential distortions produced by the camera.
 8. In retrospect, I should not have been surprised: qualitative research always carries with it a reflexive element (Kobayashi 2001), and historical geographers and anthropologists have drawn attention to the power of photographs and paper documents as objects that perform particular types of work (e.g., Rose 2000; Gow 1995).

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Exploring the Archivo Municipal to Understand Forest Use in Guajiquiro, Honduras

Scott Brady

Concern about rapid rates of deforestation in Central America has led national governments to establish protected areas managed according to varying degrees of forest protection. Honduras' Cloud Forest Act of 1987 established 37 cloud forest biological reserves. Delimitation of these reserves was based on the elevation of 1,800 meters, above which cloud forests naturally occur. Many of these reserves include agricultural communities who utilize the land and forest for subsistence. The lack of enforcement of land- and forest-use restrictions has rendered many of these reserves "paper parks." Guajiquiro is a *municipio* located in the highlands of western Honduras inhabited by the Lenca, Honduras' largest indigenous group. The Lenca subsist in this region as agro-pastoralists. They manage their land and forest resources communally. The cloud forest act designated more than 20 percent of the *municipio* as a cloud forest biological reserve. The objective of this study was to employ the data contained in Guajiquiro's municipal archives to determine patterns of forest use prior to, and following, the establishment of the protected area. Analysis of municipal records demonstrates that the protected area encompasses the majority of the *municipio's* population and that municipal residents utilize forests within the protected area as their principal timber supply. Archival data also reveal that timber harvest has increased concomitantly with population increase during the past four decades. The chief use of timber is for house construction. The study concludes with a discussion of how house construction and water supply should be incorporated into forest management.

Going Back to Guajiquiro

James Parsons observed that it "pays to keep going back to an area, a people" (1977:14). Perhaps inspired by Parsons' words or his example, William Davidson has been going back to Honduras for the past three decades. For the past decade I have been going back to a particular area, Guajiquiro *Municipio* in southwestern Honduras (Fig-

Ethno- and Historical Geographic Studies in Latin America: Essays Honoring William V. Davidson, edited by Peter H. Herlihy, Kent Mathewson, and Craig S. Revels, 161-176. Geoscience Publications, Department of Geography and Anthropology, Louisiana State University, Baton Rouge, LA 70803-4105.

ure 1), inhabited by a particular people, the Lenca, Honduras' largest indigenous group. Davidson introduced this place to me in 1995 when I went with him and Miles Richardson on their search for Black Christ sites (Richardson 1995). At Davidson's suggestion, I returned to this area during the summer field season to investigate the Lenca's seasonal cattle migrations, a topic explored by Robert West 40 years earlier (West 1998). During a brief stay in the *municipio*, I gathered information that allowed me to plan a field trip for the 1996 Conference of Latin Americanist Geographers (CLAG) meeting in Honduras. Fifteen Latin Americanist geographers joined me on the two-day hike. During our hike, my companions peppered me with questions about the Lenca and the surrounding landscape: What is the Lenca's land tenure tradition? How important is logging to the local economy? How is agriculture in the *municipio's* lowlands different from that of the highlands? I stumbled over many of the questions, but they inspired me to go back to the area.

I returned to Guajiquiro to lead summer field schools during 1998 and 1999. I helped students develop and investigate research questions in the field. Students studied kitchen gardens, cattle, Guajiquiro pueblo's new potable water system, the *municipio's* potential for ecotourism, forest management, house construction materials and techniques, and other related topics. Directing these projects expanded my awareness of the fascinating, complex facets of life and land in the *municipio*, and has led me to keep going back to Guajiquiro. The result is a constellation of related individual research topics that include: communal forest management, plant use (Brady 2001), landscape change (Brady 2009), and protected area management (Brady 2002).

Guajiquiro

Guajiquiro is a high-relief highland *municipio* in western Honduras inhabited almost exclusively by Lenca, Honduras' largest indigenous group. A *municipio* is an administrative unit subdivided into more than 20 smaller dispersed settlements called *aldeas* or *caserios*. The *municipio's* steep, volcanic slopes support a mix of pine, pine-oak forests, *milpas*, and fallowed patches, called *guamiles*. Above 2000 m, small broadleaf cloud forest islands, known locally as *rodales*, dot the agricultural landscape. The Lenca manage most of their lands and forests communally. They secure subsistence from these lands as agropastoralists, raising primarily corn and beans in their *milpas* during the wet season, called *invierno*, lasting from May to October. Many families graze small numbers of cattle (5 to 10 head) on the lower slopes, called the *tierra calida*, during *invierno*. During the dry season, called *verano*, extending from November to April, the Lenca move their cattle upslope to graze the moister uplands, known as *tierra fresca*. *Verano* is also the season for the Lenca to cut timber, make *adobes*, fire clay roof tiles, and build houses.

Over the past two decades, the Lenca have adapted their subsistence strategies to a host of external and internal influences. In 1987, the Honduran government designated approximately 24 percent of

try's electrical grid since 1993. During this period of rapid change, high rates of natural increase have rapidly expanded Guajiquiro's population. Since 1974, the *municipio's* population has more than doubled from approximately 6,000 inhabitants to more than 13,000 (Figure 2).

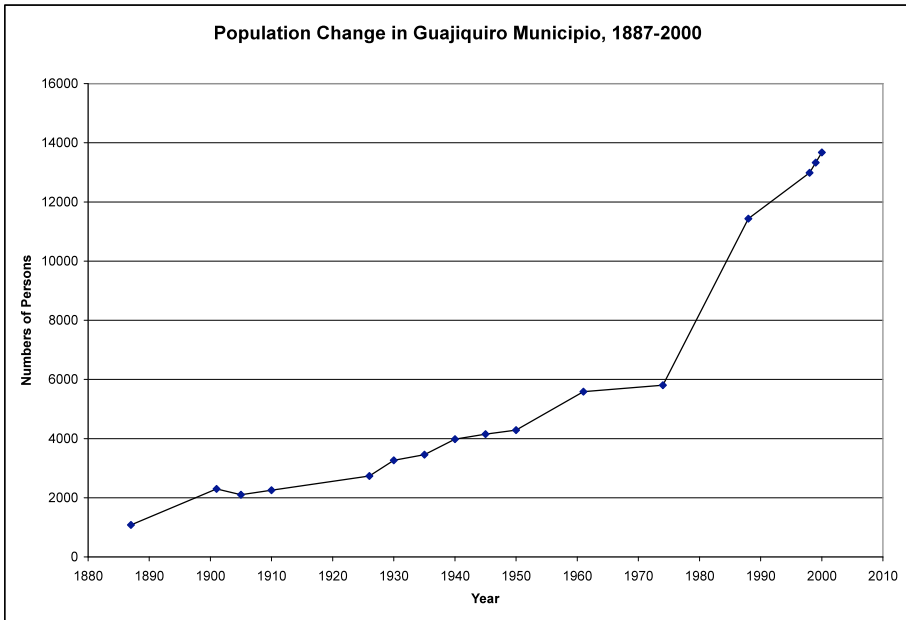


Figure 2. Population Change in Guajiquiro Municipio, 1887-2000 (República de Honduras 1960, 1977, and 1981; SECPLAN 1990, United States Census Bureau 2001, United Nations Population Fund 2001).

The objective of this study was to combine field observation with analysis of records in Guajiquiro's municipal archives to determine patterns of forest use during the past few decades, a period during which population had more than doubled and communal forests had come under national government regulation. Compilation of data contained in the records reveals changes in the amount of timber harvested during the past three decades, including the period since the establishment of the cloud forest protected area. Archival data also indicate the primary locations of timber harvest, the tree species harvested, and specific uses of harvested timber.

Archives

During a decade of observation, I have witnessed the growth of a consciousness of forest conservation within the *municipio*. Its most obvious manifestation is in the proliferation of signs that trumpet the importance of forest protection (Figures 3-5). Signs, however, do not necessarily indicate changes in forest use. To understand how Guajiquiro

has dealt with the increased demands placed on its forests, by its growing population and the restrictions on forest use that accompanied protected area designation, I turned to Guajiquiro's municipal archives.



Figure 3. Sign on a tree signifying the importance of forest protection.

Scholars have utilized archival sources to trace specific processes and identify critical periods of environmental change in Middle America. Some have focused on transformations wrought in central Mexico during the early colonial period. Butzer and Butzer (1993) assayed 40,000 colonial land grants to reconstruct early colonial landscapes of Mexico's *Bajío* and trace the impacts that resulted from the introduction of Spanish agrosystems. Sluyter (1996) applied a similar analysis to the introduction of the cattle economy into Veracruz. Prem (1992) analyzed colonial land grants to track the settlement histories of three regions in Central Mexico and described how process of property transfer allowed the expansion Spanish agriculture in the face of indigenous demographic collapse. Enfield and O'Hara (1999) employed colonial archives to refute the conventional notion that Spanish introduction of livestock during the colonial period caused massive land degradation in the central Mexican highlands. Other scholars have employed archival information to understand more contemporary patterns of resource use. Veblen (1978) turned to colonial archives to identify the early roots of recent forest preservation in the indigenous communities of Totonicapan, Guatemala.

This study differs from the aforementioned research in its use of archival sources to understand recent patterns of resource use. It is

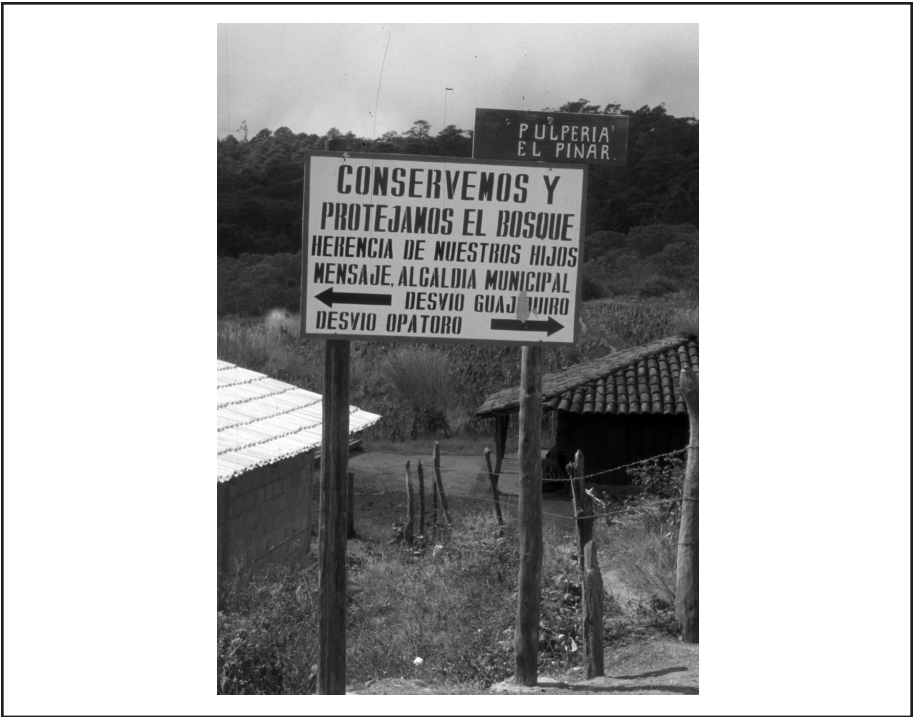


Figure 4. Roadside sign signifying the importance of forest protection.



Figure 5. "Billboard" signifying the importance of forest protection.

similar to research by Holder (2004) and Southworth and Tucker (2001) that investigated recent changes in forest cover in communal forests in Guatemala and Honduras. However, these studies identified and

measured the changes revealed by analysis of aerial photographs and satellite imagery. This study contributes to our knowledge of communal management of forests by utilizing data contained in municipal archives to identify patterns of forest use, which are comprised of the annual requests made by municipal residents to harvest timber.

Most of Guajiquiro's forests are contained in *ejidal* land that is managed communally. Legally the *municipio* owns the trees and regulates cutting, prohibiting timber and lumber sales outside of the *municipio*. Non-residents may not obtain permission to cut trees within the *municipio*. Exceptions to these restrictions are rare. Of the 1,292 *permisos* granted during the years 1974-1978 and 1988-1999, only six were for timber to be sold outside of the *municipio*.

Residents must apply to the municipal government (*municipalidad*) for the permission to harvest (*cortar*) timber. The applications usually include information about the quantity of trees to be cut, the intended use of the wood, and the location of the trees to be harvested. The *municipalidad* investigates applications to determine whether the desired cuts are appropriate. If there is no conflict, the *municipalidad* collects the designated fees and then issues *permisos*. The *municipalidad's* collection of *permisos* dates from 1974, when the Honduran government nationalized its forests and established its forestry department COHDEFOR (*Corporación Hondureña de Desarrollo Forestal*). Municipal officials made their collection of *permisos* available to me. Unfortunately, I discovered a nine-year gap (1979-1987) in the collection. Municipal officials offered no explanation for this gap. Although incomplete, the collection of 1,292 *permisos* provides a picture of forest use over the past three decades.

The information included in the *permisos* has changed during the past 30 years. During the 1970s, *permisos* regularly omitted information about harvest locations and quantities. (Only 97 of the 184 *permisos* indicated the locations of tree harvests. Only 74 of the *permisos* mentioned the number of trees to be cut.) However, by the 1990s, a higher percentage of *permisos* contained location and quantity information. Brisk population growth during the 1980s, and the concomitant increased demand for wood, appears to have prompted greater attention to the management of that resource.

Despite the unevenness of the information contained in *permisos*, a simple tally of the documents confirms the increased demand on Guajiquiro's forests. *Permisos* granted for timber harvest increased during this period of population growth (Figure 6). Figure 7 is an approximate record of the change in the amount of timber harvested during this period because *permisos* do not include consistently specific information about the sizes of trees harvested. The general increase the quantity of wood harvested is expected because of the increase in *permisos*. The peak in harvest during 1999 resulted from requests to cut timber to reconstruct and repair houses damaged by Hurricane Mitch. However, the data set is incomplete because of the inconsistency in reporting quantities and the previously mentioned nine-year gap in *permisos*. As

mentioned, many *permisos* do not include quantity information. Another problem is that the unit of quantity lacks specificity. *Permisos* that do include information about quantity classify trees into three general sizes of regular, medium, and small (*mata*, *madera mediana*, and *madera pequeña*), of unspecific size. The collection of *permisos*, therefore, does not allow a quantification of changes in the amount of timber harvested.

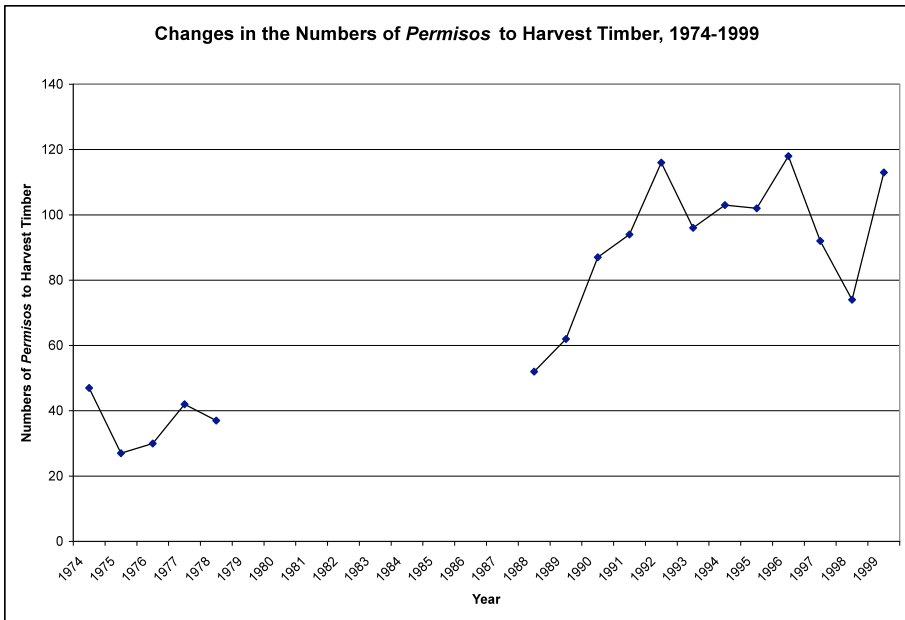


Figure 6. Changes in the Numbers of Permisos to Harvest Timber, 1974-1999.

Trees and Their Uses

The prohibition on timber sales outside of Guajiquiro *Municipio* has limited forest use to domestic purposes. The uses of wood mentioned in the *permisos* include construction of houses, community buildings and projects, furniture, fences, house repair, and fuel. The primary purpose of timber harvest is for house construction and repair; 763 of the 1,292 *permisos* are for house construction, another 201 are for house repair. Most of the *permisos* indicate which types of trees will be harvested (Table 1).

The most commonly harvested trees are found in the *municipio's* pine and mixed pine-oak forests, as well as in *milpas* and *guamiles*. The vast majority of *permisos* are for harvest of pine trees. Guajiquiro's forests include five of the seven species found in Honduras. Although residents assign common names to each of the five species, *permisos* do not distinguish between them. They simply request permission to cut *pinos*.

Despite the large trees present, the broadleaf cloud forest *rodales* are not an important source of timber because of the technology available for timber harvest. Guajiquiro instituted a municipal law that prohibits

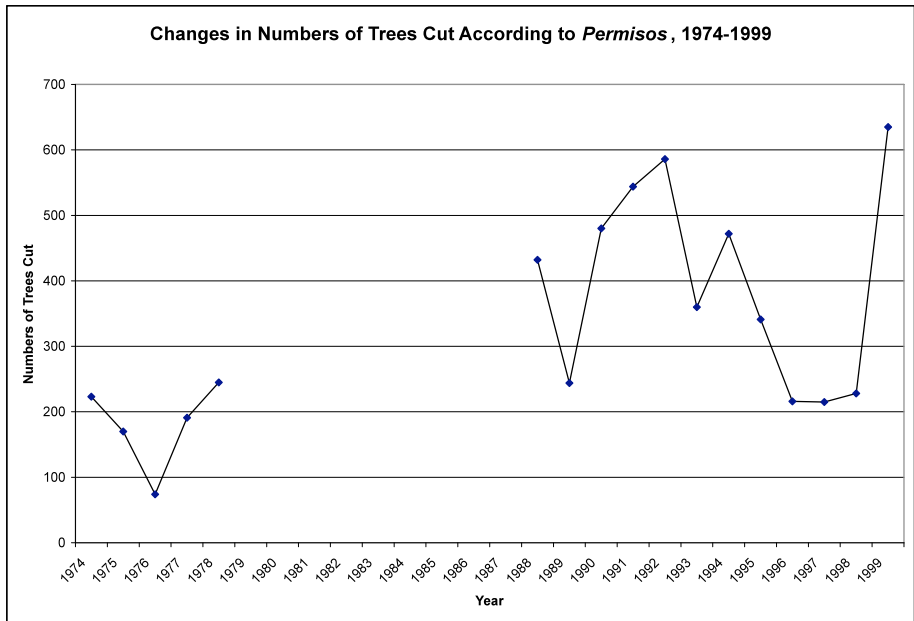


Figure 7. Changes in Numbers of Trees Cut According to Permisos, 1974-1999.

the use of chainsaws. Residents claim that the law predates the establishment of COHDEFOR (López Corea and López García 2000). However, the *municipalidad* has no written record of the law. Opatoro, a neighboring *municipio*, does not have such a restriction. Neither does that *municipio* prohibit sales of timber out of the *municipio*. In Guajiquiro, trees are felled with axes and sawn into boards at small, temporary sawmills, *aserrios manuales*, with crosscut saws (Figure 8). This basic technology precludes cutting of the large trees in the *rodales* (López Corea 2000).

The *permisos* show that residents use *matas* of pines primarily for the beams, trusses and rafters of the hipped roofs that cap their *adobe* and *bajareque* houses. In the few wooden-sided houses in the *municipio*, boards, *tablas*, also are cut from *matas* of pine. Residents use pines classified as *madera mediana*, and *madera pequeña* to make posts for galleries.

Field observation of several *aserrio manuales* revealed that *matas* are individual trees that ranged at least from 25 to 34 inches diameter at breast height (dbh). The tree rings of the smaller *mata* suggest that the tree was approximately 25 years old. It had been cut into 14 *tablas* that were 1" x 14" x 14', 20 smaller boards, *palos*, that measured 3" x 3" x 14', and 15 that were 4" x 4" x 14'. A *permiso* from 1997 requested 4 *matas* for building one house. The *matas* were to be cut into 4 dozen battens, *reglas*, that were 1" x 3" x 17", 4 dozen *tablas*: 1" x 8" x 17", 2 dozen *tablas*: 1" x 10" x 17", 2 dozen *palos*: 2" x 2" x 12', and 2 dozen *palos*: 2" x 3" x 14'.

Unfortunately, such detail is rare in the collection of *permisos*. Most *permisos* that include the quantity of trees to be cut simply list

Table 1. Trees Used for Construction in Guajiquiro.

Use		Local Term	Common Name	Botanical Name
House construction				
	Beams	<i>Vigas</i>	<i>Liquidámbo</i> <i>Pino</i>	<i>Liquidambar styraciflua</i> <i>Pinus ayacahuite</i> <i>Pinus maximinoi</i> <i>Pinus oocarpa</i> <i>Pinus pseudostrobus</i> <i>Pinus tecunumani</i>
	Rafters	<i>Tijeras, Palos</i>	<i>Pino</i>	
	Battens	<i>Reglas</i>	<i>Pino</i>	
	Boards	<i>Tablas</i>	<i>Pino</i>	
	Posts	<i>Morillos</i>	<i>Cacao</i> <i>Pino</i> <i>Uva</i>	Unidentified <i>Coccoloba Aff. Tuerckheimii</i>
	Walls	<i>Paredes</i>	<i>Pino</i>	
	Corner Posts	<i>Horcones</i>	<i>Guachipilin</i> <i>Quebracho</i> <i>Roble</i> <i>Tatascan</i>	<i>Diphysa robinoides</i> <i>Lysiloma spp.</i> <i>Quercus segoviensis</i> <i>Perymenium grande</i>
	Split Pole Roofs	<i>Canales</i>	<i>Pino</i>	
	Firing Clay Tiles	<i>Tejas</i>	<i>Pino</i> <i>Roble</i>	
	General		<i>Almendra</i> <i>Carreto</i> <i>Cucharo</i> <i>Guanacaste</i>	<i>Andira inermis</i> <i>Albizzia longepedata</i> Unidentified <i>Enterolobium cyclocarpum</i>
Furniture		<i>Muebles</i>	<i>Aceituno</i> <i>Caoba</i> <i>Cedro</i> <i>Pino</i>	<i>Simarouba amara</i> <i>Svietenia humilis</i> <i>Cedrela odorata</i>
Fence Posts		<i>Cerco, Postas</i>	<i>Cipres</i> <i>Encino</i> <i>Quebracho</i> <i>Roble</i>	<i>Cupressus lusitanica</i> <i>Quercus cortesii</i> <i>Quercus sapotifolia</i>

the number of *matas*, not the quantity of boards. Also, the *permisos* from the 1970s do not distinguish between *mata*, *madera mediana*, and *madera pequeña*. Figure 9 shows the increase in houses constructed during the past three decades. The steep rise in house construction between 1988 and 1992 coincides with the period of most rapid of population growth in the municipio, as discussed earlier.

Figure 10 shows changes in the number of *matas* per house. The trend shown is approximate because of the large number of *permisos* with incomplete information. The *matas* per house measure is derived from all *permisos*

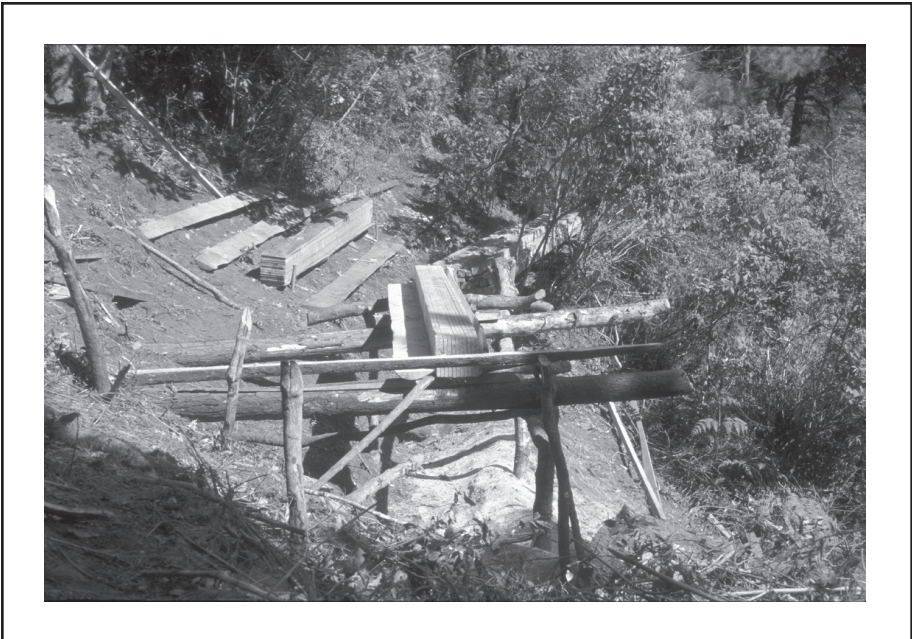


Figure 8. In Guajiquiro, trees are felled with axes and sawn into boards at small, temporary sawmills with crosscut saws.

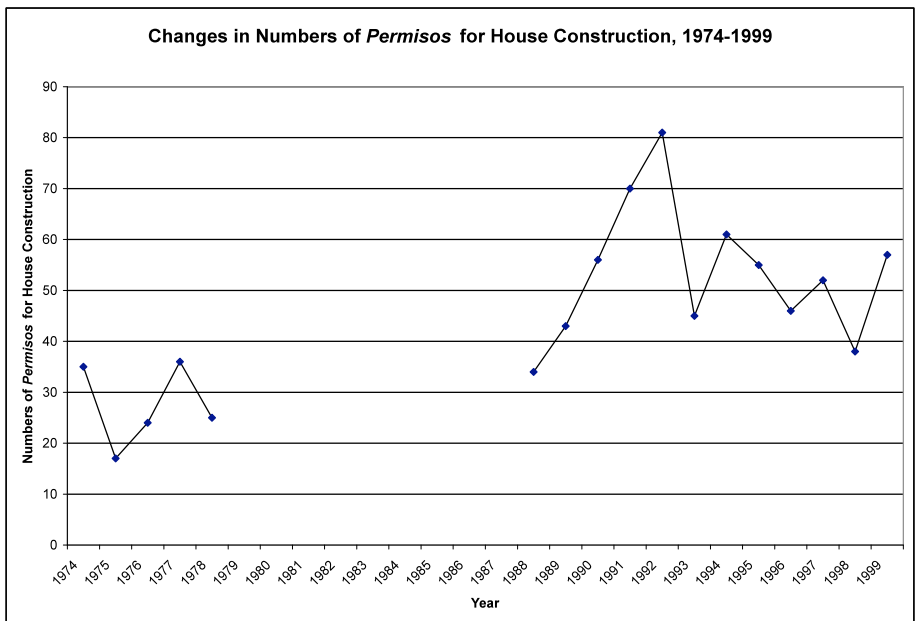


Figure 9. Changes in Numbers of Permisos for House Construction, 1974-1999.

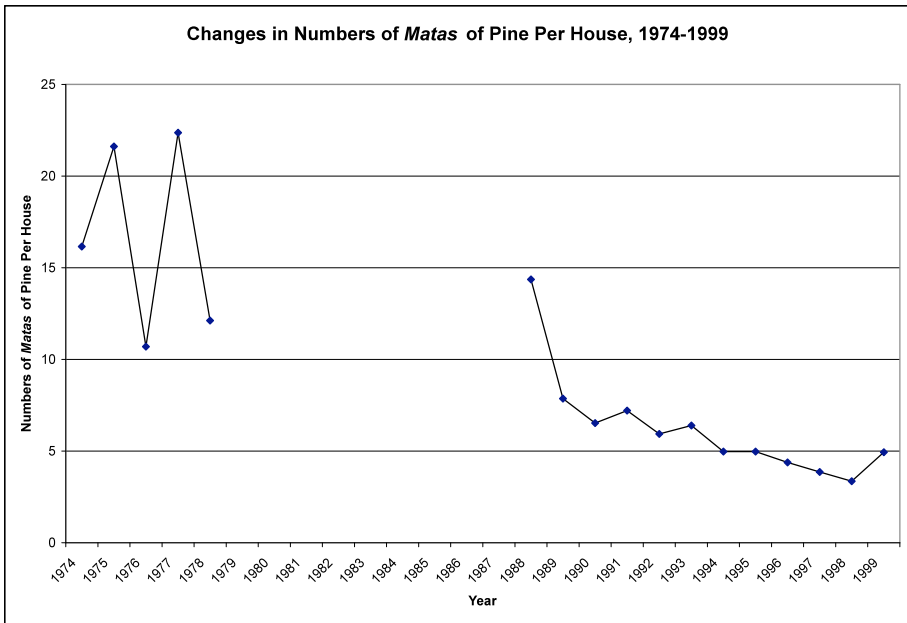


Figure 10. Changes in Numbers of *Matas* of Pine per House, 1974-1999.

for houses that included quantity of *matas* to be cut. Of the 739 *permisos* issued for house construction, 482 included the quantity of *matas* required.

Between 1974 and 1978, the *matas* per house demand fluctuated between 11 and 22. Since 1988, the demand decreased and leveled out at four to six *matas* of pine. This does not necessarily represent a reduction in per-house timber demand. The Lenca of Guajiquiro have increasingly shifted from *bajareque* to *adobe* and cement-block houses during this period. The change to *adobe* and cement-block houses would reduce the demand for *roble*, *tatascan*, and *guachipilin* cornerposts. However these changes would not reduce the largest construction demand—pines for roof construction. The early higher values probably result from imprecise quantity information in the *permisos*. The quantities in *permisos* during this period regularly mentioned only *matas*, and not *madera mediana*, and *madera pequeña*.

Should Guajiquiro maintain its prohibitions against the use of chainsaws and timber sales outside of the *municipio*, harvest of pines for house construction will persist as the primary demand for timber. This demand figures to increase as a growing population requests *permisos* to build houses. The *municipio* can use this four to six *matas* of pine per house to plan for future timber demand.

Protected Area

In 1987, the Honduran government declared lands above 1,800 meters in elevation as cloud forest protected areas (República de Hon-

duras 1987). The act specifically mentioned the establishment of the Guajiquiro Cloud Forest Biological Reserve and charged COHDEFOR with responsibility for management. COHDEFOR adopted the International Union for the Conservation of Nature's (IUCN) biosphere-reserve model for its cloud forest biological reserves. According to this model, protected areas are divided into zones characterized by different degrees of nature protection and human use (McNeely et al. 1990). At a biosphere reserve's core is an area of strict nature protection. Buffer and settlement areas of lessening degrees of protection surround the core zone. Guajiquiro Cloud Forest Biological Reserve does not include a continuous broadleaf cloud forest sufficient for a core area. Instead, the protected area contains long-term settlements, *milpas*, *guamiles*, and secondary forests, dominated by pines, which surround small broadleaf forest islands, none larger than six hectares.

Since its establishment, the protected area has been only a "paper park." In 1995, COHDEFOR contracted with the Honduran non-governmental conservation organization Instituto Nacional de Ambiente y Desarrollo (INADES), to help manage the protected area. INADES' presence has been sporadic and has not included enforcement of logging restrictions in the protected area's core zone. An INADES project to demarcate the protected area's boundaries was halted by Hurricane Mitch in 1998. COHDEFOR has since constructed a station for a protected area manager and hired a Guajiquiro resident for that position. The only evidence of this manager's activities on behalf of the protected area is found in the *permisos* that allude to review and approval by COHDEFOR.

The collection of *permisos* allows some analysis of the impact of the protected area designation on timber harvest. *Permisos* indicate the settlements nearest to harvest locations. Although approximate, these locations indicate the approximate elevation of the timber harvest. Figure 11 classifies *permisos* into three categories: *permisos* for cuts at locations above the aforementioned 1,800 meters contour of the cloud forest law, *permisos* for cuts below 1,800 meters, and *permisos* with no locations.

Because of the large number of *permisos* lacking locations, an elevational pattern of timber harvest is unclear during the 1970s. The data suggest, however, that from 1988-1999, despite protected area status, forests above 1,800 meters have become, or remain, the primary source of the *municipio's* timber. Clearly, without conservation enforcement, this pattern will persist because most of the *municipio's* population lives in settlements within or surrounding the reserve.

Discussion

Many forest protection projects in Honduras and throughout Latin America are complicated by the presence of human inhabitants within protected areas. In some cases, residents have established long-term patterns of land use for subsistence agriculture and timber harvest for local construction within protected areas. Effective management of protected forest areas depends on the cooperation of protected area

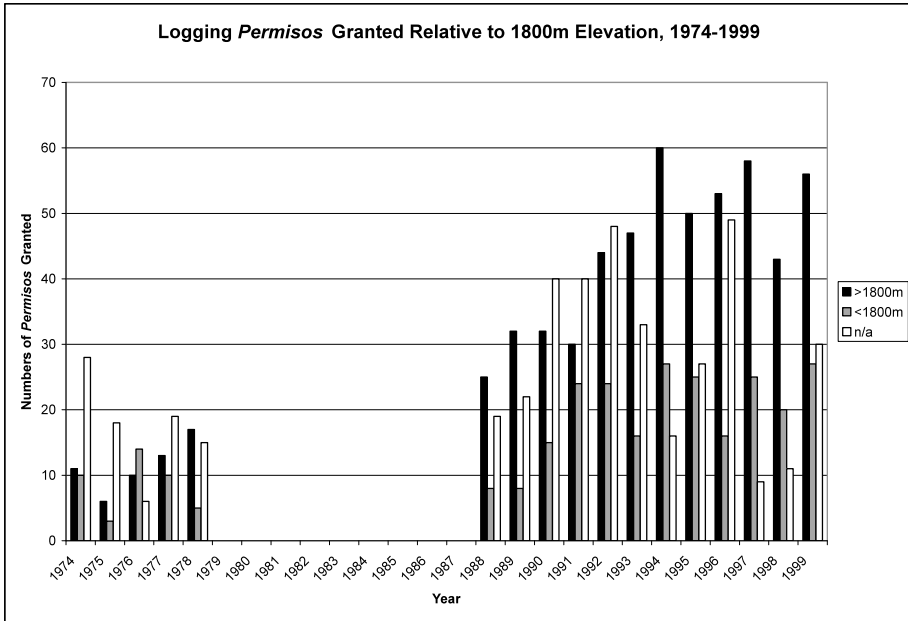


Figure 11. Logging Permisos Granted Relative to 1,800 Meters Elevation, 1974-1999.

residents. Knowledge of their forest-use practices and details of their construction techniques is essential for engendering that cooperation and planning forest protection. This study has utilized data gathered from Guajiquiro's municipal archives to reveal patterns of forest use. This discussion reviews those patterns and suggests how forest managers can incorporate this archival data into timber management.

The Guajiquiro Cloud Forest Biological Reserve has been an exercise in misapplied protection. The Cloud Forest Act ignored the actual forest extent, composition, and use in Guajiquiro. The protected area contains numerous settlements in which a majority of the *municipio's* population lives. Agricultural fields, not forests, cloak most of the protected area. Effective management of the protected area must incorporate the activities of its residents.

The municipal archives provide a record of forest use prior to protected area designation and in the ensuing years. Because Guajiquiro's forest reserve has lacked enforcement since its inception, the archival data reflect the *municipio's* local forest-management system during the past four decades. According to that system, the municipal government restricts timber harvest to municipal residents for local use, primarily for house construction. Pine and mixed pine-oak forests within the protected area represent the principal source of harvested timber. Local preference for pine timber in house construction and geographical proximity contributes to this pattern. Because most of Guajiquiro's inhabitants live in, or near, the protected area, the forest reserve is the nearest source of timber.

The principal use of Guajiquiro's timber is for house construction. Population increase during the past 40 years has increased the demand for construction timber and resulted in an increase in logging permits granted within the *municipio*, in general, and the reserve in particular. To garner local support for the protected area and to protect the remaining forests, forest managers must identify sustainable alternative sources of pine timber or alternative construction materials. This requires that forest managers learn the intricacies of local construction.

Guajiquiro's municipal archives provide information about house construction. Some of the logging permits are highly detailed. They include comprehensive inventories of the timber required for house construction. The information in these records affords forest managers, or municipal officials, the opportunity to calculate a baseline quantity of timber required for house construction. With this information, they can predict future timber demand and effectively manage timber harvest. Forest managers could use this information to propose that the *municipio* incorporate a harvest limit into the permitting process to ensure efficient use of timber.

Forest managers also must incorporate field observation into their assessment of construction-related timber demand. For example, they need to evaluate trends in house construction to plan forest management. The shift from *bajareque*, wattle and daub, houses to *adobe*, or cinder block, houses during the past 50 years has reduced the use of timber for wall construction. *Adobe* or cinder block houses, however, are commonly roofed with clay tiles rather than thatch. The heavier tile roofs require greater structural support than the thatch. Forest managers likely will find that they need to introduce a lightweight roof material that requires less structural support than the heavy clay tiles.

The introduction of potable water systems into several of the *municipio's* settlements during the past decade also should be integrated into forest management. *Municipio* residents place great value on the consistent availability of running water. Adequate year-round supplies of water for these systems depend on forested watersheds. Forest managers should employ the relationship between forest cover and water supply to engender local support for forest conservation. Signs found in some parts of the *municipio* suggest that residents are being educated about the link between forests and water. However, forests within the protected area, and *municipio*, should be managed explicitly to support existing water systems, and plan for its expansion. I envision the establishment of a system of local management in which individual settlements are designated specific areas of forest, which they must conserve for the purpose of ensuring their water supply.

The future health of Guajiquiro's forests depends on management informed by knowledge of local patterns of forest use. This study has demonstrated how municipal archives can provide the data necessary for identifying these patterns.

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Not Always Oriented: Honduran Plaza-Church Locational Relations

Benjamin F. Tillman

My first conversation with Bill Davidson occurred at the beginning of the 1994 fall semester. I was a new doctoral graduate student in geography at Louisiana State University and had gone to Bill's office to discuss potential dissertation topics. The topic that interested me (and him) the most was the growth and influence of the Moravian Church on Miskito settlements. Bill described the "impressive church compounds" located in the Miskito settlements of Brus Lagoon and Kaurkira, and he stated that "something interesting is going on down there." After a short period of consideration, I decided to study that topic for my dissertation (completed in 1999).

Bill was interested in the geography of religion as it related to historical geography, the cultural landscape, and indigenous or otherwise minority populations. I think his academic curiosity about the geography of religion was more evident in his classroom lectures than in his publications. Still, this interest was on occasion manifested in the research produced by his students. For example, two of his fourteen doctoral students, and a few of his master's students, wrote dissertations and theses with themes related to the geography of religion. His own research included religion-related themes on only a few occasions including Padre Subirana's role in granting land to Honduran Indians (Davidson 1984a), the Black Christ of Esquipulas (Davidson and Richardson 1993; Richardson and Davidson 1993), and plaza-church relationships in Honduras (Davidson 1994).

I first became aware of his interest in Honduran church location when we were both traveling in La Ceiba, Honduras, in May 1996. As I recall, we were on our way to a nearby Garífuna settlement to photograph a Black Christ shrine when we passed by the Catho-

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lic church adjacent to La Ceiba's principal plaza. We discussed why, atypical of most Catholic churches in Honduras, the structure was located on the southeast corner of the plaza, and why it faced the plaza diagonally. Bill explained to me that the street grid was oriented about 30 degrees west of north, and that Catholic leaders had probably placed the church on the southeast corner of the plaza so that the building would still be oriented along an east-west axis.

Bill's knowledge of Honduran plaza-church locational relations was not limited to La Ceiba. In fact, Bill compiled such data during his innumerable fieldwork excursions to Honduras, and had earlier presented his findings at the 1994 Annual Meeting of the Association of American Geographers in San Francisco. The purpose of Bill's research was to compare the Honduran reality with common textbook models of plaza-church locational relations, and through the use of maps, see if differences in plaza-church locational relations resulted from variations in Honduran cultural geography.

After I completed my dissertation research (which included data on plaza-church locational relations in the Honduran Mosquitia), we discussed the possibility of writing a joint article on Honduran church location, but Bill's retirement intervened. Now, with his permission and encouragement, I have updated the information he compiled earlier and have added my own data on church location and orientation from Mosquitia.

The Spanish American Plaza

The relatively large open public spaces normally found near the center of settlements in Spanish America have attracted considerable scholarly attention, particularly among geographers. Studies by Stanislawski (1947) and Gade (1976) are major pieces that place the plaza within the context of its normal form and its numerous functions. Elbow (1975) has contrasted the plaza characteristics of Ladino and Indian towns in Guatemala. Still other studies have examined the role of the plaza in Columbian and Costa Rican society and its relationship to various human behaviors (Richardson 1974, 1982, 2003; Low 2000). Two studies have focused on the borderlands. Arreola (1992) found that the plaza was a symbol of Hispanic identity in south Texas, and Arreola and Curtis (1993) noted the persistence of the plaza and grid pattern despite the growth and change occurring in Mexico's border cities. More recently, Scarpaci (2004) has analyzed the effect of heritage tourism on plazas and their accompanying historic districts. Bass (2005) found that during the past 40 years, inhabitants of southwestern Honduras transformed the open, treeless plazas adjacent to churches into tree-filled parks, with messages promoting the virtues of forests.

Over the years, a general image of the plaza and its surrounding grid street pattern has emerged, and professors pass it on to students through models illustrated in geography textbooks. Examples of such texts include (but are not limited to) Blouet and Blouet's (2002) 4th edition text

on Latin America that uses Sargent's (2002) colonial town plan model; de Blij and Mueller's (2004) 11th edition regional geography text that uses a modified version of Sargent's model; and Jordan-Bychkov and Domosh's (2003) 9th edition cultural geography text that uses a model designed by Jordan-Bychkov. In each of these texts, the illustrations depict a plaza surrounded by north-south, east-west running streets that intersect at right angles, forming a gridiron pattern. The Blouet and Blouet illustration places the church on the south side of the plaza while illustrations in the Jordan-Bychkov and Domosh, and the de Blij and Mueller texts place the church on the east side of the plaza (de Blij and Mueller's earlier 7th edition placed the church on the south side of the plaza).

This study reports the plaza-church locational relations in an entire country for two reasons: (1) to test the stereotype frequently illustrated in geography textbooks; and (2) to see if reflected in this single relationship between church and plaza there are other manifestations of Honduran cultural geography, and by analogy similar manifestations elsewhere in Latin America.

Historical Background

Scholars generally agree that the Spanish American plaza and urban grid pattern have a Mediterranean heritage, but scholars have debated its exact origin (Stanislowski 1946, 1947; Smith 1955; Foster 1960; Nelson 1963). Stanislowski (1947) argued that Spain adopted the grid from early Greek and Roman notions of town planning, particularly those described in the writings of Vitruvius. Vance (1990) traced the grid back to Miletus, a Greek city in Asia Minor. The Persians destroyed Miletus in 494 B.C., but the Greeks rebuilt it in 479 B.C. with a grid pattern designed by Hippodamus. Smith (1955), and later Gade (1992), suggested that the gridiron street pattern of Santa Fé, founded by Queen Isabella in 1491 as a base of operations to drive the last Moors from Spain, may have served as the model for Spanish towns in the New World. Spain's reliance on the grid allowed the Crown to control territory and resources, and to rapidly prepare the land for new settlement (Grant 2001). Regardless of its precise origin, the plaza and its accompanying gridiron street pattern passed into the Americas, via royal order, through several legal statements of how Spaniards would situate and construct their colonial settlements (Stanislowski 1947). These statements were later included in the Spanish New Town Ordinances written in 1573 (Nutall 1922). Nevertheless, while most colonial town plans exhibited similar morphologies, variations still occurred because of local circumstances (Hardoy 1975).

For Honduras, the first instructions were probably those of Bartolomé de Celada to his men near Trujillo in 1526. De Celada wrote, "The new town was to be laid out in the following order: The church, the plaza, the hospital, the governor's house, the jail, the cabildo, and then other houses" (Figure 1) (Celada 1526:60-64). Other regulations, perhaps slightly contradictory, applied to specific geographical situations.

For example, "Where the town is placed on the coast, the cathedral shall be built so that it may be seen on going out to sea. If the town is a port, the main plaza should be at the dock; It should be in the middle of the town in inland places.... The cathedral of inland places should not be placed at the plaza...so the palace, town hall, and customs house do not detract from the importance of the cathedral" (Celada 1526:60-64)."

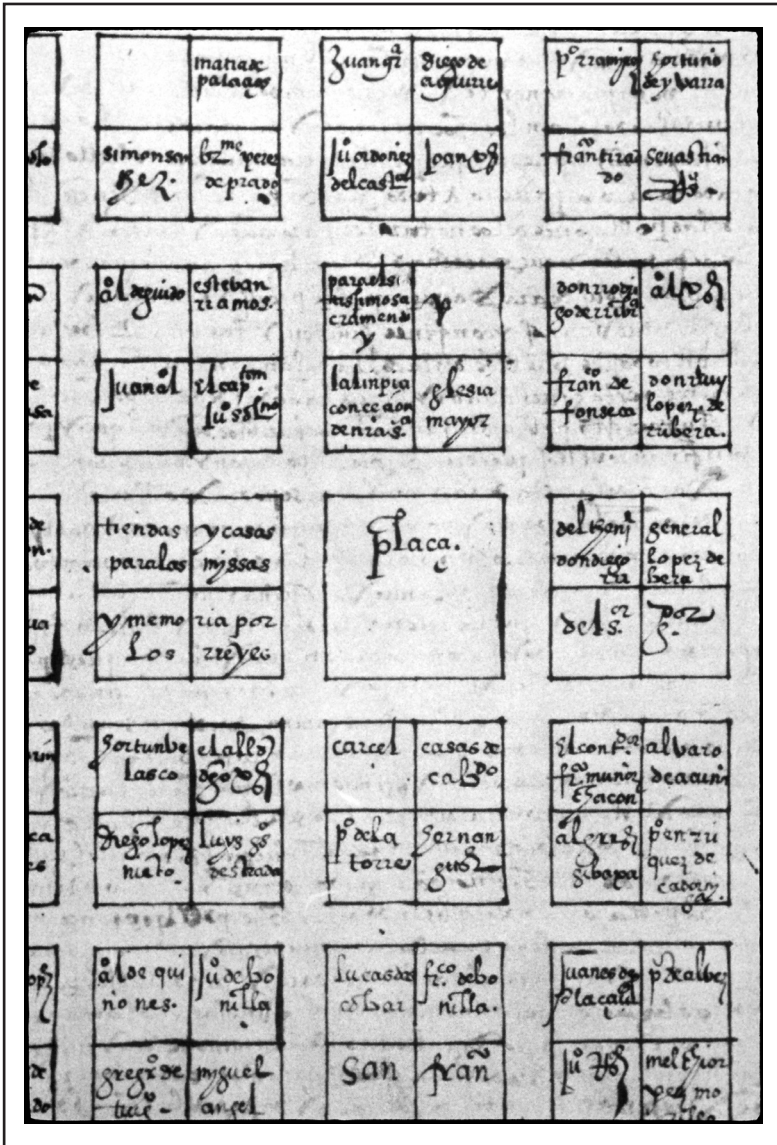


Figure 1. This 1571 plan of Nombre de Jesus (Guatemala) is an early Central American example of a grid town plan with the church on the east side of the plaza (east is at the top of the image) (Photo by William V. Davidson).

The Modern Honduran Survey

The settlements selected for this analysis are the total number, 100 percent, of the *municipio* (municipal or county-level) capitals, known in Honduras as *cabeceras municipales*. There are 298 in the country. Maps of the street plans of each these places were acquired from the national census bureau. These maps made it possible to detect if a settlement's street layout was in the form of a grid, if the settlement contained a plaza, and the location of churches. Also, fieldwork over the past decade and a half has resulted in observations being made and photographs being taken in over 260 of these towns. The places range in population from the capital, Tegucigalpa, with a population over 500,000 to towns of less than 500 people.

To explore plaza-church locational relations, one may pose the following questions:

1. Is there a relatively large, open public area; normally known locally as a plaza or parque (excluding soccer fields)?
2. Is its general location near the center of the settlement?
3. Are the streets in a grid pattern?
4. What is the orientation of the grid?
5. Is the major church located on the plaza? (In the rare event that a Catholic church was not present, another denomination was substituted.)
6. On which side of the plaza is the Catholic church?
7. What is the orientation of the Catholic church?

The findings reveal that the single model of a grid-pattern town and its associated plaza-church spatial relationship normally presented by Latin Americanist scholars does not always exist in Honduras (Table 1). For example, a grid pattern existed in only 52 percent, barely half, of the 298 municipal capitals. This percentage is perhaps lower than expected. Factors typically associated with non-grid towns included: (1) towns that were recently founded or that were small (large settlements usually contained a grid); (2) towns where uneven topography made constructing a grid problematic; (3) towns that originated as a result of mining activities; and (4) towns located in areas with a strong indigenous or otherwise non-Hispanic presence. Furthermore, north-south street orientations are not the rule as 54 percent of the towns with grids had streets oriented between 5 and 10 degrees off of a north-south compass heading.

Although most street orientations were within 10 degrees of north, many were highly variable, and some even reached the diagonal—45 degrees off of north.

The model corresponded with the Honduran reality more closely with regard to plaza-church locational relationships, but there were still significant exceptions. For example, 93 percent of the municipal capitals had plazas and almost 90 percent of the plazas were adjacent to the major church (Figure 2). The churches on these plazas were located on the east side 84 percent of the time, and 91 percent of the major

Table 1. Honduran Settlement Feature.

	%
A. Grid Pattern	
Yes	52
No	48
B. Grid Orientation	
Within 5 degrees N/S	40
Within 10 degrees N/S	54
C. Settlement has plaza	
Yes	93
No	07
D. Major church on plaza	
Yes	89
No	11
E. Church on east side of plaza	
Yes	85
No	15
F. Church orientation	
Generally W-E	91
Other	09

Source: Honduran National Census Bureau town plans; field observations.

churches were generally oriented east-west with the altar to the east and the entrance to the west. With respect to church location, the modern Honduran survey more closely follows the illustrations found in the de Blij and Mueller (2004) and the Jordan-Bychkov and Domosh (2003) texts, which depict the church on the east side of the plaza, rather than the Blouet and Blouet illustration, which places the church on the south side of the plaza.

Mapping the Relationships

Maps of the distribution of many of these features revealed no significant patterns. For example, maps of the grid pattern and its orientations displayed little geographical variation and were inconclusive. Nonetheless, maps of places without plazas and maps of church orientation showed distinctive patterns and one can draw conclusions from them. A map plotting the 21 places without plazas reveals their locations in the non-Hispanic areas of the north coast, the Bay Islands, Mosquitia, and a southwestern zone perhaps consisting of more-isolated, less-aculturated indigenous Lenca settlements (Figure 3). Likewise, a map of the 21 places with non-east-west oriented churches indicated the same non-Hispanic regions (Figure 4). Curiously and without overt explanation, six settlements had churches on the west side of the plaza with the church facing away from the plaza (Figure 5). Many of these west-oriented plazas and churches overlooked



Figure 2. Tegucigalpa's central plaza and church, 1998 (photo by author).

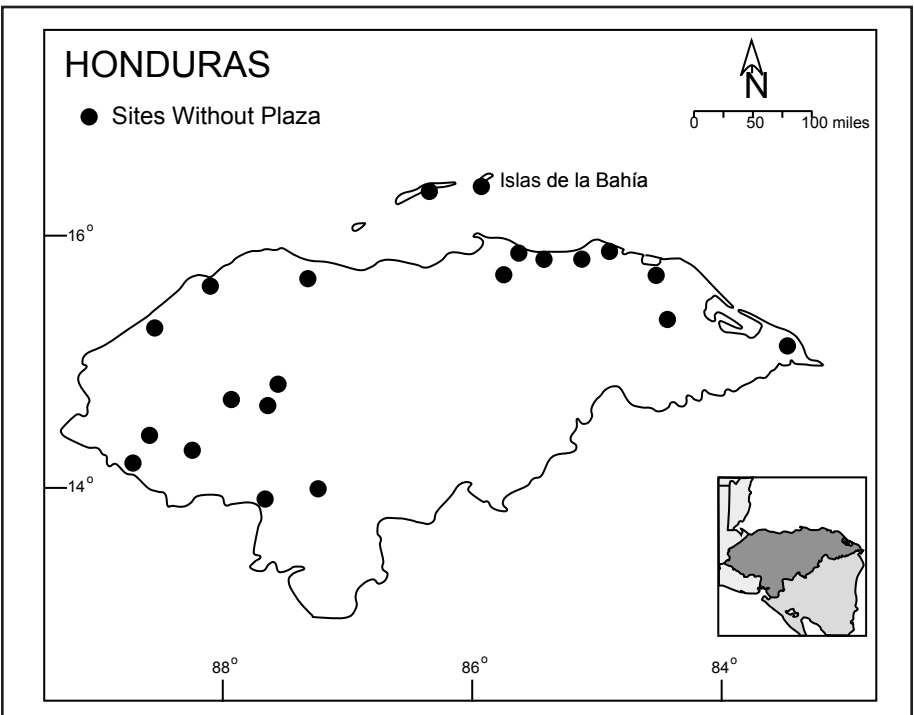


Figure 3. Honduran municipal capitals without plazas.

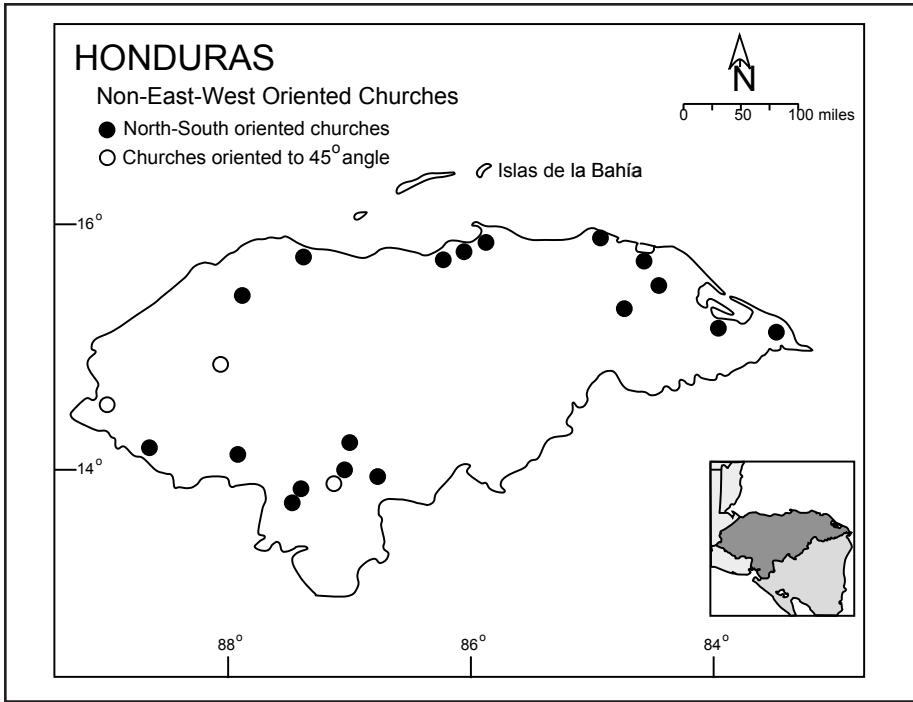


Figure 4. Non-east-west-oriented churches in Honduras.

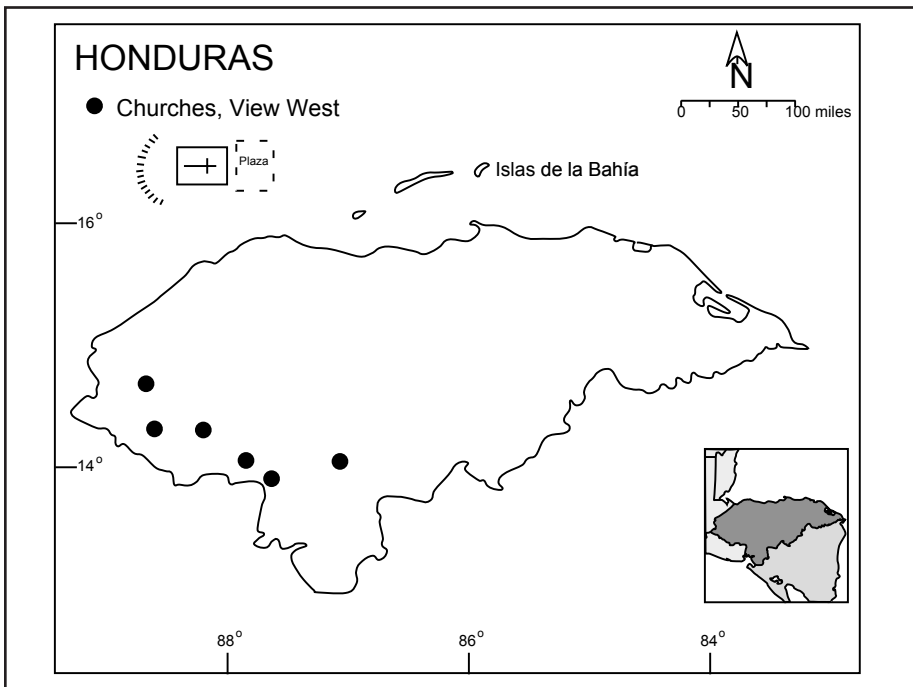


Figure 5. Honduran churches, view west.

a depression that sometimes contained a settlement. At other times the plaza and church were located on the west side of a settlement.

Additional observations occur at the department level (Figure 6). The Department of Valle, in southern Honduras, was the only absolutely consistent region in all categories. In all nine Valle *municipios*, the *cabeceras* have grid patterns and east-west oriented churches on the east side of plazas. Early colonial settlement of the area organized by Franciscans, which followed the Pacific coastal plain into Nicaragua, might explain the Valle consistency.

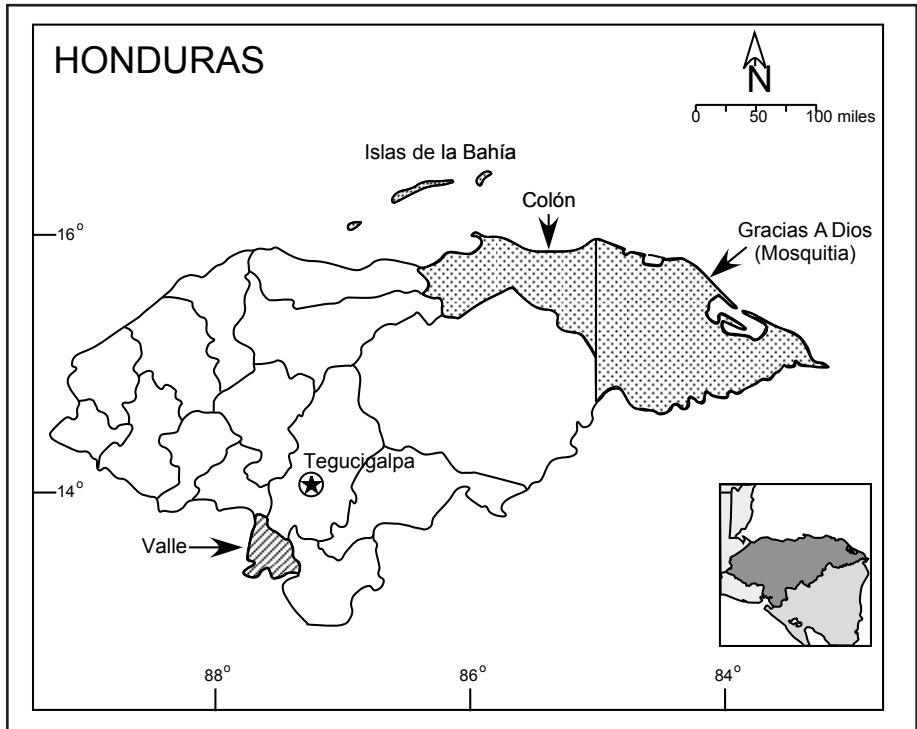


Figure 6. Distinctive departments.

In contrast, the Departments of Gracias a Dios, Colon, and Islas de la Bahía, located along the eastern and northern coasts, were the least consistent regions in all categories, with Gracias a Dios being the least consistent of the three. Of the six municipal capitals in Gracias a Dios, only two had grid patterns and plazas, and none had churches located on the east side of plazas. Furthermore, none of the six had east-west oriented churches. In fact, all six municipal capital churches had generally north or south orientations (Table 2).

Table 2. Gracias a Dios Municipal Capital Church Orientation.

Municipal Capital	Catholic Church		Moravian Church	
	Cardinal Direction Orientation	Feature Orientation	Cardinal Direction Orientation	Feature Orientation
Ahuas	...	...	north	path
Batalla	south	lagoon	...	...
Brus Laguna	north	side street	east	main street
Raya	south	airstrip	south	airstrip
Puerto Lempira	north	main street	northeast	lagoon
Wampusirpe	north	river	...	...

Source: field observations 1996, 1998; Tillman 2004; Honduras census bureau town plans.

The Mosquitia, a Distinctive Honduran Region

The Mosquitia's distinctive historical and cultural geography explains the dissimilarity of municipal capitals in Gracias a Dios (Davidson 1974, 1980, 1984b, 2002; Tillman 2004, 2005). Augelli (1962) classified this distinctive Protestant region, home to the Miskito Indians and the Moravian church, as part of Middle America's Rimland. A closer look at plaza-church locational relations in other Mosquitia settlements reinforces the region's distinctive cultural geography documented in previous studies.

Fieldwork conducted in 33 additional Mosquitian settlements indicates trends similar to those found in the municipal capitals. Notably, the same trends that distinguish this region from the Honduran interior revealed themselves regardless of whether the church was Catholic or Moravian. Only one of the 33 additional settlements had a grid street pattern and only two had plazas. Churches were located on the north and east sides of these two plazas but not on the east.

The orientation of these churches provided the most significant data. Both Catholic and Moravian churches in the Mosquitia can be oriented with the front door opening to any cardinal direction. For example, one of the 15 Catholic churches observed in the additional settlements was oriented to the north, three to the northeast, three to the east, one to the southeast, one to the south, one to the southwest, three to the west, and two to the northwest (Table 3). Similarly, six of the 26 Moravian churches were oriented to the north, two to the northeast, six to the east, one to the southeast, none to the south, three to the southwest, two to the west, and six to the northwest.

The question is: "What were churches in the Mosquitia oriented to if anything at all?" The answer is that rather than being oriented along a generally east-west axis, as 91 percent of the major municipal capital churches in Honduras are, churches in the Mosquitia, including major municipal capital churches, were usually not oriented to specific cardinal directions, but instead were oriented to natural or manmade features in the landscape. For example, two of the municipal capital churches were oriented to bodies of water, including one to a lagoon and one to

Table 3. Gracias a Dios Church Orientation.

Settlement	Catholic Church		Moravian Church	
	Cardinal Direction Orientation	Feature Orientation	Cardinal Direction Orientation	Feature Orientation
Auka	...	...	west	ridge pole
Belén	...	...	east	ridge pole
Benk	...	...	northwest	ridge pole
Cayo Sirpe	northeast	main path	...	...
Cocal	...	...	northwest	plaza
Cocobila	...	...	southwest	lagoon
Dakratara	...	...	east	creek
Dapat	northwest	main path	southwest	lagoon
Ibans	...	...	northwest	ridgepole
Katski	northeast	sea	southeast	main path
Kaurkira	...	...	east	ridgepole
Krata	northeast	main path	...	...
Kruta	west	main path	north	path
Kusua apaika	...	...	north	road
Laka Tabila	east	path	...	...
Lisangnipura	west	road	...	...
Mistruk	...	...	north	path
Mocorón	east	road	northeast	plaza
Nueva Jerusalén	...	...	east	ridge pole
Palkaka	north	path	east	lagoon
Paptalaya	...	...	north	road
Prumnitara	...	...	northeast	main path
Río Plátano	south	soccer field	...	...
Sirsirtara	west	river	northwest	river
Suhi	southeast	river	...	...
Tasbapauni	...	...	north	sea
Tasbaraya	northwest	path	southwest	main path
Tikiuraya	east	river	...	...
Tumtuntara	...	...	east	airstrip
Twitanta	...	...	north	lagoon
Uhi	...	...	northwest	main path
Wauplaya	...	...	west	none
Yahurabila	southwest	path	northwest	lagoon

Source: field observations 1996, 1998; Tillman 2004.

a river, and four were oriented to manmade features, including two to streets (Figure 7), one to a settlement path, and one to a grass airstrip.

My field survey found that Catholic churches located in the non-municipal capital settlements followed the same feature-orientation trend, with four of the Catholic churches oriented to bodies of water (one to the Caribbean Sea, three to rivers) and 11 oriented to manmade features, including eight to settlement paths, two to roads, and one to a soccer field.

Moravian churches exhibited similar feature orientation but with a slightly larger percentage of churches oriented to bodies of water. Eight of the Moravian churches were oriented to bodies of water, including one to the Caribbean Sea, five to lagoons, one to a river, and one to a creek (Figure 8). Eleven were oriented to manmade features, including six to settlement paths, two to roads, two to plazas, one to a grass airstrip,



Figure 7. The Brus Lagoon Catholic church is not adjacent to a plaza. It faces north and is oriented to the adjacent street, 1998 (photo by author).



Figure 8. The Cocobila Moravian church opens to the southwest and is oriented to Ibans Lagoon, 1996 (photo by author).

and one had no apparent feature orientation. Six additional churches, often located in coastal settlements, were oriented such that the ridge-lines of the churches were parallel to the ridgepoles of existing houses. This type of orientation might be an adaptation to the local environment because it generally places the structure perpendicular to the prevailing winds and allows more breezes to enter through the windows.

Conclusions

The single model of plaza-church relationships normally presented by Latin Americanist scholars does not always exist in Honduras. Unlike the textbook illustrations, a grid pattern existed in only 52 percent of municipal capitals and 54 percent of these grids varied more than five degrees off of north. Other settlement features followed the model more closely. The most consistent feature was that 93 percent of the municipal capitals had plazas. The plazas were adjacent to the major church 89 percent of the time, with 85 percent of churches located on the east side of those plazas, and 91 percent of the churches were generally oriented east-west, with the entrance typically on the west. Variations relate to several factors including culture group, physical geography, and settlement size.

Municipal capitals located in the Department of Gracias a Dios exhibited the most variation from the Honduran norm—a fact best illustrated by the stark contrast in church orientation. While 91 percent of Honduran municipal capital churches are oriented along an east-west axis, none of the major municipal capital churches in the Department of Gracias a Dios had such orientation because they were oriented to natural or manmade features rather than cardinal directions. The adjacent Department of Colón and to a lesser extent *Islas de la Bahía* also show a high variation of plaza-church relationships and maps of places without plazas and non-east-west oriented churches located several settlements in these departments.

The variation in plaza-church locational relations in these three peripheral departments is a reflection of their distinct historical and cultural geography that includes, but is not limited to, diverse culture groups, strong influence from Protestant denominations, and such landscape features as settlement morphology, house types, and even the material culture found in cemeteries. Therefore, scholars studying Honduran cultural or regional geography should add the variation in plaza-church locational relations, most particularly church orientation, to the list of items mentioned above that distinguish the departments of Colón, *Islas de la Bahía*, and especially Gracias a Dios, from the Honduran interior.

The future may bring persistent change resulting from the ongoing Hispanicization of these areas. The percentage of the total Honduran population residing in Gracias a Dios has changed little over the last century and is still less than 1 percent (Davidson 2002). The 2001 census indicates that the percentage of Ladinos living in Gracias a Dios is on the rise, however, and this growth corresponds with a greater government presence and increasing Hispanicization of the region. This ongoing His-

panicization of settlements located in peripheral parts of the country will likely result in the construction of more plazas and adjacent churches.

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On Olancho: Geographers, Spatial Identities, and the Construction of a Region

Mark Bonta

This chapter is a two-part geographical essay that 1) comments on the influence of William V. Davidson upon the author's scholarship, and 2) provides a portrait of Olancho, Honduras as drawn from the author's doctoral dissertation and intended as a tribute to Davidson's legacy as the preeminent Honduranist geographer. The geographical portrait attempts to capture the spatial identity of the Olancho region, a culturally autochthonous department that has long intrigued and lured geographers and explorers.

[Trujillo] is a mere collection of huts, inhabited by a few hundred Caribs, who are engaged in the export trade of mahogany, sarsaparilla, cattle, hides, and other produce brought down by convoys of mules from the magnificent province of Olancho.... This highly favored upland region... enjoys a perfectly salubrious climate; its soil is extremely fertile, forest glades and woodlands alternating with rich arable tracts and savannas under succulent herbage, while copious streams flow through every valley, washing down auriferous sands from the wooded and picturesque slopes of the encircling heights.... Yet with all its exceptional advantages, this glorious region is still almost deserted.

Elisée Reclus, from IV. -Honduras (p. 265) in *The Earth and its inhabitants: North America, Vol. II Mexico, Central America, West Indies*, 1897.

Geography as Passion

My geographer mentors have shared a characteristic that, not incidentally, reinforced the reason I become a geographer in the first place: passion for discovery of the secrets that abide in places. Thanks to the quirky way that the mind works, certain phrases—long forgotten by those who pronounce them—stick forever in prominent places within the mental space of the one receiving the pronouncement. I recall with great clarity a declaration by the late Peter Gould

Ethno- and Historical Geographic Studies in Latin America: Essays Honoring William V. Davidson, edited by Peter H. Herlihy, Kent Mathewson, and Craig S. Revels, 193-206. Geoscience Publications, Department of Geography and Anthropology, Louisiana State University, Baton Rouge, LA 70803-4105.

that came at just the right time during my befuddled and booze-clouded freshman year (1987) at Penn State: “You *are* a geographer!”

And so I became one. By the time I finished my B.A., and, once again, by the time I finished my M.A. at University of Texas, I knew that I knew what geography *really* was supposed to do as it plumbed the mysteries of places and spaces: it was spatial analysis, of course... or was it cultural ecology? Was geography a spatial science, was it a social science, or did it dwell authentically among the humanities?

I defected from the University of Texas to LSU for my doctoral studies primarily because of the eclectic vibes I received from geographers-slash-anthropologists regarding the work I was doing and the work I sought to continue to be permitted to do: phenomenological geography in Honduras, a la Heidegger. There were Drs. Miles Richardson, Kent Mathewson, and William V. Davidson, and all were familiar with—amazingly enough, in my mind—not only Honduras but even my *patria chica*, Olancho, which most people in the rest of the world, if they’ve heard of it at all, shudder at the thought. Bill, of course, was *the* leading Honduranist geographer in existence—I had thought of myself as somewhat of the Honduras expert at the University of Texas, but I was quickly put to shame by Bill’s vast knowledge of the country.

There was much to learn at LSU, and particularly the fact that no one really can put their finger on what geography should be (I still can’t, but I’ve stopped trying) other than all the things it already is: wonderful dissonance, creative confusion, a breeding ground for contorted and unlikely, but always earthy, associations.

Bill Davidson, nevertheless, at one point did pronounce to me a declaration of what geography ought to be, and it stayed with me through the early years of my tenure track. This immortal wisdom that stuck fast in my mind—and I am completely serious about this—was his counsel to me that *geography should be fun*. Teaching it should be fun. Thinking it should be fun. And, foremost, doing geography in Honduras ought always to be fun. If academics did not in all seriousness enjoy what they did, what was the point of being one?

So for my dissertation research I set out to have fun and to do justice to Olancho, a culturally autochthonous eastern Honduran department that occupies one quarter of the nation’s land area. I moved away from Heidegger into Deleuzian realms, seeking a better way to describe and explain the fluid spatialities revealed by the post-Hurricane Mitch world of 1999-2000, but also to attempt to reveal the always-too-complex “deep” geohistory that had accreted in the landscape in the time prior to the year 2000 A.D.

True to an LSU tradition, I dwelt as much in my field sites and as little in Baton Rouge as possible, soaking in senses of place, spatial conflicts, and (best beloved to Bill D.), the histoplasmosis-inducing sheaves of larvae-tunneled archival materials that helped give historical depth to my spatial portrait of Olancho-as-region. This geohistory, I felt, would be an antidote to, or at least provide immunity from, the untruths and exagger-

ations inherent in the largely ahistorical spatial explanations for Olancho deployed by powerful actors such as conservation groups and development projects. Miles Richardson, chair of my committee, had oversight of my research methods, writing style, scope, and theoretical grounding; all this was territory that Bill Davidson could comfortably eschew while he homed in on my take on the microhistories crawling across the amber-hued pages encased in moldering rooms in the archives of Comayagua, Tegucigalpa, Ciudad de Guatemala, and a host of remote municipalities within Olancho. Bill could provide insight on just about every possible facet of Honduras' historical geography, given that he had already written on the ethnohistories of the Tawahka, Pech, Tolupan, Miskito, and the Bay Islands (Davidson 1974, 1984, 1985, 1985a, 1991). He had covered Olancho in several of these writings, generally in his work on indigenous groups, as had some of his students (Mack 1996, 1997; Sampson 1997), but an ethnohistory (which became chapter three of my dissertation), not to mention a regional geography, of the Spanish, mestizo and mulatto core of Olancho—the “true Olancho”—had never been attempted.

My dissertation (Bonta 2001) contained case studies, but was not a case study. It deployed Deleuze, but was not simply a demonstration of how to “do” him (see Bonta and Protevi 2004). In reality, I couldn't quite figure out what it was that I had written, which is why I entitled the pre-defense draft “Mapping *enredos* of complex spaces”—the gerund implies the forever incomplete task of ethnographical mapping, suggesting that the author is not attempting to provide a definitive statement. It was Bill D. who strongly suggested I add “regional” to the subtitle, to show that theoretically informed regional geographies were still possible, and necessary, and emphatically not passé. This was another pronouncement that has stuck in my long-term memory.

I crammed a lot of geography into my dissertation's 558 pages as I tried to demonstrate (“map”), using the situation of the spatial *enredo* (entanglement) as exemplified by contentious meetings over the fate of post-Mitch places, that big-S “Space” is comprised of numerous intertwined and only semi-congealed spaces spawned and enacted by spatial identities with distinct historical trajectories. Using Hurricane Mitch as a metaphorical and actual *force majeure*, I set out to trace the unique geohistories of “cattle space,” “coffee space,” “campesino space,” and a host of others that, together, generate the landscapes and territories that comprise *aldeas*, *comarcas*, *municipios*, and, at the widest scale under consideration, the distinct region of Olancho itself. I also documented the contribution of the non-human, showing how geology and climate and life contribute to a lack of centrality and a bewilderingly chaotic collection of zonal differentiations and biodiversities that work their way into the heart of what it means to be Olancho, but also provide an irresistible allure to outsiders—savers of the rain forest, miners of the gold, cutters of the timber, and developers of the un- and underdeveloped.

In short, the study was a result of applying non-linear dynamics—complexity theory—to a somewhat marginal (or marginalized, depend-

ing on one's outlook) region of the planet, to try to make sense out of spatially anchored conflicts and spatially rooted alliances and perhaps draw some general conclusions about the nature of space. The allure for me, at the most fundamental level, what kept (and keeps) bringing me back, was the mystique of "Olancho" itself, a place into which the United States Peace Corps placed me in 1991, and into which marriage emplaced me in 1995. This allure has much to do with what Louisianans call "lagniappe" – a little something extra. There were and are always more geographical secrets to discover, conceptually as well as empirically.

Bill D. and I always have shared the realization that Honduras, like any well-loved place, provides a lifetime of inspiration and work; at the end of it all, one is always still only at the very beginning of new questions and, we hope, still having fun.

What follows is an updated adaptation of a brief section of my dissertation, "Gold, Violence, and the Vast," section one of chapter three, Cultural Histories. It is intended as a tribute to Bill Davidson's fascination with Olancho and his unwavering support of the larger study I undertook there; hopefully it captures the "spatial identity" of Olancho to some extent. The adapted section is essentially one of the knots at the heart of my study and the *sine qua non* of any understanding of the need to study Olancho in the first place – a qualitative approach, literally, to the region, that unpacks both the real and the *faux* mythos that simultaneously attracts and repels local people as well as outsiders. It attempts to sketch what makes a region unique – certainly a crucial question for any regional geography. Gold, violence, and vastness form a triptych visible from any and every point in Olancho, historical and contemporary, mental and material, straight-on or in the mirror.

Olancho: ancho para entrar, angosto para salir (An old saying thought to mean that Olancho receives with open arms, but the way out is difficult to find; the latter can signify many things.)

Tierra de oro y del talento cuna (Land of gold and cradle of talent.)

Soy olanchano...¿y qué? (A common bumper sticker, translatable as "I'm Olanchano...want to make something of it?")

Yo ♥ Olancho (A very common bumper sticker.)

On Olancho: Gold, Violence, and the Vast

Olancho and *olanchanos* are distinct from Honduras and *hondureños*. Hondurans often comment that in Latin America, being Honduran carries a stigma. They are frequently reminded that theirs is a poor country with many problems, ranked near the bottom in lists of Latin American human-development indicators. Not only do they not measure up to the wealthy and developed northern countries, but also they feel inferior to the rest of Central America, with the occasional exception of Nicaragua. It is commonly believed that Salvadorans work harder, Nicaraguans

are more revolutionary, Guatemalans are more educated, and Costa Ricans are wealthier and more peaceful. Mexicans, who exert a strong cultural influence on Honduras, are seen as far advanced in development, fine arts, and entertainment. Honduras is at the bottom, they say.

Honduran self-awareness of marginalization and extreme poverty stretches back to the very beginning of colonization—Honduras was chaotic, backward, and corrupt: an embarrassment to colonial officials, an undesirable place to settle (Chamberlain captures this epoch well in *The Conquest and Colonization of Honduras, 1502-1550* [1953:1]).

During the 19th century, Honduras was riven by war after war, though Hondurans were not yet seen by outsiders as any more impoverished than inhabitants of many European countries (Charles 1890; Lester 1884). (The former work, perhaps surprisingly given the date, is actually one of the few culturally sensitive accounts of everyday life in Honduras at the time.)

Then Honduras became the “Banana Republic” and the gap between rich North and poor South yawned (Figure 1). Recent disasters such as Hurricane Mitch (1998) continue to embarrass Hondurans, who watched the world watching their country washed away by mud: “poor, poor people.” “They/we destroyed the environment, and this is what they/we get.” Every day, Honduran newspapers report local kidnappings, homicides, child stealing, deforestation, corruption, street gangs, drug



Figure 1. “God Bless the prodigious land of my birth.” An oft-quoted line of poetry by Froylan Turcios (hijo) on the plaque marking his July 7, 1874 birthplace in Juticalpa, Olancho. Turcios, a poet, journalist, and pamphleteer, was a leading critic of United States influence, and particularly banana politics, in the early decades of the 20th century.

trafficking, and other modern ills, reinforcing the common opinion that the country is worse off than ever, undergoing rapid social and environmental decay in a downward spiral toward chaos and anarchy. There are bright spots, such as the internationally famous Ruinas de Copán and the Bay Islands, international wins by Honduran soccer teams, and Hondurans who are recognized on the Univisión television channel for their artistic and scientific excellency. However, though many Hondurans remain patriotic, most seem depressed and even cynical about their country and its future. Olanchanos, however, are another matter.

The Olanchano identity is adopted not only by native-born Olanchanos but also by Honduran outsiders who reside there, and sometimes by non-Hondurans as well: aid workers, Catholic priests, me. Utterances such as “I came to Olancho 25 years ago, but I consider myself almost Olanchano” and “Olancho is my adoptive land” are heard. Pride in being Olanchano is part of the fabric of everyday life among privileged townspeople as well as impoverished rural dwellers. Ever since I married and spent significant time in Olancho, returning year after year, I have been asked, not infrequently, why I would even want to live anywhere else.

Olanchanos are thought of by other Hondurans as a breed apart—a passionate, violent breed. Olancho, at least since the mid-1800s, has had a reputation for extreme violence. “The Olanchano solves problems with a gun.” “Even the women pack guns.” (Today, by all indications, it is no more violent than other areas of the country.) This is a mythos that Olancho both rejects and embraces. Being an Olanchano is an empowering identity that hides or refuses to accept the embarrassments signified by “Honduran.”

Olancho constructs itself, and has been constructed by outsiders, for at least five centuries, as wealthy beyond imagining. Everywhere are gold, forests, wildlife, cattle: bigger, wilder, more fecund. There is more of everything in Olancho, except people. Olancho is frequently mentioned as “larger than El Salvador” but “virtually empty.” Travel guides tout it as the “Wild West” or “Wild East” (Gollin and Mader 1998:235-251). Olancho is painted as a miniature Texas, but with the frontier frozen in place. In some narratives, the guns are for enemies of the family, not for use against outsiders, whom such larger-than-life Olanchanos see as irrelevant to their legendary disputes. There is even a novel—*Los gallos de San Esteban*, by Costa Rican Oscar Núñez Olivás (2000), based on the most famous of Olancho’s recent vendettas, one that became a mini-war and stretched for at least a decade through the 1980s and 1990s, involving the Nájera and Turcios clans, and anyone even remotely related to them. This mini-war become the stand-in for all Olancho in the minds of “civilized” Hondurans (the violence came to end only after the signing of a peace accord brokered by the Catholic church, and the erecting of a peace monument in San Esteban).

Olancho is also “vast.” Though only slightly larger than New Hampshire, most Hondurans and many foreigners think of it as enormous. I have never heard of Olancho referred to as “tiny” even though

it fits inside Honduras, which is almost always mentioned as a small country. Olancho's phenomenological vastness is due to its wide open central plains (*valles*) rimmed by "towering" mountains, and the seemingly endless outlying hills and mountains tracked by poorly maintained roads. Vehicular journeys to villages that are only a few kilometers "*como vuela el pájaro*" (as the crow flies) can take several hours. Olancho has no roads at all east into the Moskitia, but instead a deep rain forest barrier crossable in several days or weeks on foot or in five days via motorized *pipante* (dugout) down the Río Patuca.

Olancho is constructed by its authors as fabulously wealthy in cattle, agricultural potential, timber, gold, and natural resources in general. According to conservationists (including me), it is also richer in flora and fauna than most other North and Central American regions of similar size. It has as many bird species as the state of Texas (Bonta 2003). Olancho is mysterious, dotted by undiscovered ruins like the "Ciudad Blanca" (White City) somewhere out in the Río Plátano Biosphere Reserve. The gateway to the downstream world of the Río Patuca is the Portal del Infierno, the "Gates of Hell" that are in reality but a modest set of rapids the importance of which Olanchanos and outsiders, but only those who have not seen them, tend to exaggerate vastly. Under his pseudonym "Samuel Bard," E.G. Squier (1965[1855]:307-310) described a fictional trip (with an accompanying landscape sketch) through an imagined Portal del Infierno resembling Hell's Canyon in the U.S. or the Colca Canyon in Peru. Squier, a diplomat who avidly supported U.S. imperialism in Central America, was most likely exaggerating the difficulty of the passage for the benefit of British readers: "the English and the Mosquito King, ascending the Río Patuca, had recently made a miserably failed attempt to conquer Juticalpa and claim Olancho for England." Or so the story goes.

Olanchanos, however, according to them and to other Hondurans, have never known how to take advantage of all the fabulous and mysterious wealth and power hidden in their landscapes. This is because Olanchanos are "lazy" — "Lazy like an Olanchano" is an expression that even Olanchanos use. In this land of milk and honey (literally, according to Wells 1857), life has been too easy throughout history because *la Madre Tierra* has produced an overabundance of gifts. At least in the old days, plantains, the staff of life, grew bigger and more abundantly, hardly needing to be tended; one only had to stretch one's arm from the hammock to grasp a foot-long *plátano* and send it off to the kitchen for breakfast, lunch, and dinner. Cattle multiplied exponentially across the landscape with little need for attention beyond the lazy survey of the horse-lord on horseback. The Olanchano has just sat back and enjoyed — such are the characterizations of 19th-century outsiders enthralled by Manifest Destiny, but such also are the memories of today's nostalgic citizens.

Today, Olanchanos are as quick as other Hondurans to anathematize the destruction of their forests, the extreme violence, the poverty, the oppression, the backwardness, the flight out to "los United" ...but

somehow, all this does not add up to negativism about or rejection of the Olancho identity. People who feel themselves to be “true Olanchanos” (*verdaderos olanchanos*) are not embarrassed by these negative traits and their frequent citation in the press, but rather revel, obstinately, in what makes Olancho unique. Olancho, I have been told more than once, is, in its history and its destiny, bigger and better than its “development” statistics can ever hope to show. You just have to *be there* to understand this.

“Olancho” is a spatially attuned identity reinforced by the mundane things of everyday life – by gazing at, and sniffing, and catching a whiff of the burning of the landscape, and by the never-ending silent conversations between people and the spaces that they inhabit. But to be Olancho, one also has to continually repeat that one is Olancho, and that “This is Olancho.” The newcomer is told, over and over again from the very first day, “Aquí es Olancho,” as if that explained everything. It is understood that one is not *really* in Honduras any more.

Everyday life in Olancho is not necessarily about being (or striving to be) Olancho. It is also about belonging to a family, a village, and a *municipio*; simultaneously, being *campesina*, and/or rancher, and/or coffee farmer, and/or politician, and/or mother, father, *tío abuelo* – and all the other spatially shaped identities that vie for one’s affections and circumscribe one’s habits and attitudes. There are also intraregional distinctions of the first order – the Gualaqueños, inhabitants of the “huge” northeastern municipality of Gualaco who have protested centralized, i.e. Juticalpa’s, authority on repeated occasions, are often thought of as a dangerous, ignorant, and unruly lot who don’t measure up to the standards of the “true Olancho” set by residents of Juticalpa (the capital) and its twin Catacamas. In Olancho, there is something about being from one of those Pueblos del Norte (northern towns) that sets one apart as more violent and less respectful of authority. However, sympathizers see *them* as more “truly” Olancho, while others slander them as anachronistic in a “new Olancho” that could still be vast and wealthy, but just a wee bit more cooperative with the lumber companies, hydroelectric companies, and other outside forces that the Honduran state attempts to aid in their quest for local resources.

One way or the other, the spatialized identity “Olancho” contains an imbedded hierarchy of core area and concentric zones, meaning that wherever one dwells one does so in relation to more and less important places and people. Juticalpa, the capital, is at the center in most ways – administrative, educational, physical, and cultural. But Juticalpa erodes its authentic Olancho quality because it is where the often unwanted Outside filters or stomps in – national and international governmental ministry and aid offices as well as the military command center for eastern Honduras are clustered there. Historically, Juticalpa has sided with the central government – in the “Ahorcancina” (Hanging) of 1865, for example, when the dictator “Medinón” smashed the Olancho insurgency, hanging hundreds of guerrillas from tree branches, burning the rebellious northern towns, and exiling the guerrillas’ families.

Catacamas (equally developed) vies with Juticalpa as authentic cultural center of a "true Olancho." Together, they are two "poles of development" sharing the undisputed heart of Olancho, the Valle de Olancho (a seasonally dry tropical terrace plain). The surrounding hills and mountains, and the remoter *valles* beyond, and the endless mountains beyond them, are hinterland—more rustic, indeed, but perhaps felt by their inhabitants to be more authentically Olanchano, particularly as the core of the department becomes saturated by "progressive" outsiders bringing asbestos roofs and 35 cable channels.

Each of the remaining 21 *municipios* are one or more steps down the ladder from Juticalpa and Catacamas. But each is also a world of its own, with a specific cultural history, *patrimonio*, core, and hinterland. The scale of the vast does not stop at Olancho as a whole, either: there is an internal vastness in some municipalities as well. Many residents of Catacamas and Gualaco refer to their own *municipios* as "vast." Catacamas, they say, is the largest *municipio* in Central America (technically this is no longer true). Gualaqueños take three to four days by the best available transport (in vehicle, mounted, or on foot, depending on the season) to cross their *municipio* from the Sierra de Agalta in the south to the Montaña de Botaderos in the north.

Farther down the spatial hierarchy, *aldeas* measure their distances to their municipal *cabecera*, while hamlets measure their distances to their jurisdictional *aldea*. *Aldeas*, as *comarcas*, are also their own worlds. From the point of view of the central government, these are all "subdivisions" of a greater unity: Honduras. Lived from "within," however, each local spatial "unit" is synergistically greater than the sum of its parts, entangled in some ways with neighbors but standing apart from them as well.

At the fringes of Olancho, spatial identities turn away toward other departments. Olanchanos sometimes express the feeling that the peripheral *municipios* (e.g. Patuca, Guayape, Esquipulas del Norte) are cultural traitors to Olancho. Nevertheless, while there is an outward gaze and allegiance at the periphery of Olancho, a clear frontier between inside and outside still exists in many areas. Within the space of a few kilometers, one hears about "los olanchanos" (spoken sometimes with dread) over there on the other side of the hill, *Adentro*. On crossing the *guardarrayas* (border), we meet the dreaded ones who purse their lips to point with them back at the Outside: "Aquellos no son olanchanos."

Entering Olancho from the west, from Tegucigalpa, the most heavily traveled route and the only way to get in on a paved road, the Olanchano who has been away for a bit may have cause for celebration and may feel a sense of relief, even if she was only gone for the day in nearby Tegucigalpa. The border between the department of Francisco Morazán (specifically, the *municipio* of Guaimaca) and Olancho's *municipio* of Campamento is at a water divide in the piney hills, and the difference between inside and outside is immediately apparent, even to the casual viewer. From the point of view of Tegucigalpa, Guaimaca itself is a frontier *municipio*, with wide-open spaces and every bit as

violent as Olancho. But even though Guaimaca is also on the Caribbean Slope, in the headwaters of a river that drains into Olancho, it is considerably drier than Campamento because of an imposing rain-shadow. Its vegetation is poor in comparison to Campamento's, owing to a different microclimate as well as to the inferior quality of its soils.

One ascends through Guaimaca's pine-forested *ejidos*, almost devoid of dwellings, past sawmills owned by a Cuban-Honduran, Miami-based multi-millionaire, that Olanchanos like to comment contain "Olancho" or "Gualaco." When a loaded logging truck is seen exiting Olancho, one remarks "Allí va Olancho." One knows that only Olancho could provide so much wood: Francisco Morazán has long been decimated.

At the top of the hill in the middle of the woods, there are between five and ten signs in any given year welcoming one to Olancho in the name of various private clubs and government agencies (some signs are burned accidentally during the dry season; other are removed after extensive target practice). Leaving Olancho, several signs wish you a "Feliz Viaje," but only one, the official government sign seen entering all departments, welcomes you to Francisco Morazán. In previous years, a whimsical sign that welcomed visitors to the República Libre de Olancho leaving a lasting impression on many outsiders (Figure 2).



Figure 2. "Welcome to the Free Republic of Olancho." Notorious sign-bearing the logo of "La Gran María" (a business)—that once graced the unofficial border crossing between Francisco Morazán and Olancho departments. A photo of this sign is now on display at the Olancho Historical Museum in the Casa de la Cultura, Juticalpa.

Once inside, in the blink of an eye, Olanchno passengers no longer measure the journey by how long it's been since they crawled up out of Tegucigalpa (two hours), but in how long it will take them to get home, after in most cases passing through Juticalpa. The farthest settled reaches of the department are still three days away.

Inexperienced outsiders, and particularly first-time visitors, may become uneasy or even terrified, expecting their car or bus to be held up at any moment. The women out there are probably packing sidearms, like in the stories told by Tegucigalpa taxi drivers. See them leer, the Olanchnos? Don't trust them: they are looking for trouble. Don't even glance at them: they can kill you for "looking at them wrong" (as in, "*Lo mató porque le miró mal*").

Two travelers' accounts draw the striking difference between the outside and Olancho along this route, and show that the distinction is nothing new. In *Explorations and Adventures in Honduras, Comprising Sketches of Travel in the Gold Regions of Olancho* (1857), the inimitable explorer William Wells, backed by New York capitalists who wished to set up a colony in Olancho that used slaves to extract gold, commented repeatedly during his 1854 trip how harsh, empty, and impoverished were the landscapes on the road from Tegucigalpa to Olancho: Talanga, and particularly Guaimaca, are unfriendly, inhospitable, and almost starving: "these mountain villages present pictures of extreme poverty...The villagers seem to have nothing to eat, or, if they have, it is so little that they are loath to share or sell it" (254). A few pages later: "We were now in Olancho...[a host in Campamento proffered immediately] an abundance of tortillas and other eatables" (260-261). Glowing descriptions of gold, hospitality, the Zelaya cattle lords, and vast, rich plains soon follow. A century later, naturalist Archie Carr, in *High Jungles and Low* (1953), remarked on the refreshing difference between arid Guaimaca and humid Campamento, felt soon after crossing the pass, and attributed it to the influence of the northeast trades. Quite stereotypically, the glimpse of Olancho afforded to him at this point was of a ghostly machete fight seen from a safe distance, through the mountain mist. He entered no further.

Within half an hour of penetrating the frontier, the bus crosses the legendary Río Guayape, and one thinks of all that 22-karat Guayape "green" gold, still waiting, buried deeper, it is said, by the sands of "El Diluvio" (i.e. Mitch). Above and beyond the great river, a pause at Limones, the turn-off where a dirt highway trundles off to the north coast: "*El Corredor de la Muerte*," the Corridor of Death, as the papers call it. The U.S. State Department classifies this highway as off-limits to U.S. citizens on official business — no USAID employees or Peace Corps Volunteers allowed. For the rest of us, before driving the highway, one checks with the hangers-about to find out "*si han asaltado hoy*" (if there has been a bandit attack yet that day) — if so, it is alright to go through. But not okay, of course, to *ever* take a detour to El Tigre, a village in a cul-de-sac a bit off the road not far from Limones, renowned among Olanchnos as the most dangerous place in the department. Which is saying a lot.

Continuing on the paved road east, one skims over the Valle de Lepaguare at breakneck speed, observing cowboys and cattle and eggplant plantations, and sublime landscapes about which Wells (1857:267-268) remarked:

The scenery...exceeded anything I had ever seen....All around me a blue horizon of mountains, embracing a wide landscape...with the richest verdure....An ocean of gold and green undulating in the purple tints of sunset!

Traveling from the west, one notices that Lepaguare's vegetation contains more giant figs, *ceibas*, *guanacastes*, *tempisques*, and other trees of large, spreading aspect. Beloved pines (the Honduran national tree) skitter down from the mountains onto the fringes of the plain. But all the views that to Olanchanos exemplify the true Olancho cannot hide the dread many feel on passing the site of the 1975 Horcones massacre—*right over there, in that patch of scrub on the north side of the road, where two priests and the other martyrs were tortured, burned, and buried at the bottom of a deep well on the Manuel Zelaya (senior) ranch, to punctuate the end of grassroots land reform (Figure 3). Olanchanos: sensorily awash in their pines and prairies, but maybe still guilty or outraged too, reading that landscape of death, again and again, every time they go by. There is no forgetting, but also no speaking, at least on public transport. Not about such invisible things.*

A few minutes after leaving Lepaguare, the bus winds down into "el corazón de Olancho," the Valle de Olancho, stretching 80 kilometers, beyond the horizon. Here are luxuriant watercourses, cattle ranches,



Figure 3. Cerro de Horcones in Valle de Lepaguare. Dense carbonal (thicket of *Mimosa tenuiflora* Willd.) slightly above dead center marks the spot of the deep well where two Catholic priests and other victims of a 1975 massacre were buried after being tortured, killed, and burned.

and prosperous ranchers in late-model \$40,000 sport-utility vehicles, corn and sorghum fields. These are the "*pampas olanchanas*" (according to Olanchanos, a miniature Argentina) that "look like Montana, Big Sky Country" (according to people from the U.S. I have overheard). Many of the pickups have tinted windows, a hedge against identification by *los enemigos*—and what Olanchano doesn't have at least a few?

Spatial clichés roll fast and thick off the tongue in the Valle de Olanchó—it is Texas, Argentina, Montana, and eastern Africa rolled together. These connections to areas many times its size and geopolitical importance are not to be taken lightly, because they help define what Olanchó means to its people, or what they wish it were. But Olanchó's main geopolitical importance was actually during the 1980s Contra War—the U.S. maintained a "secret" CIA-Contra training base at El Aguacate airfield outside Catacamas. This, however, is rarely mentioned in polite company any more, even with the mass graves of tortured victims still being dug up and identified by forensic anthropologists. Few who survived Aguacate venture to recount to anyone how they had the "capucha" [hood] tied into place over their heads and electrodes attached to their genitals, under the watchful gaze of "el hombre" [the Man]. Fewer still talk about "Canuto," the Robin Hood-type Gualaco bandit who during the 1980s stole from and murdered the landed elite and distributed part of the booty to impoverished villagers. Canuto, who could turn into a *plátano* tree if pursued, was hunted down and ambushed by the military, who displayed his corpse to his mother, who positively identified it. Nevertheless, in Gualaco it is widely believed he is still alive, and probably in the States (Graham 2002). Meanwhile, the latest overt signs of Olanchanos' perpetual resistance against the central state comes in the form of Padre Tamayo, Padre Osmin, and other avowed non-violent social-environmental leaders who have stirred thousands of Olanchanos to march all the way to Tegucigalpa to protest environmental destruction, once every year, making the international media, drawing the likes of a member of the Kennedy clan and a Hollywood actor to the cause, and altogether causing doubt in Tegucigalpa as to how lazy Olanchanos really are. The rest of Honduras also has another cause for concern—both major party presidential candidates for the 2005 elections were native Olanchanos from Juticalpa, one a scion of the Zelaya dynasty made famous by Wells' 1857 narrative and rendered infamous by the Horcones massacre, the other a Lobo, blue-blood *terratenientes* who turn up as mulatto title-seekers in Juticalpa as early as 1682. Zelaya was said to be a Chavista, while Lobo proclaimed the power of the "mano dura" and campaigned on a platform of bringing back the death penalty.

Olancho's often scornful relationship with Honduras helps to stave off, in imagination at least, if not in experience, the embarrassment or frustration of being Honduran. Belief in vastness, and in buried gold, and the cleansing force of violence and now non-violence, palliative or not, is how to be in Olancho and how to become Olanchano, and

how to remain Olancho even while you are always being told you're backward and insignificant. This is, in essence, the geography of the sweeping statement, the outstretched arm engulfing the landscape.

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Failed Site and Situation, Omoa, Honduras, 1744 - 1800

Taylor E. Mack

Unbridled smuggling along Central America's Caribbean coast in the early 18th century so rankled Spanish colonial officials that they decided new fortifications on the coast were needed to control trade and stamp out all contraband. Although Spanish officials already determined the Matinas Coast in Costa Rica and the abandoned port city of Trujillo, Honduras to be the locations for the new forts, the Spanish engineer Luis Diez Navarro decided to carry out the only extensive survey of Caribbean Coast of Central America during the colonial period in order to find the best locations. In his 1744 report, Diez Navarro assessed the site and situation of the various bays, coves, and river mouths of the region, judging each location according to the Spanish abilities to fortify and defend the sites against enemy raids and to stop contraband trade. Rather than refortifying the old port at Trujillo, Diez Navarro instead chose the Bahía de Omoa for a new fort. This choice reflected his judgment of the weakness of the Spanish situation at that time along the Costa Norte of Honduras, as well as his views towards building Omoa into an important port city.

While Omoa was a near total failure in stopping contraband trade along the coast, the site did begin to thrive and served as a major commercial port until the 1870s. In 1744, Diez Navarro noted several features of the Bahía de Omoa that recommended it as a harbor for a new fortified port. Building the largest colonial fort in Central America greatly changed the cultural landscape of the bay and surrounding area, including not only the fort itself, but the slave labor needed in construction, and the accompanying modification of the natural landscape. Clearing of forested areas for food plots and to rid the area of what were perceived as unhealthy elements likely contributed to silting along the shoreline, making the transfer of trade goods from ship to shore more difficult. Although used for a century after completing con-

struction of the fort, merchants later abandoned Omoa in favor of better port facilities, and the Bahía de Omoa that had so impressed Diez Navarro during his reconnaissance of the coast does not even exist today.

Contraband and English Settlement on the Costa Norte

By the 1680s, the Spanish had abandoned the Caribbean port of Trujillo, Honduras, because of repeated pirate attacks against which they could not defend (Figure 1) (Castro y Ayala 1683; Aguilar 1684; Mack 1997). The Spanish moved away from the coast, settling inland throughout the Río Aguán Valley where an attack from pirates was less likely, but it also moved the line of the settlement frontier back from the coast, leaving it unoccupied (Ayala 1698; Manrique 1702; Floyd 1967). Not only was Spain's position along the Costa Norte weakened by moving inland, it was weakened on the international front during the War of Spanish Succession (1701-1713), civil war in Barcelona in 1713, and other wars from 1717 to 1748, wherein Spain lost all of its Italian possessions, and could barely afford to defend its American possessions (Floyd 1967).

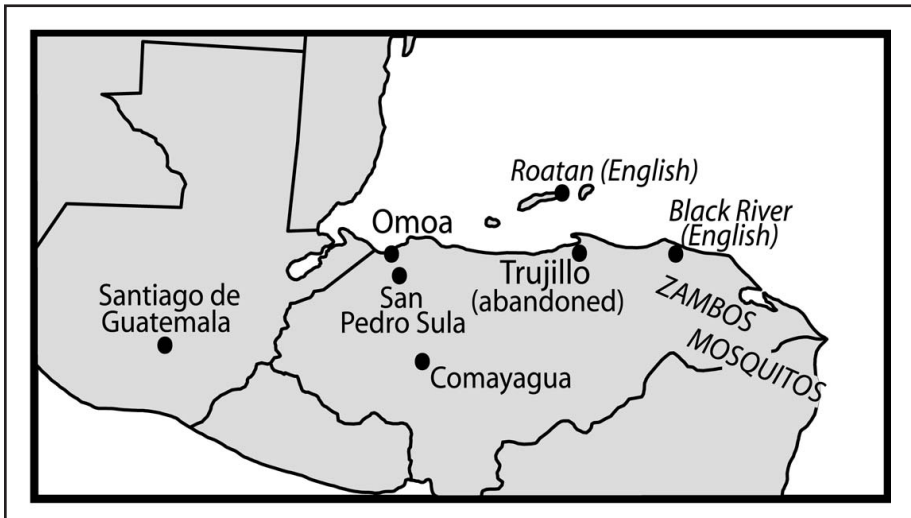


Figure 1. Situation in the Audiencia de Guatemala, 1740s.

Besides the problems in Europe, Spanish colonists had to contend with attacks in the early 1700s by the Zambos-Mosquitos in Nicaragua and Costa Rica (Floyd 1967). At least piracy had largely come to an end along the Caribbean coast of Central America; however it was replaced with more profitable contraband trade (MacLeod 1973; Wortman 1985; Perez-Brignoli 1989; Mack 1998; Galvin 1999). This contraband trade was open to people of all nations, with the Spanish, both from Spain and Central America, mestizos and mulattos, the English, and the Zambos-Mosquitos all taking part (Floyd 1967; MacLeod 1973; Mack 1998). Needing revenue to defend against the Zambos-Mosquitos and contra-

band trade, the Spanish saw the need for a fort to serve both as a customs house and defensive position against smugglers and other enemies of the Spanish Empire (Floyd 1967). The King of Spain even remarked that the Spanish Crown could not protect or defend the Central American colonies from either enemies or smugglers because no tax revenues were collected from the trade in contraband goods (El Rey 1740). It is unlikely that even those the Spanish Crown wished to protect from smuggling were interested in stopping the trade, because, as one Spanish investigator of the contraband trade remarked, "all the people of that land [Honduras] support themselves by trade with the English" (Sierra 1776).

To add to the problems of the Spanish, the English began to settle along the coast of Mosquitia, to the east of Trujillo. The most important English settlement was Black River, located at the mouth of the Río Tinto (Floyd 1967). Allied with the Zambos-Mosquitos, England dominated the contraband trade into Central America by the middle of the 18th century, largely from Black River (Wortman 1982; Clark, Dawson, and Drake 1983; Mack 1998). Goods from England were traded for products from Mosquitia at Black River, or were transported inland up the rivers to the Spanish subjects in Honduras, with many Spanish in high office, both religious and secular, taking part in the trade, as well as other subjects of lower socioeconomic status (AGI 1725, 1744, 1745a, 1745b, 1746a, 1746b; Díez Navarro 1744, 1758; MacLeod 1973; Wortman 1982; Mack 1998). Spanish officials were notably concerned that English activity in the Caribbean in the first half of the 18th century might lead to an even greater increase of their settlements along Mosquitia (Consejo de India 1741).

As early as 1732, the Spanish realized there was a need to defend the coast from contraband trade and to stop any more settlement by the English (El Rey 1732). Although plans were submitted to rebuild the fort at Trujillo in 1737, the War of the Polish Succession in the 1730s prevented Spain from acting on them (Floyd 1967). In 1737, the presidente of the Audiencia de Guatemala proposed two forts, one at Trujillo and one on the Matina Coast in Costa Rica to stop illegal trade (Rivera 1737). The Council of the Indies finally ordered the fort at Trujillo to be rebuilt to fight the contraband trade (Consejo de Indias 1740), and the orders of this important body finally moved the project along, when Ingeniero Luis Díez Navarro was ordered by the king in March of 1741, to construct the two forts along Central America's Caribbean coast (Rubio Sánchez 1987). Díez Navarro already had 25 years of experience in the military, and had served as a military engineer at the siege of Gibraltar in 1726, worked on the forts in Cádiz, Spain, and San Juan de Ulúa in Veracruz, Mexico, and was directing the construction of Mexico City's new mint that he finished in 1742, before proceeding to the Audiencia of Guatemala to take on his new assignment (Floyd 1967).

Coastal Survey of Díez Navarro

Díez Navarro was ordered by the president y capitán general de la Audiencia de Guatemala to survey the bays, coves, and river mouths of

the Costa Norte to study the best sites for locating the forts (Rubio Sánchez 1987). This was the first and only detailed survey of Central America's Caribbean coast during the colonial period. He began the survey in January of 1743, and proceeded down the coast from Guatemala to Nicaragua (Diez Navarro 1744a). His report contains tremendous details of the physical geography of the sites he visited, occasionally delving into the situation of the more important sites. Diez Navarro used this information to evaluate each site according to their suitability to defend against the enemy entering the coast, and to attack the contraband trade along that was rampant along the coast. It is noteworthy that these forts were proposed largely to stop contraband, yet, his first priority was defense. Diez Navarro's choice to fortify the bay at Omoa reflects the limits of Spanish colonial power in this latter part of the colonial period, rather than operating from a position of strength with stopping contraband as the first priority. His report covers a full 21 folios, but the first half contains plenty of details on Omoa and Trujillo, clarifying that the Spanish Empire—especially in Central America—was in a state of weakness.

Diez Navarro compared the site and situation of both Omoa and Trujillo, giving preference to the former, stating that it could be fortified at less cost and risk than any other port (Figure 2) (Diez Navarro 1744a:3v, 7v). Starting with each port's site, he reported that Omoa was the most secure and clean along the entire coast of Honduras (Diez Navarro 1744a:3v). He also stated that Omoa would provide a secure place for both cargo and the health of the port's inhabitants (Diez Navarro 1744a:4). The site was good for careening ships, with cedar and other wood available for repairs. Diez Navarro also claimed that the site at Omoa was more fertile than at Trujillo, and lists a large number of commercially viable products supposedly near the site, including indigo, cacao, sarsaparilla, vanilla, wax, honey, balsam, and "el Palo de Brasil . . . es mexor que el de Balis" (the Brasil Wood is better than that of Belize) (Diez Navarro 1744a:4, 7v). Omoa also should have been fortified for much less cost than Trujillo, needing only one fort to defend the roughly 600-meter opening of the bay, whereas the bay at Trujillo was over 6 leagues (25 kilometers) at the mouth, from Punta Castilla to Punta Quemara (Diez Navarro 1744a:3v, 7v; Barnes, Naylor, and Plozer 1981:71).

In reality, Trujillo Bay is roughly 18 kilometers across at those points, according to modern maps, either testifying to the inaccuracy of Diez Navarro's mapping techniques, or his exaggeration to prove a point (IGN 1987a, b). Despite increasing the size of Trujillo Bay, Diez Navarro was correct in that the distances across the bay would require multiple fortifications to properly defend the fort against attacks by the English, Zambos, and Mosquitos (Diez Navarro 1744a:9). Another example of exaggeration by Diez Navarro comes from his description of Isla Blanca, which he puts right in the middle of Trujillo Bay blocking easy access to the port as well as being a hazard to navigation (Diez Navarro 1744a:8v; 1744b). On a map of Trujillo Bay made shortly after the port was reoccupied by Spanish forces in 1782, Diez Navarro's Isla Blanca is

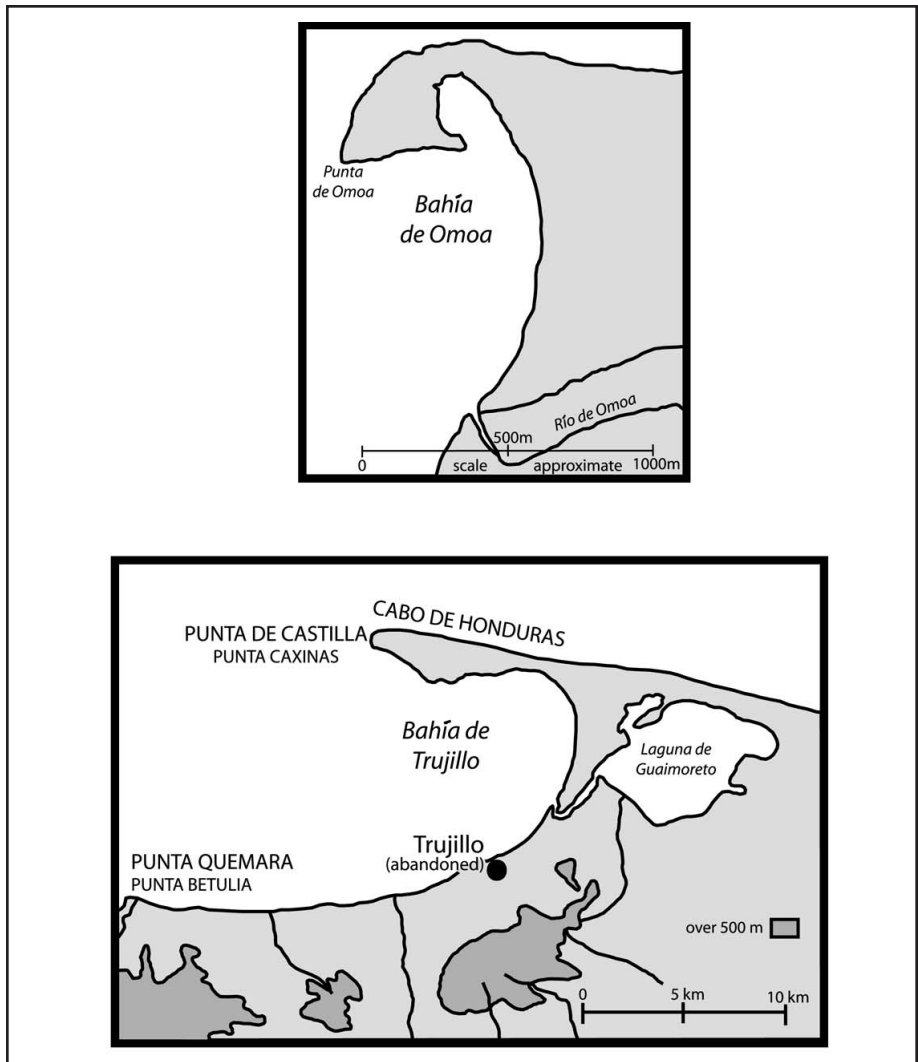


Figure 2. Bay of Omoa and Trujillo, 1744. Note difference in scale (Diez Navarro 1744a, 1744b).

now named “Ysla Blanquilla,” using the diminutive form to indicate the relative size and unimportance of this feature, which today is known as Cayo Blanco, and is a series of rocks barely breaking the water surface, rather than the large island portrayed by Diez Navarro (AGI 1782). In spite of these errors or hyperbole, Diez Navarro is clearly worried about cost, and indication of the limited resources of the Spanish Empire at this time, and defense, and indicator of the weakness of the Spanish position along the Caribbean coast from Belize through Nicaragua.

Diez Navarro’s comparison of Omoa and Trujillo’s situation relative to Spanish settlements and transport routes, and those of the English and

Zambos-Mosquitos, demonstrate his knowledge of the empire's weakness to fight against their foes. He informs how the Zambos-Mosquitos can cut off Trujillo by penetrating the interior along the Río Aguán and blocking all transport routes on the port's landward side (Diez Navarro 1744a:9). He then states that more forts would need to be constructed to protect these routes to Trujillo. Besides, the closest people to Trujillo at that time were in the towns and villages of Sonaguera, San Jorge Olanchito, and Olancho el Viejo, which he claimed, with good justification, were corrupted by contraband trade, and was some 236 leagues (986 kilometers) to Santiago de Guatemala (Diez Navarro 1744a:9v; Mack 1998). Trujillo also was much closer to the English positions at Black River and especially at their newly fortified position on Roatán in the Bay Islands. To add even more insult, when the English occupied Roatán in June 1742, they used materials from the ruined defenses at Trujillo to help build fortifications on the island only 18 leagues (75 kilometers) from the abandoned port (Diez Navarro 1744a:9v, 10). Diez Navarro felt that Trujillo could only be reoccupied and defended only after the fort at Omoa was built, and that the governor of the Province of Honduras simply did not have sufficient forces to stop enemy contraband or occupation of coastal areas (Diez Navarro 1744a:10).

His report on Omoa's situation was much better when compared to Trujillo's at this time. Omoa was only 140 leagues (585 kilometers) from Santiago de Guatemala, and the roads reportedly did not have to cross large rivers, as did the road to Trujillo, making for less difficult travel (Diez Navarro 1744a:7v). The road to Omoa was far safer because its route did not run through any land dominated by the Zambos-Mosquitos, as did that of Trujillo, plus the enemy was at a greater distance from Omoa. Should Omoa be attacked, Diez Navarro pointed out, help could arrive at Omoa at any hour, without risk, which could not be done for Trujillo. He also noted that Omoa was midway in the Bay of Honduras between Belize and Trujillo, and thought that it could serve as a base to drive out the English at both ends of the bay (Diez Navarro 1744a:4v). Around the Omoa area, Diez Navarro reported that the land was fertile with good water, so it would attract numerous settlers as well as ships looking to restock supplies (Diez Navarro 1744a:5). Diez Navarro mentions several advantages of Omoa's relative situation, but the focus is on defense against attack, and the safety of the route to other Spanish settlements, demonstrating Spanish weakness to stop contraband, English settlements or raids by the Zambos-Mosquitos.

Construction of Fortifications and Settlement at Omoa

Problems with labor, design of the main fort, rivalries between the various levels of colonial authority, and a three-year governorship in Costa Rica for Diez Navarro delayed construction at Omoa for several years (Floyd 1967; Rubio Sánchez 1987). In 1752, construction began on a provisional fort that became known as El Real (Rubio Sánchez 1987).

The purpose was to quickly erect El Real for defense while the main fort was constructed, but it took six years – until 1758 – to finish and begin construction on the main fort. El Real was built on the edge of the beach with a dock extending from the main gate facing the sea (Anónimo 1752). Another problem throughout the construction phase was the lack of roads connecting Omoa to the rest of the Audiencia de Guatemala, so in the early years all supplies had to come by sea (Rubio Sánchez 1987).

Not only did supplies arrive by sea, but much of the building material itself came from stone and coral from the Cayos Zapatillos in the Bay of Honduras (Floyd 1967; Cruz R. et al. 1985). Clearing the ground for the main fort, the Fortaleza de San Fernando de Omoa, began in 1756, with initial construction commencing on September 18, 1759 (Floyd 1967; Cruz R. et al. 1985). The original design for the main fort was a large four-sided structure, but a triangular shape was adopted to save money on labor and building materials (Anónimo 1752; Díez Navarro 1756; Floyd 1967; Rubio Sánchez 1987). Much of the labor force consisted of slaves, because *ladinos* and indigenous workers alike came to dread working in the “graveyard of Honduras,” nicknamed for the high death rates among workers (Floyd 1967; Argueta 1983a; Rubio Sánchez 1987). Slaves came from Africa, Spain, and Guatemala; some were even purchased from the English, the same people for which the fort was being built so that the Spanish could stop their contraband and drive them out of Honduras and Belize (Argueta 1983a). The slaves numbered 1,112 in 1777, with 605 belonging to the Spanish Crown, and the others consisting of privately owned slaves, although there were also some free Blacks working at Trujillo (Crame 1779; Argueta 1983a, 1983b; Cruz R. et al. 1985). Construction on the fort at Omoa was completed in the late 1770s.

The main settlement at Omoa was not built to the strict grid pattern of earlier Spanish ordinances from the 16th century (Crame 1779)(Figure 3). This is in contrast to the construction of the new capital for the Audiencia de Guatemala, Guatemala City in 1776, which was built using the grid pattern (Díez Navarro 1776). Although no known historical sources explain the lack of a grid pattern for the settlement at Omoa, it may be that as a fortification and port under construction, officials permitted a more utilitarian form to occur. Historic maps indicate a lack of a grid pattern from the earliest years of construction, possibly permitting a more organic form of the settlement to build up (Anónimo 1752; Alvarez 1756). Initially, the settlement was inside El Real, except for some buildings such as the powderhouse, some workshops, and some storage buildings, generally to the southeast of El Real (Anónimo 1752; Alvarez 1756; Alvarez 1757). As the settlement grew, however, the population shifted more inland. As the fort was built, El Pueblo formed to the southeast of the construction site, with the slave quarters further inland to the southeast of the main settlement (Díez Navarro 1768; Crame 1779). Even without the traditional grid pattern, Omoa’s early settlement still maintained social segmentation of the local society based partly on race.

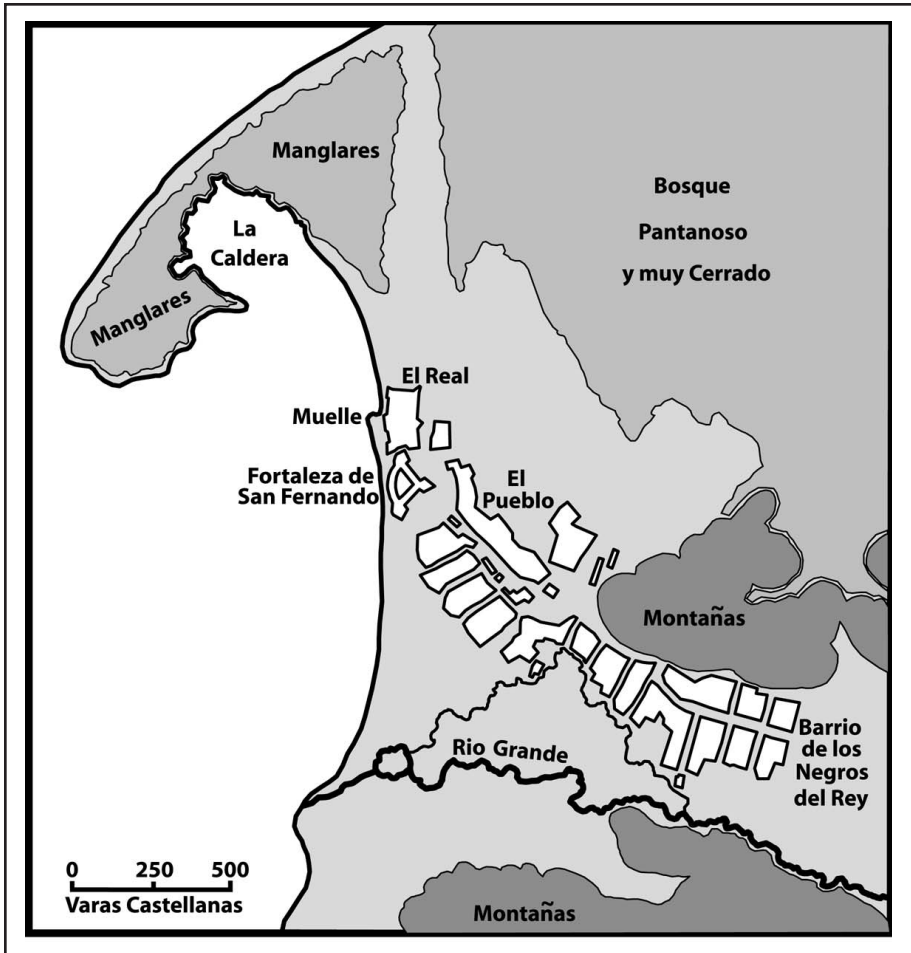


Figure 3. Settlement, fortifications, and forests at Omoa 1779 (after Crame 1779).

Deforestation and Silting at Omoa

The people, fortifications, and town of Omoa were all great changes that transformed the natural landscape into the cultural landscape. Although mainly a topic of recent discussion, historic documents and maps demonstrate that deforestation at Omoa dates from the founding of the town. The unintended consequences of colonial deforestation also had an impact on not only the cultural landscape, but on the site of the port itself. Longshore drift over the course of several decades exacerbated the natural silting of the bay from littoral drift, and helped impede the port function of Omoa.

In 1792, one writer claimed that sediment carried by the Río Omoa was deposited along the beach, and that in the future there would not be enough depth for ships to use the port (Porta y Costas 1792). This reference hints at the longshore current depositing sediment to the north of

the river mouth and along the shore of the bay. *Porta y Costas* also suggested planting mangroves or coconut palms along the shore to hold back sand and silt. In less than 20 years, it was evident to observers that the bay at Omoa that Díez Navarro liked so much was slowly filling in.

Sedimentation along the shore was probably evident to those using the dock over the years. The dock structure appears to have been a solid earthen structure reinforced with stone structures along the edges, and was 50 varas (42 meters) in length extending into the bay from the shore immediately in front of the portal gate of El Real (Anónimo 1752, 1756; Barnes, Naylor, and Polzer 1981). All the known maps of the bay from this time period show the dock structure as solid with the shoreline extending around it, rather than some sort of wooden structure on pilings above the water level (Anónimo 1752, 1756, 1760; Alvarez 1756; Díez Navarro 1768; Crame 1779). Being solid in construction, the dock then acted as a groin to capture the sediment from the river and carried along the shoreline by the longshore current. The sediment buildup is evident by examining the detail along the shore at the dock in a series of maps covering several years (Figure 4). The dock extends from the shoreline in 1756, but by 1768 some sediment buildup is already apparent along the southern edge of the dock (Alvarez 1756; Díez Navarro 1768). By the time Crame (1779) made his map of the bay and settlement at Omoa, sedimentation on the southern edge of the dock had built up so much that it would have been impossible for ships to tie up there, and the beach had built up considerably in front of El Real, and was starting to build up in front of the fort as well. Because the river provided a constant source for new sediment, there was no erosion typical on the down-current side of a groin, and there was enough sediment to not only build up in front of the fort, but also to be carried by the longshore current beyond the dock. By the 1840s and 1850s, the sedimentation along the beach had completely surrounded the dock so that the original structure was no longer even evident (*Dépôt-Général de la Marine* 1856). In the mid-19th century, the three-meter depth line was some 150 to 175 meters in front of fort, with no type of pier or wharf available for use to unload ships (*Dépôt-Général de la Marine* 1856).

Porta y Costas (1792) suggested sedimentation came from the river. While some sediment was likely to be natural, deforestation around the settlement at Omoa likely exacerbated sedimentation and was a contributing factor to the eventual loss of the dock as a port feature. As early as 1752, forest around the early construction at Omoa had already been cleared for 1,500 varas (1,260 meters) from the sea (Anónimo 1752:Explicacion 6). Several maps also state that the forest and some of the cleared land around the settlement was swampy in nature, occasionally flooding during rainy seasons (Figure 5)(Alvarez 1757b; Díez Navarro 1768; Crame 1779). Crame (1779:Nota O) not only describes the forest as being swampy and very closed, but also suggests that they should cut more forests. Crame also states that the mangroves around the spit contribute to sickness at the port and should be cut down (Crame

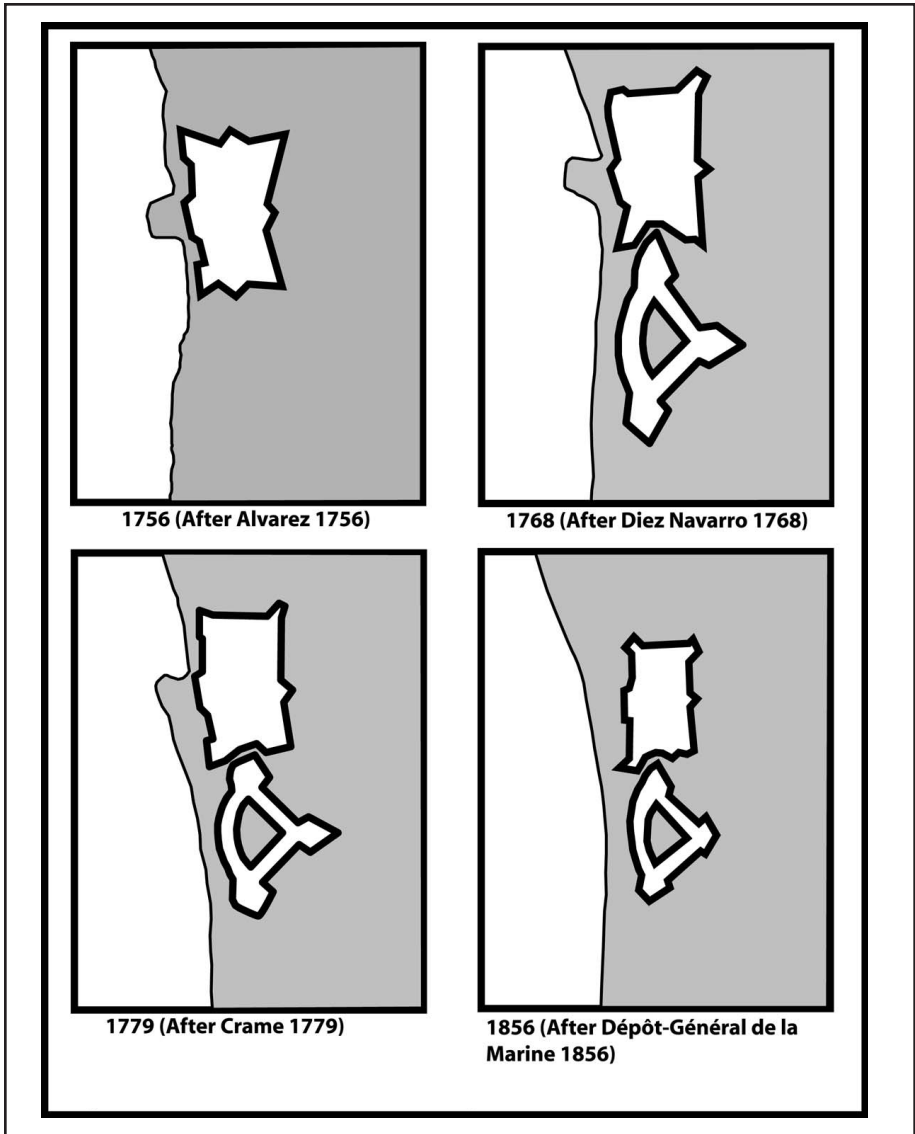


Figure 4. Sedimentation at the dock area, 1756-1856.

1779:Nota M). Although some of the clearing also appears to have been for milpas (Díez Navarro 1768; Crame 1779), the main perception was that the forests needed clearing to mark civilization in this virgin region and that the forests and mangroves were the source a lot of the illnesses that plagued Omoa. This deforestation contributed to increased sediments in the longshore current, eventually filling in around the dock.

The Bay of Omoa that Díez Navarro first reconnoitered and described in 1744 no longer exists today. Sedimentation accelerated by colonial deforestation led to the destruction of the dock, and probably contributed

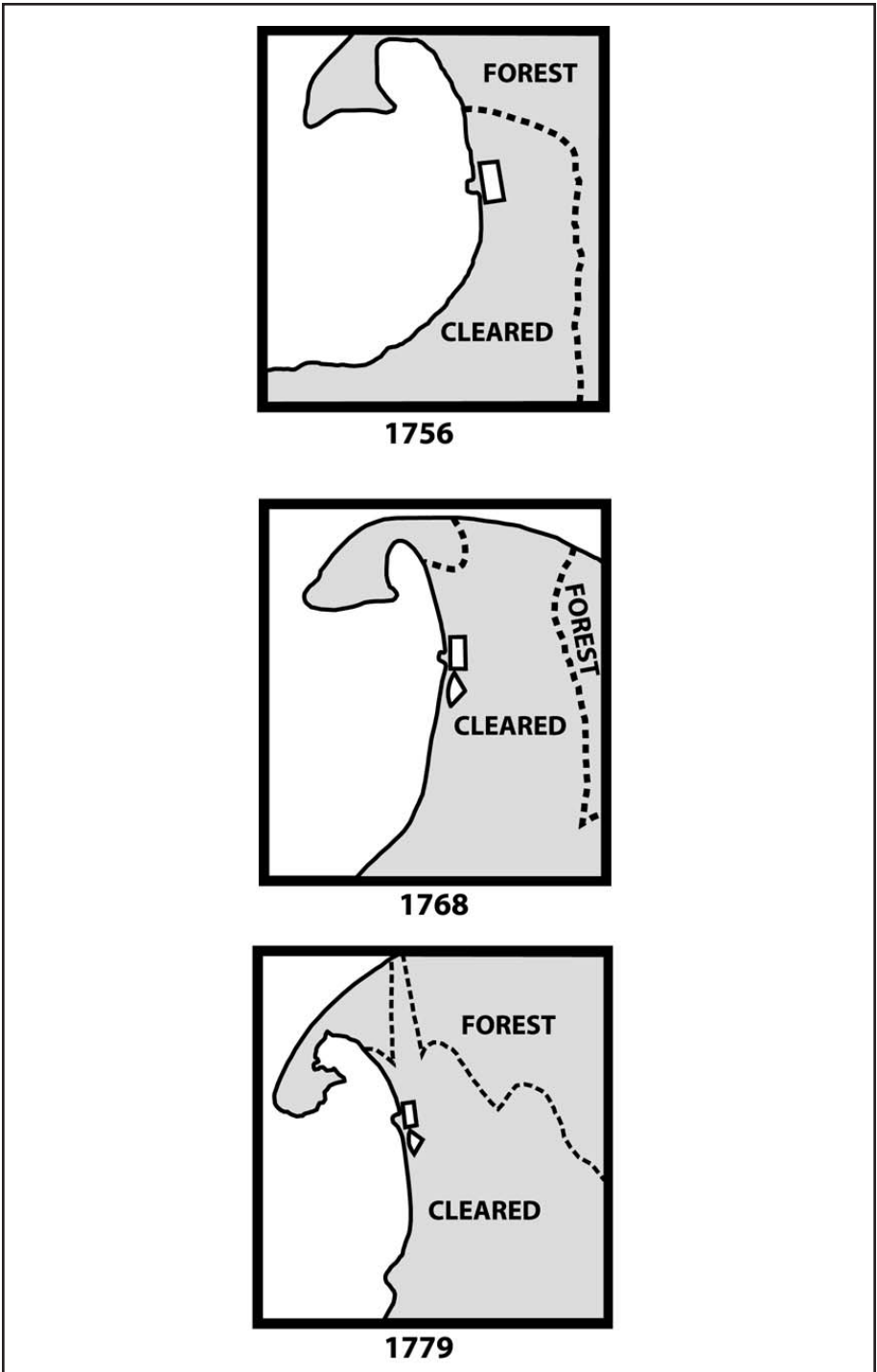


Figure 5. Deforestation at Omoa, 1756-1779 (after Alvarez 1756; Diez Navarro 1768; Crame 1779).

to the infilling of the bay that has occurred over the last two centuries (Figure 6). Although research by coastal morphologists was done along the entire active Caribbean coastline of Honduras, it is likely that littoral drift carrying sediment from the Río Ulúa to the east of Omoa caused most of the sedimentation of the bay. The bay that Díez Navarro knew was probably doomed by natural forces that he was never aware of.

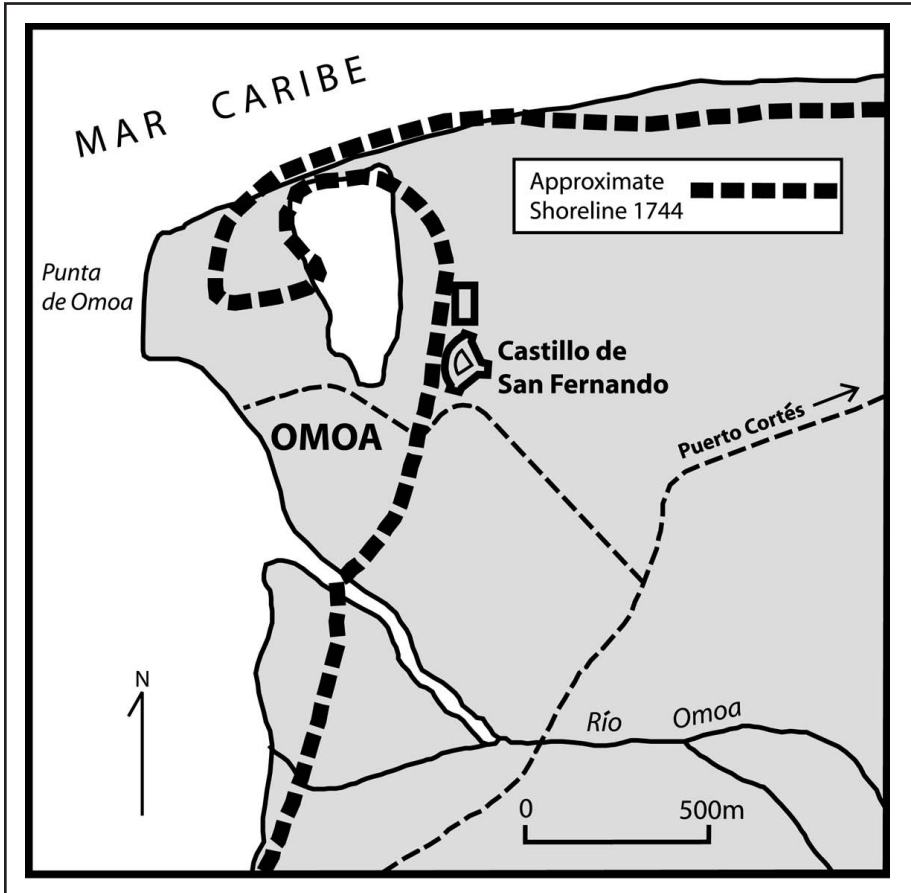


Figure 6. Past and current shoreline of Omoa (Diez Navarro 1744; IGN 1997).

Despite the loss of the colonial dock at Omoa, the port remained the most important in Honduras until the Pacific port of Amapala on the Gulf of Fonseca surpassed it in government revenue produced in the 1860s. By 1867, Omoa produced a total revenue of 37,095.83 pesos, slightly ahead of Trujillo with 36,302.39 pesos, but far behind Amapala's revenue of 67,752.48 pesos (Boquín 1868). Settlement at the port city has also moved around the area. The original area of settlement referred to as El Pueblo appears to have been abandoned by the 1840s and 1850s, with the people of Omoa living only in the area once known as the Barrio de los Ne-

gros del Rey (Crame 1779; Dépôt-Général de la Marine 1856). This may have been to avoid the wet conditions reported for the areas around the fort. Today, the main settlement is in the area between the fort and the current beach, an area that as late as the late 1800s was open water, and to the southeast of the fort where the original settlements were located.

Even before Omoa's bay was completely filled with sediment, the port function of Omoa had already declined. With the start of construction on the failed Honduras Inter-Oceanic Railroad, the new port of Puerto Cortés was inaugurated across the bay from the old site of Puerto Caballos, some 12 kilometers to the east of Omoa (Rocha 1869). By the late 1870s, Puerto Cortés had captured nearly all the trade from Omoa (Monnar 1881), because the newer port city had a more direct route to the interior of the country, a railroad connection even if it was somewhat tenuous at first, but the bay at Puerto Cortés also had deeper water (Jeffers 1853) in a much larger bay that accommodated the newer steamships of the period. As the fruit trade increased along Honduras' Caribbean coast, Omoa's small bay that first attracted Díez Navarro no longer served the new commercial needs of the late 1800s.

Conclusion

Díez Navarro's vision for the Bay of Omoa in 1744 was really something of a failure. The fortifications never stopped the original purposes of the fort—contraband trade or driving the English out of Central America. In 1782, Spanish forces reoccupied Trujillo, and from there drove the English from Roatán and then Black River a few years later. The English never were driven out of Belize, and contraband trade continued throughout the colonial period and even until today. The fort was never used to protect the coast from the contraband, and was actually taken by the English in October 1779 (Floyd 1967). After independence the fort was often used by Honduran forces and presidents as a haven during attacks by neighboring republics or coup attempts, and although fortified, was mostly used simply as a prison and warehouse.

As the bay of Omoa continued to fill up with silt, there was no deep water near shore, forcing ships to unload goods onto lighters that carried the goods to shore, increasing damage and handling costs. The lack of deep water became a bigger problem with the arrival of larger steamships in the 1870s and 1880s. The small size of the bay, originally an attraction to Díez Navarro, was becoming a handicap. The better port facilities so close just to the east of Omoa at Puerto Cortés created an intervening opportunity for the increasing tropical fruit trade, and the building of the railroad connecting the new port with San Pedro Sula helped bring an end to Omoa as a major port facility by the end of the 1870s. Eventually the bay was destroyed by the continued sedimentation throughout the entire bay.

Díez Navarro's failed vision, however, provides Omoa with its current success as an important tourist destination in Honduras over the last 10 to 15 years. Built originally as a fortified site to keep out foreign-

ers and control trade, the silting of the bay created some wonderful beaches that have the added distinction of Central America's largest Spanish colonial fort that distinguishes the current site from other Honduran beaches, and now actually serves to attract foreigners, as well.

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Banks and Booms in the Mid-day Sun: Place Names and the Honduran Mahogany Trade

Craig S. Revels

The study of place names, or toponyms, has a distinguished place in the history of geography. Such studies have been used to illuminate cultural influences in the contemporary landscape, providing insight into the historical presence and legacies of various cultural groups on that landscape. This chapter identifies toponyms associated with the mahogany trade in the 18th and 19th centuries, which in Central America were particularly associated with the dominance of English-speaking woodcutters in mahogany extraction. Understanding the general nature and distribution of mahogany-related place names in contemporary Honduras provides insight into the influence of English-speaking mahogany cutters on Honduras' current cultural landscape, and establishes a broader framework for exploring that same influence around the western Caribbean.

It would be surprising to encounter a geographer who has not been intrigued at some point by the name of a town, mountain, or stream, wondering how and why it came to be attached to that particular place. Indeed, the study of place names (toponyms) has a long and engaging tradition within geography (Lind 1962; Loy 1989; Detro and Walker 2004). Though many recent toponymic studies frame inquiry using the filters of environmental perception, social theory, or the study of power relationships (Mathewson 1989; Roberts 1993; Deur 1996; Fair 1997; Jett 1997), a more fundamental and enduring approach to the study of toponyms has been to empirically catalog names, map them, and link them to a broader cultural perspective (Wright 1929; West 1954; Zelinsky 1955; 1967; Lind 1962). Such an approach provides not only a consideration of the distribution and general meaning of a given set of place names, but begins the process of understanding how various cultural groups have interacted with and impacted the landscape in a historical geographical context (Raup and Pounds 1953; Gritzner 1972); this

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method has yielded much of our basic understanding of the named landscape, and remains a rewarding endeavor for the curious geographer.

It is this traditional approach that has been most generally appealing to geographers working in Central America and the Caribbean, where a range of studies have focused on the origins, distributions, and persistence of place names (Membreño 1901; Waibel 1943; Randel 1960; Robe 1960; Aguilar Paz 1969; Flores 1975; Incer 1985; Cassidy 1988; Ford 1991; West 1998). Anyone who has spent time in the field or archives with Bill Davidson can easily place him within this same tradition and attest to his long-standing interest in toponyms, with their associated potential for understanding the cultural landscape (see Davidson and Cruz 1988; Davidson 1991:209-22; 2000). That interest has been shared with many of his students and colleagues, including myself, and the present study arose from that influence. Accordingly, this chapter falls squarely within the traditional approach to toponymic study, documenting the continuing legacy of mahogany extraction in the toponymy of northern Honduras.

For well over a hundred years, from the mid-18th to the late 19th centuries, the mahogany trade dramatically transformed the economic, cultural, and physical landscape of Honduras. There are many possibilities for exploring the impacts and legacies of the mahogany trade on Honduras, both historically and in more contemporary manifestations. One such avenue for exploring the long legacy of mahogany in contemporary Honduras is to consider its impact on the cultural landscape, especially in those areas where it was the dominant economic activity for a sustained period. For this, place names are a valuable marker of this cultural landscape, reflecting exploration history, uses of the land, and the general parameters of locations associated with the mahogany trade. This chapter identifies the specific toponyms that arose from the mahogany trade of the 18th and 19th centuries, considers their general distribution in Honduras, and frames them within the historical and cultural geography of Honduras' North Coast.¹ Given the particular ability of place names to illustrate the past and the widespread influence of the mahogany trade in northern Central America, this study establishes a key initial step for broader considerations throughout the region, including the dynamic between British and Spanish influence, the impacts of extractive economies, and the cultural landscape around the wider Caribbean littoral.

Mahogany in Honduras

Mahogany is the commonly used commercial name for the genus *Swietenia*, which includes three recognized species, and a host of woods with similar appearance from Africa and Asia. The three species of true mahogany have vastly different ranges, with the most widespread being *S. macrophylla*, commonly referred to as big-leaf or Honduran mahogany. In Central America, *S. macrophylla* occurs naturally around the Bay of Honduras and along the Caribbean and Atlantic littoral. More importantly, it is native to the northern half of Honduras (Figure 1), par-

ticularly the tropical rain forests of the lower mountain slopes and the river valleys of the Caribbean lowlands (Zon and Sparhawk 1923; Record and Mell 1924; Lamb 1966; West and Augelli 1989). A second species of mahogany, *S. humilis*, is found in a small pocket of the Pacific coast of Honduras, but has historically been of limited commercial importance.² Thus, the present toponymic survey considers only the northern portion of Honduras, the center of the Honduran trade past and present.

The development of Honduras' mahogany trade has historically been associated with English-speaking interests. Though Spanish colonists may have begun logging mahogany and other valuable woods along the north coast of Honduras in the late 1500s, commercial mahogany exploitation began only in the 1700s, when commercial houses from British Honduras (Belize) turned their focus from logwood to mahogany (Camille 1996; 2000). Inhabitants of the British settlement at Black River, founded by refugees from Belize in the 1730s (see Dawson 1983), were responsible for cutting substantial quantities of mahogany throughout much of the 18th century (Naylor 1989; Offen 2000; Revels 2002). And the growing mahogany trade in the Bay of Honduras also was a key factor in the return of British interests to Honduras' Caribbean littoral in the 1820s and 1830s, with English-speaking mahogany cutters a common sight along the coast throughout the 19th century (Camille 1996; Naylor 1967, 1989). This dominance of English-speaking woodcutters came to be reflected in the toponymy of the mahogany trade throughout the region.

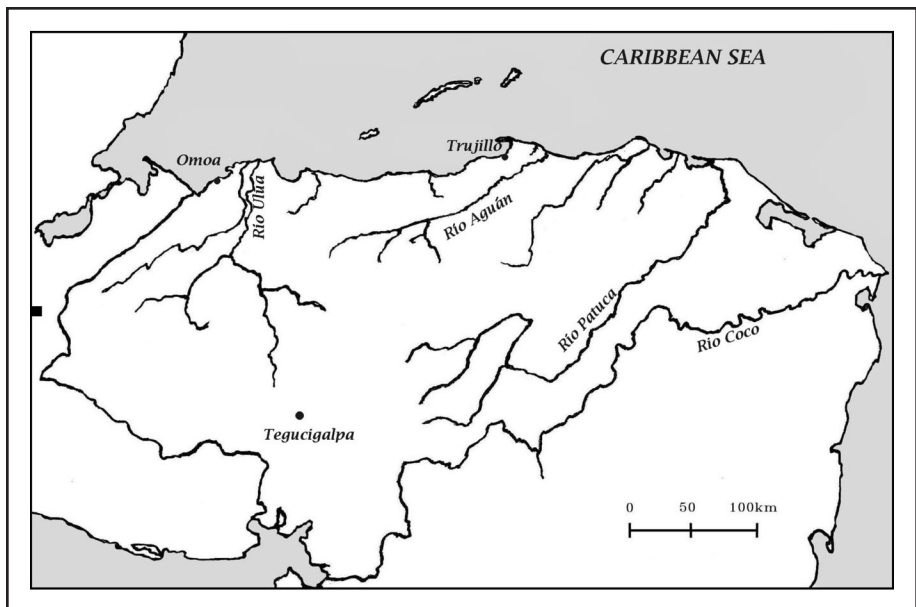


Figure 1. Major rivers for mahogany extraction in Honduras, 1800s. Mahogany cutters were able to use any floatable watercourse during the rainy season, but the major rivers served as the key conduits for the trade.

Mahogany Toponyms

The quest for mahogany opened up large segments of northern Honduras to exploration and exploitation, revealing previously unmapped landscape features and providing a host of unofficial naming opportunities, many of which remain in the cultural landscape of contemporary Honduras and provide the basis for this study. Most of the identifiable mahogany-related toponyms fall within the category of generics, or those place names that serve to identify landscape features or markers (Stewart 1954; Burrill 1956; Ford 1991). Newly discovered watercourses were frequently noted with the terms *creek* or *branch*. Most mahogany camps were set up on a river *bank* or *rise*. The mahogany works itself was also known as a *bank* or, occasionally, a *barquadier*. The latter is an obvious cognate for the term *embarcadero*, although it is not necessarily associated with the timber industry or even English-related toponyms in Honduras. As logs were floated downstream, they arrived at the river mouth, where a *boom* stretched across the river was used to gather them (Henderson 1809; Squier 1855; Morris 1883; Bell 1899). The presence or absence of these terms, as formal names or as common landscape generics, can be considered as legacies of the mahogany trade and also establish a broad framework for considering the influence of English-speaking settlement in Honduras.

Creek

Exploring the usage and relative concentration of creek and its variants in the landscapes of the north coast makes it possible to establish a broader context that considers the general extent of English influence in the area. In particular, the use of the Spanish variant *crique* strongly suggests a transfer from English naming practices, since Spanish speakers more frequently employ the term *quebrada* for the same landscape feature (Ford 1991). The term creek itself enjoyed a much broader usage in the New World than in England, shifting from its original connotation of shallow inlets to a more generic term for nearly any small watercourse (Lind 1962; Stewart 1967). Well over 200 instances of the two words, especially *crique*, can be found on the official maps of northern Honduras as either a landscape generic or a formal place name. This makes creek and its Spanish cognate the most frequently encountered English-derived place name found in Honduras. Indeed, random occurrences of creek, *crique*, or a similar variant can be found at points inland along nearly the entire Caribbean coast from Omoa east, to the Nicaraguan border at Cabo Gracias a Dios.

However, there are four areas that appear to have a higher concentration of the terms, meriting closer inspection. The first cluster of toponyms is found, not surprisingly, in the eastern portions of the coast, including Mosquitia. This part of Honduras was never effectively brought under the control of Spain, leaving it open to opportunistic pirates, explorers, and commercial interests, most of whom were English-speaking. In addition, this is a physically challenging region,

laced with many small watercourses. This partially explains the prevalence of creek and its derivatives in the region, but there are numerous areas in Mosquitía in which this toponym is used, many in areas not frequented by the British. Rather, the adoption of the English toponym into local nomenclature compounded the persistence of the word, as attested to by the sheer number of creeks and criques in both official and unofficial usage. Thus, it is difficult to relate these toponyms to any specific logging activities in the region, especially since the majority of the named features occur away from the major rivers that were essential for conducting the trade.

The other three groupings (Figure 2) may have more direct linkages. The first is an area surrounding La Ceiba, particularly in the coastal lowlands west of the city. This concentration perhaps reflects La Ceiba's role as an epicenter of the banana trade, dominated by American (and therefore English-speaking) interests for over a century. But it is also noteworthy that this concentration of toponyms incorporates the watershed of the Río Cuero, a known area of mahogany exploitation in the 19th century and also a general area for bank toponyms, discussed later in this chapter. Certainly the toponymy reflects this sustained English-speaking interest and influence in the area.

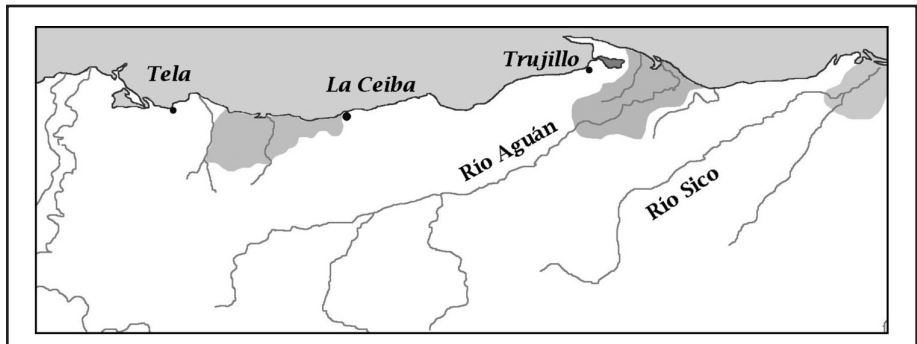


Figure 2. Clustering of creek toponyms on the central North Coast of Honduras; the Trujillo hinterland was the focus of the mahogany trade in the mid-1800s.

The second notable concentration of crique may bear the most direct linkages to the role of the British in the logging trade. A distinct clustering of criques occurs in the hinterlands of Trujillo, particularly the Aguán valley and the lower reaches of the Río Limón. Throughout much of the 19th century, this region was the focus of extensive logging operations and economic competition between rival commercial houses based in Belize and Great Britain (Naylor 1967; 1989; Revels 2002). Given both the exploratory nature of the trade (opening up new areas for exploitation) as well as the persistent presence of British subjects in the area, it is not surprising to find this concentration in this locale. Finally, the third clustering of this term in the toponymy can be found in

the area surrounding the lower Río Negro. As indicated previously, the ongoing British settlement at Black River explains a great deal about the persistence of English-derived toponyms in this part of Honduras.

Bank

It is difficult to ascertain exactly when the word *bank* became commonly used in the mahogany trade. Ford (1991:15-17) suggests that it is a Creole word commonly used in Belize to refer to stream-side logging operations. In Honduras, this usage appears apt, especially given the historical ties between woodcutting culture in Belize and mahogany cutters in Honduras. Seasonal bases of operation were generally referred to as mahogany works, but were most frequently identified on maps as banks, thus one can find occasional features such as the Piedra Blanca works but numerous locations such as France's Trial Bank, R.C. Wardlaw's Bank, T. Jennings Bank, and so on (Figure 3). Yet the necessarily ephemeral nature of a mahogany bank (often no more than one season of cutting) left few markers in the official toponymy. Only a handful of settlements currently exist that incorporate a variant of bank, and no landscape generics.

Some settlements, however, strongly suggest ties to the timber trade. For instance, the settlement of *Benque Viejo* (old bank) lies in a broad river valley on the upper reaches of the Río Sico, one of the two main tributaries of the Río Negro. It is likely that the forest resources of this area – including mahogany – were exploited in some fashion due to its proximity to the Black River settlement and relative ease of

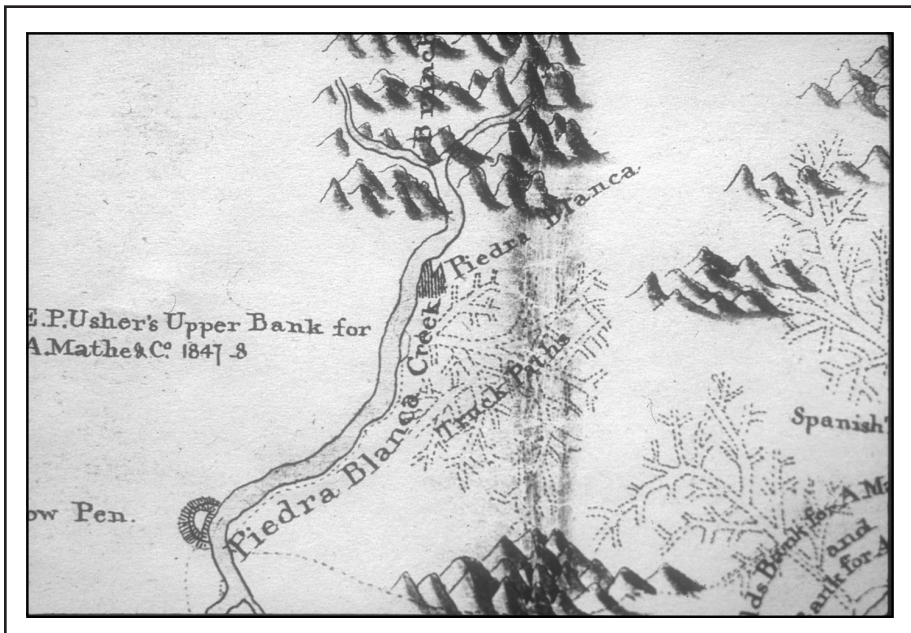


Figure 3. Mahogany banks in the middle of nowhere (Usher 1850).

access to the coast (Dawson 1983; Offen 2000; Revels 2002). Well up the once mahogany-rich Aguán valley is the generic *El Benque* at the headwaters of Quebrada Zarca, but there is little to suggest explicit linkages to timber extraction beyond its location in what was once a well-known timber region. Closer to the coast, between Tela and La Ceiba, the lowlands surrounding the Ríos Colorado and Cuero were also exploited for mahogany in the 19th century (Revels 2002). This legacy is reflected in *El Banco*, on the lower Colorado, and *San Juan Benque* near the upper Cuero. The latter may be too far into the mountains to evidence mahogany operations, but the possibility is intriguing.

The five remaining instances of *bank* entering the toponymy have even more tenuous linkages to mahogany and the logging trade. *Benk* and *El Benk* lie in the vicinity of Cabo Gracias a Dios at the mouth of the Rio Coco, away from major watercourses but well within the sphere of British activities in Mosquitia; the latter is directly on the coast, although the former lies on an inland lagoon that may link it to extractive activities. Two additional *El Benques* appear far to the interior of Honduras, well away from known or potentially significant areas of mahogany or other valuable woods. It is entirely possible that these last two examples illustrate a broader acceptance of the term into local use. Finally, there exists a *Quebrada El Benque* (stream of the bank), which leads into the Río Bonito, which in turn feeds into the Aguán valley. The name and general location again strongly suggest some form of past logging activities.

Boom

The greatest concentrations of mahogany were originally found in the rich alluvial lowlands bordering the major rivers of Honduras' north coast (Squier 1855; Wells 1857; Naylor 1989; Revels 2002). As the most efficient, reliable, and inexpensive means of moving timber from interior locations to coasts and ports, rivers such as these have long functioned as vital commercial highways for logging operations, and indeed were important conduits for the early development and rapid expansion of the Honduran mahogany trade in the 19th century. From riverside locales, mahogany entrepreneurs would float their felled timber downstream during the rainy season floods, and timber would be gathered, sorted, and prepared after it had been collected at a designated spot downstream. One of the key concerns of the mahogany entrepreneur was securing his timber at or near the coast, where it could be re-marked, loaded, and shipped. The primary means of stopping timber at or near the river mouth was a *boom*, which usually consisted of a great chain stretched across a river, but was occasionally a set of cables employed in the same manner. Boom sites were ideally located at a bend in the river or some other place where it was easy to trap the timber. Given its prominence in the extractive landscapes of the 19th and early 20th centuries, it is reasonable to assume that booms would remain in the toponymy of contemporary Honduras; this is only partially true.

In the western reaches of Honduras' Caribbean Coast, the lower courses of the Ríos Chamelecón and Ulúa have been completely transformed by the fruit trade. Man-made canals dissect the region, and the major rivers themselves have been channeled and altered to suit the whims of the banana growers. Thus it is surprising that one finds the settlement of *El Bum* on the lower Chamelecón (Figure 4); certainly its presence in this dramatically altered riverscape suggests the presence of the boom at or near this juncture of the river. However, very few additional settlements can be linked in this manner to possible boom locations. Two exist on the Río Coco, which forms portions of the border between Honduras and Nicaragua. The lowest simply bears the name *Boon*, although it is occasionally rendered as *Bum*. Farther up the Coco is the settlement of *Bum Sirpi* (little boom). It is also worth noting *Hacienda El Boon* east of La Ceiba, quite possibly established at or near a boom site on the Río Papaloteca. Though minimally documented, mahogany and other precious woods were clearly extracted from these three areas at various times over the last two centuries.

More direct evidence of booms in the Honduran landscape can be found on the Ríos Aguán and Limon east of Trujillo. The Aguán was one of the main foci of the Honduran mahogany trade, and the Limon

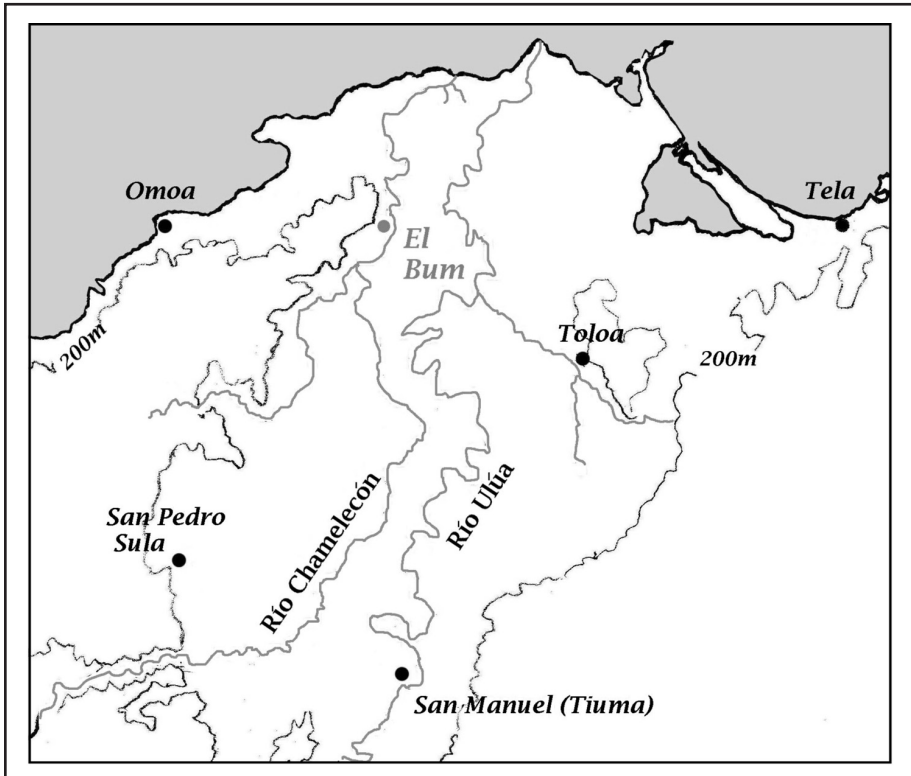


Figure 4. From logs to people: former boom location on the lower Río Chamelecón.

is a lesser river located in the same alluvial plain as the lower Aguán. Official maps depict *El Bun* in the lowest reaches of the Aguán, and *El Bun* is also noted on the Limon (Figure 5). Though the boom on the Aguán is difficult to corroborate on historic maps, that on the Limon exists in the exact location documented on at least one map circa 1850 (Usher 1850); interestingly, the same manuscript map does not depict a boom on the Aguán, a more logical and perhaps essential place for a boom to be placed. Farther east, the record of logging in the environs of the Río Tinto is somewhat murkier than elsewhere in Honduras. However, *Cerro Bum* is found on the Río Paulaya, one of the major tributaries of the Tinto. This can easily be interpreted as the hill above, on, or at the boom. As noted above, this might be a legacy of logging undertaken by the Black River settlers in the 1700s, or it may also be linked to the great expansion of cutting in the Trujillo hinterlands during the 19th century. Other than these three occurrences, boom derivatives fail to appear in the official toponymy of Honduras, although it is likely that additional boom referents continue in the folk lexicon, especially in proximity to the major watercourses of northern Honduras.

Other Toponyms

Although bank, boom, and creek are the easiest terms to link to sustained English presence and logging in northern Honduras, they are not the only toponyms that attest to the mahogany landscapes of the past.

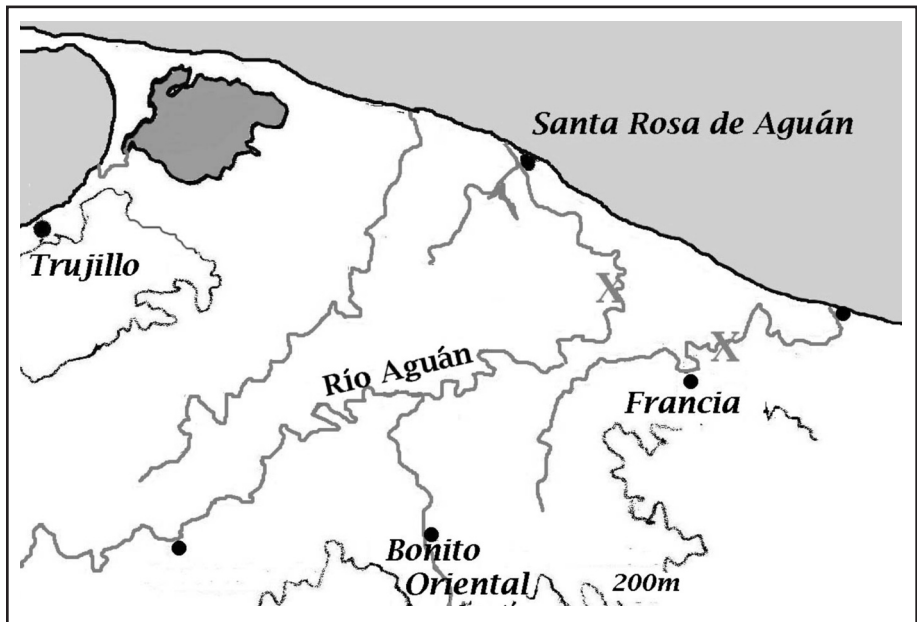


Figure 5. X marks the spot: former boom locations on the lower Ríos Aguán and Limón—the low-lying areas are too seasonally inaccessible for settlement but are easily identified by local residents.

There are two other elements of the named landscape that are worth mentioning in this context. Both reflect Spanish usage, but serve as general indicators for the overall impact of mahogany on Honduras place names.

The most common of these is the term *embarcadero*, which is generally defined as a landing place, especially on inland watercourses. Indeed, this appears to be its most common application in Honduras, especially in Mosquitia, where the nature of the physical landscape often requires crossing numerous small streams and lagoons. However, given the practice in Belize of referring to a mahogany works as a *barquadier*, it can also be referenced as a potential site of logging activities (Ford 1991:19). Such may be the case with the occurrences found on major rivers, but it is impossible to determine if this is indeed the case unless they are apparent in a formal place name; no instances of this currently exist in Honduras.

Note must also be taken of *caoba*, the Spanish word for mahogany. The word itself is one of the handful of words left by the Arawak Indians, and was first recorded by the early chroniclers of the Columbian encounter (Robe 1960; Lamb 1966). Surprisingly, few place names can be found in Honduras which refer to *caoba* in the landscape, either formally or as a generic. On the middle Río Patuca is *Corriente Caoba* (mahogany rapids), referent to the mahogany in the forests surrounding the Patuca. And two small streams, *Quebrada de la Caoba* in the watershed of the Río Negro and *Quebrada la Caoba* on the upper Patuca, attest to the mahogany found on their banks. One final usage of *caoba*, somewhat surprisingly, is found among the banana lands of the lower Ulúa valley. In this instance, several estates bear the name of what were once prominent timber trees in the region. Thus, in addition to *Finca Cedro*, *Finca El Nispero*, and the like, there is also a *Finca Caoba*; the naming of these banana estates suggests a tacit acknowledgement of the area's previous commercial history.

Remarks

Though the legacy of the mahogany trade is easily discernible in the toponymy of Honduras, it is somewhat surprising that the legacy is so small. Most of the remaining place names that are directly attributable to the mahogany trade can also be linked to its period of maximum expansion in the early to middle-19th century, when cutters from Belize and elsewhere dominated the trade in the western Caribbean. Thus it was these cutters – with English as their native tongue – who inscribed banks, booms, and creeks on local landscapes, and whose cultural legacy persists despite decades of Spanish-speaking influence in those same landscapes. Though Spanish-speaking merchants were also active at various times in the mahogany trade and certainly were key partners of woodcutting interests from outside Honduras (Revels 2002; 2003), the prominence of English (and English-derived) place names clearly indicates the dominance of English speakers in the mahogany trade and the locales in which they plied their trade. In the present example, toponyms are thus instructive not only for their ability to provide insight

into the cultural ramifications of the mahogany trade in Honduras, but also as reminders of the particular (some might say peculiar) role that English speakers played in the Caribbean lowlands of Central America.

Notes

1. The place names for this study were obtained from the official series of 1:50,000 topographic sheets produced by the Instituto Geográfico Nacional de Honduras. Toponyms were registered only from those areas within the general spatial parameters of the mahogany trade in the 18th and 19th centuries or where areas of English-speaking influence are historically significant. This includes the entire North Coast from Guatemala east and the watersheds of Honduras' north-flowing rivers, as well as the whole of Mosquitia.
2. In 1857, when world trade in big-leaf mahogany was booming, Wells noted "...the mahogany trade on the Pacific ... will yet require many years to become remunerative and permanent, there being no sure market for the wood..." (Wells 1857:347); the situation remained unchanged well into the 20th century (Zon and Sparhawk 1923).

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**Farther Afield:
Latin America at Large**

Coastal Ecuador's Montubios in Ethnogeographic and Historical Perspective

Kent Mathewson

William V. Davidson's fieldwork and scholarly focus has been primarily on Central America's Caribbean littoral, but his work and interests also include forays into the region's interior. And while most of his attention has been directed at historical reconstructions of past peoples—both indigenous and colonial, their demographics, toponymics, and territorial dynamics, he has also put a keen ethnogeographic eye to some of their contemporary descendents (see Introduction). He is perhaps best known to the Garífuna and vice versa, and is well known for his study of them (Davidson 1976, 1979a, 1979b, 1980, 1982, 1983, 1984). The Garífuna or Black Caribs are among those ethnic groups in the circum-Caribbean realm that were formed in the wake colonial contentions and displacements. Their collective histories and geographical movements have been well recorded and charted. But these kinds of contentions and displacements were not solely the product of European economic and cultural expansion. The pre-Columbian ethnogeographic map was far from static. Although the processes at work may not have resulted in the melding of two or more "racial" elements into a single people, they did produce new cultural formations as well as contentions and displacements. Davidson's historical studies of Honduras have helped to put in place early colonial indigenous geographies there, and to allow for inference of pre-Hispanic population movements and cultural patterns (1985a, 1985b, 1988, 1991). Along the whole western Caribbean littoral and its adjacent interiors, Davidson and his students have put the region's indigenous inhabitants, past but especially present, onto the ethnogeographic map in strong relief. Their efforts invite comparable studies in adjacent or cognate regions.

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There are several regions or locales beyond the western Caribbean rimland that invite both environmental and cultural comparisons with the landscapes that Davidson has favored in his work. These include Mexico's Gulf coastal lowlands, portions of Colombia's Pacific and Atlantic coasts, and sectors of Ecuador's coastal zones. Each of these areas has littorals that share ecological and historical similarities with the Central American rimland, but also adjacent interiors that have developed distinctive cultural formations—with both similarities and divergences from the rimland's indigenous ethnogeographies. One of the key features of these cognate lowland inland regions of Mexico, Colombia, and Ecuador has been the formation of distinctively tri-“racial” cultural groups. While they invite some comparison in this regard with the Miskito of Nicaragua, and to a lesser extent, with the Garífuna, they have lost much of their non-European cultural heritage, particularly language. In turn, however, they have developed distinctive regional cultural identities. These identities are strongly grounded in attachments to place, and to adaptations to their coastal plain environments. Some of these peoples are also known by what can be described as ethnogeographic identities. They are quasi-ethnic designations based on regional provenance. They include the *jarocho*s of lowland Veracruz, the *rianos* of Colombia's Caribbean lowlands, and the *montubios* of Ecuador's Guayas Basin. Both the *jarocho*s and *rianos* have enjoyed some scholarly attention (Coe and Diehl 1980; Fals Borda 1979-1986), though more study on them is warranted as well as for many other such ethnogeographic cultural groups. By comparison, the scholarly literature on *montubios* is very limited.

In this chapter, I present aspects of *montubio* culture derived from fieldwork in coastal Ecuador in during 1979-1980. While the primary focus of the research was on mapping and excavating ancient raised field complexes in the Guayas Basin, particularly around the Babahoyo River town of Samborondón, some attention was paid to the question of cultural persistence. At least four economic elements of the local culture seemed to offer evidence of links with the pre-Hispanic past. These were agricultural practices, ceramic production, artisanal fishing activities, and canoe building. Other lesser pursuits also offered hints of earlier ecological and economic traits and traces.

Montubio As Cultural Category

Montubio is a term with uncertain origins and unstable meanings. Like many such quasi-ethnic descriptors it can be used to express local or regional pride, or it can be used as a term of abuse. This is similar to the use of the term *jarocho* in Mexico, which can simply mean a native of Veracruz, or it take on multiple meanings, either positive or negative depending on the context and the intent of the speaker. This duplicity or ambiguity is something shared with many other such quasi-ethnic descriptors grounded in regional associations. Etymological speculation about the term *jarocho* centers on origins having to do

with Iberian swine culture or African ethnicity. Later meanings move in the direction of rural folk in general. This has parallels with *montubio*. Some have speculated that it originally referred to “*monte bios*” or “life in the wilds,” thus, roughly, backwoodsmen. By the 19th century, Stevenson (1829 II:249) suggests the name was simply a generic one for the peasantry. At the end of that century Juan Leon Mera (1892:106) remarked that “On the coast the term *montuvio* is given to the inhabitants of the countryside and forests” [trans. author]. Also, by the 19th century, *montubio* was a common term in popular refrains (Carvalho-Neto 1964:298-299). These refrains are associated with the popular coastal dance and song style known as *amorfino* or *desafio*. *Amorfinos* can be counted as one of the more typical *montubio* cultural traits.

The *montubios*, both as individuals and as a collectivity, occupy important roles and places in the socialist and populist regional literature—both political and fictive—of coastal Ecuador in the 1930s (Heise 1975). A number of traits were ascribed to the *montubio* including honesty, humility, close integration with nature, and combative and independent spirit. The novels often have *montubios* speaking in character, with their distinctive regional dialect and diction. Although the heyday of literary attention to the *montubios* was during regionalist movement of the 1930s and 1940s, they have continued to have a place in the popular imagination of the region. For example, during the 1970s a column entitled “*Montubios y Montubianos*” appeared in Guayaquil’s major newspaper, *El Universo*. The pseudonymous columnist El Compadre Timoleon captured and conveyed *montubio* lifeways and speech in standard “in character” style. Samborondón was one of the featured sites. The columnist had sufficient material to run the column for some years, suggesting a large popular store of images, traits, and associations concerning *montubio* culture.

While the *montubios* and their attributes are familiar enough in the coastal Ecuadorian mind, there has been little scholarly attention directed toward them. The Guayaquil novelist Jose de la Cuadra (1937) wrote a sociological essay entitled *El Montubio Ecuatoriano*. Little has followed. Cornejo (1950:202) put the *montubio* in comparative terms in saying:

The term montubio does not refer to race, rather to social position or location...its homologues are from north to south in America: charro in Mexico, jibaro in Puerto Rico, goajiro in Cuba, concho in Costa Rica, llanero in Venezuela, huaso or guaso in Chile, guacho in Argentina, Uruguay and part of Brazil [trans. author].

This is not entirely correct, however. While *montubio* is not a racial category *per se*, the aura of either (or both) Afro and Amerind descent combined with Euro-ethnicity is implicitly part of the mix. And the notion of biological analogy (similarity of features due to common adaptation) rather than homology (similarity of features due to common ancestry) better fits here. Each is a subnational grouping

within the peasantry, though their actual cultural ecological adaptations are quite distinctive. The *montubios'* adaptations are to a range of environments from the semi-arid uplands of Manabi province to the seasonally inundated savannas and swamps of the Guayas Basin. The *charros*, *llaneros*, and *guachos* are preeminently equestrians of respectively semi-arid range lands, savannas, and prairies. The *montubios* are also equestrian cattle herders in portions of their range, but around Samborondón their adaptations are primarily to its riverine and seasonally inundated environments. In this regard, agriculture has been the main occupation for the past several millennia at least.

Samborondón: The Agricultural Focus

Evidence for the cultural antecedents of *montubio* culture are clearly etched into the landscape. Prehistoric populations occupying the flood plain around Samborondón made massive alterations in the natural landscape for agronomic purposes. This took the form of raised fields, mounded earth structures in various morphological configurations that provided elevated planting surfaces during the wet season, and in the intervening spaces, reservoirs of water for irrigation and presumably aquatic subsistence activities (fishing, turtling) during the dry half of the year as waters receded. It is unclear whether the farming of raised fields continued until the conquest period (Stemper 1987). Our excavations and dating suggested occupation of the raised field complexes at least as early as ca. 500 EC, though initial or terminal dates are unknown. Certainly by the late-16th century, the native population had been reduced to a remnant of what formerly existed – assuming a majority of the raised fields had been in production. Throughout the Americas, especially in tropical lowlands, depopulation rates often reached levels of 90 percent or more (Denevan 1976). The Guayas Basin was probably no exception, though there has been little effort at systematic demographic reconstruction of the aboriginal population for the contact period (Hamerly 1973; Mathewson 1987a; Newson 1995). Hamerly's (1973) own projections have been conservative and probably faulty in the sense that he has not adequately considered cultural ecological data in his work. In particular, he makes no mention of the evidence for the highly intensive systems of irrigated and drained cultivation that existed before the Conquest.

The early colonial records of farming practices for both the Samborondón area and the rest of the Guayas Basin offer little information on the types or intensity of production. Only with the establishment and expansion of the cacao frontier in the 17th century do we have much information by colonial authorities on the region's agriculture (Chiriboga 1980). The Samborondón area was probably never an important center of cacao production, though Zuñiga (1983:113) alludes to passages in Humboldt's journals describing cacao orchards at the base of the Cerro Santa Ana de Samborondón. Within the Guayas Basin, the zones where cacao became an important crop were upriver

from Samborondón, especially around the district of Baba (Hamerly 1973:109). While cacao was and is grown in areas of ancient raised fields, especially in the Chilintomo district, the flooded savannas around Samborondón do not have the proper soil conditions for cacao raising. Instead, by the end of the colonial period Samborondón's mounded savanna landscape became an important center for cattle production (Wolf 1975). The artificially created micro-relief allowed year-round tending of cattle. The raised fields provided wet-season refugia, and the receding waters during the dry-season provided the conditions for a system of horizontal and micro-vertical transhumance.

The introduction of cattle into these landscapes of previously high-intensity cropping created conflicts with the remaining Indians and post-aboriginal occupants. Some of these early *montubio* peoples were enlisted as workers in the cacao industry. Others became hands on the large cattle haciendas, as their descendants are today. Still others fought in both open and subtle ways to continue their livelihood patterns as subsistence cultivators and fisherfolk, and they retain some control over land use. Again, the work of Fals-Borda (1979-1986) on the history of parallel struggles and processes throughout the Mompo region in coastal Colombia during the colonial period offers a model for future study of the Guayas Basin.

By the 19th century, the patterns of production were firmly in place, and more tractable for study using the historical documents. Cacao came from *tierra arriba* or Baba and beyond, especially from the natural levees of the major rivers and their tributaries. Formerly, the levee land was occupied by small holders who enjoyed use of the best soils and easy access to the river fisheries. Displaced, many sought out relic raised fields in the *tierra adentro* areas of the interfluvial swamps and savannas to continue their independent modes of subsistence. The extensive cattle culture around Samborondón made smallholder existence based on farming the relic raised fields somewhat precarious. Cattle ranching in the Guayas context favors "economies of scale." The cattle could be counted upon in the last instance to serve as enforcers of the peasantry's subordination to the demands of large-scale production.

In the last century the predominance of cattle ranching and dairying has been replaced by rice farming in the *parroquia* of Samborondón. While a minor focus of colonial production, perhaps introduced directly from southern Spain or from the Philippines as early as the mid-16th century, wet rice farming only became a major activity after the 1920s. The long boom in Guayas cacao fortunes that began in the second half of the 19th century burst at the end of 1920s due to plant disease (Weinman 1970). The world depression of the 1930s further constricted the regional economy. Workers released from a destroyed cacao industry turned to small-plot rice farming. In areas not under the control of cattle ranchers, relic raised-field surfaces and other marginal terrain was cleared by slash-and-burn techniques for rice. Wet season crops were grown on the micro-slopes

and tops of the artificial mounds, while a dry season crop could be planted in the humid or semi-flooded swales between the mounds.

With the onset of World War II, Ecuador was able to enter the world rice market. The amount of land committed to rice was sharply increased, though there had been some expansion of rice cropping by small holders and landless peasants on *baldias* or marginal lands during the 1930s in the wake of the cacao collapse in the late 1920s. By the 1950s—when the rice producing areas of Asia began to redirect their production to the world market—the rice boom slowed. During this period, the new boom crop became bananas (Parsons 1955). However, the lessons of large-scale rice cultivation and marketing was not lost on either the commercial or agricultural sectors of the Guayas populace. Much of the necessary machinery, both figuratively and literally, for processing and marketing rice had been put into place throughout the lower Guayas landscape during the first rice boom.

Another expansion of rice production occurred in the wake of Ecuador's oil boom, centered on the decade between 1972 and 1982. Heavy machinery for earth moving—usually involving raised-field razing—and mechanical pumps for irrigation transformed Guayas rice farming. While small farmers continue to grow rice on the relic raised fields using non-mechanized techniques, their numbers continue to decline.

In the Samborondón area, the relic raised-field structures also are used for growing subsistence crops. At best, however, the gardening activities of the modern *montubio* are desultory. Most rural homesteads have a variety of herbs, staples, and fruit trees in a house-garden context. A typical ensemble might be chiles, mints, lemon grass, and several other condiments grown in ceramic pots hanging from the house, or on raised-cane platforms beside the house, a mango tree, two or three citrus trees, one avocado or a guava tree, and several clumps of bananas and/or plantains with a few manioc plants, and perhaps a dozen or so corn plants during the wet season. The produce from these cultigens provides some additions to the diet, but certainly self-subsistence is not the goal.

In other cases, cultivation of the raised fields away from the homesteads is done, but mostly with plants that will not be eaten by wild animals or birds, or especially mules and cattle, or stolen by “neighbors.” One farmer was using a relic-raised field for growing cotton. He said that he had tried to grow a variety of vegetables such as tomatoes, cucumbers, and squash, but that he lost most to unspecified “thieves,” human and otherwise. Thus, he was planting cotton, something deemed less attractive. Growing cotton on raised fields is of particular interest because cotton is one of the prime candidates for a non-food use of raised fields in their prehistoric context. However, to date there is no evidence linking the Guayas raised fields with fiber or other types of non-food production.

Rural residents also use the relic mounds for arbors. Mango, avocado, and breadfruit trees, along with many other local fruit-bearing trees are found on isolated raised fields. In the Chilintomo area, cacao is planted on raised fields, presumably of ancient construc-

tion, and does extremely well. This raises the possibility that in pre-Columbian times, raised fields were also used for aborigiculture. A more controversial notion is that Guayas raised fields may have been used for pre-Columbian cacao production. Wild forms of cacao are native to western Ecuador. It is even possible that *Theobroma cacao* was first domesticated in South America rather than Mesoamerica (Schultes 1984; De la Cruz et al. 1995). The ancient Ecuadorians must have known of *T. cacao* from their contacts with Mesoamerica, and if so, it seems curious that it was not introduced into the Guayas before the Spanish conquest.

Beyond the use of the relic raised fields for gardens or arbors, some are used for shifting cultivation. Wet season crops of maize, pulses, and occasional cucurbits are grown on surfaces cleared at the end of the dry season. If the secondary growth is old enough, then the trees are usually cut and rendered into charcoal rather than burned outright, thus preventing nutrients recycling to take place. The charcoal-making industry has decimated parts of coastal Ecuador, especially on the western versant of the Colonche Hills. It has kept many of the relic raised fields and all the outcrop hills from realizing their maximum vegetative potential.

Around Samborondón, where most of the landscape has probably been in continuous production for several centuries if not millennia, swidden farming was being practiced only on the outcrop Cerro de Samborondón (290 M). There, two or three families planted wet-season crops of maize, sweet potatoes, and pulses. The land was nominally communal, or owned by the municipality of Samborondón. Thus, technically, permission needed to be received from the authorities to use land there. However, the families in question lived at the base of the *cerro*, and had customarily planted small plots (less than three hectares), so access was taken for granted.

The vestiges of earlier agricultural practices are visible in the landscape, but they are muted. Sporadic maize and manioc plantings are made on some of the rice bunds, but these seem more like afterthoughts than systematic efforts at utilizing spaces that correspond in some ways to the ancient raised-field surfaces. While Samborondón is situated in a preeminently agricultural setting, the introduction of rice culture has all but obscured the traces of the equally land-and-labor intensive agricultural past.

Samborondón As A Ceramic-Making Center

Me gusta Samborondón
 (I like Samborondón)
Rodeado por todas sus tembladeras
 (Surrounded by all its swamps)
Tiene muchachas bonitas
 (Its girls are pretty)
Pero todas son olleras
 (But they are all potters)

This popular refrain from the Guayas area clearly locates Samborondón in the regional consciousness as a center of ceramic production. As a jocular slight on the town's craft specialization, it could be enjoyed by both rural peoples from the towns and countryside as well as those with a more haughty view from Guayaquil. When asked about the origins of the ceramic focus in their town, the average person thought the question somewhat self-evident. Anyone walking in the countryside would surely notice the abundance of broken potsherds in many places of soil disturbance. And everyone knows that *tolas* or the ceremonial Indian mounds contain whole pots and even gold. Thus the sherds in the landscape are "*tiestos de los indios*" (Indian potsherds). To most Samborondeños, this is an example of continuity with the pre-Columbian past.

For others, concerned to demonstrate more specific recollections, the ceramic industry really began in the 1920s when a man from Cuenca moved to Samborondón and introduced the potter's wheel. For the "better-educated" citizens, before that there were perhaps some *olleras* (women potters) practicing a cottage craft based on the old coil techniques, but it was of marginal importance. What sticks out to these informants is that the industry became rationalized through technical innovation by a *cuencano*. As with the dispute over the town's toponym the bearer of the trait is culturally at odds with *montubio* culture.¹ Cuenca's image is that of a city preserving colonial Hispanic bloodlines and culture in purer form than anywhere else in Ecuador. It is known for its tradition of producing *hidalgo* poets, and reproducing blue-eyed, blond-haired descendants of the conquistadors (Hirshkind 1981). Thus with the question of the origins of the ceramic specialization, as with the town's toponym, there exists what might be characterized as an elite position stressing exogenous origins and a popular (or *montubio*) position favoring local or indigenous origins of cultural traits and features.

Whether there has been an unbroken thread of continuity within the ceramic-making focus since pre-Columbian times is not known. Certainly aboriginal ceramicists would have enjoyed the same environmental conditions that could have contributed to Samborondón becoming a focus of ceramic activity in the colonial period. However, these attributes, such as appropriate materials (clay, wood for firing, and minerals for coloration) are well distributed throughout much of the central Guayas region. From our archaeological excavations, we recovered evidence of a ceramic workshop from at least one excavation site. In all of the excavations, it appears that the ceramics date almost exclusively from the last millennium prior to European intervention. There seems to be no evidence that the aboriginal peoples at Samborondón were making pottery before about A.D. 500. However, there is considerable evidence that ceramicists were at work along the Babahoyo and its tributaries for a millennium or more earlier than this (Estrada 1958; Meggers, Evans and Estrada 1965, Marcos 1987). The excavations at Samborondón support the interpretation that large-scale landscape modification for raised-field agriculture

and ceramic production coincides with the more generalized "demographic upsurge" that is thought to have occurred at the outset of the Integration Period (A.D. 500 - 1500) in Ecuadorian culture history.

The prehistoric pottery remains found around Samborondón are generally of uninspired, utilitarian design. If aboriginal potters in the vicinity of Samborondón made fine ware, it was for export. Most likely the pottery in circulation in the Samborondón area was made *in situ*. But it is doubtful that Samborondón was a preeminent center of pottery production before the Conquest. The factors that led to Samborondón becoming an important node of pottery production by the 19th century no doubt have to do with both its site and situation within the lower Guayas Basin.

Samborondón's Situation

Samborondón's site is well situated to serve as a river port funneling products on to Guayaquil coming out of the interior down the Vines and Babahoyo River systems, and to act as an overnight rest stop for travelers coming up river from Guayaquil. It also has access to its immediate swampy hinterlands on both sides of the Babahoyo River through a network of *esteros* or creeks and/or earthen causeways built in concert with the aboriginal raised fields. In terms of the materials for making pottery, it shares with other many other locations an abundance of clayey alluvium for the matrix. However, Samborondón is somewhat more favored than other towns in that sand from the river bars is easily gathered during low tide in the summer season.

Sand is used in the ceramics for temper. Second, Samborondeños mine the orange-colored ferrous earth of the Cerro Santa Ana for use as paint and sealer on their ceramics. Cerro Santa Ana is the eastern most outcrop hill in the floodplain north of Guayaquil, as well as being one of the largest. The *cerro* is also a source of wood for firing the pottery, though brush from the thickets growing on relic raised fields closer to town is more often used. More recently, the deconstruction of traditional timber and cane-wall houses in town (replacing them with concrete block structures) has provided abundant fuel for firing pottery. Nevertheless, fire made with *guadua* cane is said to produce an inferior product.

Thus on the basis of materials alone, Samborondón possesses good pre-conditions for economic specialization based on ceramics. However, it is not a sufficient condition to explain Samborondón's ceramic-making activities (Shepard 1957:356). Arnold (1975) has argued in the highland Peruvian context of vertical zonation of land use that the development of ceramic centers are adaptations to situations offering limited opportunities for agriculture. This thesis may apply equally to the areas such as the Guayas floodplain where the zonal orientation is one of horizontality (see Denevan 1984) but where opportunities for access to biotopes is circumscribed by sociopolitical as well as natural conditions.

The extensive wetlands surrounding Samborondón could have acted as a limiting factor for agriculturalists in the colonial period. However, this would have meant that the thousands of remnant raised fields were

ignored by the post-aboriginal cultivators. More likely, changes in the production modes could have caused constriction of agricultural opportunities. Hamerly (1973:104-105) has pointed out that the Samborondón area was a livestock and horticultural zone servicing Guayaquil during the 18th century. The tenure structure was mixed, but the larger landholders—the cattle raisers—had clearly assumed dominance through much of the Guayas savanna lands by the end of the colonial era. Those persons marginalized by the encroachment on their traditional small holdings would have been candidates for household ceramic production.

Samborondón's situation is propitious within the Guayas Basin as a center of ceramic production and marketing. As Estrada Ycaza (1977:205-211) has written, the use of *balsa* rafts for both riverine and maritime commerce was a key element of the aboriginal economy that continued to be a crucial aspect of colonial commerce and transport. From Samborondón, produce and productions could have been rafted riding the tides upriver beyond Babahoyo in the dry season, and downriver any time to Guayaquil and along the littoral to Peru or farther. Along the tributaries and *esteros*, through the back swamps and seasonal lakes, the *montubio* traders probably used the more lissome small log-hewed canoes to reach the minor markets. Mules were used to breach both the interfluves and the Andean piedmont slopes. The items marketed would have been primarily for daily household use, especially the *cazuelas*, or pots used for making regional stews such as the manioc and catfish *sanchochos*, flatware for eating and preparing food, and *compoteras* or smudge pots for burning *palo santo* (*Bursera graveolens*) and other insect-repellent woods.

Samborondón's ceramicists also produced containers for regional industries. Holm (1971:272) has suggested that Samborondón could have been the source of the large clay jugs (*botijas*) used to transport honey from Daule to Guayaquil in the 18th century. However, this might be questioned in that Daule had its own ceramic industry until quite recently (Klumpp n.d.). Though Daule is slightly closer to Guayaquil, and has always been somewhat larger than Samborondón, the two towns occupy comparable positions within the mid-Guayas Basin vis à vis Guayaquil. It is more likely that Daule had its own ceramic industry to service the western side of the Basin, while Samborondón met the demands of the eastern portions. Samborondón, on the other hand, may have been the primary source of the large (ca. 10-gallon) vessels that were used to ship fresh water to Guayaquil during the dry season. Fresh water is available according to the tides even at the end of the dry season just north of Samborondón on the Vinces River. Guayaquil's own water source from the Guayas River was too saliferous from June through December to be potable. In this regard, Samborondón had the edge over Daule in being some kilometers farther into the interior. Daule River water at the town of Daule would not have been appreciably better than Guayaquil's during the dry season.

It is likely that Samborondón's pottery played a part in extra-

regional colonial commerce. *Pipas*, or the long amphora-shaped jugs used by the Spaniards to haul wine or olive oil aboard ship were made in Samborondón up until the end of the last century. This points to the possibility that Samborondón's pottery was traded as far as Chile, where the colonial olive and wine industry was based. Several of these artifacts still exist in town and are used as water containers.

The tax role of 1832 and the census of 1840 provide glimpses of Samborondón at the outset of the national era. The tax list for the parish of Samborondón indicates 366 non-Indian taxpayers including two *olleros* or potters. The breakdown of taxpayers for the entire province of Guayas for the same year as reconstructed by Hamerly (1973:113-116) shows only two potters. This clearly indicates that the only tax-paying, and presumably most active potters in the region were in Samborondón. Indeed, in the absence of other data, it suggests a monopoly. No doubt there were other Samborondeños involved in the industry, and it may be that these two were buyers and sellers of ceramic ware, as well as being large producers.

Samborondón Ceramics In Modern Times

Research on the contemporary history of pottery production was based upon interviews by John Treacy in 1980 with older or retired potters. Oral histories date back to the beginnings of the century, and some accounts are very detailed. All informants agreed that the industry had changed considerably, both in terms of structure and in numbers of people employed. Most remarked that there were more possibilities for selling ceramics in the past than at present. Several events of the last 40 or 50 years have altered production patterns. A description of the process of ceramic production before the potter's wheel was introduced helps to illustrate the structural changes brought on by the new technology and marketing patterns.

Pottery was made by hand within single household units. There were "many" production centers. People were conscious of the fact that an entire neighborhood or *barrio* was inhabited by potters. Each workshop was adjacent to the living area of the house, usually on the first floor or within a covered patio space behind the house. Both men and women worked in ceramics, however women did most of the actual modeling and finishing work. Men assisted by gathering the raw clay, temper, and other materials when they were not occupied with agricultural chores. The number of families involved full- or part-time in production was said to have numbered over 60. Some residents recall not having been able to walk down the streets of the potter's neighborhood because of the quantities of pots lined up in the sun to dry.

The riverine marketing system was used extensively. Samborondón ceramics could be found in the markets of various towns in the Guayas, and even as far south as towns of northern Peru (Costales 1953). The men took trips lasting up to a month to sell pottery in towns along the rivers, or to trade pots for fruit and other food-

stuffs. Prices were low. A casserole dish was sold for 2-5 *reales* (100 *reales* = 1 *sucre* [with 1 *sucre* = \$0.04]). There was a great diversity in the kinds of objects made from clay. The I.E.A.G. report (Costales 1953) lists 14 distinct items. In addition, toys and sculptures were made of clay. One potter even made life-sized animals and people.

The diffusion of manufactured metal pots and other receptacles has had a predictable impact on the ceramic industry in places such as Samborondón. Holm (1971:265) suggested that the process began on a large scale with the opening of the Panama Canal. The impact of manufactured products on ceramic producing towns has been documented in Ecuador (Klumpp n.d.; Elías Castro 1976). The coastal Ecuadorians say they have abandoned the traditional cookware for two reasons: metal is more durable and convenient, and metal (as well as plastic) objects identify the consumer and user with modernity.

The repercussions on Samborondón's trade resulted in a reduction of the market for traditional ceramic cookware and a decrease in Samborondón's inventory of styles and forms. Many pots continue to be made because they have specialized culinary uses (casseroles used for fish dishes, for example). Items of a more general character, however, have suffered a loss of popularity.

The potter's wheel, introduced by a native of Cuenca in 1927, altered the structure of pottery-making in Samborondón. Of course, changes in technology usually result in changes in the patterns of production and in the products themselves. In the case of the potter's wheel, roundedness becomes the morphological dominant as regards the products. Elongated or non-rounded shaped items disappear or only survive by being made by hand.

Another consequence of the introduction of the wheel was task specialization and the "industrialization" of the activity. The innovation appears to have spread quickly. The *cuencano* artisan, one Manuel Parra, married into a local family of potters. He instructed members of the family in the use of the wheel, and began to teach others as well. At least five men soon started using the wheel. This raises the questions of: "Why was this innovation accepted?" and "What became of those who did not learn to use the wheel?"

The first issue concerns convenience and rates of production. The wheel is perceived by Samborondón potters as a faster method for producing ceramic forms. This conforms to the generally held perception of wheel-throwing (see Klumpp n.d. however, for an opposing view). Almost all of the current potters in Samborondón view speed as an advantage, although some would aver that wheel pottery is not as artistic as hand-molded pieces. The minority view was held by Calixto Romero, an elderly artist of the "old school." His work was self-consciously concerned with preserving the old ways. He was able to exploit his impervious and somewhat imperious position on change by having established a reputation for quality that allowed him to sell his pieces to collectors from Guayaquil and elsewhere. There was prob-

ably room for only one or two such figures under the then-current marketing conditions. However, by 1980, there appeared to be a nascent interest among middle-class Guayaquileños in consuming Samborondón's pottery as handicrafts. At the time, they were content to consume pottery thrown on the wheel, though with time one could safely predict that a demand for more traditional items would increase.

Concerning the second issue, the wheel did not replace potters *per se*, rather the potters activities were reorganized with a new division of labor. Thus, the several master potters (*alfareros*) did no more than form the basic shapes on their wheels, leaving the finishing, firing, and selling either to the women members of their families or to neighboring potter families. The new division of labor also became more solidified along gender lines. Men became the wheel throwers or *torneros*. *Torneros* could leave their workshops and hire out their services to families supplying raw materials and a work area. In potters' homes where there are no *torneros*, wheels may still be available for visiting *torneros*.

A visiting *tornero* establishes a price for his services, called a *tarea*. A *tarea* is a fixed number of pieces of a specified size and price. In 1980, a *tarea* of 50 *sucres* consisted of some 30 large casseroles or pots; a *tarea* of 120 *sucres* would be 120 pieces of a smaller size; and a *tarea* of 240 *sucres* nets some 250 items. The amount of paste and temper consumed is roughly equivalent for each form of *tarea*. The contracting family sells the output, recouping the investment spent in hiring a *tornero*.

Torneros with sufficient family labor, or hired labor, do not perform *tareas*, but work only in their own workshops. These larger operations became more stable and prosperous. In 1980, the three busiest and most lucrative workshops in Samborondón were owned by *torneros* who had never worked outside *tareas*.

Decline of the Industry

A combination of factors had contributed to a decline in ceramic production. Some of the loss could be attributed to normal attrition. Several older, very active masters died or retired. A common complaint among potters was that the daily tasks of handling damp clay causes arthritis and other maladies. New families rarely entered the trade. Potters were sons and daughters of potters.

Several potters suggested that agricultural intensification had diverted potters into wage labor in the rice fields. One informant attributed this to an expansion of rice cultivation on the river levees, or *vegas*. This also points to a problem inherent in traditional artisan towns: new and more promising economic opportunities tend to choke off older and less lucrative trades.

General inflation had raised the costs of production of ceramics. While transportation costs may have accounted for some increases, others stemmed from the structure of the trade. A potter hired a person to extract clay. In former times he might have simply spent a day mining his own. The same held true for sand, sold by the can (*taro*). Wood had

also increased in price. Despite these obstacles, Samborondeños were able to adapt to the changing conditions in the regional economy. For example, after several decades of sustained expansion, the opportunities for wage labor in the rice fields began to slow down. With the collapse of oil prices in the early 1980s, there was less capital to invest in the further modification of landscapes for rice growing. Within Ecuador in this period, lower oil prices did not necessarily mean lower operating costs for mechanized farming. Oil prices for internal consumption were heavily regulated by the State and held "artificially" below the market price. Thus, paradoxically, oil prices within the nation had to be increased to offset the losses of externally generated revenues. In a revisit to Samborondón in 1985, I was told that several young men recently had become ceramists who formerly were day laborers in the rice fields.

This move from field to workshop may have been a reflection that Samborondón's potters realized that the *macetero* or flower-pot market offered opportunities for expansion. This was resulting in changes in style and shape as well as increased output of a variety of half-round, hanging, pedestaled, multi-mouthed vessels for the ornamental plant trade. Many of these shapes imply a departure from the circular designs forced by the wheel and a partial return to more creative hand molding. However, the days when some 60 families could participate in production, filling the streets with drying pots, were gone. The future of ceramics had shifted in the direction of creative artisan work for the urban market.

The Artisanal Fishery

By the 1980s, Samborondón was clearly known for its rice farming and ceramic making. Both were based on the soil and water regimes of the locale. Samborondón was less known for its artisanal fishery, though this continued to employ from 10 to 50 men and boys depending on the season and circumstances. Like the ceramic industry, the fishermen lived for the most part in one part of the town. Both the canoe builders and the fishermen lived along the *malecon* toward the south end of the town. This pattern of partial residential segregation suggests remnants of the pan-Andean practice of dual divisions in townscapes along craft and moiety lines. But it also can be explained by noting that the potters lived in the *pueblo arriba* (north end) nearer to the *cerro* and the clay barrow pits, while the fisherfolk lived in the *pueblo abajo* (south end) along the river.

The fishing activities of Samborondeños did not differ from those of other towns along the Guayas' rivers and their tributaries. Fish were seined, netted, hooked, speared, trapped, and occasionally collected, after being stunned by piscicides or explosives, in a variety of ways and places according to the ecological conditions. In terms of persistence, the modes of fishing were more modern than pre-Hispanic. They suggested imaginative adaptative responses of *montubios* to their surroundings. The fishing strategies employed by Samborondeños, also suggested some diffusion of techniques from the *cholo*, or coastal mangrove culture area. This seemed to be

the case at a site on the lower Babahoyo studied by Alvarez (n.d.).

Opportunities for fishing were influenced by natural features and forces. The most circumscribed opportunities occurred within the context of the rice fields. At the end of the dry season, small pools and ponds formed, especially at points along the irrigation canals. Here, men and boys seined for several species of small eatable fish, including *damas* (*Brycon alburnus*), *dicas*, *guanchiches* (*Hoplias microlepis*) *viejas*, and *sabale-tas*. They used a local two-ribbed seine called a *bajio* to scoop up fish from these pools. Men waded into the deeper parts of the pool and had small boys drive fish in the irrigation canals into the pools. In August of 1979, I watched Jose Morillo Vega, who was returning home from a morning's work in his rice plot at the foot of the Cerro, fish "for his lunch." Fishing a pool or *pozo* beside the road measuring 4 meters wide, 12 meters long, and 2 meters deep, he caught six pounds of fish in 15 minutes. He kept only those fish over 4 inches long. He felt that there might be another 50 or so fish left in the pool. This was the first time he had fished the pool that year, though others had probably tried their luck there in the proceeding two months of the dry season. Apparently the fish were sucked up from the river by the large diesel pumps that irrigate the rice fields during the summer months. Thus, the opportunities for fishing in these pools was continuous and actually better during the dry season.

During the flood season, fish also could be taken from the pastureland and rice fields. However, in that much of the landscape became a massive lake, the fish were dispersed. By 1980, there was little incentive to undertake operations such as collective fish drives or using traps to concentrate the fish. In Samborondón, it was mostly the boys that fished in the wet season. They seined for shrimp in places where they could wade along the river levees and artificial relief features. In April and May, or at the end of the rainy season, certain estuarine fish began their summer runs. These were intensive times for the fishermen with motorized canoes. They fished for corvina, robalo, and other large prized fish, using lines set with multiple hooks.

From June to December, the opportunities for fishing during the dry season became more varied, as conditions on the main rivers as well as *esteros* and back swamps became more predictable and less difficult. One technique, a larger-scaled version of driving fish in the irrigation canals, was the *tapa de estero*. This involved three or four people and enough net to close off the mouth of the *estero*. Mangrove hooks or "r"-shaped pegs were used to anchor the net on the *estero* bottom, while balsa wood buoys were used to keep it afloat. If the *estero* was tidal, then the fish were concentrated with the flushing of the water at low tide and could be speared or seined. Otherwise they could be concentrated by driving the *estero* with people in small canoes or swimming and seined at the netted end of the creek.

Perhaps the most complicated operation was a group effort involving up to a half dozen canoes and the rigging of a temporary corral made of nets and poles. During the night and early morning of June

14-15, 1980, John Treacy and I observed one such operation across from the pre-Columbian site of Pimocha. The day before the "round-up" the *chancha* or corral was set up and "baited" with clumps of brush that acted as both temporary attractants and refugia for fish. Fifteen poles, about 7 meters long were impaled in the riverbed in a circle. The river was about 3 meters deep in the place where the *chancha* was formed. Working from two canoes, four fishermen hung the net on poles, leaving it rolled up a meter or so above the water. At first light (ca. 6 a.m.), the nets were carefully unrolled and allowed to slip into the water with a minimum of disturbance. The lower edge of the net was threaded with a steel chain that acted both as a weight and a drawstring.

At about 8 a.m. the assembled canoes (two large plank canoes and a smaller hewn-log *Cayapa* canoe) encircled the *chancha* and began to pull up the poles while a diver pulled the chain drawn-string closed. The last two poles served as levers to lift the net high enough to remove the clumps of brush. Finally, the entire net was hauled into the largest canoe and the sorting and selection of the catch began as fish flopped on the canoe floor. Some of the species were thrown back as undesirable (such as *raspa balsas*) others were sold by the *sarta* (ca. four lbs.) on the spot to canoe loads of townspeople, while the bulk was sorted for sale later that morning at the market in Babahoyo. The catch included the following types of fish: *boca chica*, *raton*, *vio*, *dama*, *barbudo*, *guavina*, and *chupa*. The *chancha* yielded about 120 pounds of saleable fish. The wholesale price of the fish varied from about \$0.20 to \$0.50 per pound depending on the species. The organizer of the *chancha* and his two assistants were from Babahoyo. The operator of the other large canoe was from Pimocha. The assistants and the Pimocha resident received a portion of the catch rather than a cash payment. This way, all shared proportionally in the fortunes of the day. Alvarez (n.d.) has described a somewhat similar fishing strategy near the Peñon del Rio on the lower-most stretch of the Babahoyo, but on a larger scale involving a dozen canoes.

Fishing was also done from mobile canoes or rafts. Two basic techniques were employed. Cast nets or *atarayas* were used by fishermen in both the large outboard motor-driven canoes and from the small *Cayapa*-style dugout paddled canoes. Especially from the smaller canoes, considerable skill and agility was demanded to be able stand up, let alone cast a net of some 30-meters' circumference. Baited hooks and lines also were used by fishermen in canoes, sometimes in combination with cast netting. Fishing from mobile canoes often indicated that fishermen were pursuing particular species, such as the prized *corvina* and the *robalo*. Fishing either with spear or bow and arrow are techniques that may have persisted into this century in areas of the Guayas Basin, but were seemingly replaced by the methods mentioned above (Olaf Holm, pers. com.). On the other hand, local people did speak knowledgeably of the practice of using *barbasco* and other piscicides. However, when asked when and where, they said that they had heard of it being done, but by people from *tierra adentro* (upriver and back in the interior).

Canoe Building

Associated with Samborondón's fishery is its artisanal canoe building and selling trade. In a double sense it reflects aspects of cultural persistence. It also suggests an historical imbrication of economic adaptations displaced by and from Guayaquil. Hollowing logs for single piece watercraft has probably taken place in and around Samborondón since Tropical Forest peoples first settled there. However, in recent decades this practice was replaced by the direct importation of Cayapa-style canoes from Esmeraldas province via Guayaquil. On the other hand, with the widespread adoption of outboard motors since the World War II rice boom, Samborondón had become one of the most important centers for the construction of multiple-piece large plank canoes. The principles of building these cargo canoes, which sometimes reached 20 meters or more, were the inheritance of Guayaquil's accumulated experience as the premier colonial ship-building center of the Western Pacific. Thus the artisanal boat building tradition that was brought from Iberia and practiced in Guayaquil from the 16th to 19th centuries (Clayton 1980) has been adapted to the demands of local fluvial traffic and commerce and continued in places such as Samborondón.

The making of dugout canoes is no longer done in Samborondón, nor probably anywhere within the Guayas Basin. No one I talked to could say when the practice ended. Instead, the small dugouts used for travel across the landscape during flood season, and for some main river traffic, are bought in Samborondón from a black merchant originally from Esmeraldas Province. He and his family were the only recognizably pure Afro-Ecuadorians living in Samborondón during 1979-1980. There are many Samborondeños with *zambo* (Afro-Amerind) features, but the merchant and his family stood out. They sold products from Esmeraldas such as sprouted coconuts for planting, *cocada*—a popular shredded coconut and molasses confection, and Cayapa canoes and carved paddles from their storefront residence at the south end of the waterfront or *malecon*. The merchant said that he buys these goods in Esmeraldas, has them shipped by intercoastal steamer to Guayaquil, and then has them trucked to Samborondón. Before the road was completed in the early 1970s, the loaded canoes were brought from Guayaquil in a flotilla towed by riverboat. The Cayapas (Chachi) are one of the two or three remnant indigenous tribes extant in Western Ecuador. Thus *montubio* culture draws upon a group of its precursors for one of its essential material culture items. Interestingly, it is a coastal Afro-Ecuadorian that mediates this exchange.

The canoe making in Samborondón mostly takes place in two open lots along the south end of the *malecon*. There are three principal "canoe yards" where work is done on a continuous if leisurely basis. Smaller sawn-and-fitted plank canoes were constructed in various other spots throughout the town by craftsmen working on a sporadic basis. Canoes made for use with outboard motors were costly. *Guachapeli* (*Pseudosamanea guachapele*) was the preferred wood for

the bottom pieces (*cinta de media*) and the upturned basal end pieces (*pechos* or "breasts"). *Guachapeli*, or other extremely durable local hard woods are used for the sideboards. The interior ribs and fittings can be made of less costly materials, though some canoes are made entirely of *guachapeli*. The larger cargo or taxi canoes may sell for as much as \$2,000. I had an unusually small (by local standards) canoe built for me at a cost of \$200. It was four *varas* or about 4 meters long, but double the width of a Cayapa dugout of the same length. It was deemed too small for outboard use, and too heavy for easy paddling. This turned out to be correct. I later bought a Cayapa canoe of similar length for \$40. However, it proved to be too unstable for worry-free use. My river reconnaissance was done from taxi canoes over regular routes.

Timber for the canoes was sometimes floated by raft from upriver or more commonly hauled in by truck. During the colonial period, areas such as Samborondón and its environs were principal sources of logwood for the royal shipyards (Clayton 1980:84). In 1980, *Guachapeli* and other favored woods did grow in the Guayas floodplain, but only as individual and well-guarded trees. To exploit stands of mature boat-quality timber, loggers had to push far into the Colonche Hills.

The construction of the larger canoes is done by several men working at different tasks. Large logs, up to 1.5 meters in diameter and 10 meters long are placed on platforms. They are cut into planks with long, single-handled rip-saws. For this, the sawyer usually mounts the log while standing, and cuts down with vertical strokes. The planks are further shaped using an adze. The canoes are literally built piece-meal, the form of each individual piece determining the shape and dimensions of its successor. The joints are stuffed with an oakum made from coconut husk fiber, or lacking this, with kapok or the "cotton" from the local ceiba tree (*Bombax* sp.). The preference is for coconut fiber. It seems to be a direct legacy of the Guayaquil colonial ship-building practice of using the same technique (Clayton 1980:86). Tar is then applied to the joints and cracks. The canoes are painted to the owner's specifications. Each town, village, and locale within coastal Ecuador seems to have its own colors. Canoes are painted accordingly and embellished with insignias and names honoring wives, daughters, or *enamoradas*. Thus canoes can be identified at some distance as coming from or traveling to some particular destination and can be hailed by those on shore, or those on the water if need be.

Without the thousands of traditional watercraft, both the massive motorized plank canoes and the small Cayapa dugouts, *montubio* culture would be largely immobilized. People travel on a daily basis to and from work, school, market, and festivals by canoe. The practice seems to be as old as Tropical Forest peoples have occupied the Guayas floodplains. The expansion of roads in the region during the last several decades has certainly cut into the canoe traffic. Cars, trucks, and buses have all but eliminated the use of balsa rafts and riverboats for transporting people and produce between commercial centers. However,

canoes continue to carry people and their individual loads of produce or consumer goods from the markets to their homesteads. The overall population increase in at least this part of the Ecuadorian countryside may mean that canoe traffic is as great today as it was in the past.

Other Persistent Montubio Culture Traits

While rice farming, ceramic making, fishing, and canoe building are the activities that form the core of Samborondón's distinctive local economy, other traits may provide the clearest representation of links with the cultural past. Much of the vernacular architecture of the Guayas Basin has probably undergone little change in form and function from the structures built by the late aboriginal peoples (Nurnberg, Estrada, and Holm 1982). The study of the Guayas habitational artifacts documents not so much examples of cultural diffusion as cultural persistence. Most Guayas folk houses are built on pilings or posts that raise them two or more meters above the ground. This is the key attribute, and represents an obvious adaptation to seasonal flooding over much of the region. Subtypes of Guayas folk architecture include the floating houses built on balsa rafts. These are almost certainly modified survivals of the region's famous aboriginal balsa sailing rafts.

Besides the stilted houses that place *montubios* above the seasonal certainties of flooding, insect pests, and until recently crocodilian predators, the *montubios'* own predations on aquatic reptiles puts them in touch with their cultural past. For the pre-Columbian Guayas populations, the greatest concentrations of eatable animal protein to be had was among the aquatic reptilian communities of caimans, crocodiles, and turtles. According to a number of 19th-century travelers' accounts, perhaps the single-most remarkable sight encountered by travelers to the region were the immense numbers of crocodilians, and concomitantly, the daring and persistence with which the *montubios* hunted them (Mathewson 1987).

A less spectacular, but probably more important, pastime was turtle hunting. Perhaps unnoticed by travelers, or at least not mentioned, turtle hunting assumes an almost emblematic character in *montubio* culture. Fals-Borda (1984) has pointed out the same in coastal Colombia where the *montubio's* counterpart is known as the *hícotea* after the local name for the swamp turtle (*Emys decussata*). Both the Ecuadorian *montubio* and the Colombian *riano* or "*hombre-hícotea*" (turtle-man) have developed distinctive ways of hunting these reptiles. Today, the caiman and crocodiles have been all but exterminated in the Guayas. Turtles, though increasingly depleted, persist and present the *montubio* with an opportunity to extract a resource quite directly from the muddy landscape.

At the end of the dry season in November 1979, I went on several turtle hunts. Turtle hunting begins as soon as the swales and spaces between the relic raised fields began to lose the last of their water. The terrain where the turtling is done is wet and spongy, usually covered with a mat of water hyacinth, but can still be traversed without sinking in above the ankles. Groups of up to a dozen men and boys fan out across

these flats, each using a sharpened stake or pole to poke the mud for turtles. A bit like dowsing, the *tortuguero* or turtler divines likely spots through intuition and experience, and then plunges the stake into the mud. Once a carapace is sounded, the *tortuguero* shouts *tortuga!* Nearby hunters slog over to watch the recovery. The turtler must then dig into the mud looking for the tail or a hind leg. Grasping the wrong end can mean a painful bite or even loss of a finger with the bigger snapping turtles.

It was said that in the past the turtles were much larger. This is probably true. Snapping turtles like other Chelonians can live to considerable ages relative to other vertebrates their size. And they can grow to large sizes. For example, Mississippi Valley snapping turtles have been caught that weigh up to 200 pounds and live to be 100 years old. While there is little recorded information on record of sizes and ages for coastal Ecuadorian snapping turtles, local knowledge suggests that catching turtles twice as big as the biggest ones being caught in 1970s was not that difficult "in the past." In the most successful hunt I witnessed, eight hunters captured some 37 turtles in two hours. Twelve turtles were *grandes* (large) weighing more than 20-25 pounds each. The rest were *regulares* (average sized) weighing between 5-10 pounds. The *pequeños* (small and less than 5 pounds) were left in most cases, though some of the younger boys insisted on bring back a turtle or two not really worth the effort of preparing. *Grandotes*, or turtles over 30 pounds, are rarely found. When they are, they might be kept in a turtle corral behind the person's house and then eaten on a special occasion. The carapaces of particularly large turtles are sometimes kept and mounted on the *guadua* cane walls of the house.

In Samborondón, turtle hunting is an annual event awaited with anticipation. However, as practiced when I observed it, it was not as elaborate in *montubio* culture as it is in the *cultura anfibia* (in Fals Borda's evocation) of coastal Colombia. There, the articulation of this activity included dogs (*perros galapagueros*) trained to help locate and dig-up the turtles, and lances with metal points for spearing the animals (Fals-Borda 1982:21). In both coastal Ecuador and coastal Colombia, the turtles were an important part of the Christmas season cuisine. In Samborondón, there were other ritual implications attached to turtle flesh and blood. When a turtle was killed to be dressed out for cooking, often the juggler vein was first tapped and the fresh blood was drunk mixed with beer. Beer and turtle blood was said to be a potent tonic and aphrodisiac. Turtle meat itself was considered a delicacy, and also an aphrodisiac, especially when prepared with onions, avocado, and peanut paste.

Lesser Activities

The four economic activities discussed: farming, ceramic making, fishing, and canoe building are aspects of *montubio* culture that not only give expression to its elaboration, but contribute to its material reproduction. These activities also are linked to the processes and transformations that make a distinctive *montubio* landscape. Each ac-

tivity draws upon the local landscape for the materials that sustain it. Farming, both in prehistory and at present demands massive modifications of the landscape. However, the discontinuities between the past and present modes and methods of production are greatest with agriculture. The continued success of the latter depends in part on the obliteration of the infrastructural remains of the former. The discontinuities between the present and past methods of ceramic making are less, but in a temporal sense, quite abrupt. The ceramic industry's impact on local landscapes occurs on a scale so many orders of magnitude less than that of agriculture, that it is best compared analogically. Fishing and canoe building exact their own extractive demands on fauna and flora. Like ceramic making, they are artisanal occupations that contribute to, but are not major agents of landscape change.

Perhaps more importantly they register cultural inheritance passed from pre-Columbian times to the present. While the evidence of this persistence may seem transparent to those with informed eyes, it remains opaque to most who view it. Until very recently, the ubiquitous raised fields and habitation mounds of the region were thought to be natural features by local folk, the educated public, and the scientific community alike. Analogously, wet rice farming has come to be viewed as the "natural" agricultural adaptation to these landscapes. The local tradition of ceramic making allows longer reflections on the nature of the local past, but still quite selectively. For some, the ceramicists were "always" there. Alternatively for others, they were allowed to flourish through a fortuitous intervention involving a *serrano* with his wheel. This is an encapsulated version of the received vision of western modernization fitted for local consumption – racial superiority plus technological efficiency and innovativeness equals progress and prosperity.

With fishing and canoe building the *costeño* character of the ecological adaptations are implied and the implications of persistence are more visible. However, these activities are somewhat circumscribed as to where, when, why, how, and by whom they are done. Perhaps the most obvious and evident traits occurring in the landscape indicative of cultural persistence is the vernacular architecture and the turtle hunts. They are epiphenomena in terms of the cultural core activities associated with subsistence. Nevertheless, they serve as indicators of cultural persistence with considerable clarity.

There are other attributes of persistent local culture in coastal Ecuador that should be included in any future study of the *montubios* and their relations with the landscape. Hunting birds and some mammals still occupies significant numbers of men and boys, but it is rarely a full-time occupation. Similarly, folk medicine continues to be dimension of cultural persistence that maintains both practitioners and patients, but full-time specialists are rare in the zones closer to Guayaquil. To find a traditional *curandero* (shaman or curer), Samborondeños have to travel much farther inland, perhaps all the way north to Santo Domingo where the Colorado Indians occupy land and maintain their ancestral ways.

Even a seemingly modern convention such as the persistent beer-drinking binges of the adult male *montubio* has cultural echoes in the manioc beer-consumption patterns of Tropical Forest groups. Fermented carbohydrate beverages are no longer made at home—they come from Guayaquil. Rice-based beer has largely replaced the manioc and maize of traditional coastal *chicha*, but the fervid devotion to the practice seems to surpass a case of simply adopting a marker of modernity. Though easily available, I rarely saw *montubios* drinking distilled spirits. Coastal men of means and ostentation routinely drink imported scotch or brandy, and less routinely local rum, but raw cane alcohol consumption is not something that *montubios* seem to do with any frequency. This contrasts markedly with the drinking habits of Indians and *mestizos* in the highlands. There, cane alcohol is both a caloric and celebratory staple, though most of the sugar itself comes from the coast.

Conclusions

This raises a final point. National elites and many scholars have viewed America's tropical lowlands from a variety of perspectives that have variously privileged: Eurocentric projections of salubrious habitats; pre-Columbian centers of high *and* highland culture and civilization; zones of "racial" purity whether Amerind or European; and core regions within national spaces, among other considerations. The cultural landscapes and peoples of the Central American rimland that Davidson and his students have favored in their studies are distinctly outside these bounds. So too, for the most part, are the lowland riverine and wet savanna regions that I have called attention to in this chapter. Rather than measuring the benighted distance that separate groups such as the Garífuna and Miskito, or the *jarochos*, *rianos*, and *montubios* from these highland, national elite, and Eurocentric notions of favorable attributes and standards, the more appropriate metric might be to seek similarities among these groups and how their lowland/coastal histories and geographies have been forged and formed—at times in isolation, but often in condescension and contention—with high and mighty authorities at many differing scales and times, including our own. Bill Davidson and those he has inspired (as well evidenced in this volume) have provided much of the preliminary mapping for just such a project.

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From Jute Farming to Cattle Ranching: Changing Land Uses on the Floodplains of the Middle Amazon

Mário Hiraoka and Stephen A. Thompson

The conversion of tropical forests into pastures has been pointed out as one of the main causes for the development of economic inequality among the inhabitants and environmental imbalance on the interfluvial uplands of Amazonia. Initial inroads by cattle ranchers into the region began with the opening of the Belém-Brasília highway in 1960 (Valverde and Dias 1967). The activity gained momentum particularly after the 1970s, following the implementation of various state-supported incentives for large investors and small-scale farmers including investment tax credits, subsidized loans, new highways and other infrastructures. The pace and scale of ecological damages, and the socioeconomic consequences of this vast experiment have been well-documented (e.g., Browder 1988; Fearnside 1989; Hecht and Cockburn 1989; Mahar 1989; Moran 1971; Schmink and Wood 1984; Smith 1972; Wood and Porro 2002; Yokomizo 1989).

Cattle ranching has been responsible for similar land-use changes on the *várzea*/floodplains of the Amazon and the adjoining uplands. Although not as large in scale as its counterparts along the eastern and southern peripheries of Amazonia, riverine cattle ranching has brought about vast alterations to the region's traditional resource management and social and economic patterns. The dominance of new land use has been driven by factors quite distinct from those responsible for ranching elsewhere in Amazonia. In spite of the multi-faceted implications of emerging ranching activities in the riparian areas of Amazonia, the topic remains essentially unstudied.

This chapter reports on the causes and consequences of Amazon floodplain cattle ranching. Four questions are discussed in this study: a)

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what circumstances were responsible for ranching to become the dominant land use? b) why is cattle ranching conducted on the floodplain? c) how are traditional smallholders affected by the changing land uses? and d) what are the environmental outcomes of the new land use?

The understanding of floodplain cattle ranching is facilitated by political ecology, a well-known viewpoint in geography. Political ecology can be interpreted as a combination of cultural ecology, with an emphasis on human-environment relations at the local level, and political economy that examines the nature and importance of political and economic forces at the macro scale that shape local patterns of resource management (e.g., Blakie and Brookfield 1987; Grossman 1998; Peet and Watts eds. 1996; Stonich 1993; Zimmerer 1991). The cultural ecology perspective offers valuable subsidies to comprehend the ranching system that depends on two distinct ecosystems. The dominant livestock management practice is based on an alternate grazing of the terra firme/interfluvial uplands and várzea/floodplain ecosystems. The grazing schedule and the movement between the two ecosystems are finely adjusted to the rise and fall of the river level, and the seasonal rainfall regime. Further, in contrast to the terra firme where the pastures are planted, the floodplain counterpart is mostly dependent on native species. Grazing on the bottomland, where grazing matter, ground conditions, and water levels change rapidly, is dependent on the minute environmental knowledge of the *ribeirinhos*/riverine inhabitants. The cultural-ecological approach, with an emphasis on understanding local resident-environment interactions, illuminates the dynamics of riverine cattle ranching.

The evolving riverine ranching is also controlled by a combination of structural and conjunctural factors determined beyond the region. The *ribeirinhos* have been integrated into the global economy since the 18th century as extractors of forest products and farmers (Alden 1976; Kiemen 1973; Oliveira 1983; Santos 1980). In response to changing external demands, different plants and animals were commercialized in a rapid succession, inhabitants were dislocated, and the environment was affected for brief periods and in different parts of the basin. Probably, the most celebrated of these products was the extraction of natural rubber (Barham and Coomes 1994; Gentil 1988; Smith 1999; Weinstein 1983). Although the indigenous populations were greatly reduced, mixed, and redistributed, and societies were changed by events beyond local control, the short duration of the extractive and agricultural booms and the localized nature of the activities did not lead to long-lasting alterations to the environment.

The changes initiated in the 1970s, however, are radically altering the economy, land uses, and population patterns of the riverine region. An event of major consequence was the demise of jute-based commercial farming. Introduced in the 1930s, jute became the mainstay of regional economy between the 1940s and mid-1980s. Following the collapse of the domestic jute market, and without a viable commercial substitute, smallholders had to choose between moving to the

city or remaining in the rural areas complementing their subsistence-based farming with small-scale cattle raising. For urban-based investors, the availability of inexpensive terra firme fallows along water courses and former jute fields on the várzea, subsidized rural credit, existence of inhabitants with husbandry experience, and expanding beef demands from Amazonian urban markets served as motives for ranching expansion. In response to these stimuli, cattle ranching spread rapidly along the Amazon and its tributaries (Goulding, Smith, Mahar 1996; Hiraoka 2000; McGrath et al. 1993; Smith 1999; Winkler Prins 2003). Ecologically, the herd expansion led to significant environmental changes, including eutrophication of floodplain lakes, removal of forests in the floodplain-upland interface, and simplification of the ecosystem. Ranching-related transformations in riparian Amazon owe a large part to post-1970s changes in the conjuncture and structure of the economy, technology, and polity at the national and international levels. As has been demonstrated from studies of agricultural changes elsewhere, the political ecology perspective offers useful guidelines to analyze the development and outcomes of ranching in riverine Amazonia (Bassett 1988; Blakie and Brookfield 1987; Peet and Watts 1996; Schmink and Wood 1987; Zimmerer 1991; Stonich 1993).

The present study is illustrated by the transformations occurring in Parintins, a *município* in the eastern periphery of Amazonas state, on the Middle Amazon (Figure 1). Data have been collected on the várzeas and adjacent terra firme of the município since 1997. The selection of Parintins was based on the fact that jute was initially introduced here, and it was also one of the earliest places where the conversion of jute to pastures began (Gentil 1988; Izumi and Saito 1954). As such, substantial corroborative information could be collected from the individuals who experienced the events since the introduction of jute over seven decades ago. In addition to oral histories, standard techniques of field-data gathering, e.g., interviews, field surveys, and participant observation, were employed.

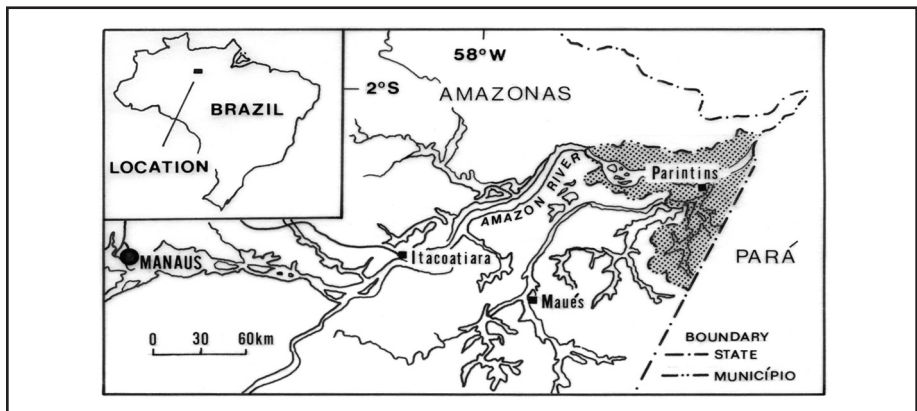


Figure 1. Location of the município of Parintins, Amazonas state, Brazil.

Várzea and Terra Firme

The Várzea

The Holocene floodplain attains the greatest width in the Middle Amazon, the portion of the Amazon between Manaus and Óbidos. Stretching between 30-60 kilometers in width, and bordered laterally by highly weathered Tertiary terra firme that rise between 10-40 meters, the floodplain is characterized by Holocene deposits transported by the meandering Amazon and its tributaries. *Restingas*, or natural levees of varying elevation, line the drainage channels and serve as the main inhabitation and farming sites. The depressions between restingas are occupied by shallow lakes of diverse sizes and shapes. They are the primary fishing sites of várzea inhabitants, and the shores of these lakes become the main grazing ground for cattle during the low-water season. *Paraná*s or side channels drain the várzea and are connected to the trunk stream (Figure 2).

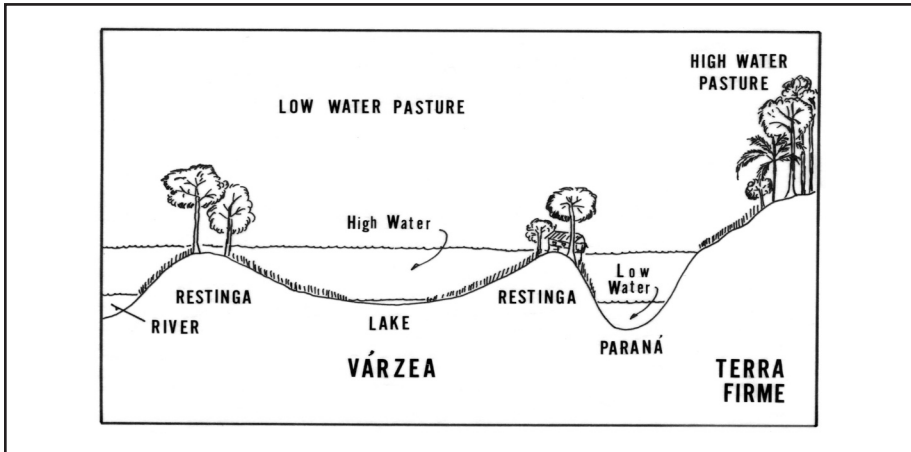


Figure 2. Generalized cross-section of the várzea in the Middle Amazon, Brazil.

Várzea vegetation is greatly influenced by the flood regime and water chemistry. Flood forests cover most of the levee tops, where annual flooding is relatively brief. Following the introduction of jute, most of the flood forests adjacent to the channels were removed, safe for some economically useful species, e.g., *castanha de macaco* (*Lecythis usitata* Kunth), *sapucaia* (*Lecythis pisonis* Camb.), *jenipapo* (*Jenipa americana* L.), and *taperebá* (*Spondias mombim* Urb.). A variety of native grasses, e.g., *pacuã* (*Paspalum cinjugatum*), *muri* (*Paspalum fasciculatum*), *capim de marreca* (*Luziola spruceana*), *arroz* (*Oryza perennis*, *Oryza subulata*), and *ceneuá/arroz bravo* (*Leersia hexandra*) appear seasonally on the lower inner slopes of restingas and lake shores. Their distribution varies with the length of inundation. Other herbaceous vegetation, especially the aquatic and semi-aquatic *canarana* (*Echinochloa*

polystachya), *peremembeca* (*Paspalum repens*), and *canarana de folha miúda* (*Hymenachne amplexicaulis*) form floating meadows and line the channel and lake shores during the flood season. These natural vegetation are able to carry as many as 8-10 animal units/hectares during the low water season. The native grasses and herbaceous vegetation form the basis of natural pasture on the várzea (Junk 1970, 1979, 1984).

The seasonal rise and fall of the river level influence the biological rhythm of flora and fauna, as well as the activities of humans on the várzea. The river begins the slow rise in November to crest in June. At Parintins, the annual swings in water level vary between a minimum of 6.2 meters to a maximum of 8.8 meters (Figure 3). The highest water levels occur in May and June, after the peak of precipitation in the region. The rainy season begins in November, peaks in March-April, and ceases by June. The yearly precipitation averages 2,200 millimeters (Figure 3). As the floodwater rises, it gradually engulfs the low-lying terrain and progressively restricts the grazing area. Between February and April, when the last remaining land is covered by water, the cattle and the majority of the ribeirinhos move seasonally to the adjoining terra firme pasture. The drop in water level is swift. Once the levees are uncovered and grasses begin to emerge again in July-September, the stock is brought back from the "wintering" grounds on the terra firme. The rapidly regenerating native pastures along the backslopes of restingas and lake shores become the main grazing grounds once the rains begin, lakes swell, and native grasses proliferate by late November-December. Removal of livestock to the terra firme varies from year to year, depending on the pace of floods and the height of the natural levees.

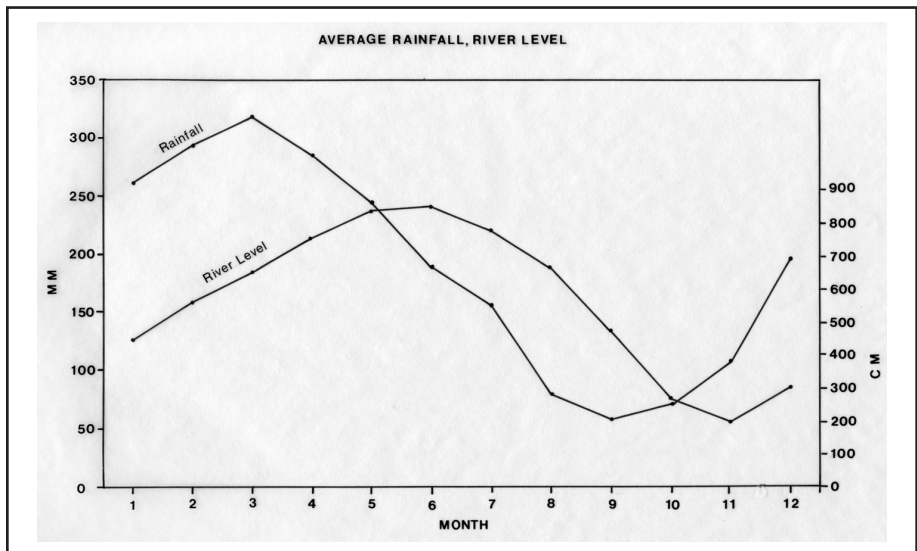


Figure 3. Average monthly variations in rainfall and river water levels in Parintins, Amazonas state, Brazil.

The Terra Firme

The Tertiary uplands that border the Amazon and its tributaries labeled terra firme rise gradually from the water's edge to about 40 meters above the highest flood levels. The terrain is irregularly eroded, varies from level to rolling, and it is incised by numerous streams. The highly weathered soils, akin to most of the region, consist of red-yellow oxisols with a poor nutrient base and a low CEC. The dominant vegetation of the terra firme is a species-diverse tropical forest that exhibit different degrees of human intervention. Land adjacent to bodies of water, worked since the pre-Columbian period as sites for farming and settlement, consists of a mosaic of agricultural fields no larger than 2 hectares, and secondary vegetation in different stages of regrowth (Denevan 1997, 2001; Hiraoka 2003).

Most of the current terra firme pastures occur along the margins of water courses. They are established through purchases of smallholders' former swidden fields and fallows. In addition, pastures are expanded by converting adjoining forests. Most of the grazing matter on the terra firme, unlike the floodplain, consists of introduced grasses, e.g., kikuyo (*Brachiaria humidicola*), and braquiarião (*Brachiaria brizantha*). Cattle are transferred seasonally to these pastures, i.e., during the high-water stage that coincides also with the rainy season. This is when the grass biomass peaks, enabling a stocking rate of 2-3 animal units/hectares during the 4-5 months when the cattle remain on the uplands.

The Jute Boom

The jute (*Corchorus capsularis*) boom (1940-1980), had a major effect on regional economy and floodplain vegetation cover, and paved the way for the present cattle ranching. Fueled by internal demands and protected by the government from South Asian competitors, jute brought temporary prosperity to riverine Amazonia. After 1929, a small group of Japanese who settled at Vila Amazonia, about 10 kilometers east of Parintins, began experiments to introduce jute as a commercial crop on the floodplains. Without appropriate seeds and technical expertise, several years were expended in selecting ecologically suited varieties and in developing locally adapted cultivation practices. Initial marketing of the fiber began in 1936, and by 1941, 1,100 million tons were being produced to supply the domestic market (Figure 4). Prior to the 1950s, most of the jute was produced by the immigrants, who planted as much as 30 hectares/household, with the aid of local labor. When the labor-intensive crop was overtaken by the local smallholders, the immigrants shifted to the more lucrative position of *aviador* or middlemen, who advanced goods and purchased the fiber for the processing plants. As the main income producer, jute was well-suited for small-scale farmers with limited resources. The fiber required no outside inputs, it could be produced on a small scale (1-2 hectares) with family labor and simple tools, and it could be integrated

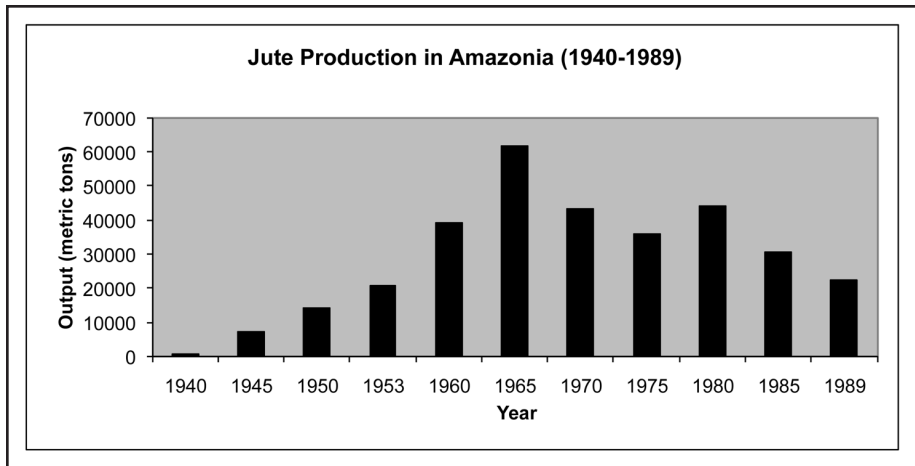


Figure 4. Variations of jute production in selected years, Brazilian Amazon. Sources: Pan Amazonia Nippaku Kyokai, 1994. *Amazon: Nipponjin ni yoru 60-nen no Ijushi*. Belem: Associação Pan-Amazônia Nipo-Brasileira, p. 43; IBGE, 1976. *Censo Agropecuário-Amazonas, 1975*. Rio de Janeiro: Instituto Brasileiro de Geografia e Estatística.

with the traditional activities. Since the growth cycle coincided with the flood season (December-June), when most crops had already been harvested, jute produced a cash income while not competing with other livelihood activities. By the peak year of 1973, when over 60,000 million tons was produced, jute came mostly from floodplain farms between the lower Solimões upriver from Manacapuru and east of Monte Alegre. The activity involved an estimated 80,000 ribeirinho households (Pan Amazonia Nippaku Kyokai 1994:43-44; Smith 1999:114).

Two events external to the region brought about the jute boom to the Middle Amazon. The post 1950s acceleration of agricultural output, e.g., rice, beans, coffee and sugar, in response to expanding domestic and foreign demands led to an increased use of natural fiber-based burlap sacks and ropes. Government protection of domestically produced jute from foreign competitors, particularly India and Pakistan, served as another incentive for floodplain farmers to increase output.

As in previous booms, the demise of the jute boom was swift. First, the producers of jute changed after the 1953 flood. In that year, the river began a rapid rise in mid-February, reaching the highest level since recordings began in 1903 by mid-June. The river level remained high until late August (Sternberg 1956). For the unprepared farmers, the event brought havoc—the early rise in water destroyed the entire jute crop and the experience checked the enthusiasm of overstretched large farmers and other urban investors. Subsequently, smallholders became the dominant producers, but their participation led to the output of unequal quality fiber. In order to compensate for the lower-grade jute, the plants that pressed and baled the fiber pushed the

price downward. The ill health associated with long hours of labor in standing water contributed to decrease production as well. The separation of bark from the stem required workers to remain partially immersed in water. The activity was not only debilitating but was also a cause of several health-related problems, including rheumatism.

By the early 1970s, external events accelerated the demise of the jute boom. Cheap synthetics began to replace jute and other natural fibers (Zimmermann 1987). Moreover, the change in the shipment of commodities from sacks to bulk handling eliminated the need for the fiber. The opening of Brazilian markets for the import of cheap South Asian fiber by the government in the mid-1980s dealt the final blow to the unorganized, expensive, and small scale jute production on the várzea (Smith 1999). The changing conjuncture caused the price to plummet, and producers began to seek alternate income sources and land uses.

Emergence of Cattle Ranching

As the downturn of the jute economy became apparent in the 1960s, the first to seek alternate forms of investments were the urban-based merchants and middlemen. In the absence of an appropriate high-value/low-weight niche crop, and situated peripherally to the national and international markets, cattle appeared to offer the best alternative. A major incentive was the availability of cheap and ecologically suited land. The jute boom had led to a large-scale removal of flood forests. Analogous to other várzea crops, jute was cultivated mainly on the high and relatively nutrient-rich restingas. New fields were prepared by progressively felling the flood forests. Cultivation scale was limited, but the participation of most riverine farmers led to extensive removal of the levee forests. An idea of the extent of farmland conversion from forests can be gained from the 1975 statistics of the *município* of Parintins. In that year, approximately 16,000 households produced 36,000 million tons of jute from an area of 27,866 hectares (IBGE 1976). Old-time residents estimate that this cultivated area accounted for less than 30 percent of the total deforested terrain. The vast, cleared levee tops could be seeded with pasture grasses and thus lengthen the grazing season of the floodplain. An added advantage of floodplain ranching was the absence of competing ruminants and diseases. The yearly flood eliminated most of the animal pathogens. Recognition of these opportunities led urban investors and smallholders to increase their herds on the floodplain.

Moreover, várzea ranchers had learned from the 1953 flood that reliable flood season refuges had to be secured in the form of planted pastures on the neighboring terra firme to transfer the herd during the high water period. Thus, by the late 1950s the practice of transhumance between the floodplain and the adjoining terra firme was well-established and the problem of flood season pasturage had been solved (Hiraoka 2000).

The growth of Amazonian cities after the 1950s expanded the regional markets for beef. For example, between 1950 and 2000, the population of Amazonas state increased from 514,099 to 2,812,557.

As elsewhere in Latin America, the major demographic phenomenon of the period was the concentration of population in the regional cities, especially the largest urban center. Manaus, the main metropolitan center, registered 140,000 inhabitants in 1950. By 2000 it had surpassed 1.4 miles. Other cities have shown a much slower rate of growth, but most of them have at least doubled between 1950 and 2000. For example, Parintins grew from 25,662 in 1950 to 58,125 in 2000 (IBGE 2003). Although fish continues to be the least expensive source of animal protein for the urban poor, other sources of animal protein, especially beef, have expanded along with urban growth.

The notable expansion of beef consumption was largely related with the post-1950s structural changes brought to Amazonia and the ensuing concentration of population in the largest cities of the region. For example, in 1957, Manaus was designated as a free-trade zone (Law 3173). Then, an export-processing industrial district was established in 1967 (Decree-Law 288) in the eastern outskirts of the city. Federal highway construction to integrate with the rest of the nation began in the 1970s. The most recent link was the paving of BR 174, a highway that connects Manaus to Caracas. After 1998, the Hidrovia do Madeira Project enabled the Porto Velho-Itacoatiara portion of the Rio Madeira to become navigable year round. These developments hastened the influx of technical and managerial personnel from outside the region, as well as rural Amazonians seeking better opportunities. By 2000, Manaus alone was estimated to consume 200,000 cattle/year.¹ The várzea ranchers were ideally situated to meet this expanding beef market.

Riverine ranchers have been beneficiaries of several external subsidies to expand their operations. Subsidized credits for pastoral activities became available following the creation of the Superintendency for the Development of Amazonia (SUDAM) in 1966. The diffusion of water buffaloes that began on the Lower Amazon in the 1950s played a significant role as well. Initially introduced in 1895 from South Asia to the seasonally inundated grasslands of eastern Marajó Island in the estuary, water buffaloes proved to be ecologically and economically superior to the pre-existing European and Indian breeds. Well adapted to the wetlands, the newly introduced *Bubalus bubalis* gained weight and reached reproductive age faster than the other cattle. For example, water buffalo begin to reproduce after two years, as opposed to three years for cattle. The carcass of the water buffalo is larger and produces milk with higher fat content than the traditional stock (Nascimento, Carvalho, and Lourenco Jr. 1979). When the federal Brazilian Enterprise for Agricultural Research (EMBRAPA)-run agricultural experiment station near Santarém began to diffuse them in the floodplains, buffaloes were rapidly accepted by the cattle ranchers (McGrath, Castro, and Fudemma 1993; Ohly 1986). In the state of Amazonas, water buffaloes began to be diffused among large ranchers of Parintins in the 1960s and their share of the total bovine population has been increasing rapidly. More recently, the agronomic and veterinary assistance,

and the subsidized distribution of vaccines for hoof and mouth disease provided by the Institute of Agricultural and Livestock Development (IDAM), have served to offer additional impetus for ranching.

Thus, the present-day expansion of floodplain ranching has occurred as a result of several externally induced circumstances, and largely independent of factors that led to the conversion of humid tropical forests on the newly occupied terra firme of eastern and southern Amazonia.

Ranchers of the Várzea

Cattle ranching is today the principal land use in the várzeas of the Middle Amazon, and all evidence indicates a continued expansion of the activity in the near future. By mid-1995, the município of Parintins had a total of 189,000 cattle (IBGE 1996). Local herds, as elsewhere along the Middle Amazon, had been expanding steadily, but with the demise of jute, the cattle population has shown a phenomenal growth (Figure 5). The stock consists of both Brahman breeds and water buffaloes (*Bos bubalus*). The share of the latter, comprising over 10 percent (19,160) of the stock in 1995, is increasing faster than the Brahman breeds (IBGE 1996). The large ranchers prefer a mix of Brahman breeds and the fast maturing *Bos bubalus*, but the smallholders tend to shun the water buffaloes. Brahman cattle are less adapted to the floods and are more selective in their feeding habits, but they cause less damage to floodplain croplands. Most *ribeirinhos* do not own cattle and even those who do own them are constantly worried about crop damages. The more aquatic *Bos bubalus* often enter the fenced fields by swimming around them and cause major destruction. Thus, to avoid crop losses and enmity with neighbors, smallholders keep the more docile and manageable Brahman cattle.

A distinctive feature of cattle ranching on the floodplain is the small,

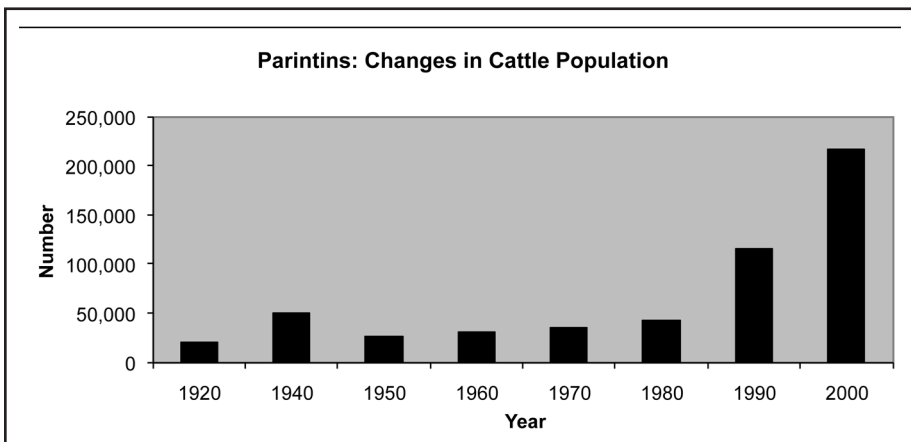


Figure 5. Changes in Cattle Population (1920-2000), Município of Parintins, Amazonas state, Brazil. Note the explosive growth of cattle population after the mid-1980s. Sources: I.B.G.E. Censo Demográfico and Censo Agropecuário, various dates.

average herd size and the way the animals are managed. In contrast to the terra firme ranches of Eastern Amazon and Central Brazil, where large herds are common, the scale of operations in the várzea is small. There is only one individual owning as many as 30,000 head in the município of Parintins. The rest of the large ranchers' herds range between 1,000-5,000 animals. The majority is made up by small-to-medium ranchers, who keep between a few to several hundred cattle (Table 1). According to the herd size, management style, and purpose of rearing, regional ranchers classify their operations into three categories: *sócio*, *criador*, and *pecuarista*.

The Sociedade

Cattle is an increasingly important component of livelihood among smallholders of the floodplain. A variety of crops and livestock are raised within fenced gardens on the upper levee slopes adjacent to the dwelling. A small house garden with a few native and fruit trees, and the ubiquitous raised platform gardens containing some vegetables, seasoning crops, and a few medicinal plants surround the dwelling. The house garden is also the site where animals like chicken, ducks, and pigs are raised. Several additional gardens may be found on scattered levees and mud/sand bars that emerge during the low-water season, but these plots rarely exceed one hectare. The crop composition and scale of cultivation on these plots differ between households, but maize, beans, squash, sweet manioc, squashes, melons, and plantains are the most common cultivars. Part of the crops and garden animals are sold seasonally, but most of the products are for subsistence.

An important contemporary source of income is fishing. Regional urban growth and external markets for channel catfish are increasing demands on local fisheries. Since present-day income sources in the várzea are scarce, most smallholders and many urban poor fish for both subsistence and market. For the rural poor, fishing often becomes the primary cash source. Although species vary in response to fluctuations of flood water, ichthyofauna is caught throughout the year in different sites of the várzea.

Although cattle as a complement to other economic activities among terra firme smallholders has been reported from various places in Amazonia (Fujisaka and White 1998; Loker 1993; Toniolo and Uhl 1995), our study also indicates that cattle keeping is common among floodplain smallholders. Our data shows that one in every seven smallholders raise cattle as a component of their livelihoods. Ribeirinhos point out several factors for their participation in cattle rearing. First, the várzea ecosystem is more resilient than the terra firme and the integrated use of former jute fields and the extensive lake shores of the Middle Amazon guarantees high-quality pasture with high-carrying capacity for about three quarters of the year. Second, cattle represent one of the few opportunities for the smallholder to accumulate savings. Under proper management, cattle reproduce and gain weight with regularity. Third, in addition to providing a nutritious complement to the

diet, milk is often converted to butter or cheese and sold at the market. Fourth, aside from the alluvial deposits, dried and cured dung serves as the most significant source of plant nutrient for the home gardens. As such, most ribeirinhos regularly add the organic matter to their gardens to give an extra boost to the relatively nutrient rich alluvial soils.

A distinctive characteristic of ranching in the várzea is the way cattle are kept among the ribeirinhos of the region. The animals are raised under a practice known as *sociedade*/partnership. The *sociedade* system was introduced to Amazonia by Northeast Brazilian migrants after the late-19th century. It links both the rich and poor farmers under a mutually beneficial relationship. Prior to the collapse of the jute economy, smallholders often acquired a few head of cattle through purchase and gradually formed a small herd. At present, without a steady source of income, the partnership arrangement is one of the few avenues for the cash-strapped ribeirinhos to begin or increase their herds. Under the system, an outsider with financial resources, e.g., merchant, bureaucrat, or former jute buyer, entrusts part of his herd to a trustworthy farmer with limited economic means in order to lessen ranching-management costs. Usually, those that served in a dependent position, e.g., previous small-scale jute farmers or smallholders tied through a credit relationship, are chosen as partners. The *sócio* or junior partner participates with labor, land, and cost of incidentals like pharmaceuticals and salt. Prior to the agreement, the senior partner ascertains that the smallholder has sufficient pastures in both the várzea and terra firme. As previously stated, possession of terra firme pasture is important for keeping the stock during the flood season. In the event of animal loss, the *sócio* is responsible for replacing the animal. The contract normally lasts three years. At inception, animals are entrusted either by weight or number of animals. At the end of the contract period, the junior partner returns the original weight of animals plus 50 percent of the weight gain, or the number of initially received animals plus one half of the offspring. As the most common form of cattle ranching among smallholders, it is estimated that over one half of the cattle in the município is kept under the partnership arrangement.

The typical ribeirinho herd is made up by a mixed-age stock that varies between 30-50 animals. Of these, between 60-75 percent is raised under the *sociedade* system. As previously pointed out, most of the smallholder herds are composed of Nelore or other Brahman cattle for several reasons. For example, ribeirinhos are much more familiar with the Brahman breeds than the water buffaloes. These animals are less voracious and aquatic than buffalo, so that they cause less damage to gardens. As lakeshore pastures are used as commons, smallholders avoid conflict by not including water buffaloes that cause environmental damages. Finally, as the consumers still prefer beef from the *boi branco*, or Brahman cattle, producers can count on a guaranteed market and a higher sales value. Thus, smallholders able to adapt to the rapidly changing conjuncture are seeing their herds increase and their income stabilize.

The Criador

Medium-sized ranchers, or *criadores*, represent the second largest number of ranchers in the study area. Criadores own between 100 to 1,000 cattle. According to our sample, these ranchers owned an average of 370 cattle each (Table 1). Since most of them are urban-based, the day-to-day operations are run by a few hired hands. The owners are made up of middle-income residents, e.g., merchants, middle level public servants, professionals, and past jute middlemen. Generally, a portion of their herd, up to 50-60 percent, is entrusted in *sociedade* with several *ribeirinhos* to lessen management costs and loss due to hazards. The rest are raised in the ranchers' own pastures. Analogous to the *ribeirinhos*, the stock is fattened on natural and planted grasses of the *várzea* during the low-water season. At the height of the flood season, the animals and their herders are driven to the upland pastures.

Cattle among medium scale owners are raised for social as well as economic objectives. In addition to the social prestige that ranching confers, there is a long tradition of livestock rearing among many urban investors who trace their roots to rural Northeast Brazil. Economically, ranching is believed to offer several advantages. It is a way to diversify the portfolio and to transfer part of the surplus from urban activities. In a country beset with frequent changes in economic policies, investment in cattle is one of the alternatives to protect one's assets. Since the risk is spread through the *sociedade* system and the management of several pastures in the *várzea* and *terra firme*, the likelihood of failure is minimized. Cash convertibility is good. *Criadores* can dip into their stock in times of need, e.g., business investment, festivities, and the purchase of real estate. Another advantage is that beef prices have been historically stable for a country that is notorious for irresponsible monetary policies. Further, ranching is ideal for a region of labor scarcity. Being a labor extensive land use, ranchers can avoid the labor disputes that arise from the heavily socialized Brazilian labor laws, a major irritant for employers. Management costs, e.g., labor, mineral salts, chemicals, and pharmaceuticals, can be covered partly by dairy products. Although most of the species in the region are composed of beef cattle, many owners include some mixed dairy breeds for milk production as part of their herd. Since milk consumption in Amazonia is still limited, most of it is sold as cheese to defray part of the operating expenses.

In spite of relatively safe returns, medium-scale ranchers are slow to adopt productivity-enhancing practices. One of the few exceptions is the introduction of water buffaloes. Unlike the smallholders, *criadores* include water buffaloes in their stock. The inclusion of *Bos bubalus* is not universal, but the advantages associated with these large, fast-maturing, floodplain-adapted animals have been sufficient to prompt *criadores* to slowly increase the ratio of water buffaloes. In contrast to the water buffalo, other breeds of cattle are slow to be accepted. While the water buffalo breeding stock is inexpen-

sive and easy to obtain, the cost and the limited experience with new hybrid cattle retards the diffusion among medium-scale ranchers.

Adoption of other productivity-increasing practices has been slow. For example, aside from the *Brachiaria brizantha* and *B. humidicola* planted on terra firme pastures, practically no experiments have been performed on other non-native species. Division of pastures and rotation of grazing is practiced by few individuals. Preventive chemicals are gradually being employed by some, but they are far from universal and not for preventive purposes. Instead, pharmaceuticals are employed only after disaster strikes. Likewise, few seek the assistance of extension agents or veterinary experts freely available from the state. The slow acceptance of innovations among *criadores* is due to several factors. Made up mostly of self-made individuals, with modest surpluses from both urban and cattle-based activities, few attempt to adopt what they consider costly and risky alternatives. The limited educational background of most medium-scale ranchers, combined with the lack of access to information and restricted geographical mobility, contribute to the cultural conservativeness of these middle-level ranchers. The inability to grasp the rapid changes in the structure of the regional economy as a result of the conjunctural transformation imposed by national and international forces, is beginning to favor the large ranchers.

The Pecuarista

The largest ranchers in Parintins are the *pecuaristas*. Although the scale of livestock held may vary from 1,000 to over 30,000, they share many characteristics in common. They are the leading citizens of the city, are involved in political, social, and cultural affairs of the community, and are generally involved with several lucrative businesses, e.g., wholesale of dry goods, distribution of major products like fuel, beverages and motor vehicles, and long-distance fluvial transportation. J.M., for instance, who possesses the largest herd in Parintins, lives in Manaus and owns a modern beef processing and chilling plant in Itacoatiara. A.K., an anesthetist physician from Parintins who practices in São Paulo, controls over 4,000 animals in various ranches in the region. Knowledgeable of local and national developments, and well-connected with power brokers at different levels, *pecuaristas* are the principal beneficiaries of state-dispensed benefits, e.g., subsidized loans, agricultural innovations, and extension services. Networking with research centers, traveling frequently, and contacting decision-makers through local politicians and other public and private institutions on a regular basis, *pecuaristas* are well aware of the changes in the conjuncture. This, in turn, familiarizes them with the economics of ranching, including information on national markets, livestock breeds, and animal health and nutrition. Consequently, they are the principal innovators in the area. For example, they are the main members of the local cattle ranchers' association that hosts annual livestock fairs, forms a lobbying group to press their concerns to the state govern-

ment, receives the most benefit from the state, and introduces new breeds of animals and experiments with new drugs and practices to improve animal health and thus increase productivity. A recent example has been the inoculation drive to rid hoof-and-mouth disease from the region. Seeing the opportunity for steer sales to the disease-free eastern Amazon, and later the possibilities of exporting "green beef," large ranchers have been the first to vaccinate their herds, as well as the main campaigners to prod the lesser-scale ranchers who supply the *pecuaristas* with yearlings. The introduction of *Marchesiani*, an Italian breed for beef, has also been accomplished by the large ranchers.

As the most successful ranchers in the region, *pecuaristas* are also responsible for the rapid elimination of smallholders, as well as the extensive deforestation of the terra firme. The demise of most ribeirinho farms in the floodplain through purchases occurred primarily within the last 20 years, when the jute boom ended and a rapid urbanward demographic shift began. A similar phenomenon took place on the riverine margins of the terra firme with good access. In addition to the easy access from water, smallholders' swiddens and fallows could be converted into planted pastures with minimum cost. The general response of smallholders to land consolidation has been to move to the city or to seek forested land in the headwaters of tributaries, beyond the reach of ranchers.

In response to the rapid multiplication of *pecuaristas*' herds, forests adjoining the pastures are progressively cleared away from the riverine margins. The pace of deforestation has been increasing as a result of the intensification of land use on terra firme pastures. Improved practices that include the use of machines for land preparation, seeding, and fertilization, coupled with pasture rotation have led to rapid removal of vegetation cover, at least in the short term. So far, only 13 percent of the large ranchers in our sample were observed to keep their herds on the uplands on a year-round basis. But the trend is unmistakable. Initial investments are high, but the rationale is that the perennial use of terra firme pastures eliminates the uncertainties associated with the yearly flood cycles and costs associated with transhumance. In addition, the productivity seeking *pecuaristas* incorporate many of the latest technology and breeds, such as, artificial insemination, software for keeping track of stock performance, intensive production of feed, and controlled breeding to enhance overall production. The outcome, as seen in the more intensively raised cattle regions of Central and Southern Brazil, are faster maturation, weight gain, and greater market acceptability.

Ecological Effects of Cattle Ranching

Comprehensive ecological studies of the effects of cattle ranching in the *várzea-terra firme* interface remains to be carried out, but inferences from field observations and existing literature serve to illustrate the emerging environmental problems. Three issues in particular, i.e., changes in the flood forest and native grasses, water buffaloes and floodplain lakes, and changes in terra firme forest cover, have been taken up.

In the study area, the combined effects of jute farming and cattle ranching eliminated vast tracts of flood forests from the várzea's levees. Aside from the biodiversity issue, one of the main outcomes of land-cover change is the effect on frugivorous fish. Ribeirinhos relate a major change in the composition of fisheries. The dietary composition and availability of food for fish like tambaqui (*Colossoma macropomum*), pirapitinga (*Colossoma bidens*), sardinha (*Triportheus spp.*), and pacu (*Mylossoma spp.*), that feed on fruit, seeds, and invertebrates from the flood forests during the high-water season, are affected by the large-scale elimination of várzea forests (Junk 1984). Declining catches affect the dietary composition of the ribeirinhos, since the main source of animal proteins as well as their income during the flood season comes from the flood-forest fish. In the study area, inhabitants seeking sources of livelihood increasingly seek refuge in Parintins during the high-water period. One should also point out that the frugivorous ichthyofauna are important propagators of flood-forest species (Araujo Lima, Goulding 1998; Goulding, Smith, and Mahar 1997; Kubitzki and Ziburski 1994).

Grazing pressure is altering the composition of aquatic and semi-aquatic grasses on the lower floodplains. For example, the aggressive *capim de marreca*, replaces the *arroz* (*Oryza spp.*) where cattle density is high. Likewise, the nutritious and much-appreciated *canarana* (*Echinochloa polystachya*) that grows vigorously with the rising water along the whitewater river's margins and lakes, are being eliminated through overgrazing and repeated burning for cropping purposes. Canarana is an important feed source during the rising-water phase, when the cattle are still in the várzea and when other nutrient-rich grasses near lake shores are being submerged. With a net primary production of approximately 100 tons (dry mass) hectares⁻¹, this floating meadow stores a large quantity of inorganic nutrients during the flood phase and releases them to the floodplain during the low-water phase (Piedade, Junk, and Long 1997). Although *E. polystachya*, in most cases, is taken over by other herbaceous plants, the new colonizers are often made up of less-palatable species. This is particularly the case of the tough aquatic *muri* (*Paspalum fasciculatum*) that replaces the *E. polystachya*.

The increasing share of water buffaloes in the herd composition is threatening the ecology of floodplain lakes. Adapted to aquatic environments, buffaloes thrive on the waterlogged várzea. Consequently, during the annual flood cycle they are the last to leave and the first to be transferred back to the floodplain. Buffaloes help alleviate the pressure on upland pastures, but they cause a number of unwanted consequences on the várzea, where they remain the better part of the year. Being larger and more voracious than the Indian or European breeds, and being able to wade in water, *Bos bubalus* consumes a larger quantity as well as a larger number of aquatic plant species, including their roots. Farmers report that many species, such as, *Victoria amazonica* and *Echinochloa polystachya* are becoming rare in várzeas with high buffalo density. Since buffaloes spend a large part of the day wallowing/par-

tially submerged in floodplain lakes, their excrements cause eutrophication of water, while trampling in the shallow lakes increase turbidity and affect the speciation of aquatic fauna. As already noted, changes in species and biomass of ichthyofauna are critical to riverine subsistence, since they serve as sources of food and income to smallholders.

A major impact on local land cover is also occurring on the terra firme. Under repeated clearing by swidden farmers, the terra firme vegetation abutting the waterways has been modified since the pre-Columbian period (Denevan 1996, Hiraoka 2003). But, the limited population and the absence of a cash crop limited the deforested area at any given moment. The recent expansion of pastures is rapidly destroying the high growth away from the water's edge. In the process of planting pastures, successional growth older than six to eight years are deforested first, since their clearing costs are lower than high growth. Then, the tall forests are removed.

In the *município* of Parintins, terra firme deforestation began to accelerate within the past two decades. The pace of forest clearing can be illustrated by a sample area of 18,966 hectares along the Uaicurapá basin, to the south of Parintins. Changes in forest cover measured between 1989 and 1992, using the Thematic Mapper images, indicate that the total forest and swidden areas decreased by 16 percent (1,752 hectares) and 39 percent (563 hectares), respectively. In the meantime, the pasture area increased from 428 hectares to 1,966 hectares, i.e., an astounding 359 percent (1,538 hectares) expansion (Table 2). At the *município* level, ranchers estimate that by 1996, approximately 70,000 hectares had been cleared to graze a herd of 160,000 cattle (Figure 5). To feed the cattle population growing at a rate of about 10 percent/year, local ranchers estimate that by 1998 the deforestation rate had reached a pace of 7,000-8,000 hectares/year. In the same year, the total herd in Parintins was estimated at 195,000, while pastures covered about 85,000 hectares, or approximately 14.1 percent of the *município's* total area (6,004.9 square kilometers). This alarming trend in land-cover changes to accommodate an expanding cattle population is occurring elsewhere along riparian Middle Amazon, e.g., Itacoatiara, Oriximina, and Monte Alegre.

Conclusions

A significant literature exists on the cattle ranching arc advancing from the eastern and southern margins of Amazonian terra firme, but its counterpart along riparian zone has received limited attention. This study, based on findings from the *município* of Parintins in the Middle Amazon reviewed the circumstances responsible for the emergence of cattle ranching as the economic mainstay in the riverine region, the significance of the várzea-terra firme interface for herding purposes, the distinctive groups of ranchers involved, and the evolving ecological dimensions of the ranching practices.

Several issues are raised in this study that requires further attention. Although cattle ranching has become the dominant economic

activity and involves farmers in all holding categories and integrates farmers of both várzea and terra firme ecosystems, the long-term socioeconomic and environmental implications remains to be studied. Cattle rearing evolved in the absence of alternate land uses and it was initially aimed at satisfying regional needs for beef. However, recent national and global changes in structure and conjuncture already are prompting new adjustments in land uses. To meet global demands for crops such as, soybeans, cotton, rice, and maize, large-scale commercial farmers are displacing cattle ranchers along the eastern and southern peripheries of Amazonia, and are currently advancing northward along BR-163, the highway that links Cuiabá in Mato Grosso to Santarém in Pará state. The completion of a grain terminal at Santarém in early 2003 by a transnational company, and plans to add other grain terminals in the same city or in Macapá, near the mouth of the Amazon, are converting riverine areas of the Amazon into commercial grain farms as well. Parallel highway-waterway improvements (Hidrovia Project) in the region and connecting it to Venezuela and the central and southern parts of the country are bound to modify present land uses. On the other hand, expanded domestic demands for beef, particularly from urban Northeast Brazil, is turning the riverine ranchers of the Middle Amazon into specialized breeders of yearlings to be finished in the feed lots of eastern Pará and Tocantins states (Arima and Uhl 1997). The outcomes of these political economic changes and their effects on riverine ranching needs further investigation.

Notes

1. The figure is based on estimates provided by Luiz Afonso de Almeida, one of the principal beef distributors in Manaus.

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Discovery, Study, and Bibliography of Amazonian Dark Earths, 1870s-1970s

William I. Woods and William M. Denevan

Amazonian soils are almost universally thought of as extremely impoverished and have often been cited as the fundamental cause for lack of regional cultural attainment. However, it is now clear that complex societies with large, sedentary populations were present for at least a millennium before European contact. Associated with these are tracts of anomalously fertile, dark soils termed *terra preta*. Throughout Amazonia, *terra preta* occurs in a variety of landscape contexts, in circumscribed patches of less than a hectare to several square kilometers. These soils are presently an important agricultural resource within Amazonia and provide a model for developing long-term future sustainability of food production in tropical environments. They also have been found to be a significant reservoir for the short- and long-term sequestration of carbon. Beginning in the mid 1870s researchers first published reports of these distinctive anthrosols. Since that time, the pace of research and interpretation of these soils have varied widely. Now, instead of merely a curiosity, these soils are viewed by a variety of disciplines as an essential component of any discussion of sustainability in Amazonia past, present, and future. This chapter discusses the initial century of Amazonian dark earth publications, a period largely before modern scientific research, but one often marked by great insight.

Geographers working on the Western Caribbean isles and shores have been few. They include Jim Parsons, Clint Edwards, Barney Nietschmann, Peter Herlihy, several younger people, and particularly Bill Davidson—a group with direct or indirect ties to Berkeley, LSU, Wisconsin-Madison, and Wisconsin-Milwaukee, as well as to one another.

I (Bill Denevan) first met Bill Davidson in 1970 when he, Mario Hiraoka, and Terry Speth came over from UW-Milwaukee to take my Latin America seminar. Others included Roland Bergman and Barbara Williams. Bill was already committed to Central America, and his enthusiasm and promise was bright. Whatever battles we had I must have won by means of seniority; however, he has “wumped” me at tennis consistently at various times since.

Ethno- and Historical Geographic Studies in Latin America: Essays Honoring William V. Davidson, edited by Peter H. Herlihy, Kent Mathewson, and Craig S. Revels, 283-298. Geoscience Publications, Department of Geography and Anthropology, Louisiana State University, Baton Rouge, LA 70803-4105.

Bill Woods and Bill Davidson both did their dissertations at UW-Milwaukee under Clint Edwards, a student of Carl Sauer and Parsons, as was Denevan. Connections! Indeed, it was in a 1970 Edwards' seminar that I (Bill Woods) met Davidson. I was a new graduate student in the department and coming from an anthropology undergraduate background was, of course, somewhat spatially challenged. Bill Davidson, ever the teacher-scholar, took pains to explain to me a host of new concepts and provide contexts for their interpretation, in a very real sense giving me the tools to begin my geographic career.

Bill (Davidson, that is) is the authority on the Honduran coast and Bay Islands. His research has little relation to our following discussion of prehistoric anthropogenic soils in Amazonia, except for our mutual love of tropical environments and peoples and their interactions through time, and that is sufficient to bring three Bills together here.

Introduction

Amazonian dark earths are anthropogenic soils called *terra preta do índio* in Brazil, created by indigenous people hundreds, even thousands, of years ago (Smith 1980; Woods and McCann 1999). *Terra preta* proper is a black soil, associated with long-enduring Indian village sites and is filled with ceramics and other cultural debris. Brownish colored *terra mulata*, on the other hand, is much more extensive, generally surrounds the black midden soils, contains few artifacts, and apparently is the result of semi-intensive cultivation over long periods. Both forms are much more fertile than the surrounding highly weathered soils, mostly Ferralsols and Acrisols, and have generally sustained this fertility to the present despite the tropical climate and despite frequent or periodic cultivation. This fertility probably is because of high carbon content, which retains nutrients and moisture, and an associated high and persistent microbial activity.

The high concentrations of pyrogenic carbon in *terra preta* come mainly from charcoal from cooking and processing fires and village refuse burning, and in *terra mulata* the carbon probably comes from in-field burning of organic debris. Low-intensity "cool" burning, what has been called "slash and char," resulting in incomplete combustion, can produce carbon in high quantities that can persist in soil for thousands of years. Dated carbon in dark earths is as old as 450 B.C. (Petersen et al. 2001:100). In contrast, slash and burn shifting cultivation fires today tend to be "hot" fires, set at the end of the dry season, which produce large releases of carbon dioxide to the atmosphere and more ash of brief persistence than charcoal.

Denevan (2001:116-119) has argued that in pre-Columbian times the use of stone axes made long-fallow shifting cultivation very inefficient, and as a result, probably uncommon until the European introduction of metal axes. Previously, soil fertility must have been maintained and improved by frequent composting, mulching, and in-field burning, making semi-permanent

cultivation possible with only brief fallowing. Over time, these activities could have produced fertile, self-sustaining dark earths.

Dark earths probably occupy at least 0.1 to 0.3 percent, or 6,000 to 18,000 square kilometers, of forested lowland Amazonia (Sombroek et al. 2003:130), but some estimate 1 percent or more. Because their densities vary greatly within subregions and almost no systematic survey has been accomplished within Amazonia, variations in density projections of an order of magnitude are to be expected. The dark earths occur in a variety of climatic, geologic, and topographic situations, both along river bluffs and in the interior, with depths sometimes exceeding two meters. Individual patches range from one hectare or so to several hundred hectares.

It has only been since about 1980 (Figure 1) that these soils have received intensive scholarly attention. Recent research has been multidisciplinary and international, especially by soil scientists, archaeologists, and geographers from the United States, Germany, Brazil, and Colombia. Independent work in these disciplines and countries came together in three international conferences in 2001-2002 in Benicassim in Spain (Conference of Latin Americanist Geographers) and in Rio de Janeiro and Manaus in Brazil, resulting in two major collections of *Amazonian Dark Earths* papers (Lehmann et al. 2003; Glaser and Woods 2004). The topic is now of major scientific interest, of relevance both to prehistory and to agricultural development and global climate change today; hence the value of this historical survey.

When Woods began seriously looking at the phenomenon of the Amazonian dark earths in the early 1990s, a first step of course was to acquire as much of the previous literature as possible, review it, and begin a bibliography. Subsequently, the bibliography has grown and has become a resource in itself that could be queried for sub-

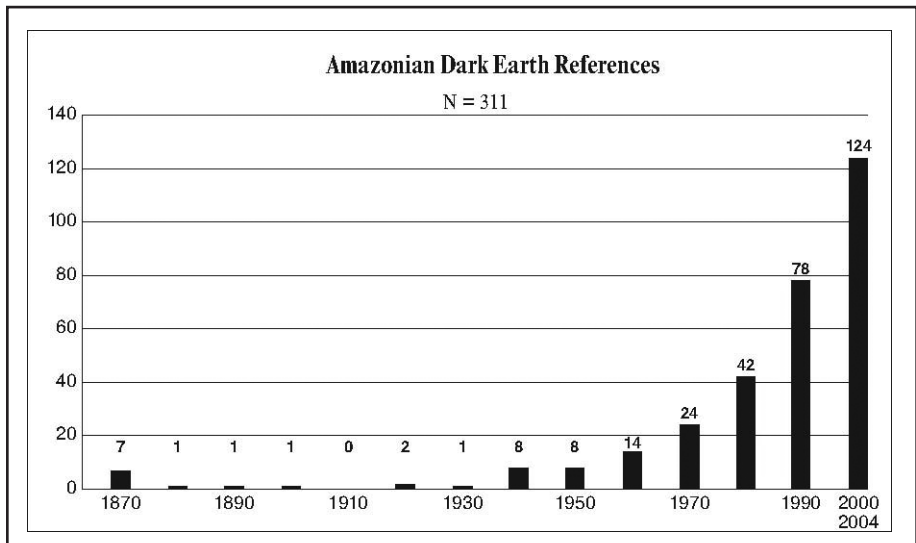


Figure 1. Amazonian dark earth references by decades, 1870-2004.

stantive data on the development of and trends in dark earth studies. Toward that end, he sent out a draft compilation to over three dozen other interested researchers asking them for comments, corrections, and additions, and he asked them to pass the bibliography on to others who might be able to contribute. Many responded, and the result reflects the combined efforts of numerous individuals.

The Bibliography

The bibliography through 2004 contains 311 items. All have been examined to determine that they have specific references to dark earths. Not included are newspaper stories, unpublished reports, letters, notes, and abstracts. Included are theses and dissertations and expanded abstracts published in conference proceedings. There are some additional unchecked references that may be included in future revisions of the bibliography. Undoubtedly there are other items, but we believe that these are few. This document is intended to be a work in progress that will be continually updated and distributed to interested parties. We are placing it on the *terra preta* website of the Embrapa Solos in Rio de Janeiro (www.cnps.embrapa.br/terrapreta). (Copies are available from William I. Woods, wwoods@ku.edu.) Following are some general comments and then a review of early observations and studies.

An overwhelming proportion of the entries are relatively recent (Figure 1). Since the 1960s there has been roughly a doubling in new entries every decade. Indeed, 202 (or 65 percent) of the entries have been published since 1990 and 124 or 40 percent since 2000. About two-thirds of the entries are in English, 21 percent in Portuguese, 5 percent each in Spanish or German, and less than 2 percent in French. We should note that many of the Brazilians, Germans, and Colombians often have been publishing in English for over 20 years, so these figures do not truly reflect the linguistic origin of the authors. For example, the majority of the 55 authors and co-authors of the two recently published *Amazonian Dark Earths* volumes are non-native English speakers, and of the four editors, Woods is the only one whose native language is English. Finally, 19 of the entries are either theses or dissertations from universities in Germany, Brazil, the U.S., the Netherlands, Canada, and Great Britain.

The full bibliography is too long to include here. Thus in "The Bibliography, 1874-1977" that follows, we only list items for the period during which the initial discoveries and studies were made (61 items). The period of modern scientific research properly begins in 1978-1980, although one might be able to argue that both Katzer (1903) and Sombroek (1966) could well fit into the modern scientific period. Most of the publications on Amazonian dark earths from 1980 to 2004 are either in Lehmann et al. (2003) and Glaser and Woods (2004) or are listed in the bibliographies in those collections. The bibliography here through 1977 does not include some publications in which the information about dark earths is not substantial, with the exception of the earliest reports.

Initial Discoveries and Early Studies

All the entries are dated since 1874. This is extremely curious, since there are numerous explorers', travelers', and scientific reports about Amazonia beginning in the 16th century, and one would have expected that someone would have noted, if only in passing, so common and distinctive a phenomenon. However, searches of the literature and archives by numerous people have come up empty. The common settlement place name "Terra Preta" isn't even mentioned. Soils in general are rarely referred to, and when they are it is in dubious sources such as the 1809 geography by Jedidiah Morse (242) who merely says that "The soils are extremely fertile..." in Amazonia. Perhaps this lack of interest in aboriginal resources stems from the Eurocentric view of the economic superiority of Old World technologies coupled with the prevailing idea of Amazonia as an unsullied wilderness. Not all shared this viewpoint including von Humboldt who admired the achievements of both the pre- and post-colonial Indians and said that "Every tropical forest is not primeval forest" in the neotropics (1869:193).

Ignorance of *terra preta* changed as an indirect result of the ending of the American Civil War. Many in the South decided to migrate to Latin America rather than to be re-Unionized (Dawsey and Dawsey 1995). The leader of one such group, Lansford Hastings, surveyed the Amazon Valley from Santarém to Manaus in 1866 and decided to establish a colony on the Belterra Plateau south of the city of Santarém. Selection of some of the richest dark earth lands in the lower Amazon could not have been a coincidence, but had to have resulted from local knowledge. Enormous dark earth sites at Panema, Diamantina, Taperinha, and Marurú all became plantations for the so-called "Confederados" in 1867 or shortly thereafter.

The first to note this correspondence in print was the geologist Charles Hartt (1840-1878) in his publications (1874a:227; 1874b:36-37; 1885:3, 12-16) describing the lower Tapajós based on his work there in 1870 and 1871, including excavations of the famous Taperinha site.¹ Both Hartt (Figure 2a) and his assistant Herbert Smith (1851-1919) in his book *The Amazons and the Coast* (1979a) and in an article "An American Home on the Amazons" (1879b) clearly made the connection between the dark earths and prior Indian villages. Hartt (1874b:5, 7) used the term "kitchen middens" to describe these soils. He was the first to report modern Indian cultivation of *terra preta* (Hartt 1885:13). Smith (1879a:145, 168) said: "Strewn over it everywhere we find fragments of Indian pottery ... the bluff-land owes its richness to the refuse of a thousand kitchens for maybe a thousand years." The British geologist C. Barrington Brown (1839-1917) made similar observations at about the same time when describing the black soils along the New River in Guyana: "In two places also, in the forest, were the sites of ancient villages, marked by a deep black soil mixed with broken pottery" (Brown 1876:339); and on the bluffs along the Amazon near Óbidos: "undoubtedly of artificial origin ... highly prized as agricultural grounds, owing to their fertility;

and they bear the name of “Terras pretas” (black earths) (Brown and Lidstone 1878:270-271). In this publication, Brown and Lidstone were apparently the first to use the term *terra preta* (“*terras pretas*”) in print.

Another early observer of the dark earth phenomenon was the geologist, clergyman, and explorer James Orton (1830-1877) who visited the Santarém area in 1868. The third edition (1875) of his book *The Andes and the Amazon* (368) tells us that “The soil is black and very fertile. It beats South Carolina, yielding without culture thirty bushels of rice per acre.” No indication was given by Orton that these soils might be anthropogenic. It is curious that neither of Orton’s earlier two editions (1870, 1871) of this volume mention the dark earths and, indeed, they say that in the country surrounding Santarém “the soil is poor” (Orton 1870:251). Perhaps Orton’s third edition was rewritten and expanded in response to Hartt’s evidence to the contrary and his disparaging comments on Orton’s earlier reports (Hartt 1872:243).

Hartt, Smith, Brown and Lidstone, Orton, Derby, and Steere (see later in this chapter) in the 1870s were all English speaking and most mentioned the Confederados. It would have been natural for them in their travels in the Santarém region to visit the English-speaking American colonists and observe their crops of rice, sugar cane, and tobacco on *terra preta* soils. These settlers undoubtedly had learned about the merits of the black-earth soils from Indian and Brazilian farmers.

A posthumous monograph by Hartt was published in Brazil in 1885; however, with the exception of a note by Orville A. Derby (1851-1915) in the late 1890s about *terra preta* soils in the Trombetas region (Derby 1897-1898:374), nothing else on the dark earths was forthcoming until 1903 when Friedrich Katzer’s (1861-1925) classic volume on the geology of the Amazon region was published in Leipzig. Based on his three years of fieldwork (1895-1898), Katzer (1903:64-70) recognized the fertility of these soils in the lower Amazon (Figure 2b). He stated that the region’s “more distinguished wealth lies in its soil” (64) and estimated that there were over 50,000 hectares of *Schwarze Erde* immediately south of Santarém between the Tapajós and the Curuá Una rivers (67). Subsequent research has confirmed the extensive amount of dark earth there. Katzer conducted pioneering analytical work on these soils, and as a result, concluded that they had a completely different origin from the Chernozems he knew in central Europe in that the former were cultural in origin. He found that these soils consisted of an intimate blending of mineral residuum, charred plant materials, and decomposed organics. Three dark earth samples were subjected to loss-on-ignition testing with results indicating high organic content, in stark contrast to soils from surrounding locations. Based on his analyses, Katzer suggested that because of their fertility the dark earths were cultivated in ancient times when the region was more or less densely populated, a prescient assertion. His would be the last published chemical analyses of dark earths until Sombroek in 1966.²

Thus, by the end of the 19th century, several scientists had reported the presence of dark earths at various locations within Amazonia. They made the connection between Indian artifacts within the dark earth soils and an anthropogenic origin. The link between prior burning activities and charcoal as a major feature of these soils was made, and it was established that these soils were highly fertile and productive and probably used for agriculture in the pre-European past. However, very little further progress was made during the first half of the 20th century.

There were no other publications on the dark earths until the 1920s. One was by the anthropologist William Farabee (1921:156-157), based on a trip to the Santarém area in 1915. On the northern edge of the Belterra Plateau on bluffs overlooking the Amazon he found that black earth marked ancient Indian villages. The black earth was one-to-two feet deep and covered, in some places, as much as 10 acres of surface. In 1927 J.B. Steere (1842-1940), a professor and traveler from Michigan, reported on excavations of dark earths on the plateau east and south of Santarém and suggested that these "were, no doubt, the sites of ancient towns" (24); however, it should be noted that this work had been conducted in 1870 with Hartt and Derby.

Sponsored by the Ethnographical Museum of Göteborg, Sweden, under the direction of Erland Nordenskiöld, between 1923 and 1925 the German-naturalized Brazilian anthropologist Curt Nimuendajú (1883-1945; Curt Unkel before 1922) conducted excavations and surveys of dark earth sites within the lower Tapajós region and adjacent Amazon bluffs (Figure 2c). Like Katzer, Nimuendajú (2002:122) believed that the dark earths had developed from Indian habitation activities associated with permanent settlements and that the resultant fertile soils were then used for crop production. He produced a manuscript in 1925 entitled "Die Tapajó" and beginning in 1923 a number of maps showing locations of *terra preta* sites, with relevant publications not until after his death (Nimuendajú 1948:216, 1949, 1952, 1953, 2004). The latter publication is the result of the efforts of several individuals, most notably the editor, Per Stenborg. It consists of comprehensive translations to English with interpretation of Nimuendajú's manuscripts, notes, and correspondence held at the Göteborg Museum. An editor's preface and introductions by Eduardo Goés Neves and Stig Rydén, coupled with further commentary by these individuals, provide the necessary background for placing Nimuendajú's work in its full historical and contemporary scholarly context. A total of 67 figures, 200 plates, and 21 maps illustrate the wealth of the materials collected by Nimuendajú, give accurate representations of his sketches and plans, and provide the settings for his investigations through historical and modern photographs.

The decade of the 1930s is marked only by the 1933 posthumous publication of a Portuguese translation of Katzer's 1903 book. The lack of dark earth publications in the 1920s and 1930s is puzzling. This was the period of the failed Fordlandia rubber-plantation venture, initiated in 1927 along the upstream Tapajós, with most of the production to

Belterra, activities subsequently transferred in 1934 downstream to the much better setting at Belterra. Significantly, the Belterra Plateau has an exceptional density of dark earths, and the zone centered on the town of Belterra is especially rich in these soils. However, no special mention seems to have been made of them in the literature nor to the fact that rubber trees grow especially well on them (Wim Sombroek, pers. comm., 2002). In an effort to investigate further the possibility that dark earths were a major factor in the decision to move production, Woods conducted archival research at the Benson Ford Research Center on records relating to Fordlandia and Belterra. This research indicates that the level terrain of the latter and its position at the head of year-round access by deepwater ships were considered to be much more significant than any differences between the two tracts' soil properties.³ Equally curious is the failure of Marbut and Manifold to mention dark earths in their classic 1927 *Geographical Review* article on the soils of Amazonia. They clearly conducted soil survey and sampling in the heart of the dark earth country, but seem to have ignored the presence of this unique soil.

In the 1940s, 1950s, and 1960s various observers reported and described dark earth soils. However, rather than analytical research, attention was more focused on possible natural origins of the soil, in contrast to the earlier belief that the soil was of human origin (Glaser et al. 2004:10; Myers et al. 2003:23). The Brazilian agronomist Felisberto Camargo (1941) believed that *terra preta* came from volcanic ash. Archaeologist Barbosa de Faria (1944) and pedologists Cunha Franco (1962) and Ítalo Falesi (1965, 1967, 1972, 1974:210-214) argued that *terra preta* was formed by the accumulation of organic material in past lakes and ponds, and that such sites attracted Indian settlement, which explained the cultural midden material present; therefore a mixed natural and anthropogenic origin. Falesi (pers. comm., 2002) now believes that these soils resulted from human activity. In 1949, the French geographer Pierre Gourou reviewed various origin theories and concluded that the soil he had observed was probably "archaeological" (1949b:375-379), as did Hilbert (1968). In 1944, an extract from Katzer's 1903 geology book was published in Brazil as "A Terra Preta." This was the first article specifically on *terra preta* and is frequently cited.

The Brazilian-American geographer Hilgard Sternberg described *terra preta* soils in his 1953 dissertation (Universidade do Brasil) on Careiro Island east of Manaus that originally was published in 1956 (new edition 1998:107-110). Sternberg (1960:417, 419) dated ceramics in *terra preta* soil on Careiro in order to determine the antiquity of the migration and stability of Amazon channels. Later, he pointed out that: "It is remarkable that in an environment such as Amazonia, whose potentials have been judged insufficient to support large concentrations of population or stable settlement (Meggers 1954), indigenous settlements should have been so large and persistent" (Sternberg 1975:32-33).

For the 1960s, the soil studies by Franco, Falesi, and Hilbert already have been mentioned. Falesi (1967) believed that *terra preta* was so com-

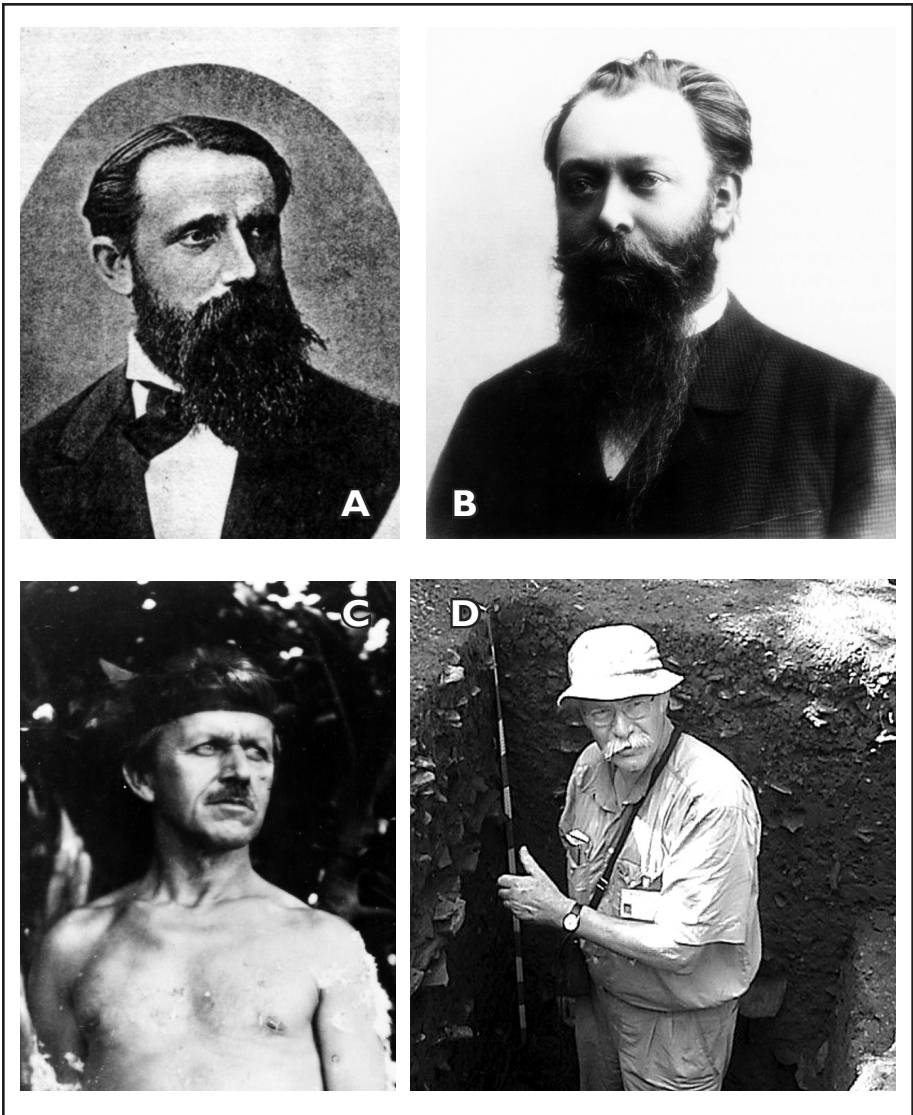


Figure 2. Dark Earth Investigators: (a) Charles Hartt from Katzer 1903:18ff; (b) Friedrich Katzer courtesy of the Geologische Bundesanstalt, Wien; (c) Curt Nimuendajú by permission of The Museum of World Culture, Gothenburg; and (d) Wim Sombroek in photograph taken by Johannes Lehmann).

mon that he recognized it as a taxonomic unit. In 1966, Dutch soil scientist Wim Sombroek (Figure 2d) published his classic *Amazon Soils* based on his earlier dissertation, which includes descriptions and lab analyses of dark earths on the Belterra Plateau (Sombroek 1966:174-176, 252-256, 261). He made a distinction between black *terra preta* proper derived from village middens and brownish *terra mulata*, a term

he introduced to the literature, which he believed “obtained its specific properties from long-lasting cultivation.” He was the first to suggest this as far as we know. And he mapped the distribution of dark earths along the bluffs of the lower Rio Tapajós (175). In 1966, he questioned whether it was “economically justifiable,” in his words, to create and cultivate such soil today (261). However, more recently, he promoted the idea of developing new dark earth as carbon stores and sinks for intensive cultivation, what he called “*Terra Preta Nova*” (Sombroek and Carvalho 2002; Sombroek et al. 2003:136; Madari, et al. 2004). Both of the recent *Amazonian Dark Earths* books are dedicated to Sombroek, “The Godfather of Amazonian Dark Earths,” who passed away in 2003.

In the 1970s, reports of Amazonian dark earths are scattered and uneven. They include, among others, Falesi (1970, 1972:33-39, 1974:210-214), Klinge et al. (1977), Ranzani et al. (1970), and Simões (1967, 1974). Botanists Prance and Schubart (1977:569, 1978:61-62) in the lower Rio Negro region examined *campina* forest on fertile *terra preta* in contrast with surrounding open *campina* scrub. Archaeologist Betty Meggers in her 1971 bestseller book on Amazonia (pp. 132-134) brought *terra preta* to the attention of a wide audience outside Brazil, but she failed to realize the significance for prehistoric cultivation either then or in the revised edition 25 years later (Meggers 1996:132-134). Meggers (e.g., 2001:310-319) attributes the development of these distinctive soils to recurrent short-term occupations of the same general site over long periods of time. The archaeologically demonstrated presence of large, planned, and persistent pre-European settlements associated with dark earths in the lower

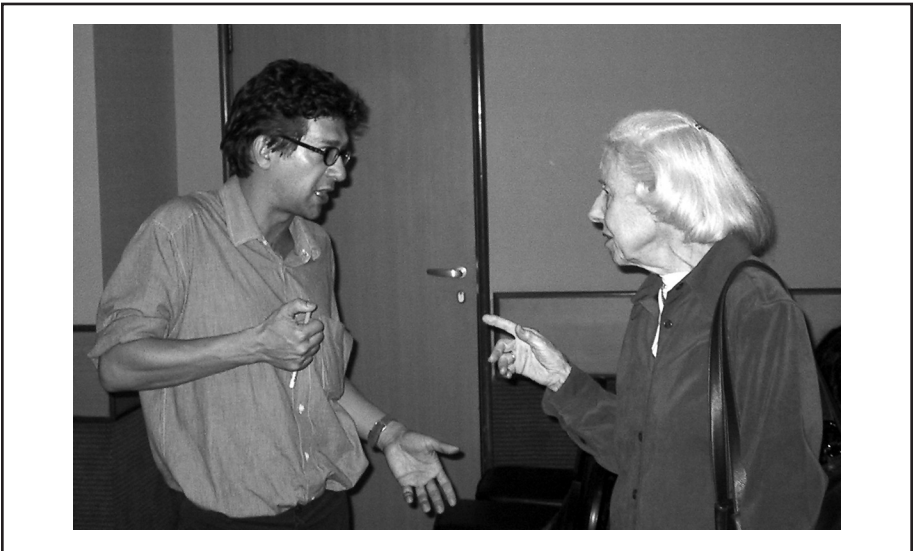


Figure 3. Archaeologists Eduardo Neves and Betty Meggers meeting for the first time and discussing *terra preta* at the XI Congresso da Sociedade de Arqueologia Brasileira on September 24, 2001, in Rio de Janeiro, Brazil. (Photograph taken by William I. Woods).

Negro and upper Xingu regions (Heckenberger 1996, 2005; Heckenberger et al. 1999; Neves et al. 2003; Petersen et al. 2001) strongly suggests that the Meggers' view is in need of serious reconsideration (Figure 3).

Conclusion

The first century of publications about Amazonian dark earths, involving discovery and initial descriptions, properly ends in the late 1970s. The modern period of scientific study can be identified as beginning with the soil science publications by the Japanese Renzo Kondo in 1978 and by the Germans Wolfgang Zech et al. and Gerhard Bechtold in 1979. Then in 1980 Nigel Smith's influential survey article was published in the *Annals of the Association of American Geographers*.⁴ The number of publications with reference to dark earths increased from 24 in the 1970s to 42 in the 1980s to 78 in the 1990s to 124 from 2000 through 2004 (Figure 1), an indication of the dramatic explosion of dark earth research and commentary since 1980 and particularly since 1990. Thus, the topic of Amazonian dark earths is finally receiving focused scientific attention following a century of inattention to the reporting by perceptive observers such as Hartt, Katzer, Nimuendajú, Sombroek, Falesi, and a few others.⁵

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Notes

1. Hartt's history has been described by Brice and Figueirôa (2003), who call him "one of the great explorer-geologists of the 19th century." He initially went to Amazonia in 1865-1866 with Louis Agassiz on the Thayer Expedition. (Agassiz in his famous book *A Journey in Brazil* [1868] makes no mention of dark earth during his travels between Belém and Tefé.) A respected scholar, Hartt was a correspondent with Charles Darwin. He founded the Geological Commission of Brazil in 1875. He was a professor of geology at Cornell University from 1868 to 1878, when not on leave in Brazil. Interestingly, Cornell is now one of the centers of Amazonian dark earths research, under soil scientist Johannes Lehmann. Hartt died in Rio de Janeiro in 1878 at the age of only 37 after contracting yellow fever in Amazonia.
2. Upon returning from Brazil in 1898 Katzer focused his research on the geology of Bosnia-Herzegovina and ultimately became the Director of the

- Geological Institute in Sarajevo. He authored over 140 scientific works, including his major book *Geologie Bosniens und der Hercegovina* published posthumously in 1925 (Coric 1999:131). Almost all of Katzer's collections were destroyed with the national museum during the tragic Bosnian war of the 1990s.
3. An April 1935 photograph (Benson Ford Research Center #0-7672) of the 121-acre *Hevea brasiliensis* nursery at Belterra shows two men in the foreground standing at the edge of a large level field with pottery sherds lying on the bare black soil literally at their feet. This photograph has been published in Bryan (1997:159).
 4. Nigel Smith was a doctoral student of Hilgard O'Reilly Sternberg.
 5. Internet search engines provide another measure of spectacular growth in interest in the dark earths. A 2008 query at google.com using the entry "*terra preta*" yielded over 600,000 Internet site links; the same entry in 2000 would have provided at most a few dozen. Some of this difference is certainly due to the greater efficiency of the search engine, but most of the entries are post-2000. There is some duplication and many items which are not for Amazonian *terra preta*. Nevertheless, amazing!

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Misreading Between the Lines: Evidence and Interpretation of Ancient Settlements in Eastern Sonora, Mexico¹

William E. Doolittle

Scholars sometimes have difficulty seeing the proverbial forest for the trees. We can read facts and interpretations, and rather than accepting the author's words on their own merits, read the text through a filter of our own making. Sometimes, this filter is a bias resulting from our own research. Sometimes it is a function of what we perceive to be the writer's bias. As a result of these biases, we run the very distinct risk of misreading and hence misunderstanding what the author intended. William V. Davidson is a distinguished Latin American historical geographer who never suffered either of these shortcomings. This chapter is dedicated to him and his insistence on being accurate in what one writes and what one reads.

Historical geographers, and indeed scholars from every field, strive in our writing to present our evidence accurately and our interpretations clearly. Similarly, we read and interpret primary documents written centuries ago, books written decades ago, and the current work of our colleagues and peers. Throughout the process we try to be as objective as possible, or at least publicly we purport to be. We attempt to look at the evidence for what it is—raw data—and we evaluate the writer's interpretation of the evidence. Data and interpretation, however, are two very different things that should be treated as such and not combined or treated as one. But, to what extent do we confuse evidence and interpretation when we read the works of others? To what extent is our acceptance of both the evidence and the interpretation skewed by what we already think, or by what we think the author thinks? Stated another way, how biased are we, and

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how open are we to new evidence and revisionist interpretations?

William V. Davidson, or Bill as he is known to his friends, has always exemplified the best of scholarship in historical geography. He is thorough (e.g., Davidson 1980), expert in both field (e.g., Davidson 1977) and archival (e.g., Davidson 1985) research, a masterful writer (e.g., Davidson 1974), a scrupulous reader/reviewer (e.g., Davidson and Parsons 1980), and a scholar with an open, untainted mind. The deliberation and care with which Bill conducts research, writes, and reads takes inordinate amounts of time and patience. But it has its rewards. Bill has demonstrated repeatedly an even-handed fairness and openness that has contributed greatly to our knowledge and understanding of Central America, its indigenous people, and their relationship to the land both past and present. He has done so largely by not holding any *a priori* prejudices, and in so doing is a model for us all.

Unfortunately, our preconceived notions about regions and their inhabitants—especially during times long past—can sometimes blur our vision, thereby resulting in our either not seeing the evidence clearly or misunderstanding the writer's interpretation. To illustrate this point, principally for the purpose of aiding fledgling scholars, I discuss what others have said about my own work on prehistoric settlements in eastern Sonora, Mexico, specifically in the Valley of Sonora. This is a region visited by Bill on a few occasions, always in the company of Robert C. West, the most distinguished historical geographer of Sonora. It is also a region that has been visited by at least one of Bill's doctoral advisees, Peter Herlihy, who also accompanied Dr. West. In other words, eastern Sonora is a region well-known to many but perhaps not completely understood. It is, therefore, a perfect place to examine what some scholars mistakenly thought what another scholar meant.

Eastern Sonora, Vestiges of Its Pre-European Cultural Landscape, and Data Interpretations

Located just south of Arizona, the state of Sonora, Mexico, has long attracted geographers, archaeologists, anthropologists, and historians. Historians were attracted by things Spanish—routes of explorers and locations of missions (e.g., Bolton 1949)—anthropologists by its native people (e.g., Lumholtz 1902), archaeologists by its proximity to the ancient cultures of the Southwest (e.g., Bandler 1890), and geographers by that special combination of all of the above (e.g., Sauer 1932). The eastern half of Sonora was particularly attractive for its bountiful cultural-historical landscape (West 1994).

The people who inhabited eastern Sonora before the arrival of the Europeans remain unnamed. However, they were doubtless the ancestors of the Ópata who occupied the area, albeit in decreasing numbers, until the 20th century (Johnson 1950; Reff 1991). They lived in mesa-top settlements overlooking the floodplains of north-south trending river valleys. And, how do we know this? A number of scholars including

Bandelier (1890), Lumholtz (1902), Amsden (1928), Sauer and Brand (1931), Ekholm (1939), Lehmer (1949), Noguera (1958), and Wasley (1967) all made exploratory forays into the region in search of evidence of these ancient folks. They all made brief trips, stopping periodically to see what they could find. They did not find much, individually and collectively. However, they all found something every time they stopped. Armed with this fact, I set out in 1977 to explore every mesa-top in the central stretch of the Río Sonora Valley, from north of the town of Banámichi to south of the town of Baviácora. My findings were published first in a series of articles and later in a monograph titled *Pre-Hispanic Occupance in the Valley of Sonora: Archaeological Confirmation of Early Spanish Reports* (Doolittle 1988). The monograph appeared shortly after the publication of Carroll L. Riley's (1987) book, *The Frontier People: The Greater Southwest in the Protohistoric Period*.

Riley was immediately criticized for concluding that the pre-European people of eastern Sonora were organized into "statelets," a term he coined to describe the social and political organization he interpreted in part on my settlement evidence. I, by association and extension, was criticized for confirming the existence of statelets on the basis on the settlement remains I found. Some scholars (Douglas and Quijada 2004) continue to be cautious of both the statelet notion and my settlement data, but they now express themselves in greatly mollified language. In this chapter, I do not discuss the merits of the statelet concept, per se, because Riley devised it, and he already has addressed the concerns of critics (Riley 1990, 1999:196-197). I do, however, discuss the settlement data I gathered, and on which Riley relied in part during the formation of his ideas. I do so, not so much to clarify my interpretation and the evidence on which it was based, but to illustrate why it is important for scholars to look at the evidence others present for what it is, and to read the writer's interpretations on the basis of that evidence, rather than on the reader's preconceived notions.

Scholars who misread and misinterpreted my work shortly after it appeared include Bernard L. Fontana (1988:8-9; 1989:8), Randall M. McGuire and Maria Elisa Villalpando (1989), and William H. Doelle (1989). In general, they thought that my interpretations of the archaeological data were inflated. I contend that my interpretations were not inflated, but that these critics thought I made claims that, in fact, I did not make. The issue, then, is what exactly did I claim?

In my book's introduction, I pointed out that previous archaeological projects in eastern Sonora found evidence of only a few, small, scattered structures of one type. In contrast, the early Spanish explorers described: (a) a variety of house types; (b) numerous small sites, surrounding a few large sites, some structures other than houses on the larger sites; (c) larger populations than they had seen further south along the west coast of Mexico; and, (d) a complex social organization involving a priesthood and interregional trading (Doolittle 1988:1-4). I made it quite clear that, not being an anthropologist, I could not and

would not test the last of these explorers' claims, but that as a geographer I could, and did, test the first three. Here, I present a clarification of my claims — my data and interpretations — one issue at a time.

Houses

I found archaeological evidence of pithouses and surface structures. Some of the latter had multiple rooms and possibly multiple stories. McGuire and Villalpando (1989:171) questioned my suggestion about multiple-story houses. Fair enough. The evidence for such structures is admittedly sketchy, and I said so. Their criticism of this point, however, was a bit harsh and not sufficient to reject my overall conclusions, especially in regard to my estimates of population size (discussed later in this chapter). I never said that multiple-story houses were numerous or very large and, most importantly, I did not figure them into my demographic calculations. McGuire and Villalpando (1989:171) also claimed that the surface structures I found were not comparable to the large adobe structures built by the Hohokam in the Phoenix Basin. Drawing a comparison to Hohokam sites is unfair, to say the least. I never made any such comparison and indeed stated only that most houses averaged approximately 20 square meters of floor space, and my drawing of what they probably looked like indicated that even I did not consider them very impressive. In sum, I found exactly the types of houses reported by early Spanish explorers; nothing more, nothing less.

Sites and Settlement Patterns

I found a grand total of 162 habitation sites dating to circa A.D. 1300-1500. Of these, 130 were classified as *rancherías* and had eight or fewer houses. Of these, 20 contained only a single house each. A total of 26 sites had between nine and 21 houses and were classified as hamlets. Four sites with between 30 and 90 houses were classified as villages. Two sites were classified as regional centers. These were the largest sites found, containing remains of more than 160 and 200 houses, respectively. Doelle (1989:166) argued that my largest sites did not “have evidence of extraordinary spatial extent...[to] support the argument that they functioned as regional centers,” (see also McGuire and Villalpando 1989:171 for a similar criticism). Well, one of these regional centers covered approximately 10 hectares and the other covered upwards of 15 hectares.² Is this large or small? In comparison, Hawikuh, one of the important Zuni pueblos at the time of Spanish contact, encompassed approximately two hectares, and Páquime or Casas Grandes, one of the largest sites and important centers in the Greater Southwest, covered approximately 20 hectares. In sum, the injection of spatial extent into the reading of my interpretation not only resulted in a misreading, but one that was unfounded.

What constitutes a regional center? I cannot speak for what Doelle (1989:166) considered such a site, but I made myself most clear on that in my book (Doolittle 1988:36). Using a site typology devised for

the Basin of Mexico, where the most comprehensive and systematic studies of prehistoric settlements and settlement patterns have been conducted, I considered sites that were “nucleated, and architecturally complex with large-scale public architecture...[and with] a population of several hundred to a few thousand” to be regional centers. Did I find such sites? Yes. All in all, the early Spanish explorers reported a variety of settlement sizes, and that is exactly what I found.

What about settlement distribution? One of my maps—Figure 3.35 on page 41 of my book—not only shows the spatial distribution of sites ca. A.D. 1500, but it fits the Spanish description perfectly. Each of the two largest sites, the regional centers, was located near the center of a discrete valley segment. Each was surrounded by several smaller settlements. In sum, I found precisely the type of sites and settlement patterns reported by the early Spanish explorers.

Structures other than Houses

Doelle (1989:166) said that features I called “possible ballcourts” are similar to Hohokam compounds, and therefore might not have served a function similar to that of the Mesoamerican game. I did not make the interpretation that these features were in fact ballcourts. That distinction belongs to Arturo Oliveras M., then director of the local office of the Instituto Nacional de Antropología e Historia (INAH) in Hermosillo, to whom I credited the interpretation. I included the word “possible” because of the distinct likelihood that they might not be ballcourts. Personally, I think they are ballcourts (as do others, e.g., Whalen and Minnis 1996), but I recognized that there are other possibilities, and I opted to be conservative. So? What if they were compounds and not ballcourts? What does that change? It changes absolutely nothing as far as my conclusions are concerned. All I said about these features is that they were found on the large sites—exactly where the early Spaniards claimed to have seen non-house structures—and that they indicate that something was going on at these sites that was not going on elsewhere. In sum, I confirmed the Spanish reports on this point too.

Doelle (1989:167) also said that these features are not “monumental.” As for being “monumental,” I never once said that any of the architectural features in eastern Sonora fit that particular description. In fact, I limited my superlative to “public,” thereby acknowledging that they were nothing spectacular, but only that they served more than one household and, probably, more than the people who resided at the sites on which they were located.

During separate conversations with me, both Doelle and McGuire raised the issue of how the eastern Sonoran sites compare with Hohokam sites. They argued that the largest ones I found are nowhere near as large as many Hohokam sites, and that from their experiences, subsurface remains cannot always be predicted by surface evidence. Questions based on comparisons with the Hohokam may be appropriate, however, I never once even implied that what I found in Sonora is

in any way comparable to the Hohokam, and I certainly never meant to leave the impression that the sites I found were larger than Hohokam sites. Furthermore, my survey work was carried out simultaneously while others (members of the National Science Foundation-funded Río Sonora Project) excavated numerous structures at several different sites. My interpretations of what lies below the surface in Sonora are based on these excavations,³ not comparisons with the Hohokam. The readers' comparison of the Sonoran sites I found, described, and interpreted with Hohokam sites, however, raises two issues that merit further attention—documentary evidence and chronology.

One of the major flaws of New World archaeology, in comparison with that of the Old World, is the lack of supportive documentary evidence. As Karl W. Butzer (1990) has so aptly demonstrated, conclusions based solely on archaeological evidence, without the benefit of documentary evidence, are more often than not erroneous. One of the few places in the Greater Southwest where documentary evidence of indigenous people does exist is eastern Sonora. Accordingly, my study benefited from having two types of evidence for comparative purposes that tend to support each other. If scholars insist on making comparisons between eastern Sonora and the Hohokam, then perhaps they should revise upwards their interpretation of socioeconomic conditions of the Hohokam rather than to assume, despite the lack of documentary evidence, their interpretations are correct and that interpretations of eastern Sonora are inflated. Indeed, in my later book on prehistoric irrigation in Mexico (Doolittle 1990), I demonstrated that by A.D. 350 the Hohokam or their ancestors had independently developed canal irrigation systems that were not rivaled in size and scope anywhere north of Peru until the Aztecs constructed large-scale canal systems in central Mexico a century before the Spaniards arrived. Now, we have solid proof that canal irrigation was developed independently in southern Arizona by 1000 B.C. (Ezzo and Deaver 1998; Muro 1998), as early as it was developed in Mesoamerica or South America. The Hohokam and their ancestors, it seems, deserve more credit for what they accomplished than some scholars want to give them.

As for chronology, Doelle (1989:167), claimed that my 200-year phases are unacceptably long. To be sure, there are all kinds of problems with the Sonoran chronology, the principal one being that there is not one based on firmly datable ceramics. However, the chronology I used was based largely on radiocarbon dates of different house types. Many structures were excavated as part of the Río Sonora Project, and many radiocarbon dates were obtained. The correlation between the types of structures and dates was striking, but remains unpublished, as does much evidence collected by that project. My strategy may not have involved the usual ceramic association, however, the phases I used are no longer, and hence no worse, than those devised for the Hohokam. My early, transitional, and late phases are nearly contemporaneous with the

Sacaton, Soho, and Civano phases, respectively. In sum, it is patently unfair for readers to expect me, or any other writer, to use data that are better than those used by the readers themselves in their own writings.

Population Estimates

Fontana (1988:8-9) was early on dubious of my claim that eastern Sonora could have been home to 100,000 people prehistorically (Doolittle 1984). My point in making that statement, although perhaps not clearly articulated, was simply to demonstrate what was possible, not what actually existed. In my 1988 book, I assumed, on the basis of ethnographic parallels, an average of 6.1 persons per household. With 1,289 relict houses found during my surveys, I concluded that the Valley of Sonora had a population of at least 7,900 at the time of Spanish contact. This figure is close to both the 9,000 estimated by Carl Sauer (1935), who made inferences based on early baptismal records, and the population of the valley during the middle of the 20th century. Of course, some might think that 6.1 persons per household is too great a figure. A more conservative estimate of 5.0 persons per household would still result in a valley-wide population of more than 6,000; an impressive agglomeration of people by north Mexican standards.

McGuire and Villalpando (1989:171) maintained that my population estimate was too high because I assumed that all the relict houses were occupied contemporaneously and continuously. They said that adobe structures have a use life of only 25 to 50 years, and cited an article by McGuire and Schiffer (1983:292) as evidence. I checked this reference and was stunned to find that *McGuire cited himself incorrectly!* What he and Schiffer actually said was that pueblos built of adobe, with "few or no organic structural members in the zone of rapid decay near and in the ground...with minimal maintenance... can last indefinitely. Tree-ring studies, for example, document pueblo rooms in use today that were built 250 years ago" (emphasis added). Furthermore, I presented evidence that some pithouses show signs of having been rebuilt, suggesting therefore that the locations of individual house remains imply a long period of continuous occupation.

Although I did not make the point as clearly as I might have, I did recognize that probably not every house was occupied contemporaneously. My assumption of contemporaneity was merely a way of compensating for various and conflicting factors. Every site I surveyed showed some signs of erosion; some appeared to have as most of their structures eroded away. Also, present-day towns such as Baviácora and Huepac overlie sites of undetermined size. It is not unusual, for example, for town dwellers today to recover artifacts while digging in their yards. If one were to subtract X population to compensate for houses that were not continually or contemporaneously occupied, and add X population to account for both erosion and destruction by recent construction, his or her population estimates would not be much different than mine. I stand by my estimated figures.

Conclusion

For the most part, I found what the early Spanish explorers reported. Their descriptions of structures, settlements, and settlement patterns were correct. Did these Spaniards exaggerate, as McGuire and Villalpando, and Doelle maintained? To a certain extent, yes. For example, they reported seeing some towns with upwards of 3,000 people. I did not find any evidence to support such claims, and indeed, even questioned such claims as early as page three in my book. On every other count, however, their descriptions hold up.

As for “statelets,” I used the term for two reasons: first, it was a term that Riley (1979) had coined previously for eastern Sonora and, second, it was, I thought, innocuous. In retrospect, I have to admit being wrong on the second point. Some scholars think that it is too encumbered with implicit inferences to advanced levels of cultural development to be applicable in eastern Sonora. Given their disciplinary expertise in anthropology, they were probably correct. However, Riley made it quite clear that he used the term to avoid the often but inappropriately used and value-laden term “chiefdoms.” In this respect, it was a convenient label to affix to the socioeconomic conditions described by Spanish explorers (Riley 1999:196). A new term is definitely needed.

Discussion

Writers describe and interpret data. Readers can accept, question, or reject the evidence and the interpretation presented. Writers can do a poor job of both describing and interpreting evidence. But, readers can do a poor job too. From my own personal experience, I have a deep appreciation that sometimes readers think a writer said something that he or she did not say, and/or the writer meant something she or he did not mean. Misreading can result in misunderstanding. And, misunderstandings do not advance the cause of scholarship. We all strive to be good writers. Writing is hard work, and we all know it. Reading, however, is not easy. Although more people probably read for pleasure than write for pleasure, good reading – careful, meticulous reading – can be difficult. Reading is a skill that we should probably work harder at than we have.

Notes

1. A much earlier version of this chapter titled “Making Mountains Out of Molehills: My Sites, Cal’s Statelets, and Bunny’s Relentless Criticisms” was presented at the 18th Annual Gran Quivira Conference, 6 October 1989, Las Cruces, New Mexico.
2. Henry B. Wallace, an employee of Doelle’s at Desert Archaeology, Inc. in Tucson, Arizona, has not published any comments on my work. He and I have, however, discussed the matter in great detail. We disagree on many aspects of one regional center, including its areal extent, the number of features visible on the surface, and how indicative surface evidence may be of subsurface conditions. Also, all the scholars identified here as “misreaders” are professional acquaintances whom I have known and respected for a very long time. I trust this chapter will not jeopardize our friendships.

3. Before beginning my work in Sonora, Donald D. Brand conveyed: "You are going to see a lot of curious depressions on the land surface in Sonora. Some will be natural; some will be remains of pithouses. There is a 50-50 chance that those without mesquite trees will be pithouses. All of those with mesquite trees will be pithouses." Subsequent archaeological excavations proved Brand to be 100 percent correct.

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Dark Christs and Brown Virgins: Writing Against the Past

Miles Richardson

This writing questions the conventional reading that dark images of Christ and the Virgin appear in Spanish Americas due either to centuries of candle smoke or to a persistent, continuing presence of indigenous, pre-Columbian culture. Postmodern concepts, particularly those of Michel Foucault, and empirical data, such as the presence of the same images in regions far from native American cultures, i.e., Europe, offer, instead, an alternate reading that the colors speak less of candles and the past and more of the existential preoccupations with human death and fertility.

If, as postmodernists argue, we, you and I, creatures of the symbol, have no center, but exist only in the play between silence and sound, sound and silence, presence and absence, absence and presence, if the center of our being is not even something we have mislaid or forgotten, where then stands the past? Where is the past? Past that in the southern United States is not even past, show yourself! "Here. Here. Here!" Christ and the Virgin call to us. "Here. Here. Here!" they call again, Christ from the cross, Mary from the manger. "Here," says Christ. "Here, I hang, forever." "Here," Mary. "Here, I forever give birth to the Lord." What? What are they saying? What do they mean? What are they asking of us?

Throughout the American South and Spanish America these words of Christ and Mary resound. In the South, particularly among the evangelical congregations, the words arise from the Holy Text. From the pulpit, the preacher voices them to the Sunday audience, the members of which may in turn nod wisely, or even shout, "Preach on, brother." In Spanish America, apart from newly reborn *evangélicos*, the words commonly take a visual form. From a Christ on his cross and from a Mary with sadness of her eyes, the words appear physically, materially, and touchable both with the eye and with the hand of those who kneel in solitude.

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The physical portraits transform the verbal images conveyed by the sacred words into icons, religious icons no less. What are icons? To the anthropologist-geographer they are material culture and, as such, constitute one of basic modes we employ to communicate to one another what we are about. To the iconoclast, they are no less than idols, blasphemies to be smashed a hundred times, and a hundred times more. For the iconophile, icons offer presence, presence that speaks now of the past. They present in the now the presence of the past.

As we kneel before them, the crucified Christ and the desolate Mary, solitude opens a turbulent history.

Icons

In the Western church, devotional use of images began in the 4th century as accessories to the devotion centered on relics of the martyrs and the many splinters from the True Cross, the one upon which Jesus was crucified. In the 6th century, the cult of the saints and their iconic presentation dramatically expanded, and Pope Gregory (590-604), while warning against the danger of people worshiping the icon of a particular saint or an image of Christ, encouraged their presence on the basis that those ignorant of writing could at least read on the wall what they could not in books. Thus, they became the "lewd man's book," meaning the illiterate, rustic peasant. The Second Council of Nicaea (787) affirmed their use, and subsequently, the growth of cities and of the economy in late medieval times stimulated the production of religious art. By the 14th and 15th centuries—right at the beginning of the European overseas expansion—their presence achieved an evocative power in their own right, and thus they moved away from being the "lewd man's book" and became partners in a dyadic contract.

As partners in a dyadic, two-party contract, particular iconic expressions of Christ, Mary, or one of the saints achieved in the veneration of pious individuals a presence that may, if approached properly and with faith, grant favors. A person might strike a bargain with the iconic expression that if the named presence granted a relief, for example, from an illness, the person would then express his or her devotion by lighting a candle beneath the figure at the local church. If the request were for a major favor, then the person would promise to travel as a pilgrim to the shrine where that expression first made its presence known.

As the popularity of this mode of worship increased, so did its opposition. Criticism, fervent and often violent, centered on the superiority of the Scriptures, the textual mode of communicating God's wishes. The interiority of reading and the mind's eye became spiritually superior to the physicality of seeing and the hand's touch. Obeisance before an invisible and majestic power became the higher road to God than the forthright, face-to-face positioning of the person-iconic presence contract.

Opposition to the presence of icons, however, also came from mystics. In the early 1500s in the heart of Spain, small but well-connected groups argued that they had no need of icons for they saw

Mary in every woman (and perhaps Christ in every man). They became recognized as *los alumbrados*, the illuminated ones. They attracted the attention of the Inquisition, their connections disappeared, and they fled into secrecy or renounced their sight, and thus by the 1530s ended the extraordinary claim that in Spain if I looked *con alumbrado*, I would see Mary in each approaching woman.

The Counter-Reformation, in desiring to draw a clear boundary between the Roman Catholic Church and the increasing number of Protestant groups, continued to argue strongly for presence of icons in worship. In its militancy, the Church turned to its Feast of Corpus Christi. Although prescribed earlier in the 13th-century, the Feast grew to dominate the streets of villages and towns across much of Counter-Reformation Europe. After placing the Eucharistic Host—the wafer of unleavened bread transubstantiated through ritual into Christ's body—in the glass center piece of a monstrance (Figure 1), the parish priest, or even the bishop of the diocese, hosted the ornate, sun-like disk aloft and led the populace through the streets in an elaborate procession featuring gigantic folkloristic figures carried aloft on the shoulders of the crowd. And as much as the Orange men marching the “Queen's Highway” through Catholic neighborhoods today in northern Ireland, the procession strode through Protestant quarters proclaiming the Real Presence of Christ in the hands of the Church. So significant became the Feast of Corpus Christi, celebrated on Thursday following Pentecost, that it earned its way into the popular saying, “There are three Thursdays that cause admiration, Holy Thursday, Thursday of Corps, and Thursday of the Ascension.”

Most recently, the reforms of Vatican II of the early 1960s have promoted a much more ecumenical spirit by subduing the visual militancy of iconic displays. In the spirit of this modern day “Counter Counter-Reformation,” the Church has removed saints of doubtful ancestry from its altars (including poor St. Christopher!), shifted the Feast of Corpus from a in-your-face Thursday to a nearby Sunday, and encouraged more frequent readings of the Scriptures. (For details see Gutmann 1977; Kamen 1985; DuBois 2002; Rubin 1990; for a quick overview see Richardson 2003).

The central figures of Christ and Mary, however, continue even in these bright days of openness to sanctify the faithful.

Free-floating Signifiers

The forms that the two assume are another matter. Since the Biblical account of neither Christ nor Mary describes their physical appearance, their icons are seemingly free to take whatever shape or color, anguish or patience, localities may attribute to either. In this sense, they are the original free-floating signifiers. A “free-floating signifier” in postmodern parlance is a signifier that has become unhinged from its conventional meaning, or its signified, and therefore, being free, attaches itself to a mix of meanings, some of which may even be contradictory. Yet their freedom to float meets the constraining narrows of discursive logic, and

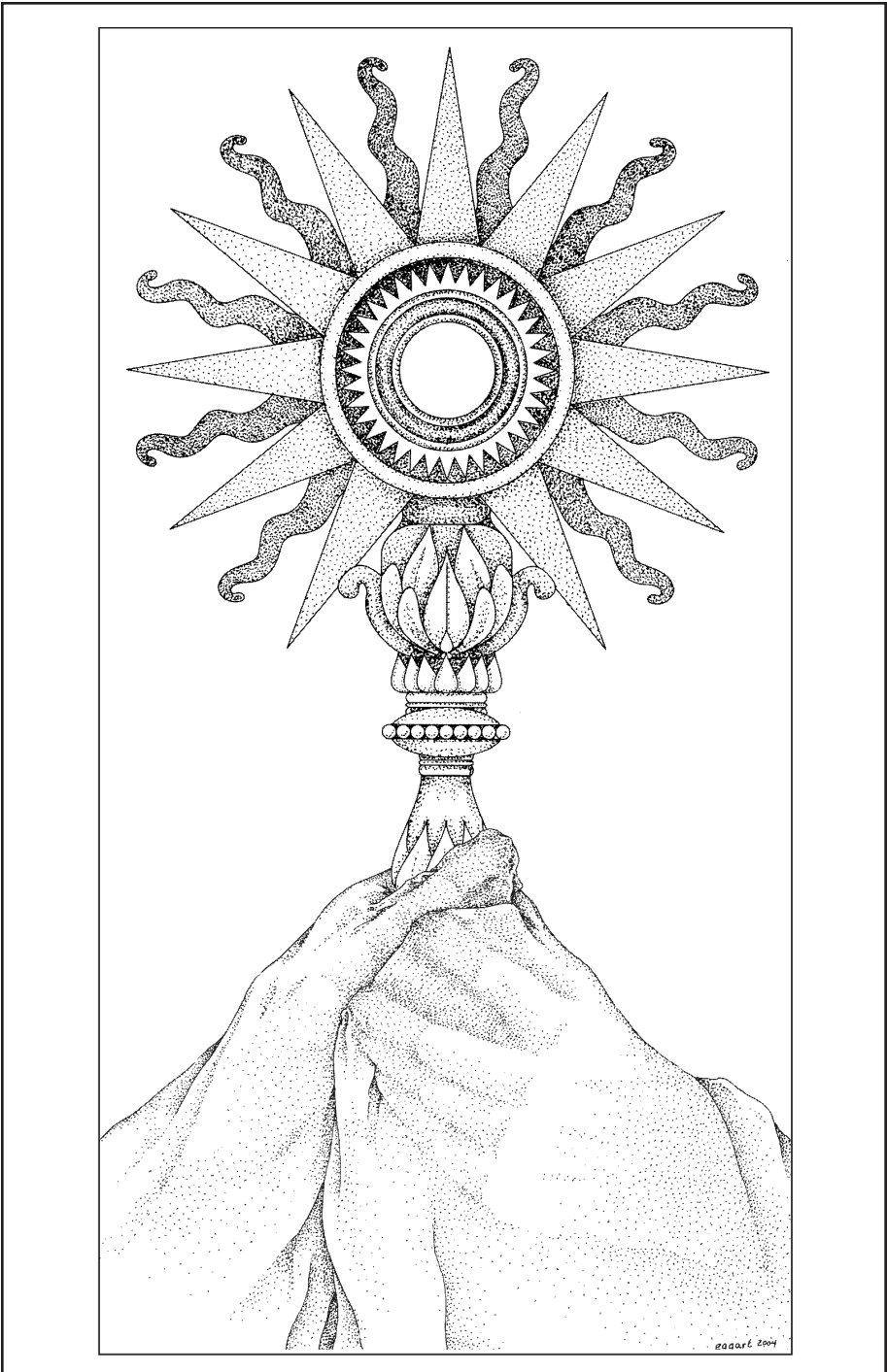


Figure 1. A monstrance with the sacramental body of Christ held aloft by the priest during the Feast of Corpus Christi. Please note how a cloth shields his hands from contact with the monstrance.

their freedom is no freer than the words I write and you read. As the words I write depend on you reading the surrounding words, so too do the “free-floating signifiers,” including the portraits of Christ and Mary, depend on our viewing of other depictions, those of past and current presentations and, especially in the case of Christ and Mary, those of one another. In Catholicism, but I suspect also in the reading among the most iconoclastic Bible wielders, Christ and Mary point to each other and in that reciprocity assemble their respective meanings (Figure 2). Roberto S. Goizueta, in his “theology of accompaniment,” goes so far as to say, “One *cannot* know Jesus without also knowing Mary” (1995:66).

If icons present to us the presence of the past, what past appears in our presence? If one of the icons before us is Christ on his cross, his thorn-crowned head slumped, his arms stretched out and nailed to the cross bar, his side where the Roman centurion thrust his spear red oozing blood (John 19:34), his feet spiked to the upright, and above his head a sign proclaims its great, sarcastic irony, INRI (Figure 3), what past comes forth? What past indeed? The past of a few minutes ago, when we first stepped through the door of the church? The past of yesterday’s mass? And that of the week before? And the week before that one? The past of the installation of the figure? The past of the carving of the figure? No. Neither of those pasts. The pasts tied to the installation and carving of the figure are not the pasts we ask the icon to present. The past of the actual event of the crucifixion? No! Short of a time machine, that past is beyond us. (And even with a time machine, should it transport us to Golgotha, 33 A.D., what would we see? What indeed!) The most past past we can aspire to is the past as described in the gospels.

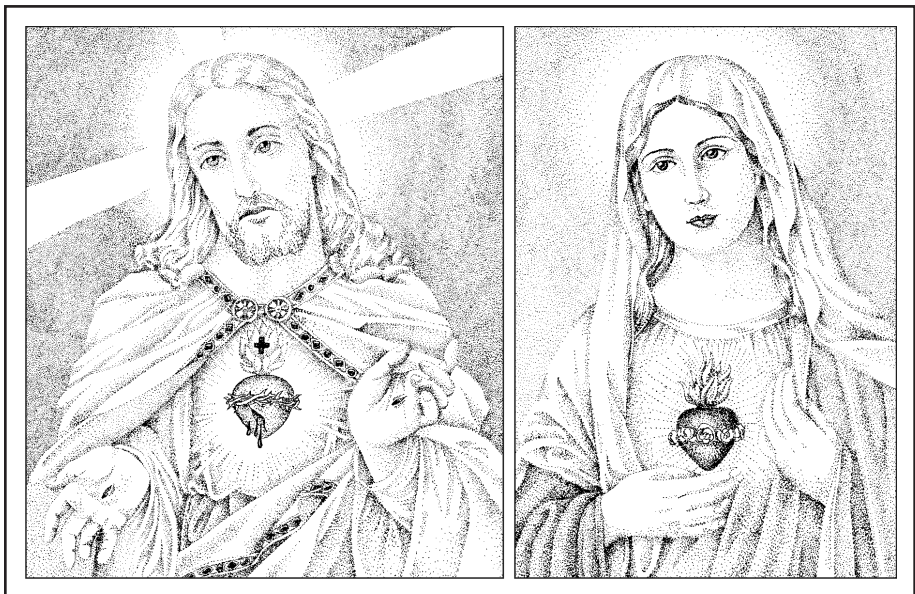


Figure 2. Christ and Mary semiotically pointing toward each other. To the left is “The Sacred Heart of Jesus” and to the right is “The Immaculate Heart of Mary.”

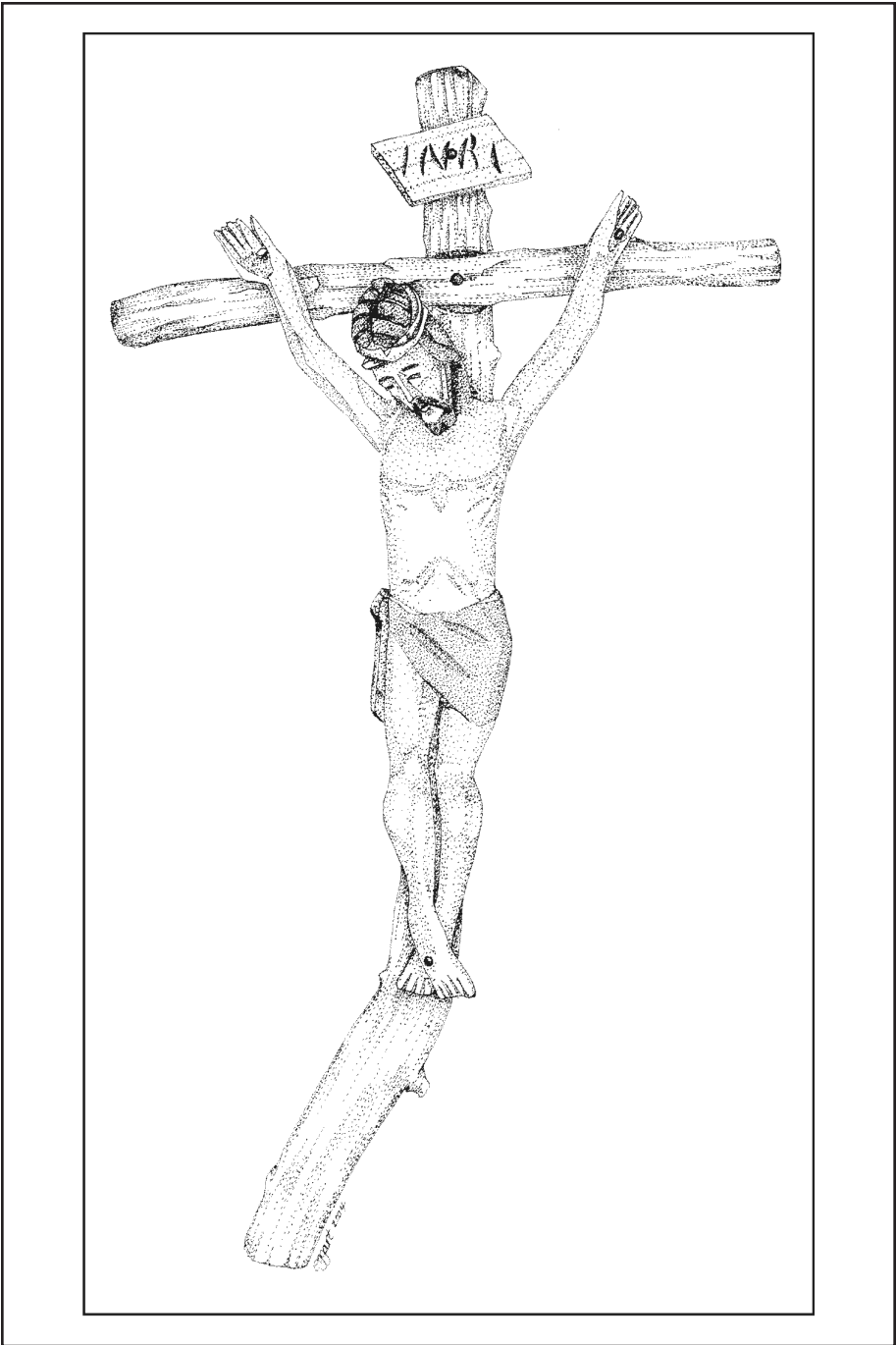


Figure 3. A “Conventional” Christ Crucified. INRI are the first letters of the Latin inscription *Iesus Nazarenus Rex Iudaeorum*, or in English, “Jesus of Nazareth, King of the Jews” (John 19:18). This folk image of Christ Crucified comes from an artisan shop, Querétaro, Mexico.

And that past is as past as our most recent reading, which is, of course, now: "My God, my God, why hast thou forsaken me?" (Mark 15:34).

Michel Foucault Genealogy

How are we, you and I, to make our way through such a tangled landscape of silence, free-floating signifiers, and a past no more passed than now? As do many in today's academic world,¹ we turn to the work of Michel Foucault. Immediately, Foucault, a first generation French postmodernist, responds by quoting fellow postmodernist, Georges Bataille "to flee, endlessly flee from the horror of reducing being to totality" (1977:43).

Foucault's advice is, for a postmodernist, and a French one at that, appropriately – if not endlessly – obscure. Yet by its very obscurity it reveals to us the central feature of postmodernism, its primary fear, the *horror* of reducing being to totality. Once we have discovered a philosophy's horror, we have latched on to its secret. For the postmodernists, nothing earns their scorn more than a totality, something solid, substantial, or, heaven help us, eternal. The horror of being "reduced" to something that might last forever is to them, in all of its irony, a fate worse than death. Their horror sharply contrasts with that of existentialism. For us existentialists, you and me, the horror we confront is the possibility of reducing being to nothingness. The thought of such a fate makes us terribly anxious. And I know you agree. For you have said more than once that we feel kin to the Spanish writer, Miguel de Unamuno, who personally considered torment in hell a better choice. Burning forever in Satan's furnace was, he said, at least something, not nothing.²

The horror, as Foucault explains it, is the chase after the truth of history, which, according to those mistaken metaphysicians in hot pursuit, resides its origin. In geographer's terms, at least those faithful to Carl Sauer and in anthropology to the Boasians, the faithful of Franz Boas, the closer we are to the origin of the landscape or to a cultural practice, the closer we are to its truth, to its foundation, to its cause. To avoid this error and its horror, Foucault urges us to replace ordinary history with effective history that introduces discontinuity into our very being. This is "because knowledge is not made for understanding, it is made for cutting" (1977:154). "The purpose of history, guided by genealogy, is not to discover the roots of our identity but to commit itself to its dissipation" (162). In reality, the closer we are to the origin of cultural practice, the more we discover there is no single taproot, but a host of rootlets spreading out in every direction.

Parenthetically and intriguingly, the position of Foucault corresponds closely to that of the evolutionary theorist, the late Stephen J. Gould. The farther we go back in hominid phylogeny, for example, the less the picture of the evolutionary trajectory is like a tree, with a single trunk, and the more like a bush with ground level phylogenetic twigs sprouting in numerous directions awaiting the pruner (Gould 1989).

The image of rootlets spreading out almost randomly matches the earlier array of questions we asked of the crucified Christ:

What past appeared in his presented agony? Did not we tentatively conclude the past presented was the now reading the Gospel according to Mark: "My God, my God, why hast thou forsaken me?"? These words spoken somewhere in the past but read now call forth another central (as it were!) concept of Foucault's: discourse.

Discursive Practice

Conventionally, we think of discourse simply as talk, or in a more elevated manner, an extended verbal exchange about important subjects. Foucault, however, expands the word into a larger concept of discursive practice. As discursive practice discourse becomes ways of constituting implicit assumptions and just-below-the-surface feeling into knowledge so conventional that the participants agree as to its validity. So how to apply this concept of discourse to the talk of icons and their presentation of the past? How indeed? Let us delay that challenge and return to the icons themselves.

Dark Christs

As a conveyer of the sacrificial nature of his death, the image of a crucified Christ is, of course, a fundamental feature of Roman Catholicism everywhere, and every church, however modest or splendid, traditional or current, has at least one crucifix somewhere among its presentations, most commonly above the altar. Apart from these parish images, other Christs may acquire a reputation for assisting people in the throes of a crisis — a broken bone, a wasting disease, an incurable lesion, a traffic accident, a difficult birth, a wayward spouse, an upcoming exam, an overzealous border patrol, an unscrupulous judge — in sum, any event that threatens the tranquility of a person's life. As the reputations of these figures spread, they become the foci of pilgrimages and reside in opulent shrines filled with testimonies of their power (Figures 4, 5). The icons commonly depict Christ in his final and darkest hours, being whipped by soldiers, staggering with his cross to Golgotha, and the crucifixion itself — "the cruelest and the most shameful method of capital punishment" (Betz 1993:141). Rarely, if ever, does the miraculous shrine figure portray Christ emerging from the tomb or ascending to heaven.³

Spanish America⁴

Contrary to what conventional wisdom might assume, Christ-centered shrines are more common in Spanish America than in Spain (Nolan and Nolan 1989). Their frequency reflects the Counter-Reformation effort of the Council of Trent (1546-1563) to make the church more "Christ-centered," and an inspired Spanish church carried this message to the New World. In so doing, clergy, both secular and regular, created a climate favorable to miraculous-working Christs.

Generally speaking, these adult Christs display stereotypically "Caucasian" features including white skin color. Yet, some exception-

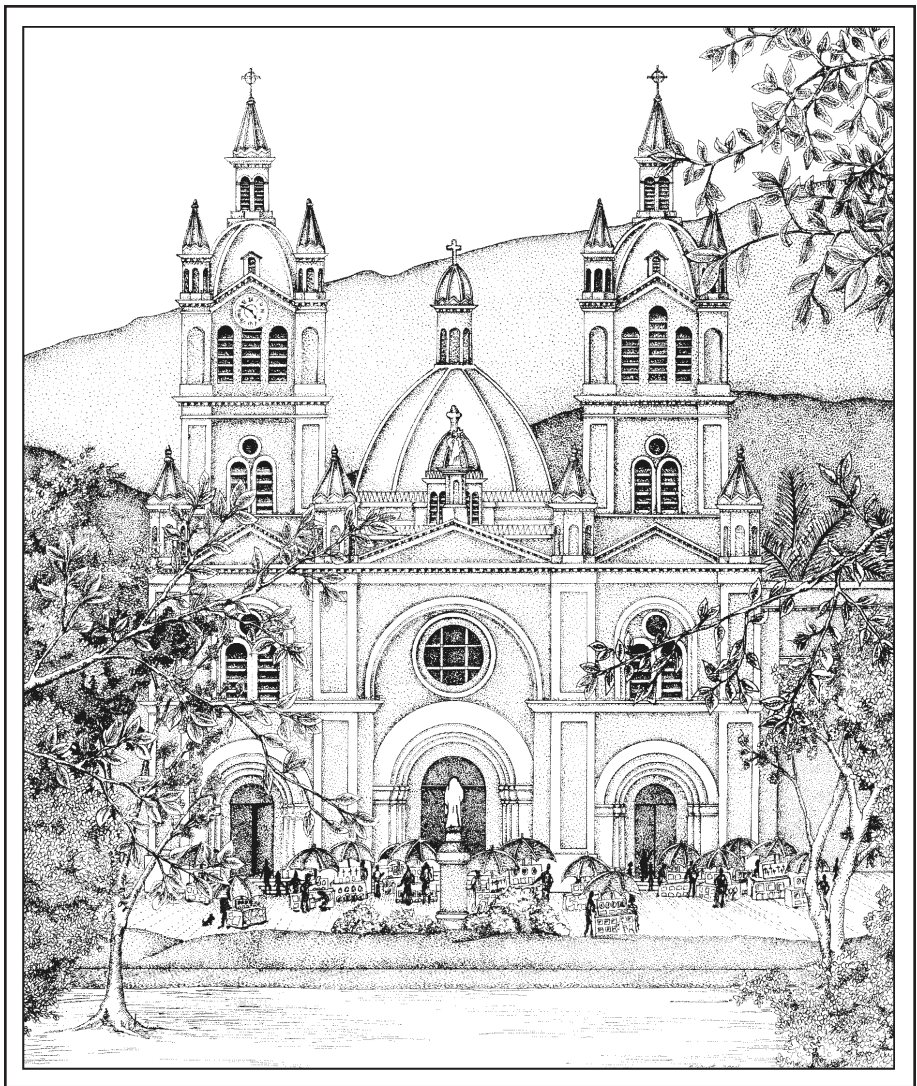


Figure 4. The shrine of El Señor de los Milagros, Buga, Colombia.

ally powerful ones, while retaining Caucasian features, have a dark color. In the Spanish vernacular, worshippers may refer to these figures as "*Cristos Negros*," literally, "Black Christs." In doing so, the speakers refer to the color of the shrine figure, and *not* to its "racial" composition. These are not African or African-American Christs but are Caucasian-style Christs colored dark. Figure 6 presents the faces of two dark Christs. The one to the left is from a collection by Frederick Buechner et al. (1989), *The faces of Jesus*, which features artistic renderings of various "ethnic Christs." On the right is a Black Christ from the church at Gualala, Honduras. In conventional (not scientif-

ic, but *conventional!*) physiognomy, the one on the left has “Negroid” lips and nose, while the Black Christ has “Caucasian” features.⁵

The vast majority of the dark Christs are images of Christ Crucified. Indeed, perhaps the only exceptions in Spanish America familiar



Figure 5. *Opulence and Blood in Buga*. A bright gold filigree frames the arms of the cross, while fresh flowers bracket the bleeding, nail pierced legs.

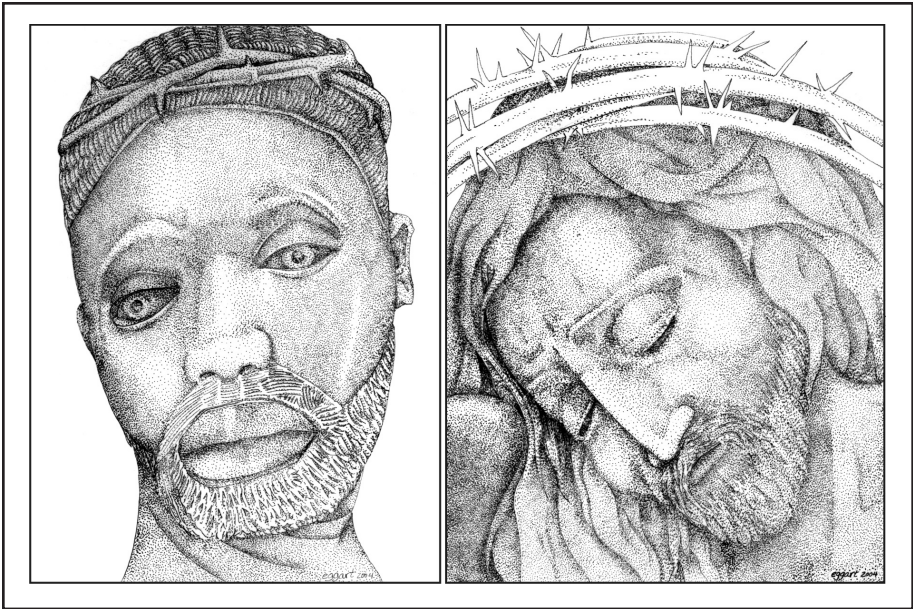


Figure 6. The contrast between the face of an African Christ and a dark Christ.

to me are the important shrine figure in Portobalo, Panama, who is depicted as Christ carrying his cross, or in vernacular Spanish, "*Jesús el nazareno*," "Jesus the Nazarene" and, possibly, a figure in the small town of Ríofrío, near Cali, Colombia. According to accounts I heard in 1992, the Ríofrío figure was "*Ecce Homo*," or "Behold the Man," which is usually a particularly bloody, beaten Christ.⁶ The majority of the dark Christs have stories that date their occurrence almost at the beginning of the Spanish conquest. Historical documentation, however, generally first appears a century later. The majority of the dark images are located in the those regions where the Spanish concentrated their conquest, in Mexico, Guatemala, and Honduras in Mesoamerica and Bolivia, Peru, Colombia in South America (Figure 7).⁷

Major shrines have the capacity to reproduce themselves. Ordinarily, this occurs when a priest or a pilgrim journeys to the major shrine to secure a copy of the shrine figure. Upon his return, the pious traveler installs the figure in a local church or a chapel, and subsequently the image not uncommonly gains power in its own right. Curiously, the copy frequently bears a darker shade than the original. This suggests that the dark color itself conveys a special quality.

William V. Davidson's long-term research in Honduras discloses an extraordinary case. At last count, the country has over 60 "Black Christs," or, as Hondurans call them, "*Cristos Negros* (Figure 8), an extraordinary number, especially given the relatively small size of the country. According to local accounts often told by the mayordomo of the church in question, the majority derives from the famous

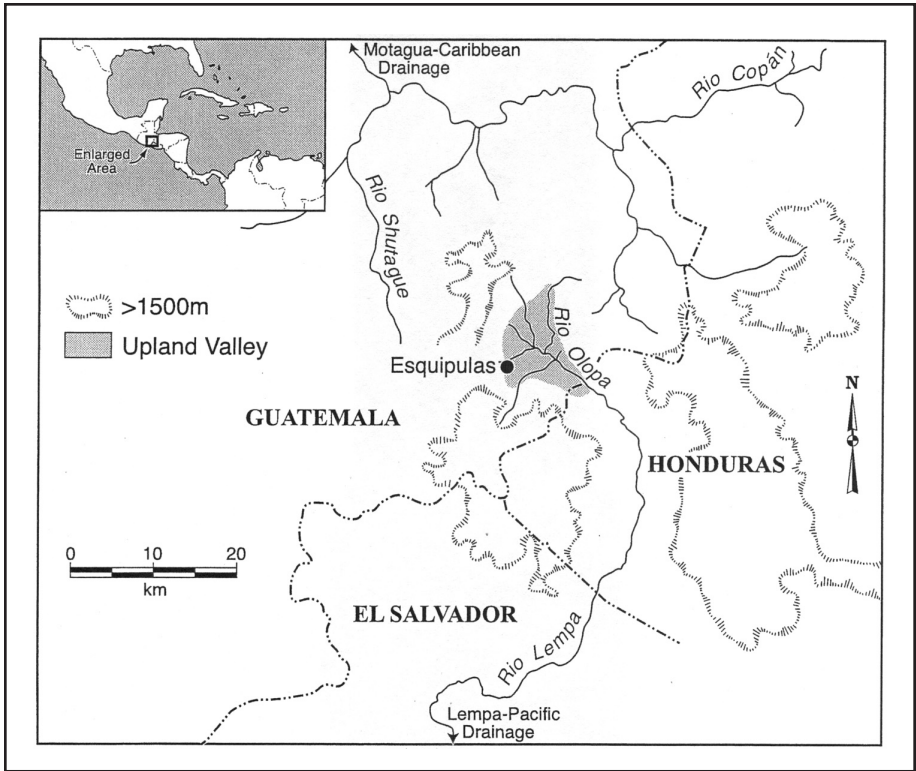


Figure 7. A distribution of some dark Christs in Spanish America.

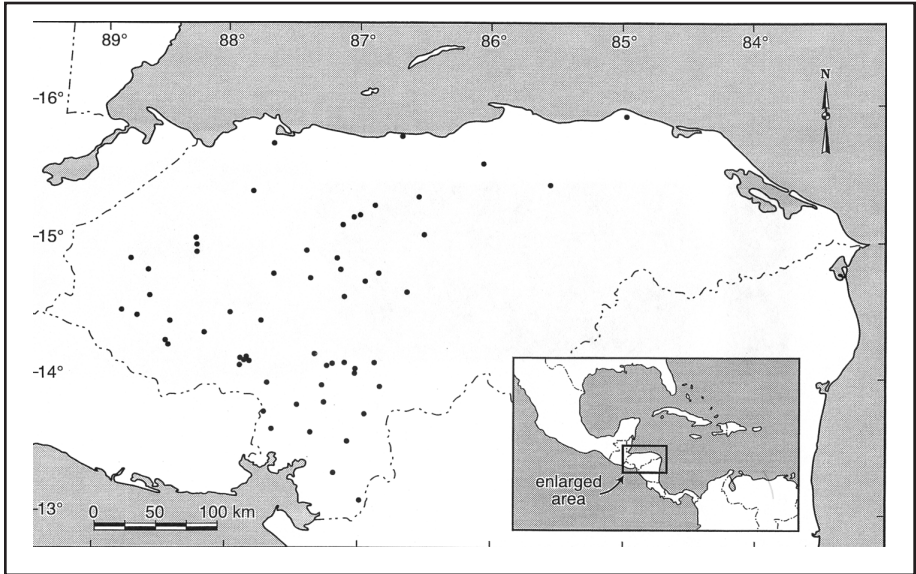


Figure 8. Distribution of "Black Christs" in Honduras (courtesy of William V. Davidson).

“Black Christ” shrine in Esquipulas, Guatemala (Figure 9). A number of figures, physically small, even tiny, occupy niches in churches dedicated to some other religious personage, a saint or the Virgin. Several, however, are important pilgrimage sites, in their own right.

A few have established an ancestry independent of, and perhaps in opposition to, the Guatemala shrine. In Cerdos, a town due north of the capital, Tegucigalpa, the lavish parish church includes among its array of Sacred Hearts and Nazarenes a *Señor de Buen Fin*, The Lord of Good Purpose, which is a dark Christ Crucified. The elegant *señora* in attendance explained that Philip II had sent the dark Christ as a gift to the people of Cerdos. Philip II (1527-1598) ruled Spain during its Golden Age and was famous for his piety. His gift, the Lord of Good Purpose, arrived in 1572. One or two other dark Christ also are said to be gifts of Philip II. Several dark Christs have local and miraculous origins. A good example is the Black Christ of the community of Morocelí, a few kilometers west of Tegucigalpa. Above the altar hangs a Crucified Christ colored white, but enclosed in a small cabinet to the side is a Black Christ. The mayordomo, a woman, spelled out in a non-nonsense manner that they bought the white Christ, while the black one appeared in a nearby stream. Consequently, he is known also as *el Señor de las Aguas*. As evidenced by the fact that the stream of his origin never runs dry, he is *milagroso*, miraculous, assisting those who pray to him in a number of ways, but the white Christ is not *milagroso*.

South of Tegucigalpa, in the town of San Lucas, is a small, dark Christ in a tiny church of bare walls and worn stone floor. The priest, when we visited him at the much more substantial structure of the parish church, announced that the color of Christ is black because it was either painted that way or was carved out of dark wood. In a swooping verbal gesture he proposed that all the Black Christs in Honduras were imitations of the one in Esquipulas, Guatemala and were brought to Honduras by pilgrims returning home. He then concluded, “In Esquipulas the dark color permits the Indians to identify their sufferings with that of Christ.”

The priest’s attributing the dark color of these Christs to the presence of Native American worshipers echoes the response of many. It appears casual conversation among both Latinos and Anglos, and colleagues in anthropology and geography often concur. Some explain that the Spanish priests during the European conquest of the New World intentionally made the Christ dark as a strategy in converting New World people. The Native Americans, being dark themselves, could closely identify with the figure and thereby convert to Christianity more readily, especially if the dark color matched their indigenous symbol repertoire. Others, in an “idols behind altars” argument, suggest the indigenous people hoodwinked the priests who thought they had actually converted the Indians to Christianity when in fact the indigenous people continued to pray to and to worship their own gods gleefully residing behind the Christian facade.⁸

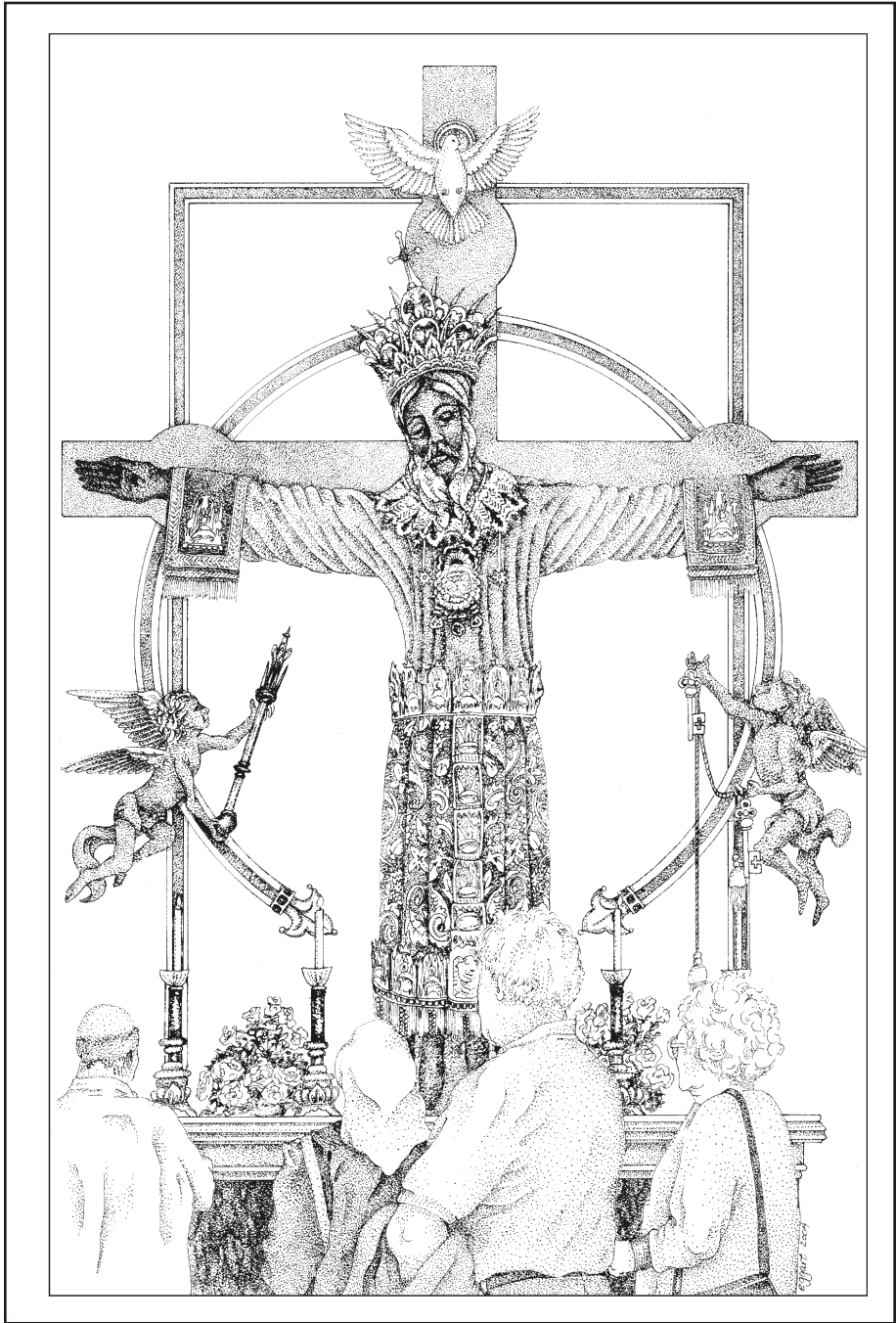


Figure 9. The strategic location of Our Lord of Esquipulas in Central America.

Conversely, claims appear periodically that a particular image is *not* dark. Rather, as in the case of the Lord of Esquipulas, the darkness comes from smoke emitted from the vast array of candles burning through the centuries.

And as if the issue was not sufficiently complex, not all "Black Christs" are dark. In the church facing the grassy plaza in the small town of Jano, Honduras, in the northwest corner of the Olancho Department, stands an image of a Christ Crucified in a glass case above altar. In 1991, in front of the image the mayordomo, a woman, announced to *don* Guillermo and myself, "*Aquí está el Cristo Negro de Jano.*" Both of us did a double take. "But, *señora,*" *don* Guillermo protested, politely of course, "*Parece blanco el Señor.*" "No," she shook her finger at him. "*No, señor. No es blanco, es negro.*" And she went on to explain that a man bent on blasphemy snuck into the church one day and painted the Señor white. But as he swaggered out, congratulating himself on his outrageous act, he was struck dead.⁹

Similarly, in the Afro-Venezuelan community of Curiepe, near Caracas, San Juan el Bautista (St. John the Baptist) has become the patron saint of Afro-Venezuelans and carries the name of San Juan Congo. To the field-working anthropologist, the actual image carried distinctly Caucasian features and was far from being dark. The anthropologist's local friends, however, insisted that it was black racially like they were (Guss 1993).

Another series of accounts that purport to explain the dark color in dark Christ derives from the tenets of Liberation Theology. Called radical or even Marxist, Liberation Theology amplifies the Vatican II definition of the church as the people of God into an expression of solidarity with the poor. The poor are not to be pitied. On the contrary they possess a faith that God has revealed only to them (Berryman 1987). Consequently their religious practices spring from that faith. The presence of dark Christs in their practices symbolizes their protests against the white European conquest, in all of its bloody greed. The dark Christs (and even more so, as we will see later, the brown Virgins) reflect not so much a continuing indigenous core but rather they voice directly the poor's special fellowship with God. Christ dwells with them.¹⁰

Liberationists, however, do not always find popular religion to their liking. When that happens, they cannot resist the impulse to criticize. For example, David Batstone, a prominent *liberacionista*, says that throughout Latin America people commonly venerate two Christs, neither of which he approves. One is a suffering Christ Crucified, "who has been thoroughly defeated and humiliated" (1991:17), and consequently teaches the poor to accept their condition as one of impotence and powerlessness. The other Christ is Christ the celestial monarch, which, of course, is the Christ of those who control the poor through their power, the elite.

Strangely akin to the liberation voices are those who hint that dark Christs indicate that Spanish American masses are less than pure Catholics. They readily accept the continuing presence of a strong indigenous core in popular religion but this core bends popular faith away from true

Catholic Christianity. Such a critique of Spanish American Catholicism dates back at least to John Mackay's (1932) well-known *The Other Spanish Christ*. Mackay suggested, tongue in cheek, that Christ on his way from Calvary to Spain was imprisoned and that another Christ, the Christ of Tangiers, of Africa, took his place. On arriving in the New World with the conquistadors, on the last of holy crusades, this other Spanish Christ became still another, the Creole Christ. This Creole Christ has only two dramatic roles, either as a babe in his mother's arms or as suffering victim. The Creole Christ is "a Christ who was born and died, but who never lived" (Mackay 1932:110). Mackay's dismissal of the "Creole Christ" as being less than Christian continues in contemporary assessment. For example, the well-known scholar, Frederick Pike (1992), writes that the Christ of Latin America has even assumed some of the attributes of New World fertility goddesses, consequently has become a "resigned, suffering, dependent goddess-androgynous Christ (1992:434)" scarcely the role model that an orthodox, Euro-American Catholic would choose. David Clawson (2000), a geographer, in his otherwise fine book, dismisses popular religion as being only "nominally Catholic."

Europe

"Miraculous dark Christ images are probably not an American innovation" (Nolan 1991:32). This statement comes from Mary Lee Nolan, one of the foremost authorities in the social sciences on Christian pilgrimages. She points to *il Volto Santo*, a dark crucified Christ in Lucca, a historic town northwestern Italy, that people may have venerated at least since 1000 A.D. (Figure 10).

As often is the case, the founding story of the Italian image goes back much earlier than any secure historical date. Indeed, in this case, the story begins shortly after Jesus' death, when Nicodemus, he who had earlier come before the Master secretly in the dark of the night and had asked how might a man be reborn (John 3:4) but who now appears at the crucifixion to assist in burying the body (John 19:39). Shortly afterwards, he receives instruction from an angel to carve an image of the Crucified Christ. Nicodemus takes up the task, but when he finishes all but the head, he doubts that he is worthy of the task. While he rests, the Savior himself, descends and assisted by angels carves the head and face—hence the name *Volto Santo*, or Holy Face. Nicodemus awakes in astonishment and delighted with the image, he places it in a nearby cave to keep it secure. After his death, the cross remains in the cave, until a bishop in the middle of the 8th century receives instructions from an angel to retrieve the image. Following the angel's directions, he launches the image on a boat shaped in the form of a tabernacle. Different sailors from different city states in Italy attempt to board the craft, but in vain. Another bishop, the Blessed Giovanni of Lucca, also hears from Heaven. Under the direction of the angel messenger, he successfully transfers the image from its craft to an ox wagon and in a grand

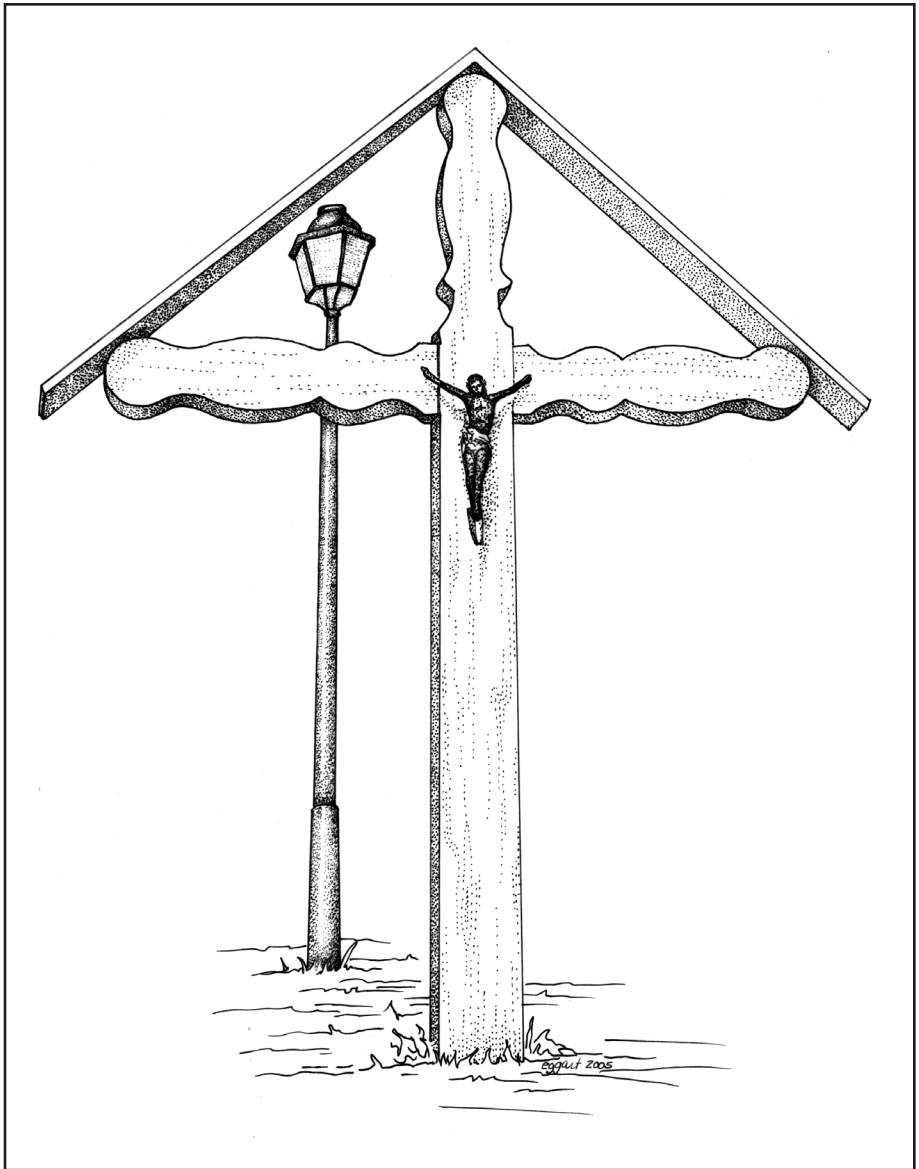


Figure 10. The dark Christ of Lucca, Italy.

procession brings *il Volto Santo* into Lucca. There the image remains a focal point of pilgrimages throughout the centuries until this day.

Two early 20th-century travelers wrote, "The head is like no other in art. It is oriental in type, but whether more Jewish than Arab, one is unable to decide. There is both majesty and divinity in the face carved, it is said, in cedar wood and darkened by time to a rich duskiness" (Ross and Erichsen 1912:158). Figure 10, adapt-

ed from a photograph courtesy of a recent visitor, conveys something of the uniqueness of the statue and the manner in which its darkness contrasts with the whiteness of the visiting pilgrims.¹¹

Other than the Lucca Christ, the number of dark Christ figures in Europe are few. In fact, Mary Lee Nolan and her co-author, Sidney Nolan (1989) mentioned only one more, a figure in the Netherlands that may well have derived from the Lucca crucifix. In Poland, however, the national cathedral in Krakow reportedly has among its many tombs, mausoleums and sarcophagi a 13-foot black Christ. The crucifix stands in a chapel dedicated to Queen Saint Jadwiga. Queen Jadwiga brought the crucifix with her from Hungary on the occasion of her wedding to the Polish king. Positioning herself beneath the agonizing figure, she prayed everyday. Long after her death, and in fact, centuries later, the Church establishment in Rome suddenly (almost miraculously a cynic might say) became aware of Queen Jadwiga's holiness. In 1987, the Church beatified her, and only 10 years later Pope John Paul II elevated her to sainthood.¹²

Although few in number,¹³ the signification of dark Christs in Europe points straight forward and without hesitation. Since the veneration of a dark Christ Crucified occurs among people without any claim to Native American ancestry, and furthermore, since it occurred prior to the European expansion into the New World, the thesis that the dark in the dark Christs in Spanish America derive in a positive or negative manner from the "dark" color of Native Americans speaks more about contemporary ideology and social structure than about prehistoric causation. So when a speaker talks of dark Christs in Spanish America as being, in one fashion or another, a result of cultural retention, an expression of Native American symbolism, or an articulation of liberationist's ideology, what is the speaker doing and saying? What indeed? From the perspective of Foucault's genealogical critique, is not the speaker misrepresenting the past as a monolithic, metaphysical force? A consideration of the second-ranked figure in Catholic Christianity will allow us to address those questions more fully and with clarity.

Brown Virgins

As central as the icon of the crucified Christ is to Roman Catholic churches and to its liturgy, icons of the Virgin Mary occupy a nearly equal place. As in the case of Christ, the most common icons are those that express Mary's sorrow over the death of her son. As in well-known scene in the Notre Dame Cathedral in Paris, she, the Pietá, sorrows over her dead son's body displayed as recently taken down from the cross and laid, all but naked, out across her lap. In contrast, in a more positive mode, the Virgin holds the baby Jesus in her arms. Even in this pose, some say her eyes reveal the sad future.

Mary, of course, gave birth to Jesus as a virgin. She herself, as the Feast of the Immaculate Conception on December 8 celebrates, was conceived free of original sin. The common, if somewhat paradoxical, iconic representation of the doctrine derives from Revelation 12:1-2: "And a great

portent appeared in heaven, a woman clothed with the sun, with the moon under her feet, and on her head a crown of twelve stars; she was with child and she cried out in her pangs of birth, in anguish for delivery."

Spanish America

Throughout Spanish America the dominant presence of the Virgin is as a white, if not pale, figure. Drawing perhaps on her appearance at Lourdes, France, today she frequently stands thin in a white gown with a blue shawl over her head. The most famous Virgin in Mexico, however, is brown. The Virgin of Guadalupe, called affectionally, "La Morenita," the Little Brown One, greets her admiring faithful from her shrine in the suburbs of Mexico City. The year 1973 found me there in a huge plaza in front of an ornate structure of cupolas and towers with two tiers of saints in their niches flanking the cavernous doors slowly subsiding into the dried lakebed of Lake Texcoco. In 1989, an enormous structure that more closely resembled a dome stadium than the ornate structure of previous years towered over me (Figure 11). At both times swirls of faithful flowed in and out the structures, some listening to one of the continuous series of masses celebrated throughout the day but many much more occupied with getting a close view of the "La Morenita" than in hearing ordinary priests. In popular Catholicism face-to-face, dyadic ties to the Virgin, with promises made and favors granted, weaves a spirituality that priestly homilies can scarcely match.

The appearance of the Virgin of Guadalupe to the Indian, Juan Diego, is a story well known both to scholars and the laity alike (Figure 12). In 1531, the story begins, on the hill of Tepeyac, she made herself known in a vision to Juan Diego with instructions that Juan Diego inform the Catholic authorities that she desired a structure here for her veneration. At first, the Catholic establishment was not sympathetic to

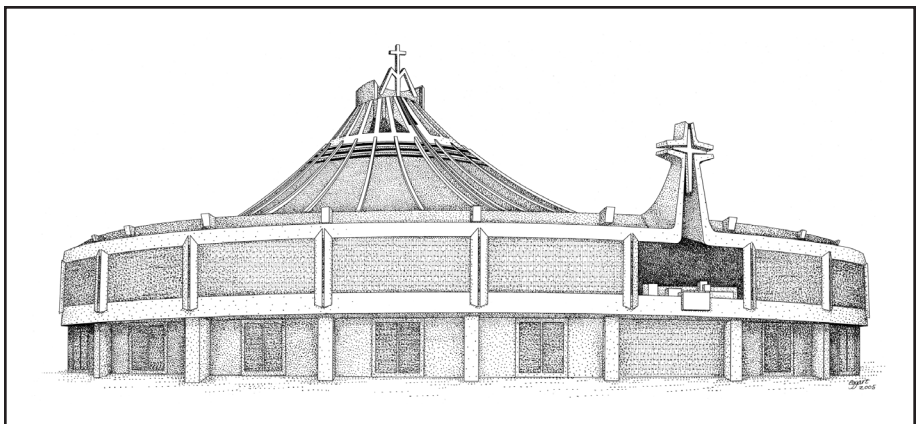


Figure 11. The basilica of Virgin of Guadalupe, Mexico.



Figure 12. The appearance of “La Morenita” to Juan Diego.

the humble Indian's announcement. In addition to the opposition of the clergy, Juan Diego found his uncle seriously ill. When he told the Virgin of his uncle's illness she advised him to have no concern, and then she directed him to collect the roses growing on the hillside in his poncho and upon his return to the Cathedral in Mexico City, to spread his poncho before the bishops. When he did so, the princes of the Church marveled at the display because imprinted on the cloth was the image of the Virgin as the Immaculate surrounded with roses. With the clergy convinced, Juan Diego hurried to check on his dying uncle. But just as the Virgin had reassured him, he found his uncle in perfect health.

Although recently, several scholars, including among them Louise Burkhart, anthropologist (1993) and Stafford Poole, historian and theologian (1995), have argued exhaustively that beginnings of the veneration of the Virgin of Guadalupe had little to do with indigenous culture, the conventional ideology within the academy and without stresses ever and over her emergence as a Christianized version of Native American culture. More so than any dark Christ, the brown Virgin shows the continuing vitality of Native American spirituality in face of European conquest and destruction. You will forgive me, I hope, if I do not enter into the details of the alleged syncretism between the Virgin and native culture. (For a review of the critical literature, please see Richardson 2003.) Instead, following the strategy used to question the indigenous argument for the New World dark Christ, let us look at Europe.

Europe

While Spanish America has more dark Christs than Europe, in Europe the situation is reversed. Of the currently venerated 172 darkened shrine figures Nolan and Nolan identified in Europe, 167 are brown images of the Virgin (Figure 13). Of these, the overwhelming majority portrays the Virgin and Child. One personally visited example is the Virgin of Montserrat (Figure 14). Warm and serene, this Lady gazes out over her admirers seated below in the church pews and offers a smile to those who climb the stairs behind the altar to position themselves immediately below her. Her cubby Son, secure in her embrace, appears ready to burst into smiles. People reach up to touch her, but the protective caretakers have enclosed her in clear glass, so the pilgrims must content themselves with touching the glass.

Closer to the heart of the stance of this text is Virgin of Guadalupe (Figure 15), some 350 kilometers west of Madrid. The shrine-church dominates the skyline of the small town of Guadalupe near the river of the same name. The surrounding foothills of the Sierra de Guadalupe are covered with the gray-green of knurled olive trees, some which were planted in 1,000 A.D. Pilgrims have journeyed to Guadalupe almost as long. They passed through towns whose names are so familiar to Latin Americanists, such as Trujillo and Mérida, that mark the entire region of Extremadura the birthplace of the *conquistadores* of the New World. Approaching Guadalupe, the pilgrims

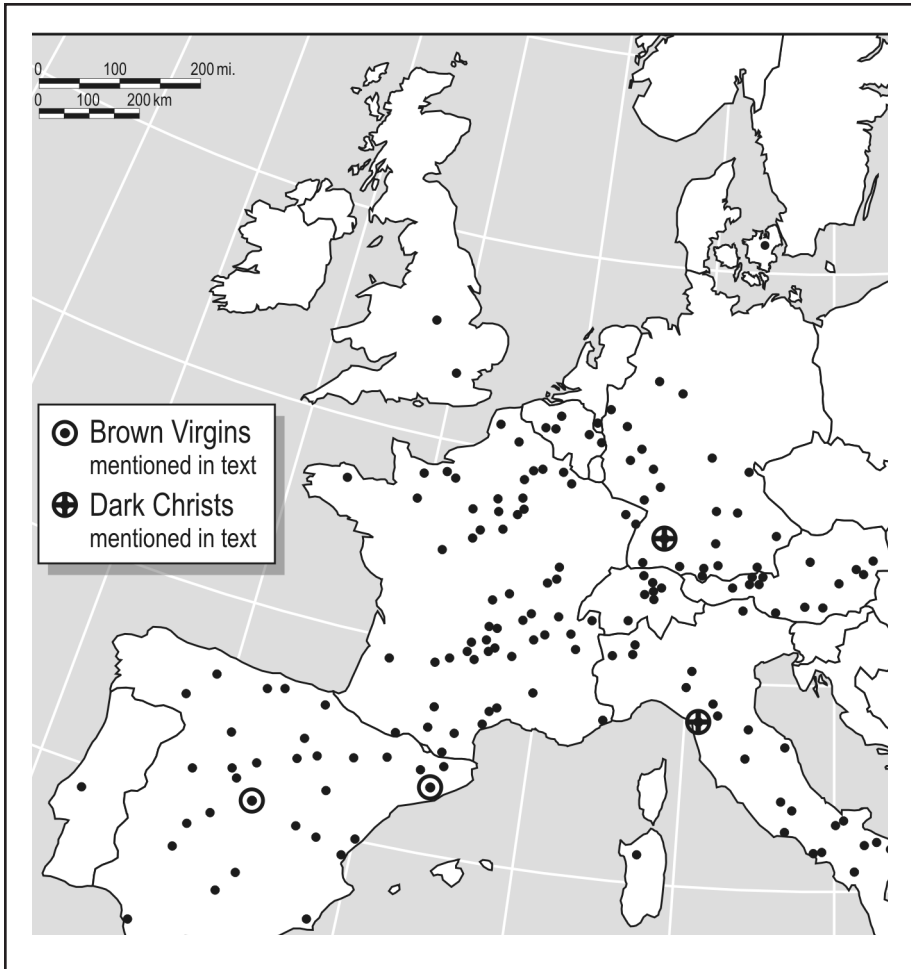


Figure 13. A distribution of darkened shrine figures in Europe. Adding the dark Christ Crucified on Queen Saint Wediga and the dark Christ Crucified of Lötschental to the list in Nolan and Nolan (89:204) gives a total of 178 figures. Three are dark Christs and three are saints; the remaining 172 depict the Virgin. The circled crosses and dots are images mentioned in this chapter.

may have stopped at a haven built in the 15th century to recover before the last few kilometers to the shrine. Here, tradition has it that Miguel de Cervantes, he who wrote *Don Quixote*, left the shackles that fastened him to a Moorish boat during his captivity from 1575-1580.

In town, it seems that each corner of the small one-lane cobbled streets that circle down toward the church celebrates the occasion with a plaque commemorating a late-medieval event. Houseplants from windows of opposing brown houses threaten to build a green bridge over the street below. One of the smaller streets carries the name of Gil Cordero, Giles

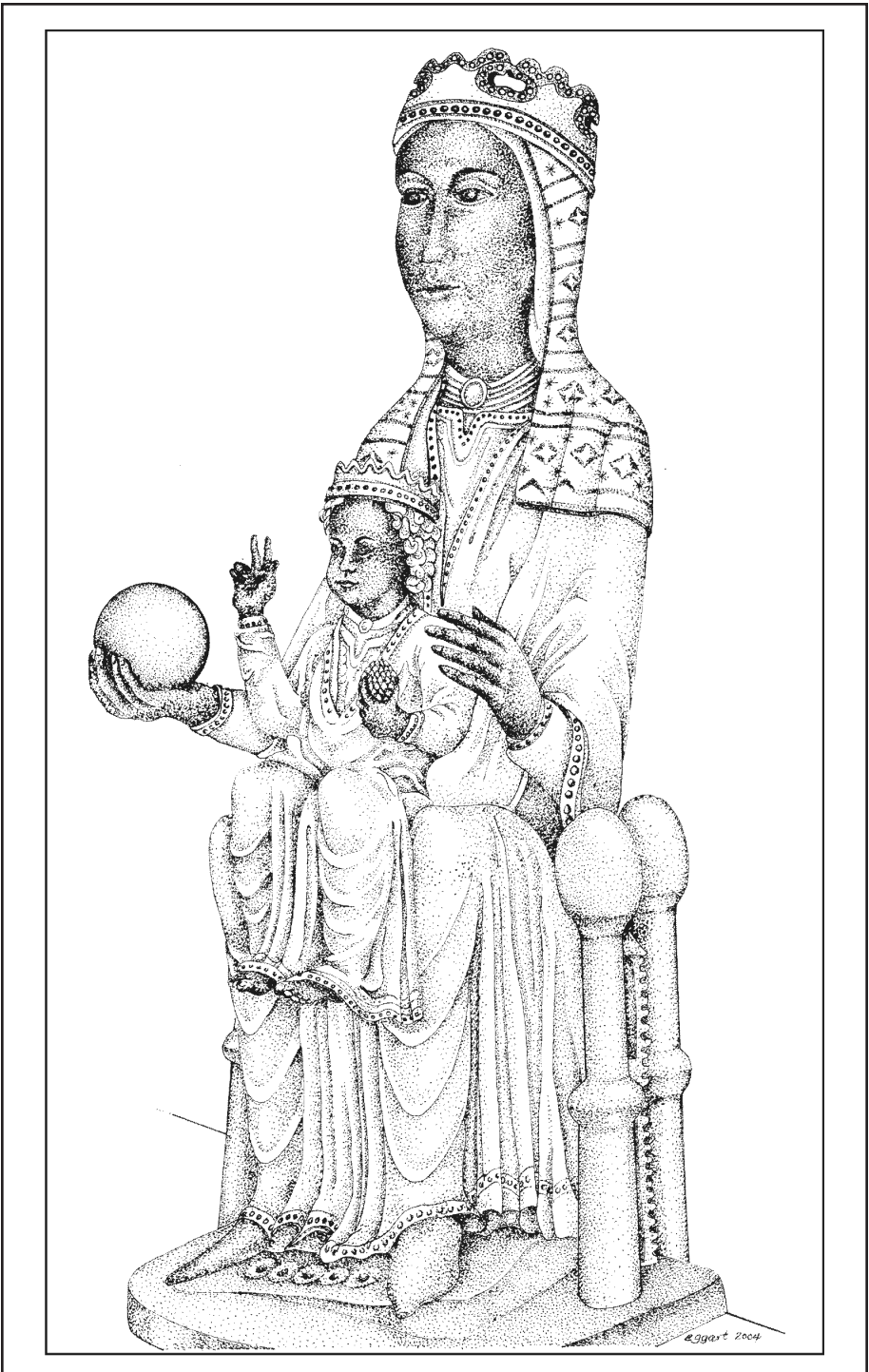


Figure 14. The brown Virgin of Montserrat.



Figure 15. The brown Virgin of Guadalupe, Spain.

the Shepherd, the name of the young man to whom the Virgin appeared around the middle of the 14th century, during the reign of Alfonso XI.

The complete story of the Virgin of Guadalupe starts much earlier. Indeed, St. Luke, one of the original 12 disciples and the credited author of the third Gospel is said to have carved the image. As occurred with *Il Volte Santo* upon the death of its New Testament carver, after St. Luke's passing, the image in one fashion or another moved to Rome and then to Seville in Spain. In 714, Christian clergy fleeing the onslaught of the Moors carried the image with them. Reaching the Guadalupe River, and with the Moors in hot pursuit, they buried the Virgin along its banks.

There the Virgin rested for centuries until one day in the 14th century, Gil Cordero approached the river looking for a lost cow. He found the cow dead, and in his herder waste-not, want-not wisdom, thought to save the hide. But as he made the preparatory cut on the animal's chest, the cow suddenly sprang to life. At that instant the Virgin appeared before him and said, "Go to the priests in town and tell them to come and dig here. When their shovels reach a certain depth, they will find an image of me. Tell them further that they are to build a small house to shelter the image and then later a structure worthy of my holy presence" (Figure 16).



Figure 16. *The appearance of the Virgin to Gil Cordero.*

On his way to comply with the Virgin's wishes, Gil Cordero stopped at his house to find his wife wailing over the sudden death of a son. He entrusted his grief to the Virgin, and the boy immediately came to life. He hurried to the parish church, and upon hearing his story, the astonished priests agreed to return to the river

and sure enough at the exact spot where the cow lay dead, they unearth the image. (Translated and paraphrased from Garcia 1990).

The current shrine, which enjoys the rank of basilica,¹⁴ emerged as a sequence of structures built beginning in the 14th century and continuing through the 15th century with additions and modification as late as the 1700s. Today the reddish stone edifice brings together Moorish, or *Mudéjar*, towers and Gothic archways (Figure 17).

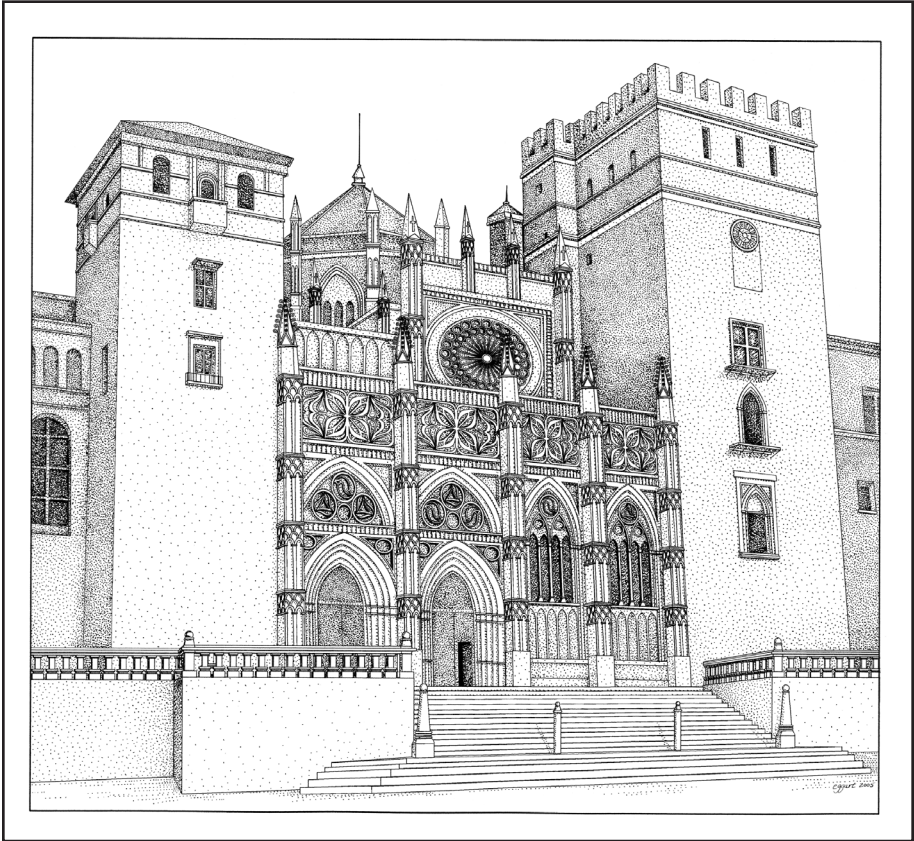


Figure 17. The basilica of Virgin of Guadalupe, Spain.

According to some, the tiny image inside, which measures scarcely knee high, follows a style popular as early as the 11th century. The same sources argue that such brown, if not black, Virgins materialized throughout Europe in the 12th century (García 1990).

At the time of my brief stay in the fall of 2001, the Virgin's caretakers had removed her for renovations to her ornate niche above the altar. I was outside the basilica on the steps taking photographs when a group of 200 or so teenagers came charging up the hill to the pla-

za in front of the basilica. They were from a diocese 75 kilometers or more up the highway and had been on the road for two days. Among calls and shouts of *viva!*, they rushed through the ancient Gothic portals. Once inside and within an amazingly short time, their clamoring ceased, and while the young priests who had accompanied them got into their priestly attire, a boy with a guitar and a girl led the group in several vigorous songs. During the mass that followed several girls wept quietly, but in the homily their companions obediently grinned at the dry asides of the officiating priest. The mass finished, the group and I among them were efficiently moved through a doorway off to the side of the altar, through a courtyard, and then up a flight of stairs to a spot where the Virgin was temporarily housed. There, another priest, a much older man, held a medallion of the Virgin in his hand. He presented it to each person for a kiss. After each kiss he wiped the medallion in preparation for the next person. Each kiss and the wipe, including my own, were accomplished in a matter of seconds.

In Europe, explanations of the dark color in the brown Virgins roughly parallel those similarly offered in the Americas. Rather than attribute the dark color to candle smoke, however, as in the case of the Virgin of Guadalupe, some say the stain comes from the soil in which the Virgins were buried to keep them safe from the advancing Moors in their conquest of much of Spain. When the Christians retook the country, the Virgins were either accidentally dug up or miraculously appeared. Others say the Moorish influence through conversion to Christianity or through intermarriage with European Christians resulted in a darkened population in the Iberian Peninsula; consequently, as in the case with the Americas, dark people preferred dark Virgins.

The most intriguing parallel with the Americas, however, is the continuing pre-Christian presence in otherwise Christian Europe. As with the Americas, any apparent deviation from the established Christian practices comes, as the explanation would have it, from the pagan, pre-Christian past. The most elaborate is put forth by Marija Gimbutas. In a series of volumes from 1974 to 1991, she argues for the existence of a pre-Indo-European, Mother Goddess of Old Europe. Old Europe she defines archaeologically as Eastern Mediterranean lands bordering the Aegean and Adriatic Seas, which includes portions of the Anatolian Peninsula, Greece, and southern Italy, and extends northward to the Czech Republic, Slovenia, and on to southern Poland.

The Goddess of this region differs from the Earth Mother goddess of the Indo-Europeans in her divine bisexuality. "As a supreme Creator who creates from her own substance she is the primary goddess of the Old European pantheon. In this she contrasts with the Indo-European Earth-Mother, who is the impalpable sacred earth-spirit and is not in herself a creative principle; only through the interaction of the male sky-god does she become pregnant" (1974:196). Although she later concludes that the "Christian Virgin Mary is a demoted version" of the parthenogenetic Old

Europe Goddess, she accepts that dark Virgins call forth the fertility principle so embedded in the Mother Goddess' composure (1991:223, 230).

Discursive Practice

This review of dark and brown icons of the central Christian figures in Roman Catholicism in both the New World and Europe, however hurried and incomplete, clearly challenges the prevailing argument that the dark Christs and brown Virgins in Spanish America speak of the continuing presence, in either a positive or a negative mode, of an indigenous past. The review also wonders about the validity of the material argument that the accumulation of candle smoke over the centuries has coated the icons with ash, thereby turning them dark and brown. Likewise, it grows skeptical of the Old World explanation that centuries' long burial in the ground in attempted safe keeping from the Moors stained icons dark. The issue is not the plausible nature of the arguments, but rather the very plausibility itself. The taken-for-granted, the "well, of course," the "why not" feature suggests it belongs to what earlier we noted as Foucault's concept of "discursive practice."¹⁵

"Discursive practice" is first and foremost talk, but talk that despite its own claims to the contrary has no external referent. Rather it creates its own referent, its own object. The talk of "dark Christs" and "brown Virgins" does not refer to individuals independent of its statements. As pointed out earlier in the discussion of "free-floating" signifiers, the talk of a discursive practice is unhinged from any objects independent of its flow. In fact, it creates its own object and insists on its presence. A discursive practice is to a large degree autonomous, Foucault insists, but its autonomy may derive in part, at least, from its power to resist alternative discourses. The resistance in turn derives in large measure from the constituting of implicit assumptions and just-beneath-the-surface feeling into conventional knowledge

But whose talk is it? Who are the speakers? We. You and I. In our speaking to one another we constitute the objects of our speaking. We also constitute ourselves. We bring ourselves in the field of our talking.

But you who are ever alert to the slightest confabulation immediately insist that rarely if ever do postmodernists in general and Foucault in particular let a we into this type of autonomous discourse.¹⁶ They particularly prohibit the entrance of such raucous speakers as you, I, and *don* Guillermo. To allow people speaking destroys the autonomy they claim a discursive field possesses. At the same time, they agree with Thomas Kuhn and his well-known concept of a paradigm that what a "paradigm governs, in the first instance, is not a subject matter but a group of practitioners" (1970:180). The power of a discursive field to persuade us to its validity comes first from its ability to join us through talk.

But you, frustrated and angry, ask when people talk to each other about dark Christs and brown Virgins what they saying?

Fair enough. Here what they are saying. Better yet, here is what they are doing: When speaking of candle and dirt as the cause to the

darkness or the brownness, they privilege the ordinary and the plausible over the extraordinary and the special. When they talk of pre-European, indigenous substrate in the New World or of the pre-Christian, pagan substrate in the Old World, they are privileging the past over the present and metaphysical history over liturgical immanence. They suggest, alternately, the past deepens the Christian present or corrupts it.

The parallels between the Gil Cordero story and the Juan Diego one reveal most clearly the operation of the discursive practice.

In both cases, the Virgin chooses to appear to a low status person—a shepherd in Spain, an Indian in Mexico. Similarly, the Virgin makes herself known away from the established centers of authority and sanctity, in the empty woods in Spain and on an isolated hill in Mexico. She instructs both to go back to the center with the message to turn this space into a shrine dedicated to her. As part of her activities, she brings a dead son to life in Spain and restores an uncle to health in Mexico. The messenger is ultimately successful in convincing the learned clergy of the authenticity of his messenger. And the rest, as the speakers of this discursive field insist, is “history.”

One tantalizing difference is in the subsequent life of the messenger. In Spain, Gil Cordero got a street named after him, but in Mexico, Juan Diego has recently become, with the Vatican’s warm blessing, a saint—a papal enthusiasm that brings to mind the canonization of Queen Jadwega.

All right. I can almost hear your impatience. If the message of the dark in the Christs and the brown in the Virgins is not what many say it is, what is it? Look at them (Figures 10 and 14). What are *they* saying to us, he on the cross, and she with the babe in her arms? If it is not the past they are disclosing with their presence, what are they announcing? Another discursive practice? Yes, but this one centers on human existence, or in other words, death and life.

Death and Life

As we talked earlier, the icons of Christ and the Virgin have no external referent. They are “free-floating signifiers.” Being “free floating,” however, does not mean floating randomly, meaning this now and that later, but they are under the control of discursive logic. As such they speak to each other. The dark in the Christs and the brown in the Virgins together contrast with the vast majority of icons of Christ and the Virgin which wear a lighter color, usually called white. Thus, the darker colors address the lighter colors and vice versa. To help consider what they communicate in the addressing, we refer to an analysis of the color semiotics in a Moroccan community. The author, Stefania Pandolfo, drawing upon postmodernist Jacques Derrida, offers this interplay between the colors of white and black. Black, she notes, is often associated with death, and consequently we may agree that “black is a deconstructed form of white, as corpses decomposed into the earth.” But then she urges us to reverse the reading. When we do, we find that the opposite is also true: “White is the drying out of a living body, the

death principle that haunts life. Black on the other hand is the possibility of a new cycle. The color black is the death by decomposition/fermentation that haunts the color white, while white is the death by desiccation/sterilization that haunts the color black. Both give way to their own forms of life, the one by polluting, the other by sterilizing. We could say with Derrida (1973) that in a cycle, white is but black deferred, and black is but white deferred, each is the other in '*différance*'" (1989:19).

In referring to Derrida, she is pointing to his display of the meaning of words, or more technically, signs, as arbitrary. Being arbitrary, a sign is always different from its referent. The signs "live oak" differ from those majestic *Quercus virginianus* that grace the campus of LSU. Likewise "live oak" has no interior core, no essential meaning, but in our reading of its meaning points to other signs which, of course, point to other signs. Consequently the meaning of "live oak" comes from other oaks, "white," "water," or "red" and from other trees, "sweet gum," "sycamore," or "pine." The meaning of the sign "live oak" is different from its referent, and its meaning is delayed until other signs appear. The two words "differ" and "delayed" become in Derrida's neologistic French "*différance*."

The concept of *différance* perfectly displays the postmodernist's horror, alluded to before, of certainly and fixity. Because signs arbitrarily differ from their referents and as the meaning of each sign is delayed until the appearance of other signs the discursive practice in which we communicate is one of, in Derrida's terms, "the endless play of signification." Absence is not a pure nothing but only presence deferred while presence is never guaranteed but simply absence deferred. Or as Foucault writes, "Before the imminence of death, language rushes forth, but it also starts again, tells of itself, discovers the story of the story and the possibility that this interpretation might never end" (1977:54).

The language in which we communicate orally, in script, or as icons speak endlessly of death and life. Writing, we often say, keeps a record; it guarantees existence, but writing strips away the nuances of speech and desiccates it. It dries away the life of speech. When I speak to you, we both agree I am alive. But when I write and become the author of text, I the Miles of flesh and blood, die. The author of the text, Miles Richardson, has replaced me. The moment you begin to read, however, then in your reading I live. The author, the assassin, is associated with death, with Christ on the cross. The reader, the giver of life, is associated with fertility, with Mary and the babe.

Summary

The dark in the dark icons of the crucified Christ and the brown in the brown Virgin conventionally are said to be the product of candle smoke or the stain of the earth. In addition they are said to indicate the presence, in a positive or negative mode, of a past. In the New World they speak of the continuing existence of an indigenous culture. In the Old World they speak of a pagan heritage that continues even to this today. In the

negative mode, the past corrupts orthodox Christianity; in the positive mode, the past resists orthodox hegemony. A more careful look in the light of the logic of postmodernism in general and Foucault in particular suggest the conventional reading is a mis-reading. Instead, the dark and the brown play out the endless theatrics of human death and life.

Notes

1. To cite but one example, but for some a surprising one given the field's alleged hard-nosed reputation, Christopher Tilley's edited volume *Interpretative Archaeology*.
2. At the same, Unamuno would also insist that he, being *don Miguel de Unamuno, hombre de carne y huesco*, would find no solace in being reduced to a totality. Such a fate would erase him as surely as nothingness would. What sustains us, as you and me, is our agony of be-ing. What *unite* us, you and me, is our discords (Unamuno 1974). But then, as in the case of many of us, Unamuno may have been postmodern before postmodernism.
3. However, Jesus as an infant, or as a small boy, appears frequently. At a shrine near Querétaro, in central Mexico, an image of the Virgin with a Christ child receives veneration as the Virgin of Pueblito, but apparently knowledgeable persons causally remarked to me in 1985 that at times the Christ child leaves his mother to walk about. In northern Mexico, in the town of Plateros, a well-known Christ child figure is El Niño de Atocha. Presiding over the altar is a boy-image dressed in the traditional pilgrim garb of hat, staff, and water jug. The image of Christ as a child who acts independently of his mother, is a particularly evocative combination of innocence and power (Lange 1978; Richardson 2003).
4. In this text, "Spanish America" is that part of Latin America where Spanish is the official language of the country. Thus, it gerrymanders around Portuguese-, French-, and English-speaking states. People from Spanish America, including students in my classes at LSU, however, may prefer the term "Latinos" (as opposed to Hispanics) to designate themselves apart from residents of the United States who commonly are called "Anglos."
5. Anthropologists generally agree that "race" has little to do with explaining human variation, but, unfortunately perhaps, much to do with identity. When a forensic anthropologist identifies an unknown skull as having Negroid characters, she or he is placing certain, conventionally agreed upon attributes within the folk classification of race. (See Buikstra 2000).
6. Intriguingly, the figure (but not dark) of Jesus staggering under the load of his cross, in the San Antonio de Padua church in downtown Madrid, Spain, carries the label, "*Jesús el Poder*," or in English, "Jesus the Power." In addition, in southern Spain, the same tormented icon receives the name of "*Nuestro Padre de Jesús del Gran Poder*" (Mitchel 1990). The implied message reads the more Christ suffered, the more power he has – which, perhaps, explains the eternal enthusiasm of a Boston Red Sox fan.
7. The Philippines have three figures that are black: The Black Nazarene of Quiapo, Manila, The Holy Child of Cebú, and the Virgin of Antipolo.
8. Curiously, we rarely hear directly from the indigenous people themselves. When we do, there is no mention that the dark color reflects their dark skin. Among the Chorti Maya in Guatemala, according to the text collected by Fought (1972), the Chorti name for the "Black Christ" of Esquipulas is *el Milagroso*.
9. *Don* Guillermo tells a different version of the incident, but in any telling the moral is clear, "Never ever paint a Black Christ white."

10. The señora who takes care of the small church of bare walls and worn floors and its small dark Christ met *don* Guillermo and myself at the tiny structure and spoke from there. She observed, "Some come here, light candles, pray, and then just leave; others stay a bit longer." As an articulate post-Vatican II speaker, she takes it upon herself to explain to those and others that the image is one of Jesús Cristo Crucificado and is only a representation. Yet, when we asked about the dark color, she thoughtfully replied, "The black color is the result of Cristo taking up our sins in some mysterious way." She, who was no more indigenous than the priest, spoke of Christ as "our Christ," while the priest from the parish office spoke of the same Christ as "their Christ."
11. A Google search on "*il volto santo dilucca*" produces more than 164,000 Internet results!
12. I am grateful to Reverend Carol Brody of Columbus, Ohio, for sending me information about Queen Jadwiga. See also www.krakow-info.com/krucyfix.htm.
13. Dr. Erik Prout, from his research travels in Switzerland, sent a photograph of a black Crucified Christ in Lötschental, Valais Canton, Switzerland. The densely dark icon, which measures less than a foot in length, is attached to a much larger cross, on a street corner. At the moment, neither he nor I have succeeded in collecting additional information about this Christ. Another, quite similar in style, stands near a roadside shrine in nearby Blatten.
14. "Basilica" designates firstly the seven main churches in Rome and secondly structures outside of Rome housing shrine figures of extraordinary power. In Spanish America, the structures housing the Virgin of Guadalupe and The Lord of Esquipulas are among those that have achieved the "basilica" rank.
15. Discursive field and discursive strategy apparently are synonyms for discursive practice. Foucault first fully developed the concept in *The Archaeology of Knowledge* (1972). My understanding—admittedly embryonic but growing!—draws also from Dreyfus and Rabinow (1983).
16. Foucault himself asks the question, "What Is the Author?" (1977), and Roland Barthes goes even further and declares "The Death of the Author" (1987). From the view of the text, "the author" refers not to a flesh and blood, bipedal primate, but the name whose existence emerges from the text. *As I Lay Dying*, for example, declares its author as William Faulkner, but not the postmaster in Oxford, Mississippi. Miguel de Unamuno, in his novel, *Niebla*, played with the same question, when he wrote himself into the novel, and in the novel, declared he was going to kill off the principal character. But, as mentioned earlier, perhaps Unamuno was an early postmodernist.

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