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# Material Expressions of Social Inequality on a Porfirian Sugar Hacienda in Yucatán, Mexico

### **ABSTRACT**

Power relations intrinsic to the institution of debt peonage clearly influenced material conditions on the haciendas of Yucatán prior to the Mexican Revolution. Recent investigations at a late-19th- and early-20th-century sugar hacienda explore the material basis for its relations of production. The evidence indicates that hacienda owners divided the indebted workforce and then provided a select group of laborers with privileged access to material resources. Vernacular architecture, settlement layout, and the distribution of imported ceramics all signify social inequality within the labor force. Material disparities on the estate suggest a negotiation of power through the exchange of rewards for the loyalties of a managerial class. Moreover, the inequalities may have accentuated a social order perceived by Yucatecan elites, while inhibiting indebted class solidarity.

The Mexican Revolution (1910–1917), in the words of Gilbert Joseph and Timothy Henderson (2002:333), "was the defining event in modern Mexican history." The long, turbulent war was born out of three and a half decades of autocratic rule by Porfirio Díaz, an era now known as the Porfiriato (1876–1911). When Díaz fled in exile, numerous factions, including those led by the legendary figures Emiliano Zapata and Pancho Villa, sought to mobilize the population and fill the political vacuum. They competed violently over the next decade for the opportunity to initiate political, economic, and social reforms.

The revolution, however, did not spread evenly across the countryside. While the upheaval raged in central and northern Mexico during the early 1910s, it was effectively stifled in Yucatán (Wells 1985:11). In that southeastern peninsular state, a small class of Creole-descent landowners exercised a monopoly of economic power and social control over the indigenous Maya population. The several hundred families who constituted this elite called themselves gente decente (decent people), but historians

have come to know them as an "oligarchy" or "plantocracy" (Joseph 1986:92; Wells and Joseph 1996; Quezada 2001:168). Their control of the state's agrarian system and political machinery strengthened considerably during the Porfiriato and kept any semblance of a revolution at bay until the end of 1914. Even then, no popular groundswell really emerged, and the revolution was simply imposed on Yucatán by a Constitutionalist army from central Mexico (Orosa 1980; Graniel and González 1981; Quezada 2001:184–194).

In accounting for the revolution's late arrival in Yucatán, Joseph (1986:80) has emphasized the oligarchy's ability to "erode the strong tradition of Maya protest and struggle" over the course of the Porfiriato. With the assistance of state legal structures, the landowning elite used the institution of debt peonage to restrict the mobility of the Maya peasantry, coerce their labor, and undermine their collective interests. Consequently, Yucatecan peasants were stripped of the "revolutionary potential" that manifested itself so forcefully among their counterparts in northern and central Mexico (Graniel and González 1981:154; Wells and Joseph 1996:143).

Recent archaeological investigations at Hacienda San Juan Bautista Tabi, a large prerevolutionary sugar estate in Yucatán, shed light on the strategies of social control implemented by local oligarchs to exploit rural Mayas. The evidence at Tabi suggests that resident laborers, organized hierarchically, had unequal access to material resources and social space on the hacienda. This can be seen in the placement and elaboration of vernacular architecture as well as through the spatial distribution of ceramics. These material asymmetries among debt peons seemingly reflect attempts by hacendados (hacienda owners) to exchange material rewards for the loyalties of a select group of laborers. Doing so would have underscored an elite image of the prevailing social order based on assumptions about ethnicity and race. Moreover, the asymmetries may have accentuated an internal stratification among indebted laborers that weakened their solidarity and collective interests. A review of historical literature on

Porfirian Yucatán indicates a lack of attention to this last aspect of social control, perhaps because documentary data are less material in orientation. As such, the archaeological perspective adds a dimension to the study of prerevolutionary social conditions that may not be as discernible from the historical record.

Hacienda Tabi is a compelling location for historical archaeology. The hacienda settlement was abandoned rapidly during the revolution and never reoccupied, leaving the archaeological remains in an exceptional state of preservation. In addition, oral histories of hacienda life during the Porfiriato are particularly accessible. Descendants of hacienda laborers live nearby, and they possess information about their ancestors at Tabi and other estates. Anthropologist Lourdes Rejón (1981, 1993) has even recorded the narratives of men who toiled at Tabi before the revolution, and these accounts are incorporated into the archaeological interpretations. From this perspective, archaeology at Hacienda Tabi helps raise the voices of those who had them so purposely denied during the Porfiriato.

Hacienda Tabi and the Evolution of the Landed Estate in Yucatán

The Spanish established political control in the northwestern portion of the Yucatán Peninsula in the 1540s and over the next two centuries developed a livestock-raising economy there based on a landed estate known as the estancia (Patch 1985). By the early-18th century, the estancia produced beef for local markets and exported leather products to colonial ports, namely Havana. The ranching economy was labor extensive, and estancias employed small workforces with little division of labor. A mild form of debt peonage, which had been legally recognized in New Spain since the 17th century (Loveman 1979:482), existed on these estates but was not particularly common. Robert Patch (1985:29) surveyed estate inventories for the period 1718-1738 and found that less than 10% of them listed debts owed by workers to the landowner. Among the debts listed, most were relatively small.

Tabi was established as an *estancia* in the Sierra (or Puuc) region of Yucatán sometime after 1733 (Figure 1) (Rejón 1993:14). By

the mid-18th century, however, the nature of Tabi and other landed estates in Yucatán had The indigenous population, which changed. had declined sharply in the wake of the conquest, began to rise (Patch 1985:31). As the total population grew, the demand for food increased, and landowners started to produce maize on their estancias. Landowners and the Maya peasantry negotiated arrangements in which individuals could live on the estate and work for the owner in exchange for land to cultivate for their own subsistence. These tenants became known as luneros because they were obligated to work for the landowner each Monday, or lunes, without pay (Baeza 1845:175; Patch 1985:42). Luneros were not debt peons, at least not initially. They lived in traditional hamlets or small villages scattered across the estate. Tenancy was an attractive proposition for many peasants because it lowered their tax burden, freed them from forced labor obligations in the villages, and offered them a measure of paternalistic security when confronted with crop failures (Patch 1993:197-198). By the 1780s, these expanded and diversified estates were no longer referred to as estancias. Rather, they were termed haciendas, reflecting the social and economic transitions that had occurred (Patch 1985:35). The predominantly Europeandescent owners of these estates became known as hacendados. The earliest known reference to Tabi as a hacienda dates to 1784, and by the end of the 18th century, Tabi's mostly lunero population was 1,898 (Patch 1993:199).

The lunero labor arrangement, and hacienda production itself, shifted again during the late colonial and early republican periods, especially in the Sierra. Two historical events served as catalysts for these changes. First, colonial authorities in 1786 forced hacendados to pay tribute for their luneros (Patch 1993:200). The landowners responded by steadily increasing the labor requirements and working to restrict the mobility of their tenants (Patch 1985:44). Second, and perhaps more importantly, sugarcane was introduced to the southern and eastern portions of Yucatán in the late-18th century (Cline 1948). Starting in 1804, efforts were made to produce sugarcane in the Sierra for local markets, but they failed due to cheap sugar imports from Cuba (Irigoyen 1954a:17). Yucatán won its independence from Spain in 1821 and five

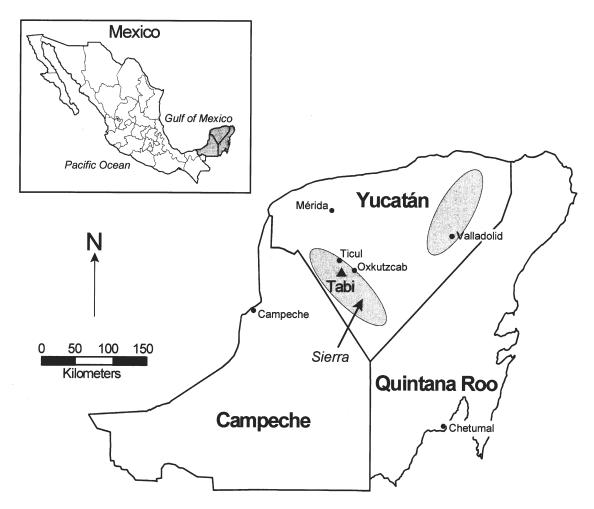


FIGURE 1. State of Yucatán, showing historic sugar regions (shaded) and the location of Hacienda Tabi. (Drawing by author, 1998, modified 2004.)

years later terminated its commerce with Cuba, which was still a Spanish colony. This trade cessation closed the traditional export market for livestock products, forcing *hacendados* to search for economic alternatives. Concurrently, the end of Cuban imports created an opportunity for estate owners to produce sugar for the internal market (Joseph 1982:16). As a result, a number of large haciendas, including Tabi, rapidly expanded sugar production by 1830. Francisco Calero y Calero, a native of the Canary Islands, had purchased Tabi in 1815, and his son, Vicente, introduced sugar cultivation there after Mexican independence.

The increasing number of resident laborers and the relatively complex operations of sugar mills compelled *hacendados* to organize estate activities in a more disciplined fashion. A distinct nucleus (*casco*) emerged on the larger haciendas, consisting of the principal house, sugar mill, chapel, and an estate store. Celebrated American traveler John Stephens (1843:[2]40) noted this cluster of buildings when he visited Tabi in the early 1840s and declared the hacienda to be one of the "three finest in Yucatan." The nucleation process was incomplete in the early-19th century, however, because most of the workforce remained in dispersed communities on the estate periphery (Farriss 1984:538).

As the physical appearance of the sugar hacienda changed, so too did its labor relations. Through a variety of social and economic mechanisms, *hacendados* pushed the largely

independent class of lunero peasants into debt peonage (Norman 1844:71-72). Stephens (1841: [2]416) remarked, "there is but little chance of [the Maya worker] ever paying off the smallest debt . . . and, virtually, from the time he receives his first dollar, [he] goes through life in bondage." Patch (1993:200) argues that by the 1840s luneros were essentially the same as other debt peons. The term lunero remained in use in some areas as late as the 1870s (González 1981: 64), but it was gradually replaced by acasillado (rooted one), a term that ultimately became synonymous with debt peon. In the peninsula's extreme northwest where a lack of rain precluded effective sugar cultivation, cattle and maize remained the principal commodities on haciendas until mid-century (Bracamonte 1988:622).

Sugar production escalated at Tabi until 1847 when the indigenous uprising known as the Caste War erupted. The Caste War severely curtailed the expansion of haciendas in Yucatán for the next decade (Rugeley 1996; Dumond 1997). In fact, sugar haciendas in the Sierra were a specific target of insurgents, and many were lying in ruins by the 1850s. During the insurrection, Tabi's cane fields were burned, its principal house was heavily damaged, and most resident workers fled (Bracamonte 1993: 109). Between 1845 and 1859, the amount of land dedicated to sugar cane cultivation in the state dropped by more than half, from 4,060 ha to 1,820 ha (Irigoyen 1954b:19). Over nearly the same time span (1845-1862), the number of Yucatecan haciendas declined from 1,388 to 1,042 (Bracamonte 1985:4).

Felipe Peón Maldonaldo, a member of an illustrious Yucatecan family, purchased Hacienda Tabi in 1855 and gradually restored its sugar The hacienda's resident populaproduction. tion increased steadily during his tenure (Figure Tabi's rebirth after the Caste War was not matched in other parts of the state, and as the 20th century approached, sugar remained an important crop on only a select number of haciendas in the Sierra and near Valladolid in the east (Batt 1991). The majority of haciendas transitioned to the cultivation of a native agave plant known as henequen. Yucatán's henequen industry experienced dramatic export success between 1860 and 1914, based partly on the surging demand for henequen fiber (used to make binder twine) in the United States.

1890, sugar constituted the principal commodity on only about 3% of the properties classified as haciendas in Yucatán (McBride 1923:78; Rejón 1993:43). Tabi and the other sugar haciendas not only survived but also clearly thrived for some years by producing *aguardiente*, a cheap rum, for sale to debt peons on the henequen estates.

Haciendas grew both geographically and demographically during the late-19th century. Mexico's reform laws of 1856 mandated the division of village ejidos or common lands (Wells 1985:124). Between 1879 and 1912 at least 66 ejidos covering 134,000 ha in Yucatán were broken up into 12,000 plots averaging 11 ha (Chacón 1991:180-181). Once divided among village residents, hacendados purchased, or occasionally confiscated, the lots to expand their own holdings (Wells 1991:122-124). This effectively concentrated the vast majority of land in the hands of just a few hundred families. Ramón Chacón (1991:182) observes that by 1910, "Yucatán had 1,170 plantations distributed among 193 planters, more haciendas per capita than any other state in the republic." In the same year, Yucatán's population stood at 339,000 with 96.4% effectively landless (Casillas 1965:24-25).

Given the consolidation of landholdings and the intensification of henequen production in the late-19th century, questions have arisen about the hacienda's orientation towards capitalism. Eric Wolf and Sidney Mintz (1957) distinguish between the noncapitalistic hacienda

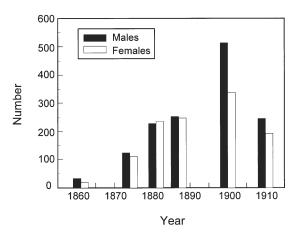


FIGURE 2. Population of Hacienda Tabi, 1861–1910. (Drawing by author.)

and the plantation, which is highly capitalized and emphasizes profit maximization. As such, haciendas are oriented towards small-scale markets and support the status aspirations of the landowner, while plantations are oriented towards large-scale markets and operate without overt social objectives. This kind of dichotomy reduces the complexity inherent in the institutions, but it simply represents "two extremes on a continuum" (Morner 1973:185). While the 18th- and early-19th-century hacienda in Yucatán may have fit well with Wolf and Mintz's definition, by the late 1800s it had moved considerably closer to their "plantation" concept. Joseph (1982:14) emphasizes that Yucatecan haciendas were "highly capitalized" during the henequen boom, securing loans from North American banks for technological upgrades. Allen Wells (1991:114) stresses that hacendados employed a heterogeneous workforce of debt peons, foreign indentureds, and free laborers that resembled a plantation's rural proletariat. Certainly the international export trade constituted a largescale market.

Even in the peripheral sugar region of the south and east, the hacienda appeared much more plantation-like during the Porfiriato. Indeed, several of Wolf and Mintz's (1957: 394) defining traits for haciendas, such as the lack of capital for purchasing new equipment, the inability to improve transportation, and the lack of technical specialists among the workforce, are in diametric opposition to what is historically known of Hacienda Tabi. Eulogio Duarte Troncoso, an influential member of the landowning elite, acquired Tabi from the Peón family in 1893. Duarte invested a substantial amount of capital into the hacienda during his ownership, and it reached its highest level of agricultural production and geographical extent. By 1900 the estate encompassed 14,167 ha (35,006 acres) and included 851 resident laborers (Rejón 1993:59). Henry Mercer (1896: 95) was certainly impressed by "a large, new, American-made crushing engine" at Tabi in the 1890s, and Henry Graf Kessler noticed "the most modern machinery" on the estate during his stay in 1896 (Benavides 1985:47). Duarte even brought 60 Cuban sugar experts to Yucatán in the 1890s to improve the agricultural and industrial techniques employed in the state (Barceló 1981:144). Tabi was not a unique case,

as sugar production was clearly capitalized in other parts of the state during this time (Batt 1991:201).

Whatever degree of capitalization was involved, the heavy reliance on debt peonage and persisting features of paternalism in the Yucatecan hacienda preclude its definition as the classic plantation of the Wolf and Mintz typology. As Wells (1991:114-115) so aptly concludes: "The henequen estate is best viewed as a hybrid . . . [It] represents a fusion of modernizing influences, wrought by the rapidly expanding export trade, and the legacy of Yucatán's socioeconomic past." Although it was producing largely for domestic consumption, the sugar hacienda in Yucatán may also be considered a hybrid institution.

# Debt Peonage in Porfirian Yucatán

Much has been written about the conditions of debt peonage on the henequen haciendas of Yucatán during the Porfiriato. Sensational exposés by John Turner (1911), Henry Baerlein (1914), and Channing Arnold and Frederick Frost (1909) initially brought the abuses of the labor system to light during the Mexican Revolution. Recent years have witnessed a number of more balanced historical treatments (Katz 1974; González 1981; Joseph 1982, 1986; Sierra 1984; Knight 1986; Peniche 1994; Wells and Joseph 1996). With a few notable exceptions (Batt 1991; Rejón 1993), far less has been written about peonage's relationship to Yucatán's sugar haciendas during this period. Despite the lack of historical attention, the history of Hacienda Tabi suggests that the basic mechanisms of social control on the sugar estates after the Caste War were fundamentally the same as those on the henequen estates, despite the fact that seasonal sugar production was considerably different than the year-round production of henequen. This is because most sugar hacendados were also henequen hacendados. For example, Felipe Peón owned Tabi from 1855 until his death in 1874. addition to Tabi, he held 12 other haciendas, 11 of which produced henequen (Barceló 1981:143). Eulogio Duarte, Tabi's hacendado from 1893 to 1904, not only possessed multiple henequen estates, but he was also the vice president of the Camara Permanente de Hacendados Henequeneros, an organization established to protect the interests of the henequen barons (Rejón 1993:20).

Article 5 of Mexico's 1857 Constitution explicitly prohibited forced service for debt (McBride 1923:30-31; Knight 1986:51). state government of Yucatán, which was controlled by hacendados, altogether ignored the constitution and passed legislation in 1882 that upheld earlier peonage laws (Wells and Joseph 1996:157–158). The sanctioning of peonage, combined with the breakup of ejido lands and the growth of the export economy, led to a situation where an increasing proportion of the rural population found itself tied to the hacienda through debt. The percentage of the Yucatecan population living as resident peons soared from roughly 7.5% in 1880 to 26% in 1900, and eventually to an estimated 35% in 1910 (Turner 1911:8; Suárez 1977:[1]180; Sierra 1984:51).

This rapid growth of peonage was a consequence of deliberate strategies employed by hacendados to attract and maintain a cheap, dependent labor force. For years haciendas had monopolized subsistence agricultural land and scarce water resources. Stephens (1841: [2]405) observed in 1840 that "in return for the privilege of using the water, [the Indians] come under certain obligations of service to the master, which place him in a lordly position." Tabi seems to have been no exception (Stephens 1843:[2]21). This monopoly was exacerbated during the Porfiriato (Joseph 1982: 17,20), leading Arnold and Frost (1909:332) to declare that "practically . . . the whole water supply of the country is in the hands of the landlords." Access to water and a subsistence plot was enough incentive for some peasants to move permanently onto an estate. In addition, residency on the hacienda provided a legal exemption from military conscription and some forms of taxation. Most peasants, in the opinion of Wells and Joseph (1996:152), "made an economically rational decision in opting to reside on the haciendas."

Once on the estate, a peasant usually acquired a debt by having wages advanced for provisions, clothing, or important rites of passage. Although the repayment of one's debt with labor was the ideal (Ober 1884:43), in practice it was uncommon as earnings rarely covered one's daily expenses on the hacienda (LePlongeon

1885:376; Mendez 1921:157-158). Rejón (1993: 86) has figured that a minimum daily wage of one peso was needed to meet living expenses at Tabi around the turn of the century. Wages for the lowest ranking field laborers, however, were a mere 37 centavos. The requirement that tenants purchase their supplies at the tienda de raya, or hacienda store, aggravated this situation (Wells 1985:139). Workers were generally paid in credit redeemable at the tienda, so that their earnings were subtracted from a running account that was seldom repaid. Tabi even had its own internal currency, a copper token that could only be exchanged for goods on the estate. market competition minimized or altogether eliminated, the historical record is fraught with accusations of price gauging at hacienda stores to increase peon debt (Arnold and Frost 1909: 325; Turner 1911:18; Katz 1974:19-20).

At Tabi, the amount of debt defined the degree to which a servant was bound to the estate (Rejón 1993:84). Those with less than 100 pesos of debt were classified as temporary workers. They were obligated to work for a single, specified period of time, usually during the harvest season. Individuals with a debt amounting to 100-200 pesos had to work every other week for the hacienda. Those with over 200 pesos of debt were obliged to work every day except Sunday, and they were forbidden from leaving the estate without the consent of their supervisors. The majority of resident laborers exceeded the 200 pesos of debt needed to mandate full-time work and residence on the estate. In fact, the amount a young man often borrowed from the hacendado for his wedding typically varied between 100 and 300 pesos (Kaerger 1980:59; Rejón 1993:84). particular event could ensure the obligation to work perpetually on the hacienda. Don José Cruz Tun, a resident laborer at Tabi in the late 1800s, recalled how his father acquired his debt: "My father . . . passed to [hacienda] Yaxcopoil to work. In this hacienda... they lent him money, and when they brought him to Tabi he already had 300 pesos of debt, because they gave him more money 'to look for his woman' [that is, to cover the expenses of his wedding]" (Rejón 1993:90). As children generally did not inherit debt (Tozzer 1907:37; Bracamonte 1993:152), the institution of marriage helped to sustain peonage over the generations (Peniche 1994:85).

The somewhat milder variety of debt peonage before the Caste War gave way to a more exploitative form during the Porfiriato. As the henequen economy expanded, a labor shortage emerged in the countryside. Consequently, hacendados sought to maintain workers in a perpetual state of peonage by restricting their mobility and ensuring that their debts were never paid off. Wells and Joseph (1996: 143) use the proverbial "carrot and stick" to describe the strategy employed by hacendados to achieve this level of social control. The stick involved both isolating and coercive measures that kept the peon from having to depart the "inner sanctum" of the estate (Wells 1985: 139). Isolating mechanisms included resettling peons near the estate center in highly ordered hacienda "towns," forcing them to shop at the estate store, constructing chapels so that they would not have to leave to fulfill religious obligations, arranging marriages between young people of the same estate, and enlisting bounty hunters to track down runaways (Turner 1911: 15; McBride 1923:33; Joseph 1982:84; Sierra 1984:64). A common coercive measure for those who fled the estate or neglected their work assignments was corporeal punishment. A popular Yucatecan proverb of the 19th and early-20th centuries concisely summarizes the prevailing philosophy among the landowning elite: Los indios no oyen sino por las nalgas [The Indians don't hear except through their backsides] (Stephens 1843:[1]82; Baeza 1845: 171; Arnold and Frost 1909:324). Internal police forces and "jail dormitories," both of which existed at Tabi, served as other coercive instruments (Turner 1911:17; Baerlein 1914:161; Loveman 1979:482).

The carrot side of the strategy encompassed a traditional patron-client relationship that provided a basic sense of security to the debt peon. The nature of the paternalistic relationship varied widely among haciendas, and it was all too weakly realized on many (Wells 1984: 232–237). Laborers at Tabi were nevertheless granted their own *milpas* (cornfields) for subsistence farming and thus earned at least a minimal sense of autonomy (Rejón 1993: 85). The *hacendado* also provided them with some level of free medical care. Don José Cruz Tun remembered that at Tabi "there were doctors and they didn't charge. The *patrón* was

the one who paid . . . The *patrón's* doctor, 'Chito,' was the one who visited the sick; he remedied your hand or whatever hurt you" (Rejón 1993:90). Another common custom on many haciendas, though specific evidence for it is lacking at Tabi, was for the *hacendado* to enter into a godparent relationship with workers on the estate (Baerlein 1914:189; Wells and Joseph 1996:162).

As the Porfiriato progressed, the coercive and isolationist mechanisms strengthened at the expense of the patron-client arrangement (Bellingeri 1977; Wells and Joseph 1996:146). The result was a progressive decline in the standard of living of most debt peons (Katz 1974:30; Sierra 1984:67; Wells 1985:10; Joseph 1986:66). The wages offered debt peons remained fixed or rose only slightly in the 19th century, while the prices of staple foods and other basic commodities rose steadily. Nathan Whetten (1948:107) lists prices for rice, corn, and beans in Mexico from 1792 to 1908 and demonstrates that while wages may have risen as much as 44% during the period, the cost of these provisions rose between 75% (rice) and 565% (beans). Hacienda Tabi, former laborers recall that the hacendado actually lowered daily wages from 37 centavos to 25 centavos in the first decade of the 20th century (Rejón 1993:93). witnessing the living conditions at a neighboring sugar hacienda, Alice Dixon LePlongeon (1885:376) remarked simply that the mass of peons lived and died "in abject misery." There is a considerable body of evidence indicating that, on the eve of the Mexican Revolution, the situation had degenerated to a point where debt peons were bought and sold at a fixed market price irrespective of their accumulated debts (Turner 1911:10; Katz 1974:18; González 1981:81). This has led Gilbert Joseph (1982: 29) to label Porfirian Yucatán a "de facto slave society" and Alan Knight (1986:50) to characterize the system as Mexico's own "peculiar institution." Historian Fidelio Quintal (1984: 48) goes so far as to berate Yucatán's peonage as "one of the cruelest bastions of injustice and subhuman living conditions."

# Organization of Labor at Hacienda Tabi

In contrast to the monocrop henequen estates, Tabi and other haciendas in the Sierra

supported a more diversified agricultural system. Although sugar was clearly the principal crop at Tabi (cultivated on 30% of the property), the hacienda also produced maize, tobacco, fruits, honey, cattle, firewood, and henequen for local consumption. Workforce organization at Tabi was tailored to meet these diversified production needs, and it varied according to the seasons, changes in market conditions, and introductions of new technology. The hacendados assembled and maintained a labor force that would, in their eyes, maximize production, comply with the necessary social control, and fit with the prevailing notions of racial superiority. Among the resident peons who comprised the majority of the labor force, a fundamental division existed between asalariados and jornaleros (Wells 1984:229; Bracamonte 1993:240). Asalariados (salaried workers) earned fixed wages, held positions of higher rank, and possessed greater freedom of movement on the hacienda. These included the encargado (or mayordomo), who supervised the estate's operations and entertained visitors in the owner's absence. None of Tabi's owners ever lived there, allowing the encargado to reside in the principal house. Although himself indebted to the hacendado, he held near absolute authority over other hacienda laborers (Stephens 1841:[2]415; Turner 1911:19; Whetten 1948:101). Other salaried workers included cowboys, tramcar operators, artisans, and mayocoles who acted as work-gang supervisors in the fields (Bracamonte 1988:631; Rejón 1993: 75–79). Pedro Bracamonte y Sosa's (1985: table 2) investigations indicate that asalariados constituted about 15% of the workforce on 19thcentury Yucatecan haciendas.

In contrast, jornaleros (a euphemism meaning literally "wage earner") earned variable wages that were largely predicated on a task system. In such a labor system, the number of tasks that one accomplished in a specified period of time, such as cutting a certain quantity of sugarcane or firewood, determined the wages that one earned (Wells 1984:229; Rejón 1993: Most jornaleros were field hands who 76). performed a wide variety of chores based on the needs of the hacienda throughout the year. Don José Cruz Tun recalled his work schedule at Hacienda Tabi: "When we leave for work, whatever they give us to do, we have to do it, like cutting firewood . . . a firewood task [tarea

de leña] was two meters long and two meters high, four square meters; 37 centavos per firewood task" (Rejón 1993:91). Even when all assigned tasks were successfully completed, jornaleros never obtained pay equal to that of salaried workers. Fundamental to the ranked system of labor at Tabi was a "racial" distinction. Salaried workers were mainly mestizos (mixed European-indigenous heritage) while jornaleros were Maya, suggesting that prevailing notions about race determined salaried positions as much as, or perhaps more than, skill or specialized training (Mendez 1921:157; Bracamonte 1985:8–9, 1990:53).

Among resident laborers at Tabi, the male head of household retained the principal obligation to work for the hacienda. Women's responsibilities were primarily domestic and considered auxiliary to that of their husbands. Consequently, they did not inherit or otherwise accrue a personal debt but were, of course, tied by marriage to the debt of their husbands (Peniche 1994:78). Don Nicolás Villareal, another resident laborer at Tabi, recalled that when a man died, the hacendado granted a stipend to support the widow, especially if she was elderly or had young children (Rejón 1993:95). This was another facet of the patron-client relationship. The stipend could be withheld from a widow with mature children, compelling her to assume her late husband's occupational responsibilities in order to sustain the family. In such cases, she labored in the fields or as a house servant. According to oral history accounts, such women earned only about one-half of a man's wages because their assigned tasks were perceived as being easier than those of their male counterparts (Rejón 1993:95-96).

Beyond the indebted labor force, three essentially debt-free groups contributed labor to Tabi: temporary workers, sharecroppers, and indentured migrant laborers. During the harvest season, a group of skilled and highly paid laborers arrived at the hacienda to manage production in the sugar mill. These engineers and artisans, some of whom came from Cuba and other parts of Mexico, resided in the hacienda's principal house while on the estate and lived with their families in Mérida for the remainder of the year (Rejón 1993:81). Independent Maya from nearby towns and villages also arrived to work as seasonal field hands. These men

generally stayed at the hacienda through the week, though spatially apart from the indebted families, and returned to their respective villages on the weekends. In addition to the temporary laborers, an essentially autonomous group of sharecroppers (*arrendatarios*) used hacienda lands year-round for subsistence cultivation. They lived in villages on the periphery of the estate and paid the *hacendado* 10% of their annual harvest as rent (Bracamonte 1985: 11–12; Rejón 1993:80).

During the Porfiriato, contract workers from East Asia were brought to Yucatán to meet the labor shortage (Flores 1961:480; Hu-Dehart 1995). Journalist Turner (1911:8) estimated that 3,000 Chinese and Koreans were living and working on Yucatecan haciendas in 1908. Exresident laborers at Tabi recalled that 100–150 Chinese and Korean men lived at Tabi before the revolution (Rejón 1993:72), and they likely account for the surge in the male population there around 1900 (Figure 2). These men were housed together in a barrack-like building near the sugar mill, segregated from the Maya-speaking population in the village.

If the prevailing conditions in Porfirian Yucatán apply, most of the resident workforce at Tabi had little, if any, opportunity for significant material improvements or upward social mobility (Bishop 1882:550-551). A jornalero engaged in the same general occupation throughout his life, and this was often the same occupation as his father and his sons. As a rule, the worker's rank remained unchanged from birth to death. The asalariado did, on the other hand, entertain the possibility of enhancing his social or economic standing (Katz 1974: 42; González 1981:78). While moving out of the working class, or even out of peonage, was rare, material acquisitions that could potentially enhance the prestige of a salaried worker were possible. Historical evidence demonstrates that some resources were not distributed equally among the indebted laborers (Katz 1974:4-5). By and large, the hacendado influenced the distribution of goods either directly, through paternalistic gift giving, or indirectly, through wages, monetary advances, and credit at the estate store. Material improvements or refinements encouraged or deemed appropriate by the owner often widened the already conspicuous gap between salaried worker and jornalero.

Arrival of the Mexican Revolution to Tabi

Hacienda Tabi produced 920 tons of sugar in 1900, more than any other hacienda in Yucatán (Rejón 1993:59). Sugar production significantly slowed, however, due to a series of droughts between 1905 and 1907, the raising of state taxes on rum between 1902 and 1906, and a global economic recession starting in 1907 (Batt 1991:202; Rejón 1993:45). A three-man partnership purchased Tabi from the Duarte family in 1907, and many of the East Asian contract laborers departed over the next several years (Rejón 1993:22). By 1910, when the Mexican Revolution was erupting in central and northern Mexico, the resident population of Tabi was 439. It took another four years for the revolution to reach Yucatán, and Tabi continued its operations, albeit in a much attenuated form.

In September 1914, Eleutario Avila, the appointed revolutionary governor of Yucatán, issued a decree abolishing debt peonage (Graniel and González 1981:155). Revolutionary forces eventually arrived at Tabi, most likely in early 1915, to enforce the liberation mandate. According to the accounts of former residents, the soldiers burned the sugarcane fields and forced the abandonment of the hacienda village. Don Nicolás Villareal narrated the episode:

When the soldiers arrived, they told the peons that they were all free and that they had only 24 hours to remove themselves from the hacienda. Many did not want to leave because they had *milpa* and they did not have a place to go and work; then [the soldiers] gave them permission to continue cultivating their *milpa* and to live in another town. They could return to Tabi to get water, to care for their *milpa* or perhaps to work, but never as peons—these were the words of the soldiers. Many people returned to Tabi after a time, but they didn't live there . . . (Rejón 1993:102).

Virtually overnight, the Tabi village was deserted. Just a few years later, anthropologist Thomas Gann (1924:236) observed, "the village occupied by the labourers was close to the house, but here—as elsewhere in Yucatán—the houses were falling into ruins, and the peons had deserted the *rancho* for better paid work, or to start small *fincas*, or farms, of their own."

The hacienda lands were partitioned and allocated to surrounding municipalities in the years that followed. The core of the old estate was maintained through most of the 20th century as

a private cattle ranch, while the adjacent workers' village on the property slowly succumbed to the tropical forest (Figure 3). In 1992 the State of Yucatán acquired the *casco* and surrounding land, which is now managed by the Cultural Foundation of Yucatán as an ecological reserve and educational center (Meyers 2004).

The Archaeological Study of Social Inequality at Tabi

The archaeological potential of Hacienda Tabi was brought to light some 20 years ago (Benavides 1985), but it was not until the state government obtained the property that systematic investigations were initiated. Since 1996, interdisciplinary research at Tabi has focused on how the documented social inequalities of debt peonage influenced, and were reflected in, the material conditions of the estate. Maps of the workers' village are not known to exist and local memories of the prerevolutionary years are rapidly fading, so the project's first goal was to

rediscover the settlement pattern through surface surveys. Analysis of the survey data sheds light on the ways in which a cultural landscape of domination can simultaneously be a landscape of resistance (Meyers and Carlson 2002). More recent excavations aim to reconstruct the complex social organization of the estate and provide a greater understanding of how the objects of daily life were used to negotiate interpersonal and intergroup relationships (Leone 1999:15-19). Overall, the research at Tabi is part of a broader effort to elevate Mexican hacienda archaeology to the level of interest that already exists for plantation studies in the United States and Caribbean (Andrews 1981:4-5; Alexander 1997a, 1997b; Juli 2003). It also provides comparative data for studies on labor systems in other parts of Latin America (Deagan 1995; Jamieson 1999).

Settlement Organization and Dwellings

The Tabi settlement includes two basic spatial components: the great yard and the



FIGURE 3. Tabi's principal house, with church and sugar mill chimney in the foreground. (Courtesy of the Cultural Foundation of Yucatán, Mérida, Mexico; photo by E. Logan Wagner, 1992.)

workers' village (Figure 4). The great yard was once the geographic and symbolic center of the estate, around which stand the principal house, church, sugar mill, and stables. A 2-m high masonry wall encloses the great yard,

distinguishing it from the workers' village where a grid of streets defines 14 residential blocks, a plaza (375 x 200 m), and a *plazuela* (230 x 100 m). Dry limestone rubble fences (*albarradas*) about 1 m high delimit each of

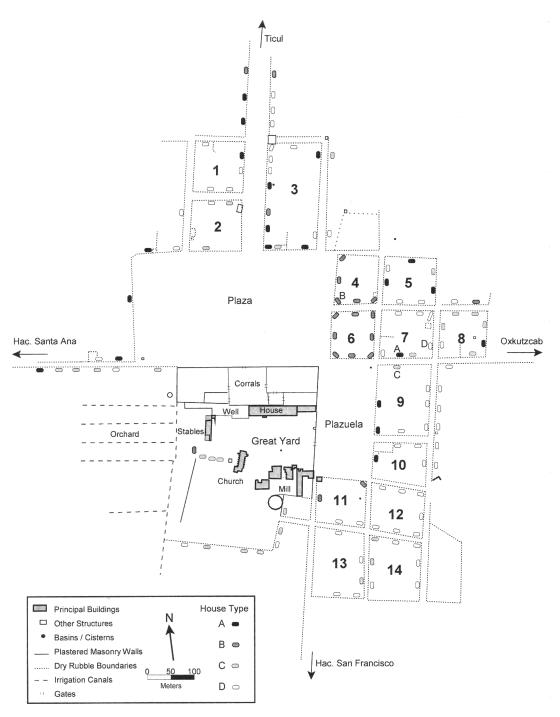


FIGURE 4. Plan of the Tabi settlement. Letters in blocks 4, 7, and 9 identify house sites discussed in the text. (Drawing by David L. Carlson and author.)

these spatial elements. Four principal roads lead away from the plaza towards the market towns of Ticul and Oxkutzcab, as well as the haciendas of San Francisco and Santa Ana. It is not known when the workers' village was laid out, but the movement to establish "towns" on private estates in Yucatán generally corresponds to the henequen boom of the late-19th century. The artifact assemblages recovered through excavation strongly suggest a village occupation between 1860 and 1914, in accordance with Tabi's restoration after the Caste War.

Archaeological surveys indicate the surface presence of 124 traditional Maya dwellings in the village. Four additional dwellings are at the edge of the great yard near the church. foundation remains of these thatch-roofed, oneroom cottages are apsidal, or rectangular with rounded ends. Their average dimensions are 8.5 x 4.5 m and consistently border the streets, plazas, or residential block perimeters. If the accounts of Turner (1911:18), George McBride (1923:33), and Jorge Flores D. (1961:481) are any indication, each one-room dwelling housed a family unit. McBride (1923:33-34) even asserts that the hacienda villages conspicuously lacked the residential outbuilding pattern so common in the independent towns and hamlets. Indeed, the surface remains at Tabi reveal no auxiliary structures (kitchens, granaries, or secondary dwellings) in the patio areas behind the apsidal houses. No reliable estimates of household size on the hacienda are known, though ethnographic data from the 1930s indicate that four to six persons occupied a typical one-room cottage (Redfield and Villa 1934:91, table 6; Wauchope 1938:145; Steggerda 1941:21, table 1).

Four house types are evident at Tabi, exhibiting marked variations in the quality of architectural materials. Dwellings built chiefly of perishable materials occupy one end of the spectrum, while those constructed of limestone rubble and mortar occupy the opposite end (Figure 5). Two house types are intermediate, incorporating both perishable and nonperishable Modern dwellings comparable to elements. each of these four house types still exist in the countryside, and studies by Robert Wauchope (1938) and Christopher Dore (1996) detail specific construction methods and materials. For the purpose of this study, the houses have been labeled A through D, with A representing

the most durable and *D* representing the least durable. The house remains may be briefly described as follows:

Type A (n=20) consists of roughly 2-m-high walls of limestone rubble and mortar built up around a vertical pole framework. The rubble masonry houses are generally plastered (mampostería), though a few are unplastered (ripio). Two masonry wings stand on either side of the door facing the street and connect the house to the rubble street boundary. Some of the masonry dwellings include fitted rubble floors, while others have a thin layer of mortar made of a friable calcium-carbonate material known locally as sascab (Wilson 1980:11).

Type B (n=19) possesses a plastered masonry facade fronting the street (including projecting wings) and a loose rubble base facing the block interior. The back wall and ends were, according to modern analogs, constructed of poles set on the rubble foundation and tied together with vines or wire. The walls may have been lathed over with earth, and lime mortar constituted the floor.

Type C (n=24) includes a plastered masonry base and door supports. The walls once consisted of poles set upright in the masonry base, and the floor was composed of lime mortar. Unlike types A and B, there are no wing projections fronting the street.

Type D (n=61) exhibits a ring of dry rubble, with the remaining structure being entirely perishable in the same style as house types B and C. In Yucatán, the vertical posts that are fastened together to support a palm thatch roof are termed *bajareques*, and one may refer to the house type itself by the same term.

Robert Redfield and Alfonso Villa Rojas (1934) compare masonry and bajareque house construction in the early-20th century. Masonry construction tasks include quarrying limestone, burning lime for mortar, and carrying both materials to the construction site. Setting the stones in mortar to form the walls is also a time-consuming task. Redfield and Villa (1934: 53-55) estimate that 86 person-days are needed to construct a dwelling of upright posts, while a slightly larger masonry house requires 379 person-days. The initial start-up costs of rubble masonry houses are thus considerably greater than those of a bajareque house, although the maintenance costs of the latter could be greater over the long run.





FIGURE 5. Dwelling remains in the Tabi village: (top) Type A; (bottom) Type D. (Photo by author.)

The spatial distribution of housing in the village imposed order on the landscape and facilitated social control, as evidenced by the grid of streets and systematic placement of dwellings at fairly even intervals along block perimeters. A close examination of housetype locations reveals a subtle, though no less interesting, spatial pattern (Meyers and Carlson 2002:table 2). Seventy-five percent of the Type A houses border the plazas and the four principal roads leading away from the casco. As the overall durability of each house type decreases, so too does its placement on the plaza and main roads. Sixty-eight percent of the Type B houses are adjacent to the principal roads and plazas, while 38% of the C dwellings and only 18% of the D dwellings are located there, leaving the remainder on peripheral streets. These frequencies suggest that differences in the material conditions of dwellings may have overlapped differential access to social space. The wellconstructed dwellings of economically privileged citizens have long received preferential placement in the small towns of Yucatán (Wauchope 1938:6; Redfield 1950:26-31; Goldkind 1965: 873-874). The house locations were known to give these residents a "conspicuous advantage" in both commerce and social contacts (Redfield For example, the stone houses 1950:30-31). of late-19th-century Ticul (some of which were architecturally Spanish) stood "on the plaza and streets adjoining; outside these, and extending more than a mile each way, were the huts of the natives" (Baker 1895:38). If hacienda villages neatly copied the plat and organization of incorporated towns, as Nancy Farriss (1984:384) argues and the layout of Tabi suggests, then this spatial distribution of house types may have reflected basic class divisions.

During his early reconnaissance of the site, Antonia Benavides Castillo (1985:51) developed the impression that "a clear tendency" existed for masonry houses in the Tabi village to be located closer to the principal house and other major structures at the center of the settle-Such is the concentric zone model that exists on plantation settlements in other regions (Anthony 1976:13). According to this model, the architectural elaboration of worker housing, representing some form of a labor hierarchy, diminishes with distance from the planter's house. Consequently, the occupational rank of workers, as defined by the planter, diminishes with the same distance. If the concentric zone model applies to the Tabi village, Type A dwellings would be noticeably closer to the principal house than Type D. A statistical comparison of the actual distances between Type A and Type D dwellings and the principal house, however, demonstrates the A houses are not necessarily The Wilcoxon rank sum test, which is appropriate for samples that are not normally distributed, indicates no statistically significant difference in the distances of Type A and Type D dwellings: w=2432.5, z=-.750, p=.453.

Beyond construction materials and location, the sizes of the village dwellings exhibit a discernible pattern. Ground plans for all the intact apsidal house remains at Tabi (n=101) were recorded in order to compare each house type's average floor area (Table 1). Type A houses have a mean of nearly 36 m<sup>2</sup> and are, on average, 15% larger than the other three house types combined. Table 2 lists the results of a oneway analysis of variance (ANOVA), which tests whether multiple means are equal for samples with normal distributions and equal variances. Despite the small samples for some house types, the ANOVA indicates that the average Type A floor area is indeed significantly larger than the average floor area for each of the other three house types (p < .02 in each case). Based on

TABLE 1
FLOOR AREAS (M²) OF APSIDAL HOUSE TYPES (N=101)

House Type	n	Min.	Max.	Mean	Std. Dev.
A	20	28.0	44.5	35.7	4.9
В	15	26.3	37.0	31.8	2.9
C	25	22.2	35.1	28.9	3.3
D	41	24.3	42.5	31.7	3.4

House Types	Mean Difference (m²)	Std. Error	p
A-B	3.81	1.25	.015
A-C	6.74	1.10	.000
A-D	3.91	1.00	.001
B-C	2.93	1.19	.074
B-D	0.10	1.10	1.000
C-D	2.83	0.93	015

TABLE 2
MULTIPLE COMPARISONS OF FLOOR AREA IN APSIDAL DWELLINGS (N=101)

Note: Equality of variances is assumed based on the Levene test: F=2.436, df1 3, df2 97, p=.069. Multiple comparisons based on the Tukey-Kramer test.<sup>a</sup>

<sup>a</sup>The Tukey-Kramer test is a pairwise multiple comparison test used to examine differences between pairs of population means. In this case, it is more appropriate than some alternative tests like Bonferroni or Tukey HSD because it includes an adjustment for unbalanced designs. In other words, the samples for each house type are not identical, and the Tukey-Kramer adjusts for that while other multiple comparison tests do not. For a detailed discussion of ANOVA applications and multiple comparison methods, see Rafter et al. (2002).

the data at hand, the few Type A house remains are not only more durable than most dwellings in the village, but they are also more spacious. These differences in house size are not the consequence of construction technique or materials. In other words, Type A houses are not simply larger because they are constructed of masonry. Small Type A dwellings exist, such as the northernmost one on the road to Ticul (28.6 m²) and the solitary one on the west side of the plaza (30.5 m²). The overwhelming majority of masonry houses are, nevertheless, significantly larger than average *B*, *C*, or *D* dwellings.

# Ceramic Distributions

To further examine the surface-level patterns in the Tabi village, a preliminary set of excavations has been carried out in recent One example of each house type in the Tabi village has been excavated, permitting a comparison of the respective assemblages. The house sites for the A and D architectural styles are located in Block 7, while the Type B house is in Block 4 and the Type C dwelling lies in Block 9 (Figure 4). The excavation strategy entailed an approximate 50% sample of the each house interior, as well as five 1-x-1-m units in the surrounding yard area (Meyers 1998; Sweitz and Carlson 2000). The resulting volume of excavated soil both inside and outside of each house foundation is as follows:

m³ at Type A, 12.5 m³ at Type B, 7.2 m³ at Type C, and 10.8 m³ at Type D. The basic excavation strategy was replicated at each house site, so that variations in the volume of soil reflect either aspects of the natural landscape or an architectural impediment. For example, a considerable portion of the C dwelling's floor was a limestone outcropping which minimized the volume of soil excavated there. At the A dwelling, a fitted limestone rubble floor proved an obstacle to obtaining a 50% sample.

Temporally diagnostic materials recovered during the excavations, including coins, bottles, nails, and ceramics, suggest that the dwellings are contemporaneous, each being occupied during the period 1860–1914. The ceramic assemblages consist of three broadly defined groups: local coarse earthenware, lead-glazed earthenware, and refined earthenware. Majolica and stoneware also appear in the assemblages, but as Table 3 shows, their exceptionally small samples preclude any detailed discussion of them.

Locally produced, limestone-tempered coarse earthenware constitutes more than 90% of the ceramic assemblage at each dwelling, reflecting its fundamental place in the daily subsistence activities of all of the resident laborers at Tabi. These soft-paste Yucatecan wares were molded on a platform (*kabal*) in one of two methods, modeling or segmental building (Thompson 1958:64,78). They were then fired in an openface kiln at temperatures reaching 650–900°C.

TABLE 3
CERAMIC FREQUENCIES AT FOUR DWELLINGS

		-
н	ouse	Type

	A	A	]	В		С		D
	n	%	n	%	n	%	n	%
Coarse earthenware	1,651	90.7	2,894	99.4	794	97.4	1,838	98.6
Refined earthenware	140	7.7	16	0.5	10	1.2	21	1.1
Lead-glazed earthenware	29	1.6	0	0.0	11	1.4	5	0.3
Majolica	0	0.0	2	< 0.1	0	0.0	0	0.0
Stoneware	0	0.0	0	0.0	0	0.0	1	< 0.1
Totals	1,820	100.0	2,912	100.0	815	100.0	1,865	100.0

Many of the vessel fragments from Tabi are slipped white or red and some are burnished, but they are uniformly unglazed. In the Sierra region of Yucatán, the long-standing center of pottery production has been Ticul (Tozzer 1907: 62; Thompson 1958:66). There is currently no historical evidence to suggest that pottery was produced at Tabi, and one might speculate that some or all of it was manufactured in Ticul.

In addition to the local ceramic tradition, lead-glazed coarse earthenwares also appear at Tabi. Raymond Thompson (1958:132) identifies these wheel-turned and typically thin-walled vessels as "Campeche glazed ware," referring to the colonial city where he encountered many of them. Based on data from the Teotihuacán Valley, Donna Seifert (1977:105,116) argues that the use of lead-glazed wares in Mexico was largely restricted to the middle and upper classes. They occur in relatively low frequency at Tabi, and if Thompson's (1958) study is any indication, their distribution in Yucatán was generally limited to the colonial cities of Mérida, Valladolid, and Campeche.

Refined earthenwares, predominantly from England but perhaps also from other European countries and the United States, constitute the third ceramic group. The importation of English ceramics into Mexico began around 1800 and rapidly escalated after the nation's independence in 1821 (Borg 1975:43; Fournier 1997:53). In an attempt to compete with foreign manufacturers, a company in Puebla, Mexico, produced its own style of refined earthenware from 1841 to 1852 (Fournier 1987:184). The Puebla factory met with limited commercial success, and refined earthenware remained

almost entirely an import product until after the Mexican Revolution. A peninsular newspaper, El Fénix, advertised the arrival in Campeche on 10 November 1849 of a ship from New Orleans carrying "two crates of china" among other European commodities (Arias and Burgos 2001:96). Patricia Fournier García (1997:53) argues that imported whitewares were expensive status symbols in 19th-century Mexico, and Rafael Burgos Villanueva (1991:73) reiterates that opinion for Yucatán based on contemporary accounts. Arnold and Frost (1909:338), for instance, remarked how "the typical room of the typical rich Yucatecan" was furnished with "a few Oriental rugs or mats, [and] some painfully modern china." Even as late as the mid-20th century, Redfield (1950:44) commented that "much more is unchanged than changed [in rural Yucatán]. The stone houses, china plates . . . and gasoline or carbide lamps are enjoyed by a minority of families."

Burgos (1995:147-300) has made the most thorough effort to describe and classify 19thcentury refined earthenwares from archaeological sites in Yucatán, and the study at Tabi closely follows his work. The refined earthenware from Tabi is almost exclusively whiteware (no porcelains), and for the purpose of this study all of those variants known by the terms "ironstone," "semi-porcelain," and "stone china" have been categorized together. Makers' marks on a few of the sherds make it clear that they were imported. A high percentage of the refined earthenware is decorated with one or more of the following techniques: transfer-print, flow blue, annular, hand-painted floral, sponged, stamped, and stenciled.

A direct comparison of the relative frequencies of refined earthenware and coarse earthenware is a seemingly productive analytical approach to the ceramics at Tabi, although obviously less sophisticated than economic scaling based on cost-sensitive decorative elements (Miller 1980, 1991). Such a comparison illustrates how some workers had greater access to, and perhaps even preferred, "elite" ceramics. For example, the relative frequency of refined earthenware sherds at the A dwelling is approximately seven times that at the C and Ddwellings (Table 3). There is even a wider gap between the A and B dwellings. A comparison of minimum number of vessel (MNV) counts for the two ceramic groups at each house site lends statistical support to these disparities. A cross tabulation can be seen in Table 4, and the results of a chi-square test of independence suggest a significant difference in the number of refined earthenware vessels:  $X^2=13.75$ , df 3, p=.003, V=.220. On the whole, the MNV counts for refined earthenware are four to five times higher at the Type A house than at the other houses, even as the total volume of excavated soil at the A dwelling is less than two of the three house sites.

Data generated from a shovel testing program in village blocks 7 and 10 also support the unequal distribution of refined earthenware. A grid of 306 test locations at 5-m intervals was superimposed over Block 7, where one Type A, one Type C, and five Type D structures are

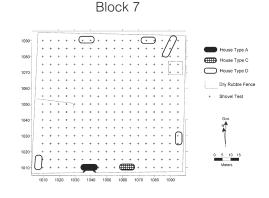
located (Figure 6a). The test units measured 30 x 30 cm and averaged a depth of 40 cm. As seen in Figure 7a, coarse earthenware appears in two aggregates, one to the northwest and the other to the southeast of the block. The latter concentration could be the result of discard near the lot boundary of either the Type C house or the Type D house. The distribution of refined earthenware, on the other hand, includes only one high density area, and its association with the only Type A dwelling on the block is immediately evident (Figure 7b). A succession of three shovel tests outside the east end of the house, one of which yielded eight refined sherds, forms the basis of the aggregate. The remainder of the block is largely devoid of refined earthenware.

A similar pattern emerges in Block 10, which encloses one Type A and three Type D dwellings (Figure 6b). The data from 226 test locations reveal coarse earthenware distributed near several of the houses along the perimeter of the block but not necessarily concentrating near any particular house type (Figure 7c). Refined earthenware, in contrast, exhibits high density around the only Type A house. Four closely spaced test units in the house's patio area, yielding from three to six sherds each, form the basis of the concentration (Figure 7d). A second concentration near the center of the block is part of a large midden but is not as closely associated with any one particular house, at least not in a spatial sense. Coincidentally, a

TABLE 4
MINIMUM NUMBER OF VESSEL COUNTS AT FOUR DWELLINGS

House Type	Coarse Earthenware	Refined Earthenware	Totals	
A	70 (-1.1)	23 (2.8)	93	_
В	67 (0.5)	6 (-1.3)	73	
С	43 (0.1)	6 (-0.3)	49	
D	65 (0.6)	5 (-1.5)	70	
Totals	245	40	285	

Note. Standardized residuals are given in parentheses.



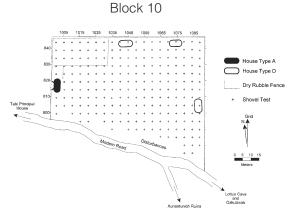


FIGURE 6. Test excavations in the Tabi village: (a) Block 7; (b) Block 10. (Drawing by author.)

shovel test grid across Block 4, where none of the house remains are Type A, turned up virtually no refined earthenware; only nine widely scattered sherds were recovered in the entire block. Altogether, the block surveys point again to a material separation between Type A dwellings and the other three house types.

# Material Expressions of Social Inequality

What is one to make of the material disparities at Hacienda Tabi? Benavides (1985:51) initially proposed that each house type represented a different rank within the labor hierarchy there. The spatial distribution of house types in the village lends support to this line of reasoning. The house size and ceramic data, however, do not support such a straightforward interpretation. The evidence emerging at Tabi suggests instead that a fundamental break in access to resources

occurs between the occupants of the Type A masonry houses and the occupants of the other three house types. Based on this evidence and the documented nature of workforce organization in Porfirian Yucatán, the asalariado-jornalero distinction perhaps best accounts for these differences. The relative frequency of Type A dwellings (16%) does compare favorably to the known percentage of salaried workers on 19th-century haciendas. If this interpretation is correct, then this case exemplifies Bracamonte's (1990:65,70) contention that salaried workers on the largest haciendas often lived in houses that materially and symbolically superceded those of jornaleros.

While first-person accounts of residential architecture corresponding to class divisions on Yucatecan haciendas are lacking, the historical and ethnographic records do document such an association in colonial towns and independent Maya villages. For example, the missionary Richard Fletcher wrote in 1867, "Indian houses are generally enclosed by poles stuck up side by side, & bay leaf put outside of them as on the roof. Some few plaster inside the poles, but Spaniards of means enclose with stone work" (Rugeley 2001:105). Wauchope (1938: 78) observed that "ownership of a house with walls of rubble masonry in a small town is generally a sign of wealth and distinction, for the extra work and materials involved in preparing mortar add to the cost of construction." Redfield (1950:44) echoed the sentiment. As hacienda villages were intended to imitate the organization of incorporated towns, one may reasonably assume that housing on the hacienda reflected basic internal class divisions.

Two other historically documented facts make the *asalariado-jornalero* interpretation plausible. First, salaried workers had much greater freedom of movement, both on and off the estate. The consumption practices of *jornaleros* were largely restricted to the estate's *tienda de raya* (Sierra 1984:64), while *asalariados* could more readily take advantage of goods and services in the local market towns. Second, the salaried class received higher, fixed wages, generally two or three times higher than the fluctuating task-based wages of *jornaleros*. The regularity of compensation is a meaningful distinction in the division of labor among working classes (Hobsbawm 1964:273), and the distinction should

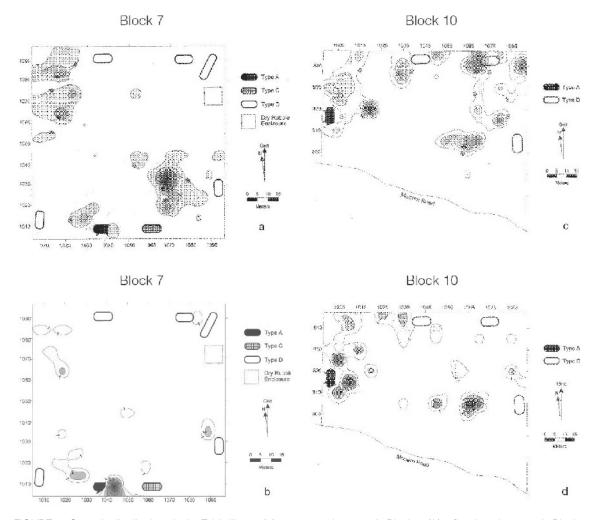


FIGURE 7. Ceramic distributions in the Tabi village: (a) coarse earthenware in Block 7; (b) refined earthenware in Block 10; (d) refined earthenware in Block 10. (Drawing by author.)

not be overlooked at Tabi. On some haciendas, the salaried class received greater allotments of estate resources. For example, the proprietor of Hacienda de Bocas allotted regular rations to 55 privileged peons (17% of the indebted workforce), while withholding rations from the other 265 peons (Katz 1974:4–5). The owners at Tabi could have been carefully controlling the distribution of construction materials in a similar way.

There are hints that the Porfirian hacendado, or perhaps his encargado, had a role in making decisions about housing construction and location on the estate. The degree to which this control was exercised is less clear. For instance, Kaerger (1980:59) observed in 1899 that "on the large haciendas, one gives a little

house to these peons." A 1914 account pertaining to full-time contract laborers on haciendas indicated that "one provides for them a house, medical assistance, and at times a small lot of land for cultivation" (Flores 1961:480). At Hacienda Tabi, only one comment on the subject is known. Don Nicolás Villareal, through the paraphrasing of Rejón (1993:94), remembered, "in 1894 the Villareal family arrived at Tabi [from another hacienda]; they occupied a house that the encargado provided for them." While each of these comments suggests that specific dwellings were supplied to resident laborers, none has sufficient detail to indicate how much freedom peon families might have had to modify or improve them.

One might thus consider that differences in housing construction and acquisitions represent a growth cycle of material improvement over time. As the male head of household went through life, he may have acquired wealth that allowed him to "improve his standard of living [by] building a better house" or obtaining higher quality goods (Villa 1969:264). In short, older generations would have higher quality possessions than younger generations at any moment in time. While this is a valid consideration for independent Mayas, the scenario seems less likely for dependent laborers on the landed estates. The historical record gives no indication that material improvements in living conditions accompanied one's life cycle on the hacienda. In fact, the weight of historical evidence is to the contrary, suggesting that the standard of living steadily declined for the majority of debt peons over time while dependency on the hacendado increased (Katz 1974:30; Joseph 1986:60-61; Wells and Joseph 1996:145-146). Moreover, the jornalero's occupational rank was securely fixed from birth to death. diachronic dimension of the Tabi village is admittedly not well understood, but the progressive lack of autonomy among resident laborers during the Porfiriato makes the possibility of life-cycle enhancements less likely.

Perhaps the most revealing indication of this lack of autonomy comes from Esteben Flores, who was asked by Mexico's Department of Labor to survey working and living conditions on the haciendas of Yucatán in March 1914. After visiting 16 haciendas, Flores (1961:481) briefly describes dwelling composition and maintenance, actually complementing some hacendados on the "good conditions" of the laborers' accommodations. He nevertheless adds that "there are those [farms], few, fortunately, that include nothing but ruined shacks in which the servants live suffering, and that reveal the little regard that the amo [master] has for them" (Flores 1961:481). Flores clearly indicts the master, the hacendado, for neglecting the housing. If the debt peons were largely responsible for the construction and care of their dwellings, Flores would surely have blamed them for the neglect. A cursory glance at nearly any commentary of the period illustrates how the Mayas were consistently perceived by elites as "improvident," and "idle" with no "desire to improve their fortunes" (Mendez 1921:145). In the very same report, Flores (1961:481) asserts that "the Maya . . . has no aspirations and is content to live within the limits set by the master."

Whether Tabi's hacendado or his administrator directly provided imported ceramics and other luxury items to certain debt peons, perhaps as gifts, is unknown. What is known is that hacendados created conditions in general that permitted, and perhaps even encouraged, a minority of laborers to acquire such goods. If jornaleros were compelled to shop at the tienda de raya, and the store did not stock imported china wares (Wells 1985:138), then their opportunities to acquire refined earthenware were diminished. Mitigating factors that would have put luxury goods into the hands of jornaleros certainly existed. One might conceive of an internal commerce on the estate where residents, both asalariados and jornaleros, bartered, sold, and traded goods with one another. Such factors not withstanding, the general pattern was a denial of autonomy for the mass of debt peons and windows of opportunity for the salaried class.

# The Politics of Social Control

There is reason to believe that the hacendado, or the encargado in his absence, actually desired an unequal distribution of resources among debt peons at Tabi as part of the "carrot and stick" strategy of social control (Wells and Joseph 1996:143). "The hacendado," claimed Flores (1961:477), "intervenes constantly in the existence of the 'indebted' Indian, from his birth until he dies, not to educate him, not to improve him, but to keep and prepare him for the service of his property." The hacendado habit of arranging marriages within the estate, which served to increase debt and isolation, exemplifies such an intervention (Stephens 1841:[2]417; Turner 1911:15; Flores 1961:478; Knight 1986:62). Why might the hacendado have exercised a heavy hand to create, or at least encourage, an environment of material inequalities at Tabi?

On one level, hacendados used material rewards to secure the loyalty of asalariados in extracting labor from the jornaleros and maintaining social control (Whetten 1948:103). The unequal distribution of material items was,

according to Katz (1974:29), "the price the hacendado paid, or thought he had to pay, to insure the loyalty of the acasillados and their transformation into trusted retainers." In this sense, the economic power on the estate was continually negotiated. The hacendado authorized the encargado and foremen to operate on his behalf by assigning and supervising the daily work of jornaleros (Turner 1911:16). Salaried workers also meted out discipline, most commonly public floggings, to jornaleros who transgressed hacienda regulations (Baerlein 1914:181-183; Flores 1961:479; Rejón 1993:84). Moreover, members of the salaried class were integral to the hacienda's surveillance system. They acted as informants to restrict subversive communication among jornaleros in the village or fields (Flores 1961:477). Perhaps the spatial pattern of Type A houses at Tabi served as a mechanism of surveillance by scattering members of the salaried class around all parts of the village yet still along the principal access routes to and from the hacienda to monitor the movements of jornaleros.

Securing loyalty from a small portion of the debt peons was only part of the social control strategy. Loyalty alone, to use Katz's (1974: 29) term, could be "bought" from the salaried class by simply giving them greater quantities of what the broad mass of the resident laborers possessed. Yet the evidence from Tabi suggests that a minority of residents had access to material resources that distinguished them from others on the estate. In this way, the hacendado encouraged the development of not only a loyal class but also one that fit his image of the prevailing social hierarchy. That social hierarchy assigned mestizos to a position below European-descent Yucatecans but securely above the indigenous majority. As Wells and Joseph (1996:146) have noted, an important element of social control on the hacienda was convincing debt peons that their lot in life was "part of the logical, immutable order of things." Dominant groups are known to rely on conspicuous visual displays, either behavioral or material, to legitimize their claims of inherent superiority over others (Crossick 1976: 306; Abercrombie et al. 1980:123; Scott 1990: 12). An unequal distribution of resources may have established symbolic and material distance between asalariados and jornaleros, allowing the former to claim superiority over the latter.

Of course, the *hacendado* claimed superiority over all resident laborers and used the stately principal house to legitimize it. While salaried workers may have never fully internalized elite ideology (Abercrombie et al. 1980:140–155), the realization that they retained an accepted position beneath the *hacendado* but far above everyone else on the estate may have engaged them.

Underlying these efforts to secure loyalty and reproduce the prevailing social hierarchy were antagonistic class relations. The oligarchs, argue Wells and Joseph (1996:167), "continued to view potential Maya solidarity with some alarm and . . . they consciously diluted communities of Maya acasillados with groups of ethnic and linguistic strangers." The 100 or more East Asian indentured laborers brought to Tabi during the Porfiriato are a clear example of this. As part of this larger strategy to undermine the solidarity of debt peons, the hacendado may have encouraged an unequal distribution of resources to accentuate internal divisions. Nicholas Abercrombie and colleagues (1980:124) contend that "internal stratification . . . obviously impedes class-based activity and may . . . lead workers to be concerned with internal rather than external class relations." In terms of Hacienda Tabi, sectional interests (asalariados vs. jornaleros) generally superceded common class interests (peons vs. hacendados). Accounts of jornaleros resisting or actually confronting the closest symbols of authority, namely the encargado and mayocoles, frequent the historical record (Wells 1984:233; Wells and Joseph 1996:175,235-237). This antagonism was heightened by the differences in physical appearance and behavior that existed between the two groups.

The motivation for undermining peon solidarity was pervasive in Porfirian Yucatán. Working-class cohesion on haciendas directly threatened the landowning elite because the elites constantly feared insurrections (Ober 1884:42–43; Carey 1984:209; Wells 1984: 234–236). Of course, even minor insurrections could disrupt production on an estate for an indefinite period of time. Tabi had already been ruined once during the Caste War, and hacendados had cause to be concerned about further intraestate uprisings, particularly in the Sierra (Wells and Joseph 1996:208). This is one reason why "a company of soldiers" was stationed at Tabi in the late-19th century (Baker

1895:47). News of the occasional uprising on nearby estates did nothing to assuage their fears. In 1911 resident peons revolted at Catmís, another sugar hacienda on the state's southern frontier. Reportedly inflamed by the hacendado's custom of exercising the "right of the first night" with brides-to-be, peons set the cane fields ablaze and killed two of his brothers (Wells and Joseph 1996:206–208). Hacendados understood that articulated resistance to their domination required organization by debt peons, and they may have attempted to impede it by emphasizing divisions within the labor force.

# The Legacy of Peonage

For all of its impact, the Mexican Revolution left many promises unfulfilled in Yucatán (Knox 1977). In the decades following the upheaval, the federal government became the primary influence on the state's economic activity. The national administration of Lázaro Cárdenas (1934-1940) enacted sweeping agrarian reform that redistributed hacienda lands and reconstituted village ejidos (Joseph 1986: 124-127; Quezada 2001:224-237). The state nevertheless failed to give these collectives progressive control over the land. In fact, for a time, ex-hacendados were allowed to retain possession of agricultural processing equipment for ejidos, resulting in a situation where the state "sanctioned the continued exploitation of the ejidatarios [members of rural collectives] by their former masters" (Brannon 1991:247).

The federal government exercised increasing control over agricultural production in Yucatán in the second half of the 20th century, heavily subsidizing the ejido collectives to ensure their survival. Local dependency on state support reached a point where many rural dwellers were little more than wards of the state, just as they had once been wards of the hacendados. Jeffrey Brannon (1991:249) argues that Yucatecan peasants merely exchanged their Porfirian patron-client relationships with another, albeit less oppressive, system of government patronage. A political trend toward neoliberal economics at the end of the century has not appreciably changed the situation, and the legacy of peonage endures in modern Yucatán. As a consequence, power differentials in the state, which

are often drawn along the same ethnic lines as during the Porfiriato, continue to be great. By shedding light on the nature of debt peonage, hacienda archaeology will hopefully further our understanding of an exploitative labor system that officially ended during the revolution but, in many ways, continues to shape the region's social and economic character.

# **ACKNOWLEDGMENTS**

The following programs at Texas A&M University funded field research at Hacienda Tabi: Interdisciplinary Research Initiatives, Scholarly and Creative Activities, L. T. Jordan Fellowship, and the International Education Fee Scholarship. Eckerd College, the University of Wisconsin Colleges, and the Southern Region of the Institute for International Education in Houston, Texas, also provided financial support. A student research group from the University of Wisconsin Colleges collected field data for this study in May 2002. Lourdes Rejón Patrón of Centro INAH Yucatán conducted historical research for the project. Joaquín García Bárcena, president of the Archaeology Counsel at INAH, and Alfredo Barrera Rubio, director of Centro INAH Yucatán, ensured the successful acquisition of archaeology permits. The family of Abelardo Marín Yam graciously served as my hosts at Tabi. Special thanks to Leticia Roche C. Fortuny, director of the Cultural Foundation of Yucatán, for her continual support and assistance with this endeavor. Thanks also to David Carlson, James Delle, Christopher Dore, and two anonymous reviewers for their thoughtful comments on earlier versions of this manuscript.

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