2001

By the Side of the Road: An Interpretive Look at Road Menders' Houses

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BY THE SIDE OF THE ROAD

An interpretive look at road menders' houses

A Thesis

Presented to

The Faculty of the Department of Anthropology

The College of William and Mary in Virginia

In Partial Fulfillment

Of the Requirements for the Degree of

Master of Arts

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by

Aida Belén Rivera-Ruiz

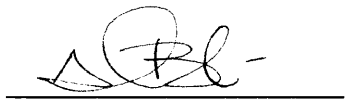
2001

APPROVAL SHEET

This thesis is submitted in partial fulfillment of

the requirements for the degree of

Master of Arts



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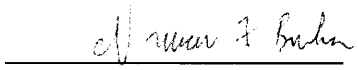

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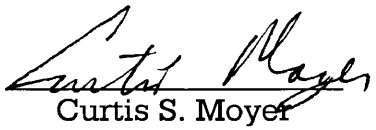

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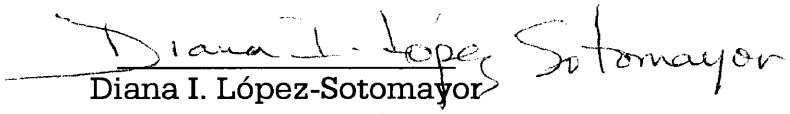

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DEDICATION

To my Titi Gladys and my tío Pepe, and to doña Nilsa and don Luis, men and women of the Renaissance who shared with me their unquenchable thirst for learning, a deep appreciation of art, and their eternal love affair with history.

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ACKNOWLEDGMENTS

I am indebted to a number of individuals and institutions that have been both supportive and actively cooperative throughout the investigation and writing process.

While at Williamsburg, Professor Norman Barka was both helpful and influential in my formation. Professor Curtis Moyer was a wonderful teacher and a true friend. I am further indebted to both for their careful reading and insightful comments on this paper.

Jean Belvin was always willing to lend me an expert hand with all bureaucratic undertakings. Larry Griffith was my first friend, and I thank him for making me feel right at home whenever we got together. My classmates, a talented group of aspiring archaeologists, became friends, brothers and sisters.

Nearby, Washington, DC became a second home thanks to my dearest brother Rafael Rivera and his friend Ignacio Aguirre.

In San Juan, my parents and my nanny showed their eternally unconditional support. Don Ricardo Alegría, Director, Centro de Estudios Avanzados de Puerto Rico y el Caribe, and Dr. Luis Pumarada, University of Puerto Rico, took time out of their busy schedules and shared valuable information.

Three special friends went out of their way to encourage me to finish this process. Marisol Meléndez, Jaqueline López and Miguel Bonini, fellow friends and archaeologists, deserve my gratitude for they never gave up and always insisted.

Most of all I must give credit and show my appreciation to Professor Diana López, who provided me with constant guidance and criticism. Both as my Professor while a student at the University of Puerto Rico, as well as in the demanding position of being the only member of my committee that resides in Puerto Rico, her tutelage has been inspirational and she has proven to be a true mentor.

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ABSTRACT

Road menders' houses are the artifactual remnant of a road conservation system implanted by the nineteenth century Spanish-colonial government of Puerto Rico, and extended into the mid twentieth century, under American rule. It is the purpose of this paper to ascertain the research potential of *casillas* as a unique assemblage of artifacts that reflect sociopolitical organization, economic fluctuations, settlement patterns and symbolism, and to recover such meaning from an interpretive evaluation of them. In doing so, the study of historic context and the scrutiny of architectural attributes are proposed as a combined basis for the interpretation of buildings.

BY THE SIDE OF THE ROAD

An interpretive look at road menders' houses

INTRODUCTION

From the onset of the Spanish colony to the present day US commonwealth (*Estado Libre Asociado de Puerto Rico*), in this the easternmost of the Greater Antilles, the saga behind the planning and construction of roads constitutes a particularly interesting installment in Puerto Rican history. The diverse geography, and its effect on colonization, settlement and establishment of production areas, always required creative solutions in order to link all vital areas. The situation is true to this day.

It is the purpose of this paper to ascertain the research potential of *casillas*, the built remnants of one such inspired solution, as a unique assemblage of artifacts that reflect sociopolitical organization, economic fluctuations, settlement patterns and symbolism, and to recover such meaning from an interpretive evaluation of them. As is always the case when studying the built environment, this work is part architecture, part history and part anthropology. In view of the fact that architecture is but a human response to a set of cultural and physical elements, the study of architectural artifacts is intrinsically anthropological.

The Spaniards first encountered the surface transportation predicament in early sixteenth century Caparra and San Germán (the

first two island settlements) as they recognized the need to communicate town, *hacienda*, and harbor, a fundamental but difficult endeavor. The location and relocation of these early population centers had focused on matters of health, military strategy, and economic efficiency. Succeeding settlements responded to these same interests. Nevertheless, a slow demographic growth over the sixteenth and seventeenth centuries did not demand any major effort in transportation infrastructure. In time, the situation would change.

The need for improved terrestrial communication became increasingly important in mid-nineteenth century Puerto Rico. Economic growth required a major effort in the production, distribution, and exportation of agrarian goods. These, however, would have to be transported from their point of origin -the central mountain range in the case of coffee, minor grains, fruit and tobacco, the coastal plains in the case of sugar cane and cotton- to local markets, and mostly to the major seaports. Furthermore, there was a need to make them more accessible to the capital city of San Juan and the southern port city of Ponce.

The construction and maintenance of permanent roads in a mountainous tropical island was not an easy task. Hard, consistent work proved to be necessary in order to avoid losing them to vegetation, the frequent heavy rains, hurricanes, or just regular wear. In response

to this new need, the Spanish government reacted with the introduction of a new work group, that of the *peón caminero* (road mender). The men were to upkeep a league of constructed road, as well as provide assistance to those traveling up or down their stretch of road. *Casillas de caminero* (road mender's houses) were built along the roads for these men to reside in.

Throughout time, both the *camineros'* duties –the work group- and the *casillas* –the artifact- underwent transformations. New economic and transportation needs redefined the obligations, but the houses remained more or less the same. By the mid-twentieth century, along with the rapid industrialization of the Island, the *peón caminero* work group waned and finally disappeared. The houses had lost their social significance, their function, their link with the roads and the travelers who went by it. Yet, as we travel through Puerto Rico today, some of the houses are still there, standing by the side of the road.

Casillas are the most evident piece of material culture left behind by a socio-economic system that is now gone. Even though several of these have been torn down over the past few decades, many still stand and serve as markers for our history.

Along with churches, *cabildos* (town halls) and bridges, *casillas* are the only major Spanish architectural element that is present

throughout the Island. Their presence and persistence, through space and time, serve as silent links among generations of Puerto Ricans. Alterations in their form and function reflect the times of change in politics, economy, and lifestyles they have witnessed.

Public architecture has been of interest to archaeologists from the earliest days of the discipline. Positivist surveys of ancient monuments, from Egypt to the Mississippi Valley, from Greece to the Yucatán Peninsula, though limited in truly anthropological analysis, set a database that would become the focus of later investigations citing anything from materialism to postmodernism as a guiding light and paradigm.

Private, domestic architecture, on the other hand has been largely neglected by the social sciences. Most frequently, houses are taken into consideration only as measurable incidents in spatial distribution and demographic analyses. They are seen merely as household units (each representing the residence of a kin group), and not as physical objects *per se*: function over form. Multiple attributes, such as architectural features, context and ideology are unrecognized.

Road menders' houses allow for interesting analysis, as they are a particular amalgam of public and domestic architecture. There is intention in architecture; utilitarian and symbolic considerations played

a role in the plan to build and use *casillas*. In analyzing these architectural artifacts, the social relations in nineteenth and early twentieth century Puerto Rico must become evident.

This paper is a first effort in the interpretation of this type of building. Prior references to *casillas* are but minimal descriptions. The scarce bibliography on public architecture in Puerto Rico hinders much of the present investigations. Consequently, any endeavor in this direction offers a new alternative in methodological approach. Historiography and archaeology in a colony is always troubled when confronting the remnants of the colonizer. In this difficult context, these modest, but nevertheless revealing, structures have been left ignored, by the side of the road.

I first came into contact with *casillas* as a child, over the course of years of Sunday family road trips. The ever-present *casillas* meant for each of us something different: a confident symbol of safety for my elderly grandparents, remnants of a waning boom in island economy for my parents (an engineer and an accountant), mysterious relics from what appeared to be a very distant past for my brothers and me. The elders had many a time rested at a *casilla*, when carsick or tired, for coffee and lemonade. We, the children, would hear the stories and

desperately wish for the opportunity to visit one. Their untypical solid construction, the exposed stone and brick, and our inability to enter turned them into enchanted little forts, a constant source for the grand imagination that only as children are we allowed to let flow. By embarking on this thesis trip, I finally share with my family –the living and the deceased– a personal experience with this type of artifact. *Casillas* are now an additional element of common ground.

CHAPTER I

A NEW NEED FOR BETTER ROADS

The best of times were over by the early nineteenth century: Puerto Rico (literally meaning Rich Port) had become a "*Puerto Pobre*" (poor port). In light of Spain's convulsed political situation, marked by the oscillation between liberalist and absolutist regimes, the island was going through some very unstable years. Governors and administrators would set forth public policy, then withdraw it and enact new ones. Legislation and regulations moved to the swing of Spain's pendulum, or at least to the arrival of news from the peninsula. These comings and goings resulted in a general feeling of uncertainty which, in itself, led to a whole set of repressive measures by the local government of Miguel de la Torre (Brau 1966). In addition to this, a profound economic crisis was only growing as moneys and able men were being dispatched to aid in the fight against insurgents in other Spanish colonies.

The *Real Cédula de Gracia* of 1815 was meant to revitalize the frustrated and amazingly loyal colony. Among other things, it eased up the restrictions on immigration, commerce, and the importation of agricultural machinery and equipment. Local governors, however, modified the stipulations at their own will in order to further benefit the

Exchequer from the local agricultural production. (Figueroa 1971, Alonso and Flores 1997)

While the *Real Cédula* aimed to benefit landowners and merchants form the two largest cities, San Juan and Ponce, it did not bring about a decisive thrust in capitalism. The successful agrarian capitalism and commercial economic development that was palpable in Cuba could not be replicated in Puerto Rico due to two major factors: 1.Local landed properties did not match the extension of their Cuban counterparts and; 2. Puerto Rico was hit by several hurricanes and an earthquake, which took a toll in the sugar cane and coffee cultivated areas. (Brau 1966)

Only the wealthiest could overcome the vulnerable state of affairs, as they had the means to rebuild their *haciendas*, modernize their production infrastructure by substituting laborers with import machinery –mainly from England.

In relation to commerce, the reduction in import tax and tariffs was not substantial enough to override contraband, which had long been and would continue to be, an essential element in the island economy. (Cruz Monclova 1979; Figueroa 1971; Brau 1966)

The people of Puerto Rico, mostly mulatto and black were a pauperized mass that saw no great improvements to their quality of life.

(Sued Badillo and López Cantos 1986) The government's attempt to enhance the major cities and improve the infrastructure had fallen short of avoiding the current state of "*Puerto Pobre*".

No actual road system had ever been planned for the Island, and this had become painfully evident. Only isolated dirt roads were in existence. This lack of adequate communication was hurting the general politics and administration of the colony, the economy and social life. Even though the *Cédula de Gracia* had been an attempt to stimulate population growth, commerce, industry, and agriculture, the insufficient infrastructure hindered its potential for success.

In order to tend to this matter, brigadier and then governor of Puerto Rico Gonzalo de Aróstegui y Herrera created a Planning Board in 1821. For this purpose, he had to take into account difficulties stemming from the fact that Puerto Rico, though roughly 8,896km^2 in surface area, is characterized by three distinct geo-morphological areas: a large central mountainous region, a karst region, and the lesser coastal plain to the North and to the South of the mountain range. (Cruz Báez and Boswell 1997).

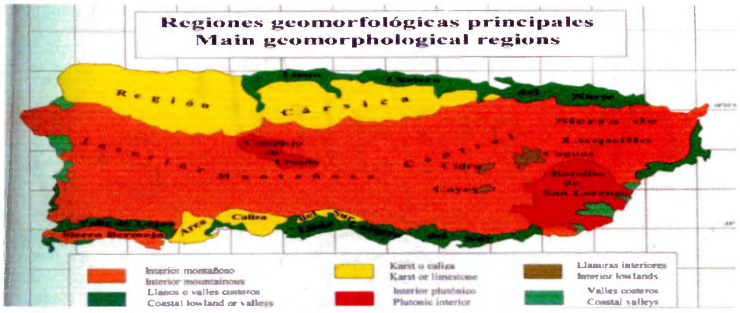


Figure 1. Main geomorphological regions. (Cruz Báez and Boswell 1997:9)

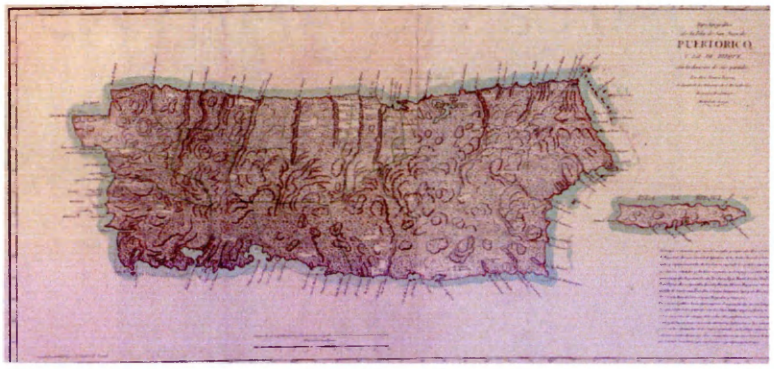


Figure 2. 1791 Topographic map of Puerto Rico. (Cruz Báez and Boswell 1997:196)

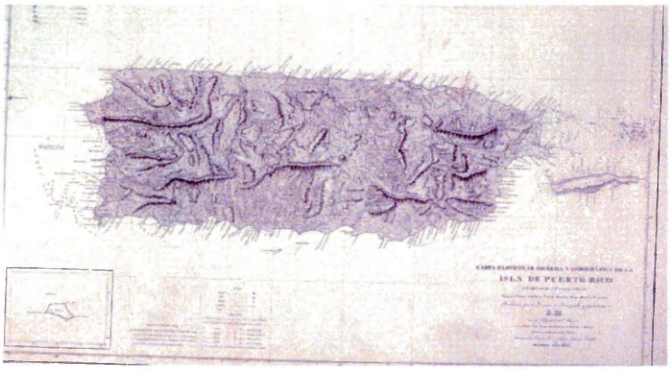


Figure 3. 1842 Topographic map of the Island. (Cruz Báez and Boswell 1997:197)

Appointed to this board were eight men, all considered to be familiar with the geography and topography of the Island. Their duties entailed the creation of a master public works plan, one in agreement with the local needs. A priority in their work was the evaluation of the present state of roads, and the design of an improved web for terrestrial transportation, in order to successfully connect production centers, marketing and distribution centers, and ports. (Cruz Monclova 1979:I, 206-208)

The Planning Board's only success was the increased awareness regarding the need for a new road plan, along with the realization of the fact that it was a costly enterprise, one the government could not fully afford.

By 1842 Governor Méndez Vigo established a Special Commission for Roads and Channels. Six members were appointed to this new board. To provide financial support to their intended projects, new taxes and a lottery were instituted. Citizens were also urged to collaborate with either money or work. (Cruz Monclova 1979:I,340-343) Once again, however, the tangible contribution was minimal: it was limited to 35 kilometers of non-paved road that connected San Juan to Caguas. (Castro 1969:23) Caguas was a fertile valley to the south, from where large haciendas could finally transport sugar, molasses, rum, tobacco,

and clay/bricks to San Juan. The road also increased the flow of all sorts of merchandise from the capital in San Juan to Caguas, and to the towns, *barrios* (wards), *haciendas* (non-specialized fruit and grain farms), *ingenios* (crop-specific farms, especially those devoted to sugar cane) and *hatos* (cattle farms) around it.

It was not until 1857, during General Fernando Cotoner's tenure as governor, that real progress was made: Spain passed an official order under which a Direction of Public Works was to be chartered. Cotoner took it upon himself to visit every town, asking regional officers and townspeople for recommendations to the plan. Comments and suggestions were annotated on a general map of the island; it was to be the first working draft of the new road plan. By 1859, and as a direct result of a two-year effort, the General Road Plan for the Island of Puerto Rico was achieved. (Cruz Monclova 1979:I,467)

The newly proposed plan called for four high roads and an entire system of secondary roads. Besides those that connected coastal towns (when overhauled according to plans), the high or primary roads were to be: a) the two that would cut through the Island in a North-South direction, and b) one East-West bound road, perpendicular to the previous two. (Castro 1969:11-12) The latter three roads would partition

the island into six regions. Considered to be secondary would be those that connected smaller towns to any of the primary roads.

Figure 4. 1859 Road plan, as approved in 1860. (Sepúlveda 1989:174)

In terms of infrastructure, coastal towns had always been favored. The entire colony had been divided into seven departments, each of which had a central town.

Figure 5. The Island and its seven departments. (Olivares 1899I:np)

All seven central places were coastal towns, every one of them hosting its own commercial seaport, plus the regional administrative offices and courthouses. This situation responded to military interests as well as to the fact that it was easier and less costly to build in the coastal plains than in the mountainous interior. Although the renovation of coastal roads was to positively improve upon the existing economy, it was the three new primary roads and the secondary ones that caught up the attention and expectations of the government.

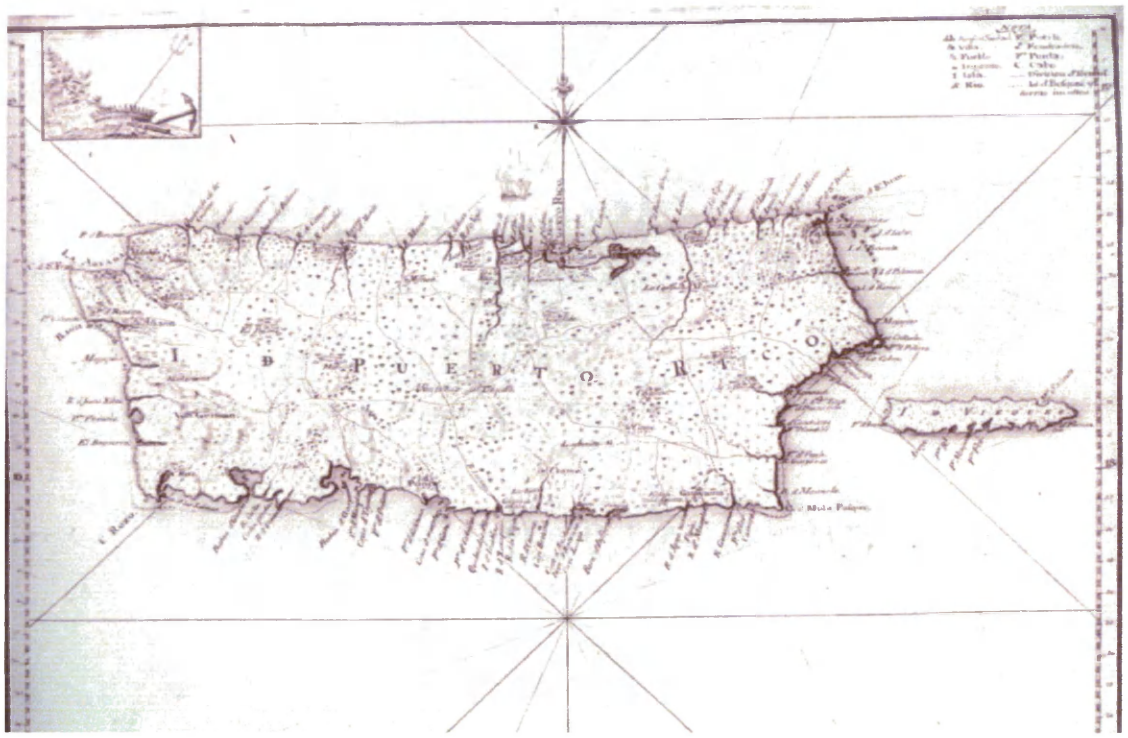


Figure 6. 1784 Settlements, located around the coastal region. (Sepúlveda 1989:67)

The mountainous interior was thought of as a natural reserve. Fertile land would become available for the cultivation of coffee, tobacco, cocoa, cotton, minor grains and fruit. One hundred and six varieties of precious tropical woods would now be accessible. Precious metals and other minerals would be within reach. All of the above had been exploited and, with the exception of fertile land, could no longer be found in the littoral. (Castro 1969:11-12) Previously inexpensive interior lands would also become quite valuable.

Commercial activity within the Island was expected to grow rapidly. With their large variety of products, inland towns were to experience a healthy cash flow, which in turn would translate into better living standards, and ultimately into more -and ideally more affluent- people moving into the mountains.

Undoubtedly, the idyllic aspirations for late nineteenth century country life in Puerto Rico show the influence of right-wing Enlightenment ideas. This newly commercial society would finally become consonant with the aspired "civil society in which social relations would be based on the principles of market exchange." (Patterson 1996:7) It was to be the solid ground upon which the foundations for an agrarian capitalism were to be set. Roads and bridges would be built; churches, town halls and cemeteries would be repaired or constructed anew; aqueducts and sewers would be developed; public lighting would be installed; the streets of San Juan would be covered with cobblestones. (Díaz Soler 1999: 49)

On top of the apparent socio-economic welfare intentions, political and military reasons were of utmost importance in the design of the new general road plan. Administrative outposts throughout the island would enhance the government's capacity for direct outreach and

centralization of political powers. Once again this is consistent with the conservative idea of an enlightened depotism.

The accelerated process of independence wars throughout Central and South America, as well as the Caribbean, and their chain of successes, had made both peninsular and local authorities apprehensive before the possibility of losing their last possessions. The early triumph of the Haitian independence movement (1804) from the Napoleonic oppression sent Europe a warning of events to come. Spain reacted twofold: by agreeing to cede to some of the local commercial demands, and by reinforcing the military. New roads would serve both purposes, and *casillas* would as well.

Military garrisons were to be built along the central East-West high road. Considering the fact that Cuba and Puerto Rico were by now the only two Spanish possessions in America, improving upon the locally based defense capability was imperative. Strategically located and fortified facilities could serve as double resistance: both against invasions and against potential insurrections.

Beyond the well-assessed need for the new roads, high costs and little money were still important issues. So it is that ten years after the charter of the Direction of Public Works not one new kilometer of road had been built under their proposed plan. In 1868 an amended version

of the General Road Plan of 1859 was passed. It resembled a similar plan that had just been put into effect in Spain. Its only major change had to do with funding matters: the central government would only be responsible for the financing of primary road projects. Secondary roads were now the responsibility of local communities. (Castro 1969:23)

Governor Miguel de la Vega Inclán in 1883 asked for a report regarding the means of transportation in Puerto Rico. The resulting analysis once again paid attention to the well-known needs. In it, Engineer Enrique Gadea stated the need for an adequate system that included improved roads, trains, lighthouses, and ports. This was all taken into account for the final amendments to a general and enhanced transportation plan for the Island that was passed in 1886. (Castro 1969:24-25)

Some of the roads included in the plan of 1886 have never been built or completed.

CHAPTER II

ROAD MENDERS AND THEIR HOUSES: AN INTEGRAL PART OF THE NEW PLAN

During the construction of the road connecting San Juan to Río Piedras and Río Piedras to Caguas (1842-1853) (Pumarada O'Neill and Castro Arroyo 1997), the need for the conservation of the stretch of roadway became immediately evident. In 1844, the government proposed to build houses by the side of the road, and in each of them a road mender and two apprentices were to be responsible for the maintenance of a stretch of the way. (AGPR:Leg 576:614) The idea was imported from the conservation system already established in Spain.

Initially a dirt road, this stretch of road was paved by 1856 following the method commonly known as *macadam*, after its inventor John McAdam who developed the system in eighteenth century Scotland. This entailed the placement of gravel, compacted over a bed of clay and stone. The clay and stone stratum was leveled with the use of a heavy roller, pulled by oxen. This same roller was later used to trample the top gravel. Macadam paving required constant maintenance, especially in the tropics. Contemporary macadam

construction uses asphalt or tar as a binder, making for a more durable surface and thus allowing for a less labor-intensive maintenance.

Photo 1. Preparation for macadam paving. (Olivares 1899I:346)

Photo 2. A paved road in the tropics. (Olivares 1899II:405)

The general idea of assigning responsibilities for the maintenance of transportation ways was not totally new in Puerto Rico. Slight

provisions for street maintenance had been made during the course of the eighteenth century. Two pieces of municipal legislation had already been passed regarding the issue. One of them, dated 1735 from the municipality of San Germán, mandated that villagers who built their own houses had to keep them in clean and good condition, and had to maintain the streets or paths near the houses in the same fashion. Fines were set for individuals who did not comply. In 1768, the municipality of San Juan called for the introduction of a commissary in charge of the maintenance of roads and bridges. (Caro Costas 1971:24-47)

Governor Miguel López de Baño issued a memorandum in 1838 stating that field workers were responsible for any necessary repairs to their hometown streets. (Cruz Monclova 1979:I,247) This was a terribly prejudiced solution, for it was the landowners and merchants who would ultimately benefit from the use of these roadways.

Hence we have the local antecedents for 1844's development of a permanent road conservation system. The introduction of *casillas* and *peones camineros* was highly successful for the entire latter half of the nineteenth century.

Casillas were to be built by the side of primary roads, the only ones for which the state was willing to be responsible. A house would be located every five kilometers (or every three when deemed

necessary). Road menders residing in them were obligated to the general maintenance of their assigned stretch: covering holes, clearing the road from landslides and weeds or grass, rebuilding drains, sewers and curbs whenever damaged by the rains or any other natural force. (Maese 1882:np)

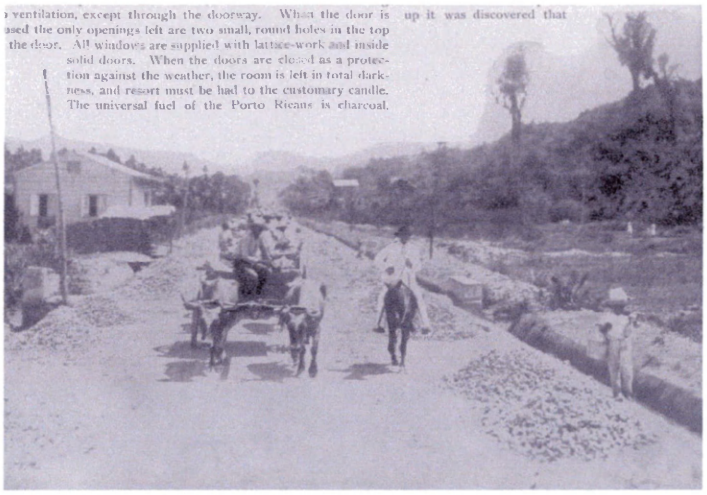


Photo 3. Road improvements. (Olivares 1899I:356)

In addition to the specific conservation-related tasks, *camineros* had to keep an eye on those using their expanse of road in order to warn transients of rules regarding damaging misuse of the roads. (Castro 1969:111-112) Likewise, they were to provide assistance to troubled passers-by. (Guitián 1861:np)

So it was that a new work group emerged in Puerto Rico. Immersed in an atmosphere of aspiring capitalism, *camineros* were essential to the further economic development of the state, which was

now focusing on transportation for the production and commerce of agrarian goods.

Photo 4. Winding road #1, along the mountain range. (Olivares 1899I:323)

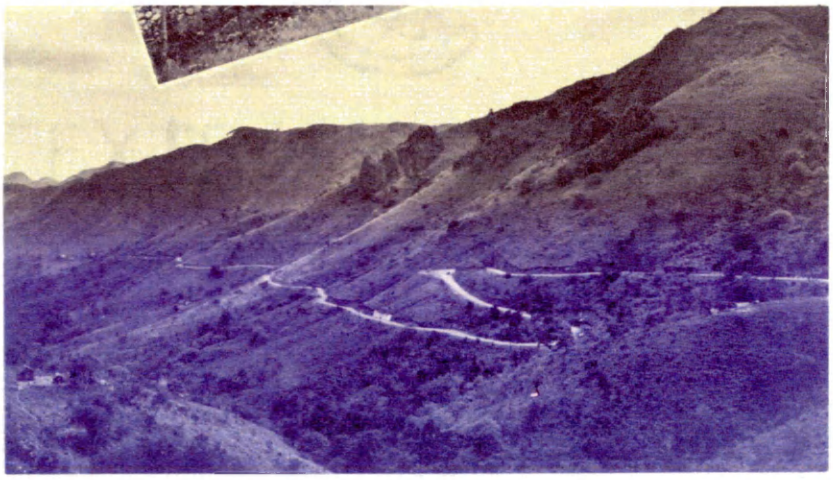


Photo 5. Through the mountains to the coast, from Cayey to Salinas. (American Fraternity 1939:np)

Camineros were men between the ages of twenty and forty. Though there is no mention of skin color in any official document, it is to be assumed that they were white or mulatto, not black. The population of Puerto Rico had become predominantly *parda* (mulatto) since the eighteenth century. (Sued Badillo and López Cantos 1986) Consequently, the high prevalence of mulattoes, the generalized discrimination towards blacks that is still a part of Puerto Rican society, and the high sense of responsibility expected from *camineros* allow for such a conjecture.

They had to be either honorably discharged men from the armed forces, or rustic farmhands. A clean bill of health and a certificate of good conduct were requisites. Generally, married men who could read and write, and whose work had been satisfactory for a period of at least two years were appointed as overseers. Whenever they were unable to find enough capable men to fill the available positions, army sergeants were recruited among local infantry and assigned as foremen. All of the above would be allocated in a *casilla*. However, day laborers were sometimes hired to work along with the regular road menders for major repairs. (Castro 1969:101)

Road laborers were assigned to work every single day of the year, from sunrise to sundown, with three daily breaks (lunch, afternoon

snack, and dinner) totaling no more than two and a half hours a day. Every two days they had to survey the entire tract, looking out for the general state of the road. When doing so they had to wear their uniforms and an identification plate. Also they would carry a rifle. Those in supervisory positions were responsible for the rendition of condition reports, for the division of labor among *camineros*, and for the state property surrendered to them (tools, materials, firearms, uniforms, etc.). (Castro 1969:112)

While the pay was considered to be low, and the hours clearly show the level of exploitation, being a *peón caminero* was for many farmhands the first opportunity to hold a steady job with chances for promotion. Entry-level laborers could aspire to become overseers after ten years of good work. Annual awards were also given to those whose work was commendable. Besides, special funds had been provided so that those affected by handicapping accidents during working hours and those who reached old age could retire. (Castro 1969:112-113)

Still, the premium benefit from becoming a *caminero* was the fact that housing was provided. These houses, with the exception of a few early wooden ones, were solidly constructed in brick and stone, a dramatic change from the impermanent kind of housing that was common in rural Puerto Rico. Even in the capital city of San Juan

"housing construction is as varied as the castes and social classes of its inhabitants. The houses of the Spaniards and of other wealthy citizens are made of stone masonry and tile-covered roofs; some have flat roofs... The floor is frequently covered with floorboard, sometimes with brick, often it is just compressed dirt... Dwellings resided in by mulattoes and blacks are built of wooden boards. (Abbad y Lasierra 1971:110-111)

For the *caminero* and for the townspeople the *casillas* were a sign of progress, of increased status. The person who moved from a *bohío* or one room cottage to a *casilla de caminero* was clearly acquiring prestige, thus improving his social position. Quite contrary to casillas, vernacular architecture was humble and impermanent. Outside of San Juan and Ponce, urban residences were wooden two story houses with either wood shingle or Spanish tile covered roofs. Houses located in the outskirts were generally built of palm tree boards, covered with a thatched (straw or reed) roof. They were called *bohíos* after the term coined for indigenous *Taíno* housing, completely built out of thatch without the use of wooden planks. Unfortunately, there is insufficient data to further explore the intricacies of *Taíno* dwellings and explore the transformations they must have undergone. Recent archaeological evidence at a prehistoric site shows the presence of single family (*bohío*

or *caney* in Island Arawak) and multi family residences (*maloka*, in mainland Arawak).

Photo 6. Urban housing in the town of Caguas. (Olivares 1899I:292)

Photo 7. *Bohío*. (Olivares 1899I:288)

Casillas had to satisfy the double purpose of being official buildings, while at the same time serving as home to one road mender, his family and two apprentices, or to two road menders and their respective families. (Lucío del Valle 1939:np; Guitián 1861:np) Both the official character and the reality of sharing the already limited space with non-family members had a particular impact on the living conditions.

While the idea of comfort might as well be a modern invention (Rybczynski 1986), the concept of personalizing could be argued to go back to prehistoric times. In any case, it becomes clear after visiting or looking at the floor plans for these houses that neither was taken into account in their design. When adapting the Spanish *casillas* to the tropical climate, comfort was limited to having somewhat larger windows. Rooms were still just as small. They seem especially so when considering the number of people residing together; although, in comparison to a *bohío*, they could be considered adequate or even commodious.

Personalizing the space was not an easy task for road menders or their families either. Unauthorized to make structural changes to the *casillas*, the way of personalizing these buildings would have been the inclusion of heirloom or other personal belongings. But road menders

were people of modest means, and chattel was probably limited to a few essential house goods.

Perchance the living conditions of road menders were most similar to that of lighthouse operators and their families. In considering this other work group we find a similar situation: a man who is offered housing in order to guarantee and ease the long hours of work. Again the building itself serves the double purpose of acting as a governmental facility, while being home to the people who tend to the obligations related to it. In both cases, the living quarters were determined by the official function of the building.

Upon the occurrence of any natural disaster, especially the frequent hurricanes, most of the houses in any affected town were destroyed, while the brick and stone masonry *casillas* survived. At times isolated by debris or damages to the road tract, they stood as reminders that communications and transportation would be restored.

For the state, the houses served to guarantee the availability of road menders in each locus. The steady and immutable presence of *camineros* along the colony's primary roads served as an ever-present extension of the central government throughout the Island. Their periodic communication with Public Works officials in San Juan was the first regular island-wide affair. For both landowners and merchants,

casillas provided shelter to those on whose work their fortunes depended. These were the daily providers of good transportation conditions, which were at the time regarded as the basis for a foreseeable economic boom.

A total of forty-seven houses were built between 1844 and 1898. An additional thirty were built between 1915 and 1954. Most of the existing roads in Puerto Rico were constructed during these two periods. The first construction period marks the waning of the Spanish empire. As public policy was being enacted to aid this last of the faithful colonies, local authorities found support for the construction of roads, channels, ports, lighthouses, and telegraph lines. Undoubtedly the employers of many a laborers, these public works were perhaps a disguise to conceal the political and economic stress, and to boost social cohesion and morale among locals.

Similarly, the second construction period marks another time of economic stress. More dependent than ever before on costly imports, while producing low-priced crops, public works again offered a source of employment and great expectations, particularly after the end of World War I.

Casillas and *camineros* were an articulated and interdependent series of elements that, in the course of unsteady times, encouraged the

transformation of the mountainous, previously unchartered, territory and the development of a cultural landscape throughout the island of Puerto Rico.

What had long been the plans and projects for the development of systematic, efficient and socially useful means of communication, were finally taking place, at two different moments, with the adoption of one same conservation system: that of the *casilla* and *peon caminero*.

CHAPTER III

TRADITION INTO TRANSITION

Originally intended to serve as residences for road laborers, the *casillas* have served several purposes throughout time. Ironically, they played an important part in the move towards a changing and more active economy; it was to be one in which more modern needs would eventually exceed what the *caminero* system had to offer.

The first documented alternative use was as temporary quarters for Cuban prisoners. These had been brought over in 1878 as laborers for the construction of roads. (AGPR 576; Castro 1969:99-109; Esteves 1919:83-105) This early additional use has prompted the erroneous notion that some *casillas* were intended as prisons when first built. Such is the interpretation provided by Miguel Meléndez Muñoz (1982:31) in what has become a frequently quoted folk history book.

The solid construction that was characteristic of road menders' houses, as well as their strategic distribution all over the island, made them obvious choice positions for military outposts. The Spanish army required in 1868 the use of at least one house for non-civil activities. (AGPR Leg.576) Even though the military had taken part in suggesting the routes to be covered by the road plan, this was the first time they

were to actually take advantage of their foresight. Furthermore, some action was seen in the surroundings of some of these *casillas* during the American invasion of 1898. Dead Spanish soldiers were initially taken to the nearest road menders' house. (Rivero Meléndez 1920:245) In addition to this, Americans mistook the houses for official military outposts, and many generals took it upon themselves to take over these in their effort to successfully defeat the Spanish resistance. Rivero Meléndez (1920), a Commander during the war stationed at Castillo de San Cristóbal in Old San Juan, mentions at least four instances of action and takeover at different *casillas*. Hence the US Navy was also to take advantage of initial Spanish military intelligence. Upon execution of the Treaty of Paris, and the subsequent installation of a military government to administer the new colony, the US Army Corps of Engineers would manage local infrastructure, including roads and bridges.

Photo 7. American volunteers along route #1. (Olivares 1899II:386)

The years between 1905 and 1914 mark a hiatus in which the road mender/menders' house system was put on hold. *Camineros* were suspended from their job. It is unclear from available documentation how many were required to vacate the houses. Additional *casillas* were not being built. In 1915, some *camineros* were reinstalled, and houses were being built again. The system was now be supported by San Juan-based brigades of workers. (Esteves 1919)

By 1918 the military government had come up with a overhaul of the education system in Puerto Rico. Many of the *casillas* took on a new life. At least five houses had been turned over to the Department of Education for their new use as public rural schools. As such, each duplex house held two classrooms, one teacher each, where students of all ages would sit together and learn about a new society. (Two of these are still serving as such).

Though originally remote in location, the *casillas* benefited as well from the economic boom brought forth by the presence of permanent roads and access. By the mid twentieth-century, these houses were still considered privileged in terms of construction, and ideal in terms of site: surrounded by nature, cool in temperature and distant from the urban and economic center of San Juan. As such, other uses include one that served as a country home for the Chief Justice of the local Supreme

Court, and one that was assigned to the governor as a summer residence. (AGPR Legs.576, 582, 588) During the 1950's another two of these were assigned to the Secretary of Transportation and Public Works, one in the metropolitan area of San Juan as a principal residence and the other as a secondary country home. (Alegría 1996)

Throughout time, the houses frequently served as shelters for the people around them. Their sturdy construction, along with the presence of well-equipped road menders, made these places highly convenient in case of hurricanes or heavy rains. (Alegría 1996) This service appears to be a natural extension of the availability of *casillas* for traveling emergency stops and respites.

Difficult times were ahead for road menders and their houses as of 1954. Then governor Sánchez Vilella, an engineer who had been Secretary of Transportation and Public Works, opted for the termination of the *caminero/casilla* conservation system. Instead, brigades stationed in San Juan were to be sent out whenever and wherever necessary. Furthermore, during his tenure, public transportation trains and trolleys were canceled. (Alegría 1996)

These decisions stemmed from the switch to more modern means that was a part of *Operación Manos a la Obra* (referred to as Operation Bootstrap in English). *Manos a la Obra* had been a sister effort to the

New Deal. Proposed by local governor Luis Muñoz Marín in the late forties, and sponsored by president Roosevelt, it was to be the second major booster for Puerto Rican economy. Many historians have actually compared its objectives and goals to those of the *Real Cédula de Gracia de 1815*. It is thus interesting to note that *casillas,* an integral part of the nineteenth century major overhaul of Puerto Rican economy, were to come to an end under the twentieth century reinvention of the economy.

This situation put an end to a longtime relationship between the road mender and his home. It became so evident, that road menders who wanted to stay at their house were allowed to do so for a minimal fee. Alegría, then Executive Director of the Institute of Puerto Rican Culture, tried to protect these houses from being sold or architecturally damaged, but his efforts were not fully successful. In turn, many road laborers were allowed to purchase their houses; some other houses are still in use as equipment sheds for the Public Works Authority. Others have been claimed as facilities by regional cultural centers, which are affiliated to the Institute of Puerto Rican Culture. Some are well-kept residences, and some others have been abandoned. One became a regional medical dispensary; one has become a Fuller brush sales shop. Many have disappeared.

Alegría's effort to preserve the *casillas* is perhaps the first official recognition of their significance. In the 1950's these properties were still part of a recent past: the world associated to them had not yet totally disappeared. All the same, the Institute of Puerto Rican Culture claimed their diagnostic architecture, location and social meaning made these houses deserving of the rank of historic site.

In considering the artifactual categories of form and function, it may be said that while function has changed, form has stayed its constant and traditional self. Only two exceptions to this rule exist: the Fuller Brush Store and the governor's summer cottage have undergone major structural modifications. (Although there is no evidence, it is to be assumed that those assigned to the Chief Justice and to the Secretary of Transportation may have undergone alterations.) Surprisingly enough, the ones used as schools have remained virtually unchanged.

The constant form of the *casillas* has become an expected sight when traveling down the old, old roads. The few physical alterations they have suffered allow for generations of Puerto Ricans to easily identify them and relate them to our history. They do not serve political, economic or military purposes anymore. The high impact industrialization of mid twentieth century Puerto Rico and its necessary

infrastructure has new roads of its own, and heavy machinery to take care of them. The obsolete old roads and the remaining road menders' houses by their side, serve the social purpose of standing as an important witness to these past one hundred and fifty six years. They, along with lighthouses and bridges, serve as icons for an endeavor in communication that started long ago and that is still not fulfilled.

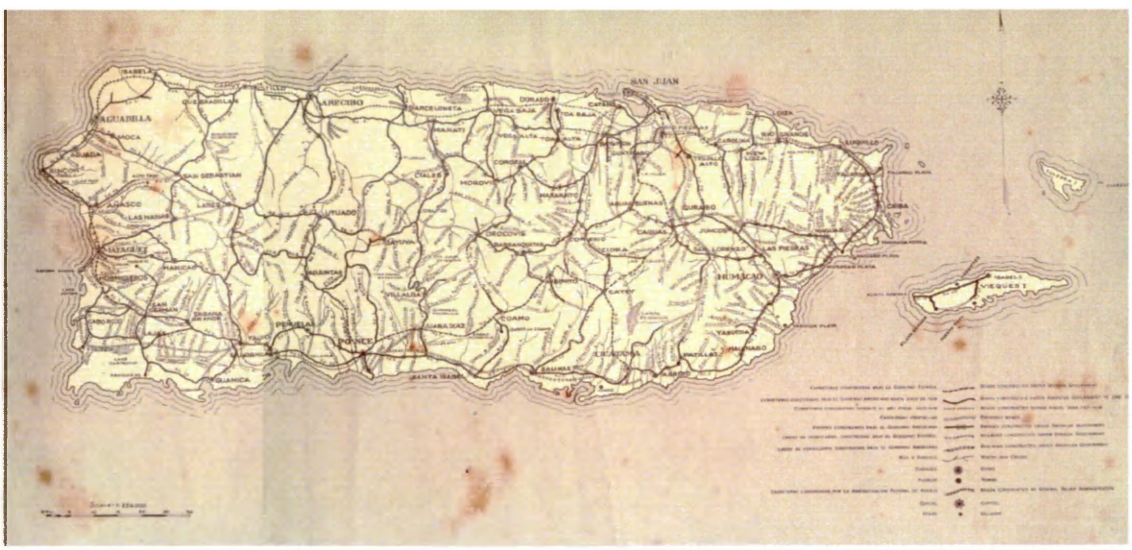


Figure 7. 1937 Road map of the Island. (American Fraternity 1939:np)

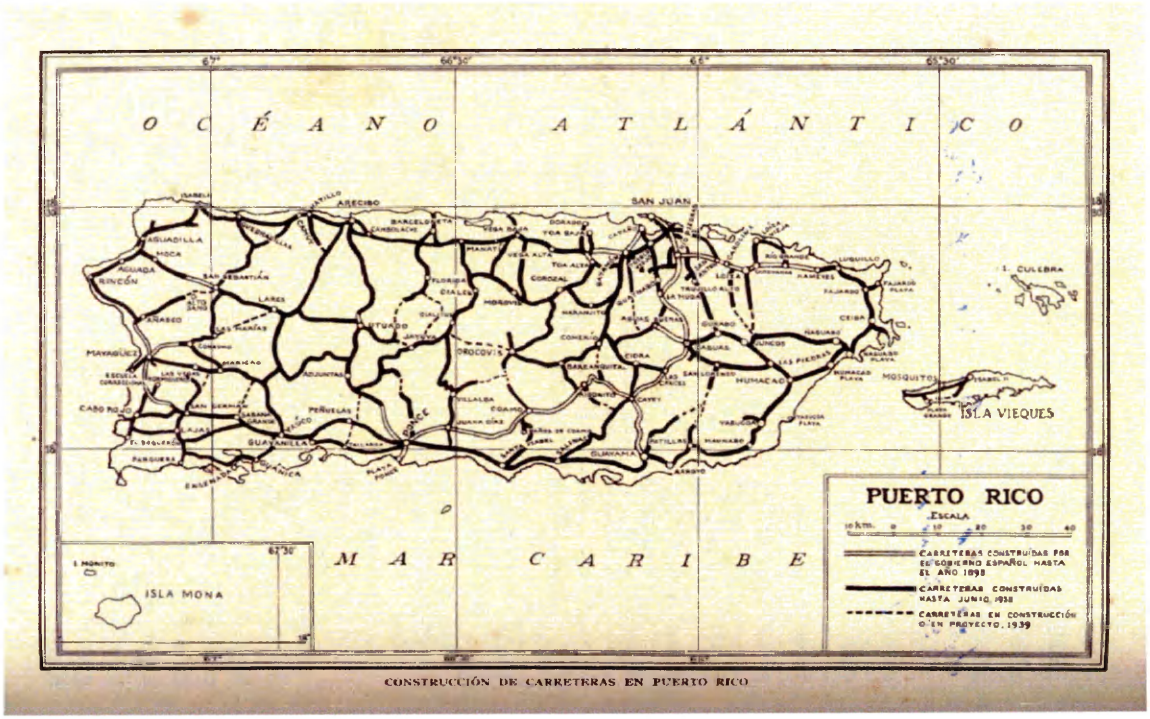


Figure 8. 1939 Road map of the Island. Roads built before 1898 are outlined; roads built by the Americans up to June 1938 are bolded; planned roads are dotted. (Miller 1939:444)

CHAPTER IV

CASILLAS AS ARTIFACTS

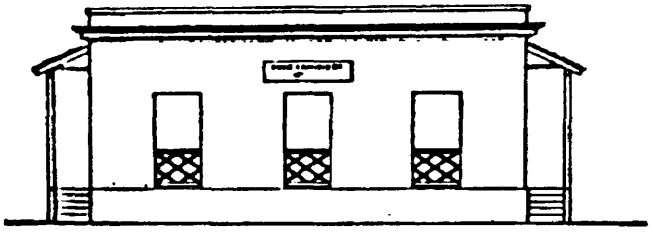
Casillas (frequently called *casas* or *casas de caminero* nowadays) are quite valuable artifacts for the study of political, economic and social transformation through the second half of the nineteenth century and into the twentieth. In this most postmodern world, these houses can clearly be read in as many different ways as is imaginable. Inconsistent voices surround their undeniable presence throughout the island as constant icons of times and people gone by. Architectural features, however, remain and may be understood, as if they were the vocabulary in a complete sentence. Every formal part of each remaining building, associated with the rest of the structure, makes up a discourse of solidity, continuity and quiet safe haven.

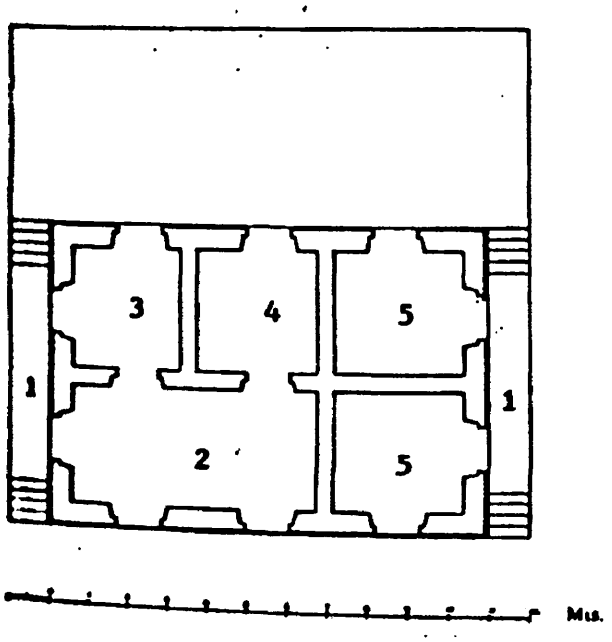
Twenty seven road mender's houses are left in Puerto Rico. Archival materials (AGPR Leg.577-588) mention up to seventy-seven of them as having been built and used (forty-seven of them built under Spanish rule, and the other thirty built after the American invasion of 1898). All remaining *casillas* conform to the pre-established typology that stems from the original design models.

Two original models were designed for their use in Puerto Rico. Model number one included *casillas* made out of rubble-work masonry, brick and wood; model number two houses were to be built entirely out of wood. These simple houses consisted of two small covered balconies, a living room, a diminutive kitchen, one road mender's bedroom, two additional bedrooms (one for each apprentice), and a backyard (where tools were kept, and where a latrine was placed). (Guitián 1861:np) Both of these first designs were eventually dismissed. Model #2 wooden houses were built between the years of 1844 and 1847; model #1 houses were built between the years of 1853 and 1874. (AGPR Legs. 577-588) All model #1 and #2 houses were built along the San Juan to Caguas segment of the *Carretera Central* or central road (please refer to Figure 8).

·MODELO NÚMERO 1·

Casilla para un Peón caminero y dos aspirantes





LEYENDA:

1. Cobertizo o Balcón de Entrada
2. Sala
3. Cocina
4. Dormitorio
5. Habitaciones Para Dos Aspirantes
6. Patio

Figure 9. Elevation and plan view of model #1 *casilla*. (AGPR Leg.576:614)

Wooden houses were inefficient since they required frequent conservation work, for they were obviously susceptible to the elements. Since these houses were meant as stations related to the preservation and routine maintenance of the roads, the *camineros* would not be able to fully comply with their obligations if troubled as well by a damaged house.

Winds, rains, encroaching vegetation, and all sorts of tropical fauna can easily damage a wooden structure that is not exposed to the curing (and pest annihilating) elements of winter. It is not exactly clear how many of the wooden *casillas* were actually built. There is reference to the construction of one as a substitute for a condemned other. (AGPR Leg.576:809) Construction techniques were easy, *bohíos* dotted the landscape, but the problems were too many.

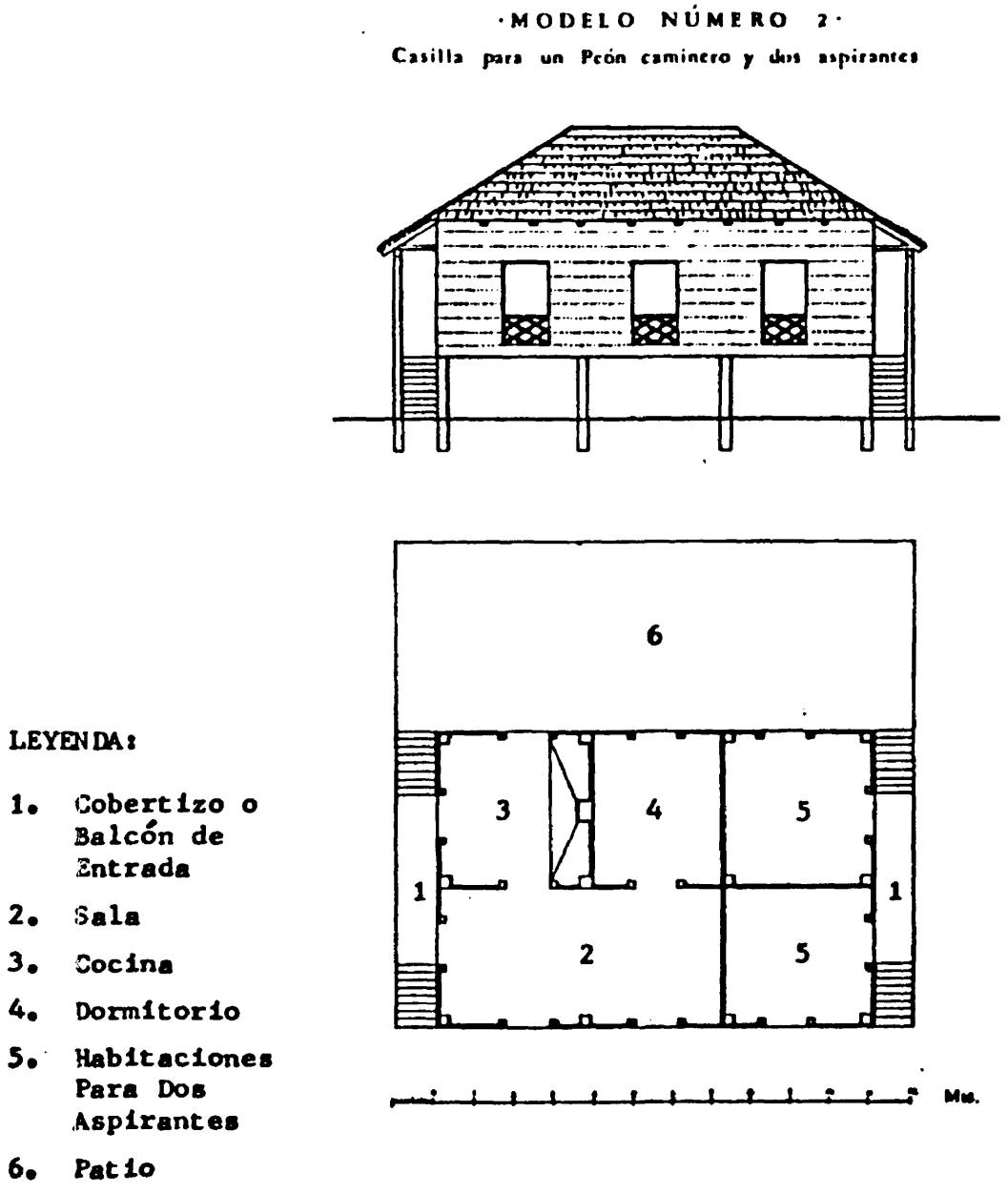


Figure 10. Elevation and plan view of model #2 *casilla*. (AGPR Leg.576:614)

Model #1 houses did not pose a conservation problem. Nevertheless, after pondering upon an incident which occurred in 1863,

in which a *caminero* was robbed and beaten (AGPR Leg.576:2685), it was reckoned appropriate to have two permanent road menders per location (since apprentices would come and go). Duplex houses quickly substituted the simpler model #1 houses. This alternative was much less expensive than the construction of two side by side houses.

Two different styles of duplex houses were designed under Spanish rule. The first one –that we will call #3a– had a common entrance leading to a central hall. Each house had its own living room, kitchen, and two bedrooms. A shed was provided in the backyard for keeping tools and for the latrine. The second duplex –#3b– house was fundamentally the same, the only major change being the substitution of a dividing brick wall for a central hall, and consequently the use of two separate entrance doors. These were built along the rest of the *Carretera Central*, the Caguas to Ponce segment, and along the additional stretches of road built elsewhere throughout the island.

The houses built during the latter period of construction (1915-1954), under the American regime, are similar in overall shape to the previous ones but somewhat simpler and built in cement. They are also smaller in size. Duplexes as well, with one exception, they reincorporate the central hall along with a shared parlor. The floor plan was a reduced version of that for model #3a casillas. Perhaps it was an

inaccurate translation of metric to English measurement units that accounted for the reduction in size. Each dwelling consists of only two rooms. Kitchens, sheds, and latrines were placed outside.

A common element to all duplex *casilla* models is the absence of a formal kitchen; all lack a dining room. While dining could happen in the living room or outdoors, the zinc-covered shed in the backyard would make do as cook-room, animal shelter and tool repository, and provide a roofed corner for a latrine. The backyard thus became an added vital space.

In general terms, these houses show a definite influence from the European central hall houses and from Spanish Renaissance architecture. With the exception of the earliest ones, *casillas* are central hall houses. The construction technique, using masonry, brick and calcareous stone is however consonant with Spanish tradition. The roofing was also Spanish, consisting of three layers of thin brick over an assemblage of tropical hardwood (*ausubo)* beams.

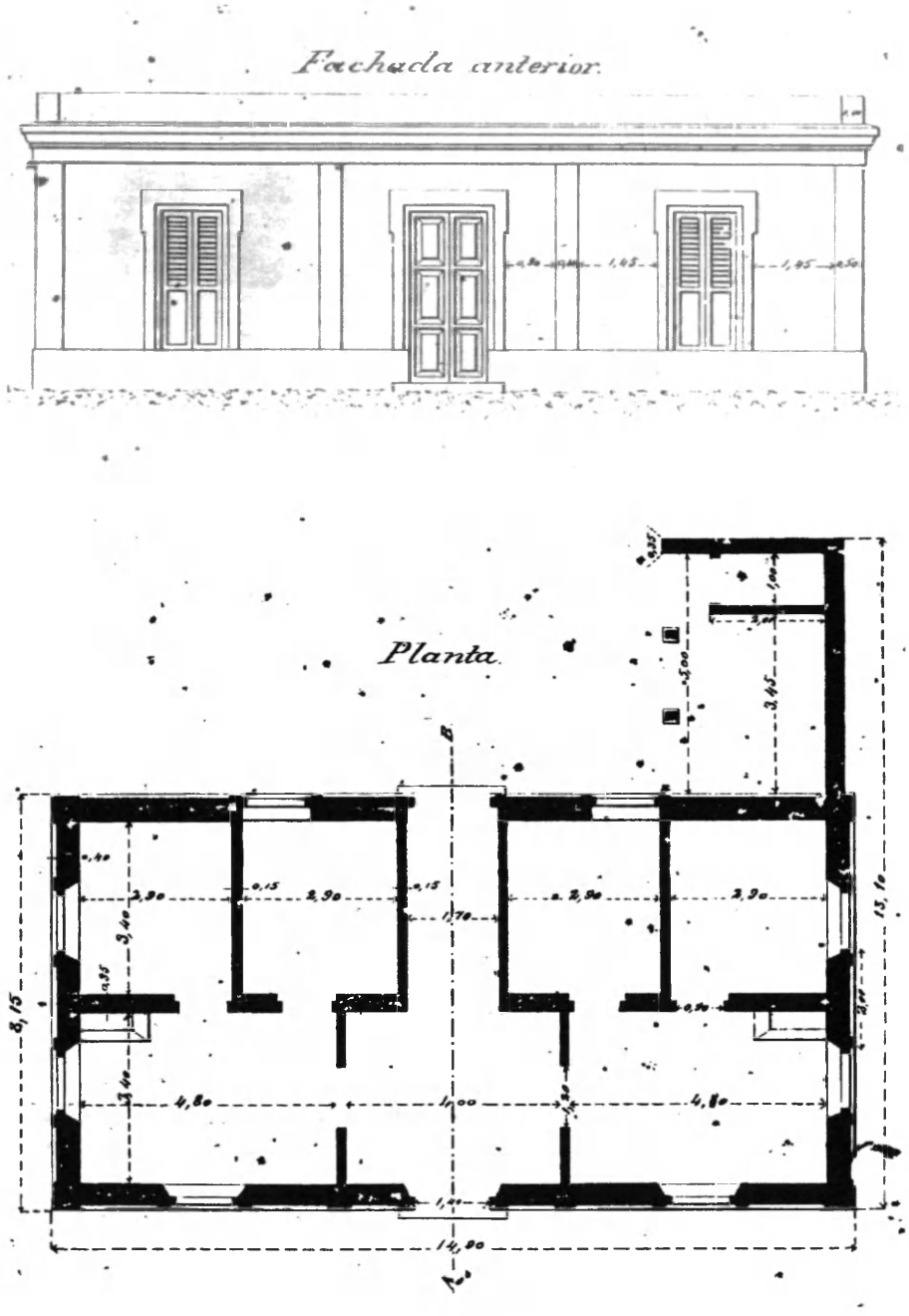


Figure 11. Elevation and plan view of model #3a *casilla*. (AGPR Leg.580:210)

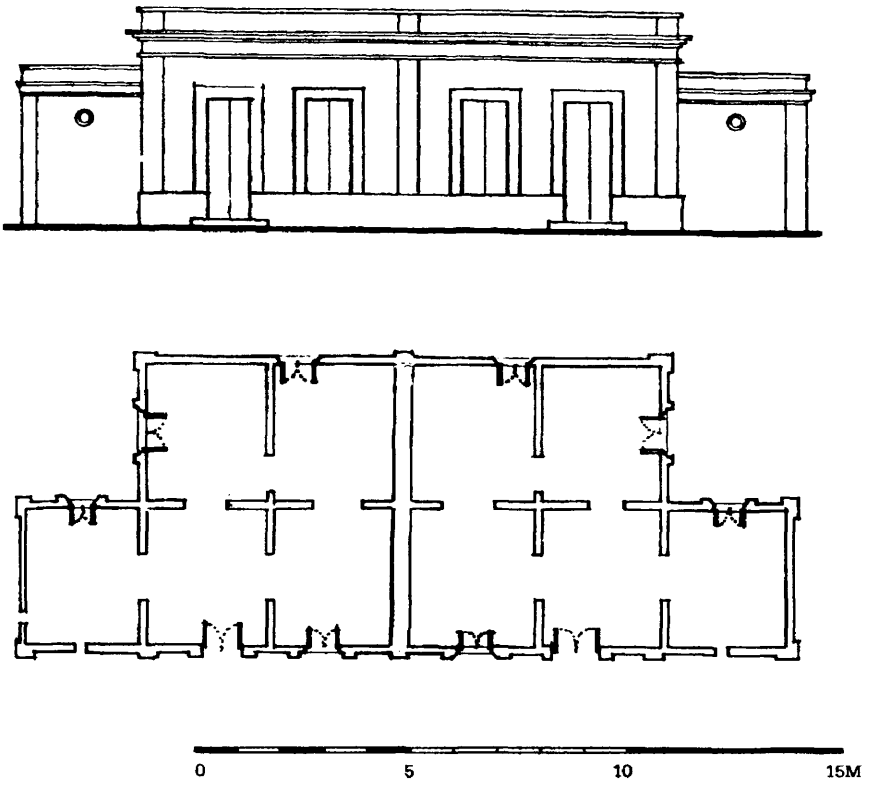


Figure 12. Elevation and plan view of model #3b *casilla* in Cayey.

The facades are sober, and the presence is that of a *casa-fuerte* (strong-house). *Casas-fuerte* were those dwellings constructed by the Spaniards where potential military use was taken into consideration. It was a tradition long established in Puerto Rico, from the very settlement of Caparra upon arrival of Juan Ponce De León. In a sense, *casillas* are the last of these strong-houses. Consequently, they are built to last and

to inspire a sense of permanence on those who come about them. This is certainly true about *casillas*.

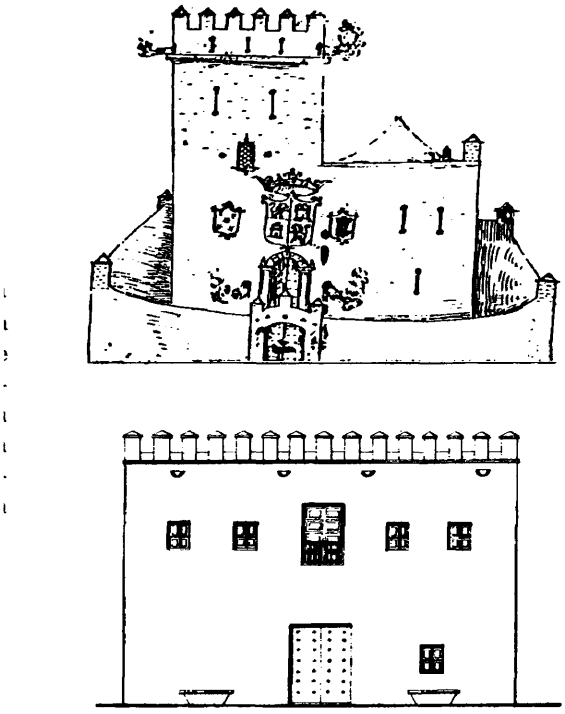


Figure 13. Hostos' interpretation of alternatives for Ponce de León's *casa-fuerte*. (Sepúlveda 1989:40)

Photo 9. Road menders' house in Cayey.

Road menders' houses are symmetrical and simple. Their only decorative aspect is a frieze and matching cornice that embellish the pilasters, and sometimes even the windows and doors. This simplicity of form and the solid, almost fort-like construction speak of endurance and stability. It is precisely this simplicity that made the houses multi-functional, thus allowing them to be successfully used for so many different purposes. The good foundations, firm walls and secure roofing essentially provide a safe, enclosed space that was built to last.

Photo 10. Only remaining model #1 *casilla*, Caguas.

Model #1 design set the standard for the appearance of all masonry *casillas*: the central door, with large windows to each side, the frieze, the moldings. This Caguas example shows exquisite manual labor in its construction, although recent additions (ironworks and pseudo-brick flower beds) suppress the general effect. This house is currently used as a private residence.

Photo 11. Model #3a ruins, Aibonito.

Photo 12. Model #3a *casilla*, Cayey. Currently a grade school.

Photo 13. Model #3a *casilla*, Coamo. Currently a residence.

Model #3a *casillas*, designed after model #1, show the transition from small single dwelling to medium sized duplex. The front door gives way to a shared central hall (as depicted in figure 11) that provides access to either residence. Construction materials are the same, though there is an added element of stucco in the Coamo example. This may respond to a lack of appropriate stones or to a need for cost efficient solutions. A more rudimentary brick and stone masonry work was disguised under the stucco.

Photo 14. Model #3a. Coamo. Department of Transportation and Public Works.

Photo 15. Model #3a *casilla*, Santa Isabel. Department of Transportation and Public Works.

Photo 16. Model #3a *casilla*, Caguas. Department of Transportation and Public Works

An additional variance in the frontispice is the use of diminished or jack arches on frontal door and windows (not on the side windows, as shown in photo 15). The windows are smaller than those in flat lintel houses. An additional protruding molding, acting as a zocle, is the last dividing element in what becomes a three-bodied façade: frieze and upper parapet, living area, and support. This zocle is an added element of ornamentation in the most plain looking of all variations. Two houses, shown in photos 14 and 15 add a faux pediment that is projected from the main door cornice to the frieze and parapet, as if making room for the placing of a coat of arms.

Photo 17. Detail of faux pediment.

Photo 18. Model #3b *casilla*, Cayey. Department of Transportation and Public Works.

Photo 19. Governor's country *casilla*. Cayey. (American Fraternity 1937:np)

Photo 18 presents the only example of a model #3b house that still stands unchanged. The hereditary traits are evident. To substitute for the presence of a strong central vertical statement, as was the main entrance, a brick molding assumes the position. The governor's country residence is the other extant model #3b *casilla*. While the historic photograph may not be clear, the modern rendering reveals the transformation.

Photo 20. Governor's country *casilla*, present day.

Photo 21. Exceptional twentieth century single family *casilla*.

The inherent message encoded in road menders' houses was abridged in the buildings constructed under American rule. They were also further apart from one another, resulting in a comparative scarcity of *casillas* along American built roads. Still, bared to the minimum, the strong vertical and horizontal lines, as well as the use of concrete – which was thought to be the essence of modernization and to last forever, gave these smaller *casillas* the necessary attributes to be recognized as official government facilities. Regard for them has diminished through the last fifty years. Perhaps the cement construction, so widespread since the apogee of *Manos a la Obra*, deprived them of the magical charm that grew among the population regarding their stone and brick masonry counterparts. None exist.

Walkover and surface reconnaissance at twelve *casilla* sites showed little evidence of artifactual remains other than the buildings per se. Long-term usage, terrain accidents (including steep slopes behind most), subsistence agriculture, structural alterations, and the impact of heavy machinery have practically eclipsed the possibility of supplementary archaeological materials.

But the houses, in the combined ideology of permanence and simplicity, point toward a conservative society. Good, strong, and long

lasting was the image the government wanted to present of itself. It was also a subliminal recipe for civilized people and respectable families. Strong moral and social values were thus encoded in these constructions.

Taking into account the long period of time during which *casillas* were built, there is actually little variation among them.

CHAPTER V

DISCUSSION

Historical archaeology is a richly multidisciplinary branch of learning that benefits from the long established methodologies of anthropology, history, archaeology and ethnohistory. There is room in historical archaeology for the study of all aspects of post-prehistoric human life. Leading academicians Orser (1996), Deagan (1982), Schuyler (1978), Deetz (1994) and Domínguez (1996) generally agree that the subject period for historical archaeology in America begins in 1492 and extends to include the present. It comprises the material manifestations of Western civilization in the non-European parts of the world. Whilst apparently Euro-centric, it is historical archaeology that has given voice and meaning to the material culture of the *people without history* (after Wolf 1982), and to the reciprocal interaction and resulting synchretism that will emerge in all "discovered lands". Historical archaeology is then much more about connection and adaptation, than about segregation and ethnocentrism.

Orser and Fagan argue that historical archaeology was born in the 1960's and 1970's, after the new awareness amongst archaeologists and historians for inquiry about daily life of those not mentioned in

historic documents. (1995:37) With all due respect, this is a limited and limiting suggestion of derivation for such a discipline. It relegates historical archaeology to a recent effort by the said authors and their known peers to do what ethno-historians had been doing already. Historical archaeology, if lacking a proper name, had long existed before the 1960's. In the case of Puerto Rico, Dr. Adolfo de Hostos excavated the site of Caparra, Juan Ponce de León's 1508 settlement, in the mid 1930's. The final report was published in 1938. [It is by sheer coincidence that Hostos' seminal work was devoted to the first local strong house, this work is devoted to the few last.]

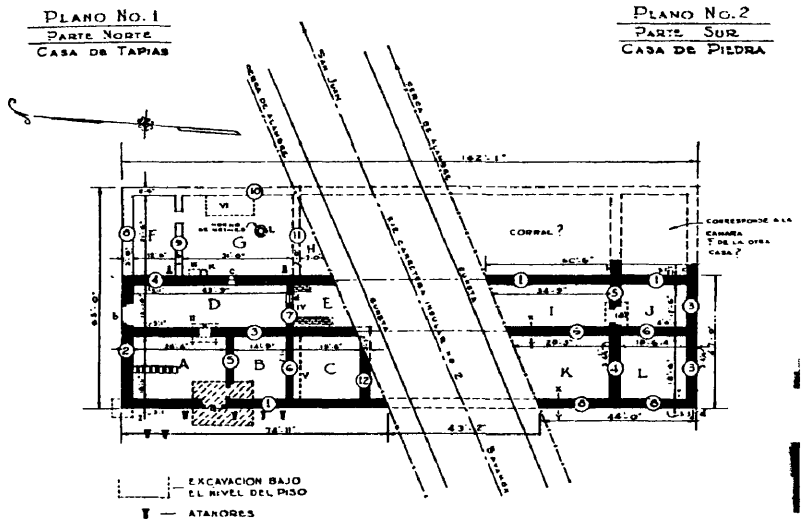


Figure 14. Excavation drawing of Caparra ruins, by Hostos. (Sepúlveda 1989:42)

Photo 22. 1938 Aerial photograph of excavated Caparra ruins. (Sepúlveda 1989:43)

Moreover, beyond dates, historical archaeology has a wider grasp of its subject matter in incorporating the critical reading of documents, making use of oral history and analyzing material culture to freshly interpret not only daily life, but how it is effected by global colonialism, capitalism, industrialization, undocumented illicit behavior, and the rise of modern life.

Material remains are the result of daily life. The objective determinants of social reproduction are embedded in manufactured articles, among them architectural artifacts. Buildings are to be read, for they reflect the society that ordered them built (function), the available technology (structure), and the artistic theory and style that gave them form and appearance (beauty).

However, with few exceptions, mostly devoted to prehistoric architecture (see Aaberg and Bonsignore 1975, Childe 1950, Flannery and Marcus 1976, Gilman 1987, Rathje and Schiffer 1982, and Willey and Sablof 1974), the interpretation of buildings as archaeological artifacts is much less in vogue or sophisticated than lithic, ceramic or petroglyph analysis, to name a few. Other than as household units, houses are often ignored by anthropologists, who thus fail to see the meaning behind the elements of construction. In an effort to recover meaning, we will examine the pattern for road menders' houses by reaching for the classical Vitruvian triangle of architecture.

Vitruvius' classic triangle for the consideration of architecture - *Utilitas*, *Firmitas*, *Venustas* - is still an essential analytical tool. In *casillas*, *Utilitas* or purpose was determined by the need to triumph over nature in an effort to put forward Puerto Rico's agrarian economy. The program was simple: In the midst of the waning of the Spanish empire, both peninsular and insular metropolis had to actively promote the economic growth of the Island. New roads were required; road mender's as well. Road menders' houses were to be built, by the side of the roads, in order to provide for the conservation of the thoroughfares and for the safety of their users. Later on, as the American colony was more fiscally dependent than ever, a similar plan was put in effect.

Firmitas, the structural solution to the proposed program, was dictated by the availability of materials and technology. Wooden houses, the initial solution, proved unsatisfactory to the purpose. Soon enough a more permanent and almost maintenance-free option was afforded using stone, brick and mortar.

Venustas, beauty and the art of architecture, had little to do with the Puerto Rican setting. Façades were a reshuffling of the Spanish road menders' houses, with adjustments to the tropical climate: higher ceilings, larger windows, a cistern if away from bodies of water. Nonetheless, the tropical countryside offered a luscious green backdrop that exalts the *casillas* formal shape, exposed textures, and impressive stance.

It is this stance that was purposefully meant to convey meaning. Architectural artifacts are a form of language, of communication. Design, context and their place in society insinuate significant connotations. The public would at first glance recognize the color, scale and weight of road menders' houses. The formality is evident in the simple symmetry and decorous quietness, dominated by a strong axial alignment. Emphasis is achieved through evenly spaced openings of repetitive design and centered main doors, crowned by a horizontal cornice. The choice of materials unavailable to vernacular architecture

and often left exposed –stone, brick, mortar and hardwood– further add to the impression of official outpost. By quoting classical elements, *casillas* share in the aura of civic virtue, rectitude, longevity, stability and power. It is not accidental that governments have incorporated classical style into civic architecture. In their classical steadiness, each *casilla* seems to dominate its surrounding nature. Each *casilla* is a constant reminder of the state's role in the man versus nature saga: the quest to overcome the obstacles set forth by the local topography and thick tropical vegetation.

Casillas provided the first incidental glimpses of simplified classicism throughout the landscape. But this was not an isolated phenomenon. Physical transformations were occurring in the capital city of San Juan after the arrival in 1839 of Santiago Cortijo Fuertes, an experienced engineer, who occupied the position of Royal Corps of Engineers Commander. (Castro 1980:237) Cortijo Fuertes was responsible for the renovation of San Juan public façades in order to obliterate the medieval and baroque aspects of the city and to afford it a neoclassical new look. New constructions were regulated, façades were realigned, and residents were encouraged to adapt their properties to the new forms. The strong vertical and horizontal lines had become a common element to all public buildings.

Casillas, however, are noteworthy in their dual purpose as civil statements and as places of abode. The restricted interior spaces, absence of a formal kitchen or dining room, and lack of individuality clearly show that preference was given to the public image rather than to the private comfort. Symmetry preceded considerations of use. It was the government's needs and not the road menders' that were being satisfied. Each house, to the authorities, was more a shelter than a home. Each shelter served as repository of equipment, tools, and able hands. Each *casilla* seemed to hide the life stories of those whose effort was indispensable in the never-ending conflict of man versus nature.

Photos 23-28. Details: central hall, zinc-covered shed, cornice, ceiling, roof construction. Model #3a *casillla*, Aibonito.

"Buildings have lives in time, and those lives are intimately connected with the lives of the people who use them. Buildings come into being at particular moments and in particular circumstances. They change and perhaps grow as the lives of their users change. Eventually –when, for whatever reason, people no longer find them useful– they die". (Waddy 1990:xi)

Dell Upton has argued in favor of the many stories a building can tell. (Upton 1998) As researchers were are forced to choose which story to claim and recover. I have chosen to study *casillas* as social manifestations of two periods in which, reacting to the same physical environment and to precarious economic conditions, two different conquerors opted for the same development plan. The Spanish created a working group and a introduced a new building typology to the Puerto Rican landscape. Then, for the first few years under the American regime, the system lay dormant, only to be soon after reinstalled.

The life span of *casillas*, as they were meant to be, lasted for a century. The way of life in Puerto Rico had allowed for one hundred years of efficiency on behalf of the road mender conservation system. The whole time road menders' houses stood as markers for the expansion and presence of the Spanish colonial rule throughout the Island, as safe places, as indicators of the American invasion, as an

unyielding discontiguous district of collective memory. As the way of life underwent a radical transformation, from an agrarian capitalist society to an industrial and manufacture capitalist economy, the perceived effectiveness of *camineros* and *casillas* came to an end.

Solid simplicity was key to the many layers of potential interpretation, both during the *caminero* years and in present day retrospect. In design and construction, some architectural artifacts become long lasting on the basis of how the form and function relation is optimized in them. Such is the case of lighthouses, where form and function go hand in hand. *Casillas* are the exact opposite.

The floor plans of road menders' houses were no reflection of user or use. They encoded a message that exceeded the immediate practical level. In doing so, they acted as manifesto in the construction of nineteenth century state ideology: conscientious observation of a *casilla* placed the witness in front of state architecture, not a home, not a workplace. This characteristic set road menders' houses apart.

Twenty-seven of these buildings have outlasted their original purpose. Without much physical transformation, they have outlived their context, and are no longer an active part in the development of local capitalism. The straightforward morphology of *casillas* has consented to new usages; the façades have effortlessly assumed the

new roles. The unique visual discourse may have changed, but this has to do with context and the reciprocity between building, space and time (Caniggia and Maffei 1979), not with building modifications.

The impersonal sobriety that still characterizes the remaining *casillas*, their uncomplicated floor plan, the sturdy walls, and the wealth of evocations have afforded the houses a multi-use worth that has been key to their preservation.

There are many challenges to be met in this regard. *Casillas* should be formally inventoried and included in the Puerto Rico Planning Board's Register of Historic Sites, as well as in National Register of Historic Sites. Management plans should be developed to aid in the prolonged existence of these buildings. Restorations should be mandatory in government-owned ruins. For, if not actively conserved today, future generations would miss the additional layers of information that these artifacts will gather as they become redefined by changing social contexts. *Casillas*, by the side of the roads, rise as incidental snapshots of the past and of the present. May they become snapshots of the future.

The study of architectural artifacts is a basic tool in the understanding of economic formations, as they attest to the functional, structural and aesthetic conventions engendered by that particular

society. The appreciation of form and function is greatly enhanced when looking at the artifact in interpretive ways as well. The constructed world is an artifice, meant to be lived in and meant to be looked at. When a government makes an architectural statement, the building is being put on exhibit; it is on display at the museum of social life. For, as long as the buildings, or the memory of them, subsist, there is a built aspect of material culture that is available to historical archaeologists to tackle, comprehend and admire.

As Vitruvius' triangle moves through the years, when applied to the study of road menders' houses, it is *Venustas* that takes precedence. In our collective memory, *casillas* are no longer by the side of the road; they have become a part of the road. A system intended to surmount the nature is becoming an essential part of the Puerto Rican landscape.

In reviewing *casillas* as an assemblage of architectural artifacts we have embarked on documentary research, physical description, typological analysis, identification of materials, and interpretation of all of the above. We have reflected upon the functional intent behind these constructions, and upon their symbolic content, for architecture itself is a cultural object, it is a human-made, self-serving activity. (Norberg-Schulz 1965)

We have come to realize that the initial construction of *casillas* coincides with a period of political and economic instability, and that their physical aspect is consistent with additional construction efforts in the capital city of San Juan. This consistency has aided in the preservation of twenty-seven houses. After a few years of new adjustments, a second period of construction of *casillas* again coincides with socioeconomic stress. This time, however, though equally sober, a lack in connection between the stone masonry monumental architecture of San Juan and the concrete construction of new *casillas* meant little significance to generations of Puerto Ricans who silently saw them disappear. Over both periods of time, the construction of roads opened the doors to new areas of settlement that had resulted inhabitable to any but the earlier indigenous settlers. The location of *casillas* establishes the initial European and *criollo* (Creole) settlements throughout the mountainous interior.

There are many other stories to be told about *casillas de peón caminero*. The life stories of those who resided in them and worked out of these houses, the life stories of those who attended grade school in any of them, the life stories of those who presently live in them. There is room for the construction materials analysis, and for questioning the procurement of said materials.

Even so, the story I have chosen to tell is that which is most intrinsically related to the social relations and economic development in the late nineteenth and early twentieth century Puerto Rico. It is our assertion that the study of historical documents, in conjunction with the evaluation of the physical attributes of architectural artifacts, provides a sound basis for the interpretive analysis of building assemblages as particular responses to a set of cultural and physical forces intrinsic to a particular set of socioeconomic and physical conditions.

BIBLIOGRAPHY

Aaberg, S. And J. Bonsignore. 1975. A Consideration of Time and Labor Expenditure in the Construction Process at the Teotihuacán Pyramid of the Sun and the Poverty Point Mound. *Three Papers on Mesoamerican Archaeology*. Berkeley: Contributions of the University of California Archaeological Research Facility.

Abbad y Lasierra, Fray Iñigo. 1971. *Historia Geográfica, Civil y Natural de la Isla de San Juan de Puerto Rico*. San Juan: Porta Coelli.

Alegría, Ricardo. 1996. Conversations on the topic of road mender's houses. San Juan.

Alonso, María M. and Milagros Flores. 1997. *The Eighteenth Century Caribbean & the British Attack on Puerto Rico in 1797*. San Juan: National Park Service Publicaciones Puertorriqueñas.

American Fraternity. 1939. *Album de Oro de Puerto Rico.*

Brau, Salvador. 1966. *Historia de Puerto Rico*. San Juan: Ediciones Borinquen.

Caniggia and Maffei. 1979. *Lettura dell'edilizia di base*. Milano: Marsilio Editori.

Caro Costas, Aida. 1971. *Antología de lecturas de historia de Puerto Rico*. San Juan: Editorial Universitaria.

———. 1980. *Arquitectura en San Juan de Puerto Rico*. Río Piedras: Editorial Universitaria.

Castro, María de los Ángeles. 1969 *La Construcción de la Carretera Central en Puerto Rico (siglo XIX)*. Tésis de MA, sometida al Departamento de Historia, Universidad de Puerto Rico, Río Piedras.

Childe, V. Gordon. 1950. The Urban Revolution. *Town Planning Review* #221.

Correspondencia: Relativo a la casilla de Jájome Alto, residencia veraniega del Gobernador. Archivo General de Puerto Rico. Legajo 576, sin número.

Correspondencia: Relativo a la casilla de Jájome Alto, residencia veraniega del Gobernador. Archivo General de Puerto Rico. Legajo 582, sin número.

Correspondencia: Relativo a la casilla de Jájome Alto, residencia veraniega del Gobernador. Archivo General de Puerto Rico. Legajo 588, sin número.

Cruz Báez, Ángel David and Thomas D. Boswell. 1977. *Atlas Puerto Rico, Bilingual Edition*. Miami: The Cuban American National Council, Inc.

Cruz Monclova, Lidio. 1979. *Historia de Puerto Rico (Siglo XIX)*. Río Piedras: Editorial Universitaria.

Deagan, Kathleen. 1982. Avenues of inquiry in historical archaeology. *Advances in Archaeological Method and Theory*, vol. 5, edited by M. Schiffer. New York: Academic Press.

Deetz, James. 1994 (7 December). A lecture at The College of William and Mary in Virginia. Williamsburg.

Díaz Soler, Luis M. 1999. "Desarrollo Histórico de Puerto Rico". *Historia y Cultura de Puerto Rico. Desde la época precolombina hasta nuestros días*. San Juan: Fundación Francisco Carvajal.

Domínguez, Lourdes. 1996. Conversations on the topic of historical archaeology. San Juan.

Espediente [*sic*] *sobre traer a esta Isla de la de Cuba 100 confinados sin destino para la construcción de carreteras*. 1978. Ponce: Alcaldía Municipal. Archivo General de Puerto Rico. Legajo 576, sin número.

Esteves, Guillermo. 1919. Construcción de carreteras y puentes. *Informe anual del Comisionado de lo Interior*. San Juan.

Figueroa, Loida. 1971. *Breve Historia de Puerto Rico*. Río Piedras: Ed. Edil.

Flannery, Kent and J. Marcus. 1976. Evolution of the Public Building in Formative Oaxaca. *Cultural Change and Continuity*, edited by C. Cleland. New York: Academic Press.

Fondo de Obras Públicas: Carreteras. Archivo General de Puerto Rico. Legajos 577-588.

Guilman, P. 1987. Architecture as Artifact: Pit Structures and Pueblos in the American Southwest. *American Antiquity* 52(3).

Guitián, Antonio María. 1861. *Casillas de Peones Camineros*. Puerto Rico.

Hostos, Adolfo de. 1938. *Investigaciones arqueológicas en Caparra.* San Juan: Ed. Gobierno de Puerto Rico, Oficina del Historiador.

Lucio del Valle, Víctor Martí. 1839. *Casillas de peones camineros*. Madrid.

Maese, Ing. Manuel. 1882. *Memoria Descriptiva*. Madrid: Ministerio de Ultramar.

Meléndez Muñoz, Miguel. 1963. *Cuentos de la Carretera Central*. Barcelona: Ediciones Rumbos.

Miller, Paul. 1946. *Historia de Puerto Rico*. Chicago: Rand McNally y Compañía.

Norberg-Schulz, Christian. 1965. *Intentions in Architecture*. Cambridge: The MIT Press.

Nueva demarcación para los peones camineros. 1863. Archivo General de Puerto Rico. Legajo 576, expediente 2685.

Olivares, José de. 1899. *Our Islands and Their People as seen with Camera and Pencil*, II Volumes. St. Louis, New York, Chicago, Atlanta: N.D. Thompson Publishing Co.

Orser, Jr., Charles E., Ed. 1996. *Images of the Recent Past: Readings in Historical Arhcaeology*. Walnut Creek: AltaMira Press.

Orser, Jr., Charles E. and Brian M. Fagan. 1995. *Historical Archaeology.* New York: Harper Collins College Publishers.

Patterson, Thomas. 1996. "Civilization and its critics." Unpublished paper.

Proyecto de dos casillas entre Río Añasco y Mayagüez. Archivo General de Puerto Rico. Legajo 580, expediente 210.

Pumarada O'Neill, Luis and María de los Ángeles Castro Arroyo. 1997. *La Carretera Central: un viaje escénico a la historia de Puerto Rico*. San Juan: Oficina Estatal de Preservación Histórica.

Rathje, William and M. Schiffer. 1982. *Archaeology*. New York: Harcourt Brace Jovanovich.

Reclamación al Ramo de Guerra de la casilla No. 1. 1868. Archivo General de Puerto Rico. Legajo 576, expediente 1000.

Rivero Meléndez, Ángel. 1920. *Crónica de la Guerra Hispanoamericana*. Río Piedras: Editorial Edil.

Sepúlveda, Ángel. 1989. *San Juan, Historia ilustrada de su desarrollo urbano, 1508-1898.* San Juan: Carimar.

Schuyler, Robert, Editor. 1978. *Historical Archaeology: A Guide to Substantive and Theoretical Contributions*. Farmingdale: Baywood Publishing Company, Inc.

Sobre construcción de casillas. 1847. Archivo General de Puerto Rico, Legajo 576, expediente 614.

Sued Badillo, Jalil and Ángel López Cantos. 1986. *Puerto Rico Negro*. San Juan: Editorial Cultural.

Upton, Dell. 1998. *Architecture in the United States*. Oxford: Oxford University Press.

Waddy, Patricia. 1990. *Seventeenth Century Roman Palaces*. Cambridge: MIT.

Willey, Gordon and Jeremy Sabloff. 1974. *A History of American Archaeology*. San Francisco: Freeman.

Wolf, Eric and Noel Díaz. 1982. *Europe and the People Without History*. Berkeley: University of California Press.

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