# Childhood in Captivity: Bioarchaeological Evidence from a Late Colonial Sugar Plantation in Central Peru

Claire Maass

Children and childhood have emerged as important topics for understanding the history of African slavery in the Americas. In historical archaeology, analyses of subadult skeletal remains have provided valuable information about the biological and social conditions of captivity, yet children are infrequently the primary subjects of study in African diaspora bioarchaeology. Recent bioarchaeological research at Hacienda La Quebrada, a late colonial sugar plantation in central Peru, brings new data to bear on these subjects. Excavations at the cemetery for the plantation's enslaved African and Afro-descendant population recovered 158 subadults ranging from newborns to 20 years old, who represented 64% of the burial sample. Paleodemographic data and skeletal indicators of stress indicate that enslaved children were disproportionately affected by the conditions of life at Hacienda La Quebrada, particularly because of insufficient diets and susceptibility to infection and disease. Although these results are specific to the context of plantation slavery in Peru's coastal sugar economy, they contribute new information about the history of African slavery in Peru and about the study of childhood in conditions of captivity and colonialism in the Spanish Americas more broadly.

Keywords: historical archaeology, bioarchaeology, children and childhood, African slavery, Peru

La infancia y la niñez han surgido como temáticas importantes para comprender la historia de la esclavitud Africana en las américas. En la arqueología histórica, los análisis de restos óseos humanos han proporcionado información valiosa sobre las condiciones biológicas y sociales de la esclavitud. Sin embargo, a pesar de estas contribuciones, existe poca investigación osteológica focalizada en los niños como sujetos principales en el estudio de la esclavitud y la diáspora Africana. Investigaciones recientes en la Hacienda La Quebrada, una finca azucarera de la época colonial tardía en el centro de Perú, aportan nuevos datos sobre estas problemáticas. Las excavaciones arqueológicas realizadas en el cementerio de Africanos y afrodescendientes esclavizados asociados a la hacienda tuvieron como resultado la recuperación de 158 individuos subadultos, incluyendo desde recién nacidos hasta adolescentes de 20 años, los que representan el 64 por ciento de la muestra total. Los datos paleodemográficos y las evidencias de estrés indican que los niños esclavizados fueron desproporcionadamente impactados por las condiciones de esclavitud en la Hacienda La Quebrada, particularmente como efecto de dietas insuficientes y susceptibilidad a infecciones y enfermedades. Aunque estos resultados son específicos al contexto de la esclavitud en fincas azucareras en la costa central del Perú, aportan nueva información sobre la historia de la esclavitud Africana en el Perú y el estudio de la infancia en condiciones de cautiverio y colonialismo en la América Española en general.

Palabras claves: arqueología histórica, osteología humana, la infancia y la niñez, la esclavitud Africana, Perú

rchaeologists over the past 30 years have made substantial inroads in interpreting different aspects of identity in the burial record. Since the postprocessual turn in the late 1980s, feminist (e.g., Gero and Conkey 1991; Gilchrist 1991; Spector 1993; Wylie 1992), Queer (e.g., Butler 1990; Voss 2006), and critical race (e.g., Epperson 2004) theories have played an important role in diversifying the subjects of

archaeological research, especially by striving toward greater inclusivity for traditionally marginalized groups.

The diversification of archaeological narratives has had a significant impact on the field of African diaspora archaeology. The expansion of Black feminist approaches in recent years has contributed to the greater visibility of women of African descent in narratives of the diaspora and

Claire Maass (claire.maass@sna-intl.com, corresponding author) ■ Postdoctoral Research Associate, Defense POW/MIA Accounting Agency, Joint Base Pearl Harbor-Hickam, HI, USA

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early African American life (Battle-Baptiste 2011; Franklin 2001). Meanwhile, advances in isotopic and ancient DNA analysis have permitted researchers to gather empirical information about the geographic origins and forced migration patterns of African-descended peoples across the globe, illustrating the rich diversity that existed within and across diaspora populations (Laffoon et al. 2013; Price et al. 2006; Schroeder et al. 2009; Smith-Guzmán et al. 2020).

Despite these advances, there still exists a notable gap in existing research: the lives of children of African descent, especially those born into conditions of captivity across the Atlantic world. Recent critiques in both African diaspora history (Bush 2010; Campbell et al. 2009; Duane 2017; King 2011) and bioarchaeology (Beauchesne and Agarwal 2018; Carrera and Rojas-Sepúlveda 2020; Halcrow and Tayles 2008; Sacchi 2010) have raised concerns about the underrepresentation of the roles, status, and experiences of children in existing scholarship. In both fields, scholars argue that this underrepresentation has contributed to the perception that children did not play an active role in public life and cultural production in the past.

This article responds to these concerns by presenting new bioarchaeological information about childhood in conditions of transatlantic slavery. Building on recent scholarship in Afro-Latin American archaeology (e.g., Ferreira 2015; Mantilla Oliveros 2016; Sampeck and Ferreira 2020; Vanvalkenburgh et al. 2016), Latin American historical bioarchaeology (e.g., Delgado 2019; Luna et al. 2014; Ubelaker and Colantonio 2019), and bioarchaeological studies of enslavement (Barrett 2014; Barrett and Blakey 2011), this study aims to contribute new perspectives from the context of plantation slavery in Spanish colonial Peru. As a case study, it examines the findings of recent bioarchaeological and historical research at Hacienda La Quebrada, a former sugar plantation located in the central coastal valley of Cañete, Peru. Since 2016, research at Hacienda La Quebrada has centered on recovery efforts at the colonial cemetery (1748–1817) for enslaved African and Afro-descendant laborers at the plantation. Archaeological excavations at the site resulted in the recovery of an estimated minimum of 245 skeletal individuals,

including 158 subadults ranging from newborns to adolescents up to 20 years old (Maass and Santa Cruz Alcalá 2019; Maass et al. 2019).

Using this sample as a foundation, this study pursues two principal objectives. First, it integrates historical and bioarchaeological data to consider the conditions of captivity and colonial life at Hacienda La Quebrada and their biological impacts on enslaved children. Patterns in subadult mortality and skeletal indicators of nutritional insufficiency, developmental stress, and generalized infectious disease can serve as an index of the health and well-being of enslaved children. By situating these data within a biocultural framework, this study considers what the patterns observed in the skeletal record might suggest about the broader sociohistorical conditions of colonial plantation life and how these conditions shaped the embodied experience of childhood development.

Second, this study draws on patterns in the mortuary record to consider social ideas of child-hood at Hacienda La Quebrada. Patterns in health outcomes and burial treatment across different periods in the life course can offer preliminary insights into how categories of social age were constructed in the past, as well as when enslaved children became more fully integrated as independent actors in the plantation community.

# A Child-Centered Study of Captivity?

In Child Slavery before and after Emancipation: An Argument for Child-Centered Slavery Studies, Anna Mae Duane (2017:5) points to an interesting conundrum in the historiography of childhood and slavery: even though children "have long been central to defining slavery itself," they "are often excluded from the calculus of who counts as a slave." According to Duane, the "imagined child" whose personhood is defined by their relationship to the autonomous adult has often been used to define and justify enslavement. And yet, despite the rhetorical association between ideas of childhood and slavery—which date from ancient Greece to European imperialism and the transatlantic slave trade—the two are infrequently joined in scholarly inquiry.

It is precisely because of these interconnections that child-centered studies can offer critical

insights into the ideologies that have historically been used to justify slavery and the ways in which they shaped the social worlds of enslaved persons. In her study of the colonial politics of childhood in Peru, for instance, Bianca Premo (2005) found that the discourse on slavery and Bourbon policies toward children were steeped in similar ideological notions of patriarchal authority. By framing the ideal relationship between enslaver-enslaved and children-elders according to a generational family model, legal customs during this period naturalized the subordination of enslaved persons and youths. This dynamic had a compounded impact on enslaved children who-as both children and enslavedwere subjected to multiple axes of control in colonial society.

Historical studies of the impacts of transatlantic slavery on children in the United States and Caribbean have revealed similar dynamics. In her study of children and childhood in the nineteenth-century United States, Wilma King (2011) observed that enslaved children's exposure to the simultaneous control of multiple figures of power contributed to their precarity within plantation societies. These conditions not only structured the ways that enslaved children engaged with their surrounding communities but also directly shaped their personal, social, and psychological development. Born into conditions of captivity, children were forced to confront adult situations from an early age, including subjection to forced labor and arbitrary punishment, inability to access proper foods and resources, and separation from loved ones (King 2011:xxi). Barbara Bush (2010) added to this observation by noting how such experiences were often gendered. Not only did female children face additional subjection to sexual abuse and violence but they were also forced into marriage and childbearing from an early age, including as young as 10-12 years old. Exposure to such conditions ultimately led enslaved children to "grow old before their time" (King 2011:xxii), effectively robbing them of their childhood.

Children in African Diaspora Bioarchaeology

As a growing body of scholarship in African diaspora bioarchaeology has demonstrated, such conditions also had direct implications for the biological well-being of enslaved children. Early research at the Newton Plantation in Barbados found that enamel hypoplasia indicating moderate nutritional stress was found in children from a very early age, especially around three to four years old (Corruccini et al. 1982). However, more recent analyses at the site have argued that these findings likely underrepresent the historical realities of highly stressed individuals at the plantation. Excessive rates of hypercementosis and periodontal disease beginning at 13-14 years old suggest that enslaved laborers likely endured multiple episodes of nutritional deprivation, including periodic starvation (Shuler 2005). When combined with evidence of infectious disease, these patterns indicate that enslaved peoples likely faced systemic or repeated physiological stress throughout childhood, which contributed to high rates of subadult mortality (Corruccini et al. 1985, 1987; Handler and Corruccini 1986; Laffoon et al. 2018; Shuler 2005, 2011).

Similar findings were identified during excavations at a cemetery for enslaved Africans and Afro-descendants associated with a plantation in South Carolina (Rathbun 1987). Researchers found widespread evidence of enamel hypoplasia associated with early childhood between the ages of two and four, but they also observed that these conditions varied across skeletal sex. Notably, 92% of adult males presented clearly identifiable evidence of enamel hypoplasia associated with this age range compared to only around 50% of females. These patterns were paralleled by differences in rates of mortality and other indicators of physiological stress, such as osteoarthritis, later in adulthood. Such findings led researchers to suggest that there might have existed gendered differences in the treatment of enslaved peoples at the plantation and that these disparities emerged during childhood (Rathbun 1987).

Groundbreaking studies at the New York African Burial Ground further demonstrated the precarity of infancy and childhood within conditions of captivity. As in previous studies, researchers identified high rates of subadult mortality (43.2%) in the burial population, which was paralleled by evidence of dental pathologies suggesting poor dietary regimens, especially

between the ages of 3.5 and 6.5 (Barrett and Blakey 2011; Blakey et al. 2009). By integrating these bioarchaeological data with information from historical records, researchers found that patterns in health outcomes were likely influenced by the fluctuating social and legal status of children within European systems of colonial slavery. These findings highlight the importance of a child-centered approach in the bioarchaeology of captivity, particularly for elucidating how the specific status of enslaved children may have shaped their embodied experiences within colonial society.

In more recent years, the expansion of bioarchaeological investigations across Caribbean (e.g., Crain 2005; Crespo Muñoz Guevara 2009; Laffoon et al. 2013, 2018) and Latin America (e.g., Beust and Lessa 2020; Pereira 2007; Smith-Guzmán et al. 2020; Tiesler et al. 2010; Wesp 2020) has opened additional pathways for exploring childhood experiences of captivity across different geographic and cultural contexts. For example, like New York African Burial Ground project, bioarchaeological and historical research in Campeche, Mexico, has suggested that the specific status of enslaved peoples of African descent within the colonial casta (caste) system likely played a key role in shaping their living conditions and health outcomes in Spanish colonial society and that this differentiation began as early as childhood (Tiesler et al. 2010). Rates of enamel hypoplasia and other dental pathologies in Campeche's African-descended population not only diverged noticeably from the Indigenous, mestizo, and European inhabitants but also varied between first-generation captives who spent their childhood in Africa and Afrodescendants who were born in colonial Mexico.

Recovery excavations at Cemiterio dos Pretos Novos in Rio de Janiero have provided further insights into the early childhood experiences and the health of enslaved Africans born in diverse parts of Africa and brought to the Americas in conditions of captivity later in life (Beust and Lessa 2020; Pereira 2007). In a 2020 study, preliminary analysis of 129 incisors and canines indicated that nearly half (47%) of the sampled dentition presented at least one or more occurrences of enamel hypoplasia associated with

nutritional stress, disease, or trauma during early development (Beust and Lessa 2020). These findings demonstrate the importance of childhood studies for more fully understanding the biological impacts of captivity and colonialism, both on individual health outcomes and the life trajectories of enslaved peoples and on broader populational trends across both sides of the transatlantic slave trade.

The ongoing expansion of bioarchaeological and paleopathological studies will continue to shed further light on the diversity of embodied experiences, identities, and health outcomes of enslaved peoples of African descent in the colonial world (Ubelaker and Colantonio 2019). However, what existing studies begin to reveal is that, despite some differences across geographic, cultural, and historical contexts, the fundamental pattern indicating the disproportionate impacts of conditions of captivity and colonial life on the health outcomes of enslaved youth persists. This trend calls critical attention to the need for a more comprehensive investigation into childhood in captivity.

## Childhood in Captivity: Insights from Colonial Peru

Historical Background

This article draws on recent archaeological, bioarchaeological, and historical research at Hacienda La Quebrada, a former sugar plantation in the central coastal valley of Cañete, Peru (Figure 1). According to historical records, the plantation was purchased by the Catholic order La Orden de la Buena Muerte in 1741 as part of a series of investments to support its churches, convents, and hospitals in Lima (Morales Polar 2008). Although the estate raised diverse crops and livestock for local consumption, it primarily cultivated sugar. Sugar production represented as much as 90% of the order's total annual income at the end of the eighteenth century, making Hacienda La Quebrada one of the largest producers in the regional economy until its sale in 1849 (Luna 2017; Reyes Flores 1999).

To sustain these expanding rates of production, the Buena Muerte also invested in a population of laborers to work at Hacienda La Quebrada. When the order first purchased the

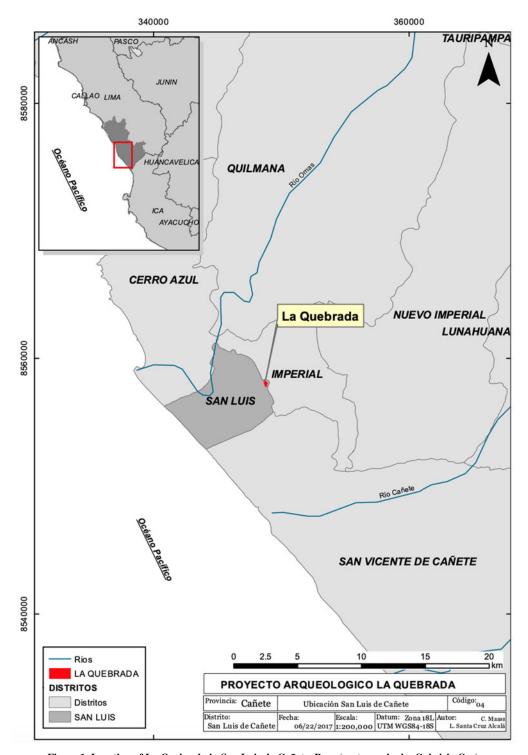


Figure 1. Location of La Quebrada in San Luis de Cañete, Peru (cartography by Gabriela Ore).

estate, this labor was provided by local Indigenous families, who lived on nearby land and worked for a fixed wage. However, as the plantation began to expand in size and scale of production in the 1770s, the order began to import captive African labor. From 1781 to 1792, an estimated 400 enslaved men and women were brought to work at Hacienda La Quebrada; by 1813, 464 of the 2,651 Africans and Afrodescendants living in the valley were captive laborers at the estate, making it the second-largest enslaving property in Cañete (Archivos Arzobispales de Lima [AAL] 1813, Documentos Sobre Padrones, folder 5, vol. 8).

# El Proyecto de Investigación Arqueológica La Quebrada (2016–Present)

Archaeological interventions at Hacienda La Quebrada began in 2016 as part of a collaborative initiative between an international team of researchers and local and descendant stakeholders (Maass and Santa Cruz Alcalá 2019; Maass et al. 2019). The project was developed in response to local and descendant community concerns about the destruction of historic burials in the central plaza of the contemporary town of La Quebrada, which had been unearthed during infrastructure projects. Through consultation with historical records, it was possible to determine that these burials were associated with the colonial period cemetery for enslaved African and Afro-descendant laborers at the former plantation. According to archival documents at the Convent of the Buena Muerte in Lima, the cemetery was created in April 1748 and was designated explicitly for the burial remains of the esclavos negros (Black slaves) who labored at the sugar plantation (Archivos del Convento de La Buenamuerte [ACB] 1748, no. 2904). The cemetery remained in use until December 1817, when concerns about overcrowding led administrators to seek new burial grounds outside the plantation center (ACB 1817, no. 0791).

Primary data collection consisted of multistage archaeological fieldwork over two summers at the cemetery site. The first stage consisted of both a Phase I pedestrian survey and Phase II test excavations throughout the central plaza in 2017. Preliminary excavations used a systematic method of intentional sampling across 12 test units, 4 of which were strategically placed in sensitive areas identified by the project's local collaborators. Through these excavations, it was possible to identify the approximate boundaries of the cemetery, which was an area approximately  $37 \times 6$  m.

Phase III excavations in 2018 were performed in a  $5 \times 14$  m unit directly in front of the chapel entrance, where the highest density of human skeletal remains had been identified during Phase II testing (Figure 2). These excavations yielded three distinct contexts presenting evidence of human skeletal and burial remains. The first consisted of a deposit of modern construction fill from infrastructure projects in the area surrounding the central plaza, including the reconstruction of the colonial period chapel associated with the former plantation. This deposit extended to approximately 60-80 cm beneath the ground surface and contained extensively commingled skeletal elements in varying states of preservation.

Beneath this initial layer of disturbed construction fill, there were two additional contexts presenting evidence of intact burials. Most of the excavation area consisted of individual burials, which were oriented in an east-west orientation with individuals interred supine with their arms crossed over their pelvis or chest. Apart from this orientation, there was no clear organization of the burials within the cemetery space; rather, burials were typically overlapping or layered one on top of the other, with only a thin (2-6 cm) layer of soil to separate them. Importantly, these patterns followed descriptions in the archival records, which indicated that the cemetery was a limited space of allocated land that was continuously used over time, resulting in the overcrowding that ultimately led to its closure (ACB 1817, no. 0791).

Finally, a  $4 \times 4$  m area in the southern portion of the excavation unit contained an intact deposit of commingled subadult remains, which were contemporaneous with the individual burials. Notably, all the individuals identified in this deposit were subadults younger than 10 years old; the vast majority were newborns or infants under the age of three. Except for their separate internment in the southern area of the unit, there was no clear organization of these burials.

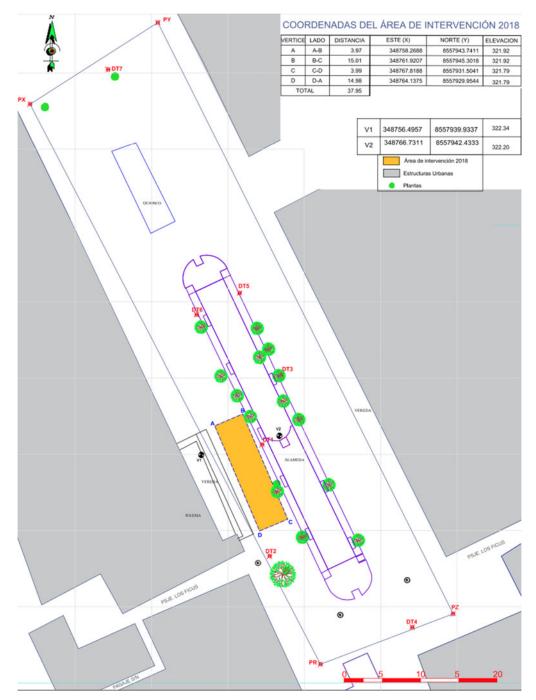


Figure 2. Area of archaeological excavations in the cemetery for enslaved Africans and Afro-descendants (cartography by Alex Robert Zuñiga). (Color online)

# **Materials and Methods**

Recovery excavations produced approximately 19,000 elements and fragments of human

skeletal remains in varying states of conservation. Through careful on-site collection strategies and laboratory-processing methods (Adams and Byrd 2014; Buikstra and Ubelaker 1994), it was possible to identify an estimated minimum of approximately 245 skeletal individuals, accounting for both intact burials and commingled remains. This sample included 10 prenatal individuals; 158 subadults ranging from newborns to 20 years old; 36 adult females; 38 adult males; and 3 adults of indeterminate skeletal sex.

Following widely established standards (Buikstra and Ubelaker 1994), determinations of probable skeletal sex centered on morphological features of the os coxa and cranium, with additional consideration of robusticity in postcranial long bones. Because there are currently no widely accepted methods for estimating sex in subadult individuals, skeletal sex was not assessed for individuals younger than 15–19 years old. All adult individuals and commingled elements were categorized as probable male, probable female, or indeterminate skeletal sex.

Estimations of skeletal age-at-death in sub-adult remains drew on multiple qualitative and quantitative methods, including observations of epiphyseal and primary ossification center formation and fusion, metrics of long bone diaphyseal length and iliac width, and patterns of tooth formation and eruption (Schaefer et al. 2009). Given the methodological concerns limiting precise age determination of some incomplete or commingled remains in this sample, subadult age groups were also categorized using standard and widely applied analytical categories in bioarchaeology (Buikstra and Ubelaker 1994). This terminology, which is used through the rest of this discussion, is summarized in Table 1.

To evaluate the impacts of conditions of captivity and colonial life on the biological health of enslaved children at Hacienda La Quebrada, this study analyzed multiple intersecting patterns of stress in the skeletal record. Although the category of stress often encompasses a range of physiological conditions, researchers working in contexts of captivity and colonialism tend to define stress in relation to three general phenomena: mechanical stress related to physical activity, developmental stress resulting from environmental and nutritional pressures, and pathological stress associated with disease and infection (Blakey and Rankin-Hill 2009; Klaus and Tam 2009; Larsen 1993).

Table 1. Age Categories.

Category	Age Range
Prenatal	< 0
Neonatal	Birth
Newborn	$\leq$ 9 months
Infant	0–3 years
Child	3–12 years
Adolescent	12–20 years
Young adult	20–35 years
Middle adult	35–50 years
Old adult	> 50 years

Source: Buikstra and Ubelaker (1994).

Extreme periods of physiological stress associated with environmental and nutritional factors can leave tangible markers on the human skeleton as it is developing. Two common indicators used to assess physiological stress during childhood development are porotic hyperostosis in the cranial vault and growth-disruption lines in tooth enamel (enamel hypoplasia). Although porotic hyperostosis is often associated with anemia, it may also be linked to nutritional disorders such as scurvy and rickets (Null et al. 2009; Ortner 2003). Radiographic and cross-sectional data have not yet been collected for differential diagnosis; instead, I recorded the presence and spread of porotic hyperostosis as a more general indicator of metabolic dysfunction associated with nutritional stress.

Another condition that is frequently used in bioarchaeological research as an index of systematic metabolic stress during development is enamel hypoplasia. Enamel hypoplasia is a disruption in the development of the dental enamel resulting from generalized or systemic stress; it is typically associated with factors such as infection; low birth weight; insufficient calcium, carbohydrates, or protein; or even trauma (Goodman et al. 1988). Importantly, it may occur when the permanent dental enamel is developing between birth and around 16 years old and thus can provide a general indicator of stress during infancy and early childhood (Corruccini et al. 1982; Goodman and Rose 1990; Handler and Corruccini 1983). For this study, I only used data from intact canines and incisors that could be associated with an individual of assessable skeletal age and sex.

Finally, evidence of generalized infectious disease was assessed based on the presence of periosteal lesions on bone surfaces. Although periostitis can be the result of direct bone infection or trauma, researchers suggest that "most periostitis is associated with an infectious agent" (Null et al. 2009:174). To more accurately assess possible bacterial infection, I also recorded the presence of osteomyelitis. Once again, these analyses relied on established standards (Ortner 2003) and coding systems (Buikstra and Ubelaker 1994) for recording observations of lesions in individual skeletal elements.

## **Research Results**

Demographic and Paleodemographic Data

Bioarchaeological and historical research at Hacienda La Quebrada challenged several presumptions about the nature of African slavery on sugar estates in colonial Peru. As a growing body of intersectional and feminist scholarship (Arrelucea Barrantes 2009; Hünefeldt 1988; McKinley 2016; Premo 2005) has argued, popular and historical accounts of African slavery in Peru often fail to fully address the diversity of identities within enslaved communities. Such narratives have perpetuated an understanding that enslaved labor, especially on rural agricultural estates, was predominantly performed by young adult men, contributing to the invisibility of enslaved children and women.

This study painted a different picture of rural plantation life at Hacienda La Quebrada during the late colonial period. Demographic information from four available census records demonstrated the presence of enslaved children at the plantation, and that their numbers increased through the late eighteenth and early nineteenth centuries. In 1774, Buena Muerte administrators recorded a total 319 enslaved persons at Hacienda La Quebrada, including 33 enslaved children (*párvulo/as*), who accounted for around 10% of the enslaved population. By 1813, the number of enslaved children had risen to 144, or 31% of the enslaved Africans and Afrodescendants at the plantation (Table 2).

Although these demographic trends appear to indicate a sizable expansion in the nonadult population at Hacienda La Quebrada under

Table 2. African and Afro-Descendants at Hacienda La Quebrada: Archival Records.

	1774 <sup>a</sup>	1813 <sup>b</sup>	1815 <sup>c</sup>	1823 <sup>d</sup>
Men	186	165	210	160
Male Children	22	69	210	20
Women	100	155	220	183
Female Children	11	75	228	34
Total	319	464	438	397

<sup>a</sup>AAL 1774, Visitas Pastorales. Cañete autos de certificación para que el cura Manuel Ángel de la Quintana presenta los libros de cofradías de inventarios y el padrón general de españoles y esclavos que trabajan en las haciendas. Exp. 22/Leg. 12.

<sup>b</sup>AAL 1813, Documentos sobre padrones, padrón de esclavos, Leg. Exp. 25/Leg. 12.

<sup>c</sup>ACB Documento Núm.1959, summarized by Pablo Luna (personal communication 2019).

<sup>a</sup>AAL 1823. Cuentas presentadas por el padre José Cairo, prefecto de la religión de la Buenamuerte, relativas a la administración de las haciendas Casablanca y La Quebrada. Exp. 8/Leg. 60.

Buena Muerte's ownership, paleodemographic data suggest that high rates of infant mortality likely limited some of this population growth. Archaeological excavations resulted in the recovery of an estimated 158 subadults under the age of 20, which accounted for more than half of the collected skeletal sample. Calculations of the age-at-death indicated that the greatest number of individuals in the burial sample perished during the first 12 months of life (n = 78, or 33.2% of all subadult and adult individuals). Within the subadult population, this accounted for 49.4% of all deaths, likely contributing to the average subadult age-at-death of around two years old (Table 3).

Skeletal Indicators of Diet, Disease, and Infection

Children who survived the perilous first year of infancy often faced another period of stress before reaching adolescence. Calculations of subadult mortality in the skeletal sample indicated a second mortality peak around the ages of two to five years old. This secondary peak coincided with evidence of the synergistic effects of metabolic stress and generalized infectious disease, as suggested by the presence of enamel hypoplasia and porotic hyperostosis.

In the Hacienda La Quebrada sample, only 96 subadult and adult individuals presented intact

Table 3. Age-at-Death Profile at Hacienda La Quebrada.

Age Category	Age	Number
Subadu	lt Individuals	
Prenatal	< 0	10
	0-1	78
Newborns and infants	1–2	16
	2-3	18
	1–4	13
	3–4	5
Children	4–6	10
	6-12	10
Adolescents	12-15	3
Adolescents	15-20	5
Total Prenat	al Individuals: 10	
Total S	ubadults: 158	
Adult	Individuals	
Young adult males	20-35	9
Young adult females	20-35	17
Young adult skeletal	20-35	3
sex not determined		
Middle adult males	35-50	16
Middle adult females	35-50	16
Middle adult skeletal sex not determined	35–50	0
Old adult males	>50	13
Old adult females	>50	2
Old adult skeletal sex not determined	>50	0
Adult female	20-50	1
Total	Adults: 77	
TO	ΓAL: 245	

canines and incisors that could be evaluated for the evidence of enamel hypoplasia. Among these individuals, 14 (14.6%) exhibited at least one hypoplastic lesion; however, it is probable that this is an underrepresentation of historical rates of the pathology, due to the limitations in the observable sample. Interestingly, analysis of enamel hypoplasia indicated that around 50% of metabolic stress events occurred between the ages of two and four. Although some scholars have attributed the high frequency of hypoplasia during this age to practices of weaning, more recent studies have critiqued this assertion, instead suggesting that it more likely reflects multiple intersecting factors such as infectious disease, insufficient diet, and low birth weight (Barrett and Blakey 2011; Blakey et al. 1994, 2009; Shuler 2005). As a whole, these patterns contribute to the interpretation that the period from around two to four "was a vulnerable and stressful age for children who survived early infancy and who died as adults" (Blakey et al. 2009:153).

Of the 283 crania and cranial elements recovered during excavations, 111 (80 subadults and 31 adults) were complete enough to evaluate for evidence of porotic hyperostosis. Within this sample, it was possible to identify a total of 20 cases of active and healed lesions: one healed lesion in a middle adult male and 19 active and healed lesions in subadult individuals under the age of 20. For the affected subadults, the prevalence of porotic hyperostosis in the orbits (cribra orbitalia) was generally higher than for the cranial vault, with cribra orbitalia accounting for 14 of the 19 observed cases (73.7%). Notably, nearly half (9/19, or 47.4%) of the total cases of porotic hyperostosis and cribra orbitalia observed in subadults were associated with individuals in the range of two to four years old: these nine cases also accounted for 37.5% of the total observable subadults in this age group, once again providing another possible indicator of the generalized stresses endured by enslaved peoples during this vulnerable period.

Meanwhile, analyses of periosteal lesions presented numerous cases of bony response to general infectious disease. Of the 53 subadult individuals who were preserved enough to evaluate for periostitis, 15 (28.3%) presented at least one active lesion. Once again, newborns and infants under 12 months presented the highest number of infected loci, with an average of 7.8 lesions per individual. Newborns and infants under the age of 12 months also presented among the highest frequencies of periostitis within their age group, along with older adolescents between the ages of 15 and 20. Of the nine newborns and infants assessed for the pathology, six presented at least one active lesion (66.7%); meanwhile, four of the five examined adolescents presented clear evidence of healed lesions (80%; Figure 3).

As is often the case in diverse human societies, including in contexts of enslavement, older children appear to have been among the healthiest persons in the community (Blakey and Rankin-Hill 2009). Lower rates of mortality and pathologies in subadults between the ages of five and 15 suggest that most of the enslaved

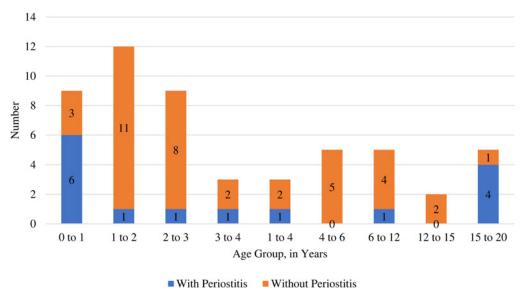


Figure 3. Frequencies of periostitis in subadult individuals at Hacienda La Quebrada.

children who survived the critical first years of development were able to build the immunological and physiological resilience that they needed to continue to survive into later adolescence and adulthood.

## **Burial Treatment**

Recent studies of childhood have supplemented skeletal data with mortuary evidence to consider culturally constructed ideas of childhood in the past, including the individual identities that may have been embodied by young individuals (Joyce 2000; McCafferty and McCafferty 2006; Perry 2006; Sacchi 2010; Sofaer Derevenski 2000; Storey and McAnany 2006). As Jane Eva Baxter (2008:164) observes, this requires decoupling biological definitions informed by Western scientific epistemologies from "cultural meanings that are placed on individuals' bodies." Instead, researchers must develop more nuanced approaches to the study of mortuary remains by interrogating differences in burial treatment and ritual across different stages of life.

At Hacienda La Quebrada, a notable finding was the marked difference in the burials of young children compared to those of adolescents and adults. Whereas adults and adolescents over 10–12 years old were buried individually, children younger than 10 years old—especially newborns and infants under the age of three—were

interred collectively in a common deposit. This distinction in mortuary treatments was also paralleled by differences in the materials associated with each burial context. Evidence of textile fragments associated with the individual adolescent and adult burials appear to corroborate local oral histories in the contemporary descendant community, which describe how enslaved persons were often buried wrapped in square or rectangular textile shrouds.

In contrast, there was no evidence of textiles or other similar materials in the younger subadult burials. Yet these burials were the only mortuary contexts to present clear evidence of funerary offerings. Archaeological excavations recovered two decorated nacre medallions from the commingled deposit, as well as additional fragments in the surrounding soils. Although the stamped image on the first medallion was too poorly preserved to clearly interpret, the second has been identified as a representation of Saint Anthony of Padua holding Baby Jesus (Figure 4).

## Discussion

Precarity and "Stolen Childhoods" at Hacienda La Quebrada

Ideas of childhood in colonial Peru were informed by multiple social, economic, and juridical factors. For enslaved children of African



Figure 4. Nacre medallion recovered from a subadult burial (photo by Samuel Lancho).

descent, these ideas were embedded in a broader discourse about the "proper" treatment of enslaved persons, particularly with regard to education, spiritual guidance, labor, and punishment (Marzal 2005; Tardieu 2005). Policies crafted both in the viceroyalty of Peru and by the Crown in Madrid, such as Charles IV's instruction on slavery (1789), established clear responsibilities for both enslavers and parents in caring for the well-being of prepubescent children. Although these ideal models were intended to protect enslaved children as minors and cultivate them into productive Christian subjects, they often had problematic effects that jeopardized the well-being of enslaved youth. For example, tensions over who was responsible for enslaved children opened possibilities for neglect as enslavers refused to provide proper resources to children, claiming that was the responsibility of parents (Premo 2005). At the same time, subjection to the authority of parents, enslavers, and colonial officials resulted in children facing multiple intersecting forces of discipline and control.

Bioarchaeological and historical research at Hacienda La Quebrada demonstrates how such tensions contributed to the precarity (Butler 2004) of children within conditions of captivity during the colonial period. High rates of infant mortality and deaths in the first three years of life indicate the particular vulnerability of infants

to conditions of captivity and plantation life. As Bush (2010) observes, infancy was a critical moment in the lives of enslaved persons in the African diaspora. The health of enslaved mothers directly influenced their capacity to carry to term and care for their newborn infants, especially in the critical moments of childbirth and breastfeeding (Lewis 2007). Consequently, the capacity of an infant to endure the critical first two to three years of life depended on the mother's ability to access proper nutrition, resources, and medical care.

Firsthand testimonies of enslaved peoples at Hacienda La Quebrada indicate that access to proper nutrition was a systemic concern at the plantation. Not only were the provisions insufficient but they also lacked meat and other essential sources of protein, instead consisting primarily of beans and sango, a sweet paste based in corn flour, sugar, and spices (AAL 1809, Libros de la Orden Crucífera Nuestra Señora de la Buenamuerte, folder 7:9). This lack of proper nutrition likely had biological implications both for the ability of enslaved mothers to carry to term and for the health status of newborn infants—an interpretation that is supported by the high frequency of deaths among women of childbearing age and the presence of prenatal remains (n = 10) and subadults under the age of 12 months (n = 78) in the burial record.

For newborns who were able to survive the critical moment of childbirth, evidence of generalized infectious disease and metabolic stress suggests that they struggled to adapt to the environmental conditions at Hacienda La Quebrada. In the early years of life, infants and young children were still subject to the care of parents and enslavers in the plantation community. Although colonial policies stipulated the responsibilities of enslavers in providing their captive workers with the proper resources that they needed to survive, in practice neglect was widespread in rural estates (Aguirre 2005; Arrelucea Barrantes and Aguilar Cosmalón 2015). Despite its oversight by a Catholic institution grounded in the Christian moral ethics of benevolence and paternal care, Hacienda La Quebrada does not appear to have been an exception. In a series of grievances submitted to Buena Muerte administrators in 1798 and 1809, laborers cite a systemic failure to provide for the needs and well-being of the enslaved community, including childcare and provisions of bread for children, access to medical treatment, and sufficient rations of food and clothing (Luna 2017:216–221). These conditions not only threatened the life outcomes of enslaved individuals of all ages but also posed burdens for families as they worked to care for young children who were not yet able to support themselves.

In addition to difficulty in accessing the resources that their lives and health depended on, enslaved peoples at Hacienda La Quebrada also endured excessive physical punishment at the hands of the plantation's overseers (AAL 1809, books, folder 7; ACB 1800, no. 2497). Although only four of the recovered subadult individuals presented evidence of skeletal trauma, three of the observed cases appeared to be victims of forms of interpersonal violence. One case involved a 15-21-year-old adolescent, who appeared to have suffered a strike to the left side of the jaw. The misalignment of the healed bone contributed to the loss of all left mandibular dentition except for the third molar, suggesting that this youth may have suffered this traumatic event earlier in childhood only to survive a few years longer into adolescence. In a second instance an 18-24-month-old infant presented evidence of perimortem trauma on the posterior of the skull. The shape and location of the fracture and its lack of healing suggest that the infant was likely struck by a round, blunt object from the side or behind, which contributed to the infant's premature death.

Although Spanish colonial authorities' ideal model for the "proper treatment" of enslaved persons established the duties of enslavers to shelter prepubescent youth from physical discipline and neglect, these findings suggest that such mandates were at times ignored in daily practice. It is not possible with the available information to determine the precise context in which such acts of violence occurred or who were their perpetrators. However, what these findings begin to reveal is that enslaved youth -although framed as wards to be treated with "special care" (Premo 2005:227)—in actuality were still vulnerable to abuse and punishment, even by the very guardians who were charged with seeing to their well-being.

Coming of Age: Socialization and the Construction of Childhood

Patterns in bioarchaeological, mortuary, and historical evidence begin to suggest that childhood at Hacienda La Quebrada was marked by several stages of social development. The first appears to have occurred around three to five years old, as children passed through a dangerous life period marked by a high risk of death. According to Baxter (2008:164), milestones in biological development "are often . . . emphasized in ideological and social constructions of identity categories." As perhaps most tragically expressed in Toni Morrison's novel Beloved, the conditions of childbearing and child-rearing within conditions of captivity were harrowing: newborns often perished during or shortly after childbirth, or mothers were forced to return to work shortly after giving birth (Bush 2010). Because of the tragic frequencies of infant deaths, some parents even refrained from naming their children, instead waiting through the critical first few months or even years until the risks to survival seemed to have largely passed (King 2011).

It is possible that similar social dynamics were at play at Hacienda La Quebrada. The burial of infants and newborns under the age of three in a common deposit stands in contrast to the treatment of adolescents, who were afforded their own proper burial spaces. Whether associated with a relatively confined historical event—for example, an epidemic or some form of natural disaster-or used more continuously over an extended period, this distinct burial practice may offer some insights into attitudes toward the youngest members of the plantation population. Facing the common occurrence of the death of newborns and young infants, parents and priests at Hacienda La Quebrada may have made the difficult decision to dispense with more elaborate burial rituals, instead baptizing the young children before interring them in a simple ceremonial event (Cushner 1975).

For enslaved children who survived the high risks of mortality in the first three to five years of life, the remainder of early childhood and adolescence was marked by a relatively lower risk of death. It was a period characterized by significant cognitive and physiological growth, which permitted a lessening reliance on enslaved parents and community members (King 2011; Lewis 2007). This stage of development was also a critical moment in the education and socialization of enslaved children. According to Premo (2005:214), "In keeping with the importance Bourbon kings assigned to education as the key to an orderly state," enslavers were obligated to educate enslaved workers and were "required to instruct [them] in Christian doctrine."

Indoctrination in Christian values was particularly important because it was a central mission of the Buena Muerte. This was emphasized by the presence of medallions bearing religious iconography with the burials of young children, who were largely between the ages of four and 12. Although the legacy of Saint Anthony in the specific context of Hacienda La Quebrada was especially associated with medical care for the sick and poor, local accounts also note that many of the miracles that he performed were for children. Consequently, the finding of religious objects bearing his image may be interpreted as mirroring a historical tradition of placing children under his care, thus further underscoring the notion that young children were still perceived as wards who needed to be protected.

A final transition in the status and treatment of children within the enslaved community seems to have occurred in the transformative period around puberty and adolescence. As early as 10–12 years old, enslaved adolescents were given the same mortuary treatment as adults at the plantation, receiving their own individual burials. The rites associated with these burials were also more elaborate: individuals were wrapped in textiles and interred according to the customs of the late colonial Catholic tradition (Larsen 1993; McEwan 2001).

Preliminary bioarchaeological evidence also suggests that enslaved people began to take on greater labor roles at the plantation during this transitional period. Although methodological limitations inhibit the analysis of skeletal indicators of work in developing subadults, the presence of clearly evident osteoarthritis and musculoskeletal stress markers in individuals as young as 15–21 years old suggests that consistent physical activity likely began during adolescence. Of the five intact skeletal individuals

aged 15–20, two presented evidence of osteoarthritis; notably, both were identified as probable females. Meanwhile, among the total of 103 commingled skeletal elements from the 15–25-year-old age group, 21 exhibited porosity and lipping, suggesting osteoarthritis (20.4%). These rates of cumulative skeletal changes related to repeated physical activity begin to suggest that, although many enslaved people may have not performed sustained manual labor until later in adulthood, some were incorporated into physical activities around the plantation as early as adolescence.

Ongoing historical research aims to identify the specific roles of adolescents at Hacienda La Quebrada during the late colonial period. As historians of African slavery in Peru have indicated (Aguirre 2005; Arrelucea Barrantes and Aguilar Cosmalón 2015; Gómez Acuña 2001), ideas about the age at which enslaved peoples could be compelled to enter the labor force varied over time and across rural and urban contexts. Additionally, individual overseers and enslavers did not necessarily comply with official standards. Indeed, multidisciplinary evidence from Hacienda La Quebrada, including both changes in burial rites and emerging indicators of physical stress, begin to suggest that transitions into traditionally "adult" labor roles may have occurred around the biological transformations associated with puberty. These findings raise new questions about how categories of adulthood and social age were constituted within the everyday practices of enslaved peoples and plantation owners, which has implications for understanding ideas of status, identity, and the positionality of enslaved people of African descent in colonial Peru.

## Conclusion

Historical, archaeological, and bioarchaeological research at Hacienda La Quebrada begins to paint a picture of the harsh and often fatal conditions of captivity at the plantation during the late colonial period, particularly because of insufficient diets, limited access to essential resources, and excessive physical demands and mistreatment (Maass and Santa Cruz Alcalá 2019; Maass et al. 2019). By moving beyond a generalized study of the enslaved African and Afro-

descendant population, a child-centered study reveals how such conditions disproportionately affected enslaved children, especially in the early years of life.

Together, these findings have implications for historical understandings of childhood in contexts of plantation slavery. The role, status, and experiences of children born into captivity in colonial Peru is a topic that remains understudied in historical research. Similarly, even though the number of studies of children has increased in recent years, childhood is still relatively undertheorized in both bioarchaeology and African diaspora archaeology. This project demonstrates the utility of a life course approach in revealing the impacts of captivity and colonial life on subadult individuals. In doing so, its archaeological and historical research also offers insights into the social construction of age categories and their associated roles in contexts of plantation slavery in colonial Peru.

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