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Weaning among West Indian Slaves: Historical and Bioanthropological Evidence from Barbados

Jerome S. Handler and Robert S. Corruccini

IN an innovative article of 1978 Herbert S. Klein and Stanley L. Engerman, addressing the problem of fertility differentials between slave populations of the United States and the British Caribbean, emphasized that the significant difference between the two areas in rates of natural increase is largely explainable by the higher fertility of American slaves. They contended that differences in the child-spacing period could partially account for differences in fertility rates: in the West Indies, birth interval ranged between three and four years, while in the United States it was close to three years. While acknowledging that spacing could result from several factors, Klein and Engerman focused on the lactation period and found that the breast-feeding interval for North American slave women "was generally about one year, while for the West Indies it was typically at least two years."¹

Students of Caribbean slave life have long accustomed themselves to working with limited information. Although sources for investigating the institution of slavery and its political and economic dimensions are abundant, the more mundane aspects of slave sociocultural and domestic life were much less apt to be recorded by contemporary white observers. Whatever the implications for understanding slave fertility patterns, the topics of lactation and weaning very well illustrate the limited data base that scholars often have been obliged to employ in treating the domestic behavioral patterns of Caribbean slaves.

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¹ Klein and Engerman, "Fertility Differentials between Slaves in the United States and the British West Indies: A Note on Lactation Practices and Their Possible Implications," *William and Mary Quarterly*, 3d Ser., XXXV (1978), 358.

In their article, Klein and Engerman cite writings by David Collins, Gilbert Francklyn, James Grainger, and Thomas Roughley, ranging from the 1760s to the 1820s, as sources for the length of the lactation period among British West Indian slaves. These are augmented by inferential data on West African lactation practices in the late eighteenth century as well as by suggestive evidence in two primary sources on the West Indies, one for a Jamaican plantation in 1802 and the other for a plantation in Antigua in the late eighteenth century.²

Collins, Grainger, Roughley, and, to a lesser extent, Francklyn are rich sources of information on West Indian slave life. Collins was a doctor and plantation owner who lived in the West Indies for "more than twenty years" in the late eighteenth century. He resided in St. Vincent and based his book on his experiences there; he may have traveled to other islands as well.³ Grainger, also a doctor, lived in the West Indies from late 1759 to 1766, mostly in St. Christopher (St. Kitts); although he may have visited other islands, his book seems to be largely, if not entirely, based on his experiences in St. Christopher.⁴ Roughley asserts that he was "nearly twenty years a sugar planter in Jamaica"; his work contains considerable information on Jamaican slave life. As a propagandist for the West India lobby in England, Francklyn undoubtedly knew persons with firsthand experience in the West Indies, and he claimed to have resided "in most of the islands, from Barbadoes to Jamaica"; his most extensive direct experience was apparently in Jamaica, although he spent a brief period in Barbados "sometime about the year 1780."⁵

Questions concerning Klein and Engerman's sources involve the extent to which their geographical and chronological limitations allow generalization to the entire British West Indies for the duration of the period of slavery. Barbados, a major territory in Britain's Caribbean sugar empire, was the first island to depend economically on slave labor, and it developed a considerable slave population. Aside from Francklyn, none of Klein and Engerman's sources deals directly with Barbados.

In this note we extend to Barbados Klein and Engerman's conclusions

² *Ibid.*, 370n; [Collins], *Practical Rules for the Management and Medical Treatment of Negro Slaves, in the Sugar Colonies* (London, 1811), 146; Francklyn, *Observations, Occasioned by the Attempts Made in England to Effect the Abolition of the Slave Trade . . .* (London, 1789), 52; Grainger, *An Essay on the More Common West-India Diseases . . .* (London, 1764), 17; Roughley, *The Jamaica Planter's Guide . . .* (London, 1823), 118.

³ [Collins], *Practical Rules*, 8; Richard B. Sheridan, *Doctors and Slaves: A Medical and Demographic History of Slavery in the British West Indies, 1680-1834* (Cambridge, 1985), 32-35; see also B. W. Higman, *Slave Populations of the British Caribbean, 1807-1834* (Baltimore, 1984), 353.

⁴ *Dictionary of National Biography*, s.v. "Grainger, James"; Sheridan, *Doctors and Slaves*, 28-32.

⁵ Roughley, *Jamaica Planter's Guide*, t.p.; Francklyn, *Observations*, 51; cf. Lowell Joseph Ragatz, *A Guide for the Study of British Caribbean History, 1763-1834 . . .* (Washington, D.C., 1932), 504.

about child-weaning practices among British West Indian slaves. We present additional historical evidence and employ a body of data not conventionally used to address issues raised by social historians. This body of data is derived from a bioanthropological analysis of slave skeletal remains excavated from a plantation cemetery in Barbados. The data shed light on the issue of weaning while serving as an objective check on narrative historical sources. They also show how physical anthropological and historical information can complement one another in treating a historically defined but sparsely documented issue in New World slavery.

Archaeological investigations in Barbados during the early 1970s formed one phase of a project concerned with reconstructing the social and cultural life of the island's slaves from the mid-seventeenth century to emancipation in 1834. The research included the partial excavation of a slave cemetery at Newton plantation. During the slave era Newton and its slave population typified medium-to-large Barbados sugar plantations. The cemetery excavations yielded the remains of 104 individuals interred from about 1660 to 1820. This is the largest and earliest excavated group of African and African-descended slaves yet reported from the Caribbean and mainland North America.⁶

Over the past several years we have been studying the dentition of Newton's slaves. Teeth are the most durable parts of the human body, and physical anthropologists have developed a variety of methods for analyzing teeth and deriving data pertaining to, for example, demographic characteristics, pathologies, and body development. Earlier physical anthropological studies of the Newton teeth have yielded information on such topics as well as on some sociocultural behavioral patterns. These data, when combined with historical information, have enhanced our understanding of the lifeways of Barbadian slaves and the material conditions of their lives.⁷

One of the pathologies afflicting Barbadian slaves (and undoubtedly those elsewhere in the West Indies as well)—and one not mentioned in historical sources—was dental enamel hypoplasia. In general, hypoplasia is a condition of arrested development in which an organ remains below

⁶ Jerome S. Handler and Frederick W. Lange, *Plantation Slavery in Barbados: An Archaeological and Historical Investigation* (Cambridge, Mass., 1978).

⁷ Robert S. Corruccini, Jerome S. Handler, and Keith P. Jacobi, "Chronological Distribution of Enamel Hypoplasias and Weaning in a Caribbean Slave Population," *Human Biology*, LVII (1985); Corruccini and Handler, "Temporomandibular Joint Size Decrease in American Blacks: Evidence from Barbados," *Journal of Dental Research*, LIX (1980), 1528; Corruccini, Handler, Robert J. Mutaw, and Frederick W. Lange, "Osteology of a Slave Burial Population from Barbados, West Indies," *American Journal of Physical Anthropology*, LIX (1982), 443-459; Handler, Corruccini, and Mutaw, "Tooth Mutilation in the Caribbean: Evidence from a Slave Burial Population in Barbados," *Journal of Human Evolution*, XI (1982), 297-313; Handler and Corruccini, "Plantation Slave Life in Barbados: A Physical Anthropological Analysis," *Journal of Interdisciplinary History*, XIV (1983), 65-90.

normal size. Dental enamel hypoplasia involves a deficiency in enamel formation on the growing tooth, temporarily retarding its genetically determined growth potential. Enamel hypoplasia displays itself as horizontal lines, bands, or pits marking the point at which growth stopped, then resumed.

Close to 55 percent of our skeletal sample had one form or another of hypoplasia, though we suspect that the incidence would have been found much higher had we been able to observe all the teeth of all the specimens. Although specialists do not readily agree on the particular factors producing enamel hypoplasia, they agree that it results in general from nutritional or infectious stress, when the body temporarily stops growing due to some metabolic shock. Enamel hypoplasia is often considered a useful indicator of prenatal developmental stress in archaeologically recovered skeletal populations, and it has repeatedly been linked to nutritional trauma associated with weaning, particularly in preindustrial populations.⁸

Physical anthropologists estimate the age at which hypoplasia-inducing events occurred by comparing the height of the hypoplasia line on the tooth crown to dental standards relating to age and growth. The Barbados sample yielded an average age of 3.24 years for hypoplasia occurrence. The 95 percent statistical confidence limits for this average age are between 3.05 and 3.43 years, a figure that is later as well as more heavily concentrated in the three-to-four-year age range than in other previously studied skeletal populations with hypoplasia.⁹ Thus the physical anthropological evidence shows that hypoplasia usually occurred when a child was three to four years old, perhaps as a direct result of weaning.

The bioanthropological evidence from Barbados is supplemented by information from a handful of contemporary sources that report on weaning customs. This information largely relates to the first few decades of the nineteenth century and is usually confined to a phrase or two. (With respect to time period and brevity, the Barbados data are comparable to data from other West Indian islands.) The evidence is provided by white observers most of whom were planters and physicians who treated plantation slaves and knew something about their social practices.

In the earlier periods of slavery many Barbadian slaves were of African birth, and African cultural patterns were followed to a much greater extent than in the later periods.¹⁰ In eighteenth-century African cultures, as today, lactation generally lasted two to three years.¹¹ Evidence for

⁸ For literature on this subject see Corruccini, Handler, and Jacobi, "Chronological Distribution of Enamel Hypoplasias," *Human Biology*, LVII (1985).

⁹ The laboratory procedures and our results are described *ibid.*

¹⁰ See, for example, Handler and Lange, *Plantation Slavery*, 23, 29, 171-215; Handler and Charlotte J. Frisbie, "Aspects of Slave Life in Barbados: Music and Its Cultural Context," *Caribbean Studies*, IX (January 1972), 5-46; and Handler, "Slave Revolts and Conspiracies in Seventeenth Century Barbados," *Nieuwe West-Indische Gids*, LVI (1982), 5-42.

¹¹ Klein and Engerman, "Fertility Differentials," *WMQ*, 3d Ser., XXXV (1978), 369.

Barbados suggests that during the eighteenth century weaning also tended to take place at two to three years and generally conformed to the African pattern. In a letter of 1712 from Barbados, J. Walduck told a friend in London about a slave infant whose grandmother nursed him "until it was 2 years old then wean'd it." Similarly, on a visit to Barbados around 1780 Gilbert Francklyn observed (in a comment implicitly applicable to other West Indian islands) that slave women "have a custom amongst them of not weaning for two or three years."¹² That the lactation period in Barbados averaged at least two years can also be inferred from evidence of weaning practices in other British West Indian areas during the eighteenth century.¹³

A late weaning period in the eighteenth century is also suggested by early nineteenth-century Barbados sources that indicate that lactation typically lasted eighteen to twenty-four months or even longer. The Society for the Improvement of West India Plantership in the Island of Barbados, organized in 1804 by resident plantation owners, devoted itself to agricultural problems and related issues, including the treatment and management of slaves. A meeting in 1805 discussed the "causes [that] prevented the more rapid increase of the Negroes"; one conjectured cause was the "suckling of the children to an improper length of time." A concrete idea of "improper length of time" was given in 1812 when a committee of the society, reporting on a plan for plantation management, raised the issue of high infant mortality and attributed it to, among other factors, the "great injury . . . often occasioned to [slaves] . . . by late suckling (continued after or upwards of two years)."¹⁴

In papers presented to the society on separate occasions, two Barbadian-born doctors, who practiced among plantation slaves, also stressed a long lactation period. Emphasizing that infant mortality was the most important check to the natural increase of the slave population, Henry Holder attributed this mortality to the "highly improper food" mothers gave their children as well as to "the period of nursing the child being protracted to an age when it is both injurious to mother and infant." Henry Grassett also blamed "the late suckling of the children by their mothers" as one cause of the infant mortality. Implicitly comparing slave lactation practices with those of whites, both doctors were suggesting that

¹² Walduck to J. Petiver, Sept. 17, 1712, Sloane MSS 2302, British Library; Francklyn, *Observations*, 52.

¹³ For example, James Grainger's valuable treatise on slave life and treatment refers to the West Indies in general, without mentioning specific islands, but much of what he describes of slave medical problems is also reported in the historical sources specifically for Barbados (*Essay*, 17); see also [Collins], *Practical Rules*, 146; cf. Klein and Engerman, "Fertility Differentials," *WMQ*, 3d Ser., XXXV (1978), 357-374, and Sheridan, *Doctors and Slaves*, 245.

¹⁴ Society for the Improvement of Plantership in the Island of Barbados, *Minutes* (Liverpool, 1811), 25; Society for the Improvement of West India Plantership, "Minute Book, 1811-1816," Raymond Richards Collection of Miscellaneous Historical Documents, University of Keele Library, Staffordshire, Eng.

the lactation period was far in excess of a year, which by the late eighteenth and early nineteenth centuries had become, as Klein and Engerman observe, the normal period in Europe and white North America.¹⁵

Such evidence is supported by information from later years. In 1823, a committee of the Barbados Council reported on the "actual condition" of the island's slaves. The report was based on a number of testimonies, two of which specifically referred to lactation practices. Forster Clarke, a resident plantation owner and a representative for nineteen absentee-owned plantations, testified that slave children were "generally weaned at the age of 18 months." William Sharp, also a resident owner, stated that "children are not weaned till the eye teeth are cut" (that is, around twenty-one months). In general, then, the historical sources indicate that during the first few decades of the nineteenth century weaning typically took place no earlier than between eighteen and twenty-four months, and sometimes even later.¹⁶ (In fact, there is no known evidence of any kind to suggest a shorter—that is, about one year—period.)

The historical evidence from Barbados and other British islands tends to be mutually supportive and suggests that during the eighteenth century (and earlier) weaning usually occurred at two to three years. The Barbados evidence also indicates that the average lactation period decreased somewhat during the later years of slavery but still remained considerably higher than for contemporary Europeans.¹⁷

Importantly, the historical sources also indicate that the weaning period was particularly stressful. For example, Philip Gibbes, a prominent Barbados planter, wrote in his late eighteenth-century tract on slave management that "the dangerous period of a Negro's life is from the time of his being weaned to the age of seven years." It was during that period, he emphasized, "that these infants are most liable to contract habits and diseases which destroy them." Other sources also suggest that risks to health were high during weaning, even though the writers tended to attribute the risks to prolonged lactation rather than to weaning itself. Henry Holder complained that the slave mother "suckles her child to a very advanced age, and while the practice weakens her . . . the child, whose stomach now requires stronger food, dwindles and becomes scrophulous, and disposed to worms from a continuance of too meagre a diet." Henry Grasset also stressed the "disproportionate losses" of early

¹⁵ Society for the Improvement of Plantership, *Minutes*, 128-134; Klein and Engerman, "Fertility Differentials," *WMQ*, 3d Ser., XXXV (1978), 369.

¹⁶ Barbados Council, *A Report of a Committee of the Council of Barbadoes, Appointed to Inquire into the Actual Condition of the Slaves in This Island* (London, 1824), 109-110, 114-115. Cf. Higman, *Slave Populations*, 353-354, for the British West Indies during the same period.

¹⁷ Klein and Engerman also note "that some West Indian discussions in the 19th century . . . seem to suggest some reduction in nursing intervals to below two years" ("Fertility Differentials," *WMQ*, 3d Ser., XXXV [1978], 370n).

infancy and blamed housing conditions, "improper food, and the late suckling of the children by their mothers." That prolonged lactation might explain depressed fertility in slave women is suggested by Francklyn's observation about 1780 that "not weaning . . . for two or three years occasions even the breeding women to have fewer children than might otherwise be expected." In the early nineteenth century a group of planters belonging to the Society for the Improvement of Plantership maintained that "the present very protracted nursing is very injurious to the children & hurtful to the mother, besides having the effects of contributing to lessen the number of births."¹⁸

In conclusion, the physical and historical evidence for Barbados mutually establish relatively late weaning for slaves and thus support Klein and Engerman's argument for extended lactation in the British Caribbean. The Barbados evidence, particularly the physical data, also suggests that the weaning period was developmentally traumatic and of high risk for slave children. Using historical and nutritional data, Kenneth F. Kiple has recently discussed how weaning posed a "serious nutritional threat" with debilitating effects for Caribbean slave children in general; the Barbados data reinforce his findings.¹⁹ The three-to-four-year typical age for hypoplasia in Barbados slaves encompasses the year following the relatively late time that slave children were weaned. Weaning, specifically, and other factors more generally (including periodic food shortages and famines as well as epidemic diseases and political disturbances),²⁰ help explain the central tendency and variation in the statistical distribution of hypoplasia in Barbados slaves.

¹⁸ Gibbes, *Instructions for the Treatment of Negroes, etc. etc. etc.* (London, 1797 [orig. publ. 1786]), 91-92; Society for the Improvement of Plantership, *Minutes*, 128-134. See also Society for the Improvement of West India Plantership, "Minute Book," 119, 139-140, and Francklyn, *Observations*, 52. Klein and Engerman discuss the implications of prolonged lactation for West Indian fertility ("Fertility Differentials," *WMQ*, 3d Ser., XXXV [1978], 357-374). See also Higman, *Slave Populations*, 353-354.

¹⁹ Kiple, *The Caribbean Slave: A Biological History* (Cambridge, 1985), 129-130; cf. Sheridan, *Doctors and Slaves*, 203. For a relevant discussion of the relationship between weaning and malnutrition disorders (for example, kwashiorkor and marasmus) in modern Barbados see Frank C. Ramsey, *Protein-Energy Malnutrition in Barbados* (New York, 1979).

²⁰ See, for example, Robert Dirks, "Resource Fluctuations and Competitive Transformations in West Indian Slave Societies," in Charles D. Laughlin, Jr., and Ivan A. Brady, eds., *Extinction and Survival in Human Populations* (New York, 1978), 122-180; Richard B. Sheridan, "The Crisis of Slave Subsistence in the British West Indies during and after the American Revolution," *WMQ*, 3d Ser., XXXIII (1976), 615-641; and Sheridan, *Doctors and Slaves*, 154-173, 200-219.