DESCRIPTION OF SKELETAL REMAINS FROM A BLACK SLAVE CEMETERY FROM MONTSERRAT, WEST INDIES

ROBERT W. MANN¹
LEE MEADOWS¹
WILLIAM M. BASS¹

DAVID R. WATTERS
Assistant Curator, Section of Anthropology

ABSTRACT

The skeletons of 17 Black slaves were excavated from an unmarked 18th century cemetery in Montserrat, West Indies. A pharmaceutical phial found with one of the probable coffin burials bears the inscription OCT 29 1751. The date on the phial, skeletal analysis and ethnohistorical records suggest the skeletons are those of Black slaves, possibly from the nearby Bransby Plantation. Evidence of pathological conditions include enthesopathies, osteoarthritis, anemia, malnutrition, a high incidence of fractures and one possible case of lepromatous leprosy. Ages at death suggest that the adult females were outliving the males.

INTRODUCTION

In 1979 a construction crew digging a house foundation and adjacent swimming pool on the western coast of Montserrat, West Indies, unearthed fragmentary bones in association with a historic bottle bearing a date of OCT 29 1751 (Watters, 1981). Construction halted and David R. Watters, a visiting archaeologist, was summoned to examine the skeletons. Watters identified the bones as human and belonging to more than one individual. A preliminary examination of the site revealed additional clusters of human bones. Although construction resumed, by the end of one week a total of 10 individual burials (1–10) and one multiple burial (probably commingled individual burials removed by the construction crew) had been excavated in an attempt to salvage as many skeletons as possible (Watters, 1987). Final analysis reveals that a minimum of 17 individuals (Table 1) were excavated.

The Harney site, so named after the building contractor, represents an unmarked and unknown (to the local inhabitants) Black slave cemetery in use during the latter 18th century (inclusive dates are unknown). Due to the paucity of recovered skeletons in the West Indies, little is known about the diet, disease, stature, nonmetric traits and dentition of Black slaves. The Harney site, therefore, offers researchers an opportunity to examine the skeletons of 18th century slaves of African ancestry (Williams, 1970).

¹ Department of Anthropology, University of Tennessee, Knoxville, Tennessee 37996-0720.
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Table 1.—Minimum number of individuals.

| Burial | Sex | Age   | Race            |
|--------|-----|-------|-----------------|
| 1      | F   | 50+   | Indeterminate   |
| 2      | F   | 20–30 | Indeterminate   |
| 3      | M   | 35–45 | Indeterminate   |
| 4      | F   | 60+   | Black           |
| 5      | F   | 50+   | Indeterminate   |
| 6      | F   | 18–35 | Indeterminate   |
| 7      | M   | 25–35 | Black           |
| 8      | F   | 40+   | Indeterminate   |
| 9      | M   | 40+   | Indeterminate   |
| 10     | M   | 35–45 | Indeterminate   |
| 11     | M?  | 18–40 | Indeterminate   |
| 12     | M   | 18–40 | Indeterminate   |
| 13     | M   | 18–40 | Indeterminate   |
| 14     | ?   | 7–8   | Indeterminate   |
| 15     | ?   | 8–10  | Indeterminate   |
| 16     | ?   | 10–12 | Indeterminate   |
| 17     | ?   | 14–16 | Indeterminate   |

Methods and Materials

A minimum of 17 individuals were recovered from the Harney site. The 10 individual burials each represent one adult (6 females and 4 males) while the multiple burial (single burials commingled by the construction crew) contains portions of at least 7 individuals (4 subadults and 3 adult males). The minimum number of individuals present in the multiple burial is conservatively based on a count of 4 left subadult femora and 3 left adult femora. There is, however, evidence of one additional subadult (maxilla and teeth indicate 13–15 years) as well as a very small female (60+ years) as evidenced by an innominate and two femoral heads (Table 2). The femoral heads measure 36 mm in diameter and are much too small to correspond to the 3 left femora identified as males. These two individuals were not included in the minimum number of individuals (MNI) reported. The multiple burial, then, contains the commingled skeletons of individuals of both sexes, ranging in ages from 7–60 years. No fetal or infant skeletons were recovered from the site.

The skeletons were received at the University of Tennessee in three boxes. Individual burials were packed separately from those of the multiple burial. Each individual burial was placed on a metal tray and tagged with the appropriate burial number assigned in the field. This facilitated examination of the skeletons and eliminated the possibility of mixing bones of two burials. During the laboratory analysis every effort was made to match elements in the multiple burial with the individual burials (numbers 1–10). In no instance were the authors able to crossmatch a bone in this manner. Burials 1–10 represent primary single interments with no evidence of commingling with the multiple burial (although Burial 9 was disturbed upon interment of Burial 1 [Watters, 1987]).

Bones in the disturbed multiple burial were sorted on the basis of intragroup size seriation, sex and age. The 4 subadult left femora (burials 14–17) were aged by comparison of size and length to an age-graded reference series. The adults were assigned burial numbers (11–13) following a detailed sorting of all elements that considered sex (size and robusticity), age (osteoporosis and degree of degen-
Table 2.— Bones of the multiple burial indicating age and sex.

| Bone | Sex | Age  | Race       |
|------|-----|------|------------|
| 1    | F   | 60+  | Indeterminate |
| 2-3  | F   | 60+  | Indeterminate |
| 4-5  | M   | Adult| Indeterminate |
| 6    | M   | Adult| Indeterminate |
| 7    | ?   | 20-30| Black?     |
| 8    | F?  | Adult| Indeterminate |
| 9    | F?  | Adult| Indeterminate |
| 10   | F?  | Adult| Indeterminate |
| 11   | F?  | 60+  | Indeterminate |
| 12   | ?   | Adult| Indeterminate |
| 19   | M   | 30-40| Black      |

erative joint disease), morphological similarity and metrical analysis. By a process of elimination most of the bones were matched to specific individuals to the exclusion of others. Some elements, however, remain unmatched. For example, skulls in the multiple burial could not be reasonably matched with any of the postcrania, even if the bones were of similar color (soil discoloration), sex and age. Corresponding elements of the crania and postcrania were reconstructed to obtain measurements. In a few instances we were able to match femora with tibiae based on intragroup seriation and metrical analysis (this did not affect the MNI). No attempt was made to match unlike elements (e.g. arm with leg bones) unless morphological traits strongly suggested a match. Each bone was then inventoried on separate sheets denoting metrics, age, race (skulls), sex, completeness and pathological conditions. Although this is a time consuming method of analysis, it offers an appraisal of the general characteristics of each bone and individual in the sample (for a more detailed account of this method refer to Owsley et al., 1985a). The criteria used in estimating age, race, sex and stature consist of conventional methods used by practicing anthropologists. In instances of conflicting aging criteria the most reliable method was emphasized in the final assessment. For example, an individual with open cranial sutures and an eroded auricular surface (ilium) was aged by the latter. When dental attrition conflicted with degenerative joint disease the former was chosen. Most individuals, however, did not present such ambiguities.

Primary race estimates are based on those criteria exhibited in the skull (Bass, 1971). The shape, width and inferior border of the nasal aperture were given the most weight. Alveolar prognathism, dental crenulations (wrinkles), vertical subnasal corrugations (De Villiers, 1968) and general cranial contour were also considered. Of secondary importance were the criteria of femur curvature and the lack of shovel-shaped incisors.

Sex was determined by the shape and depth of the sciatic notch, maximum diameter of the femoral head, size of the mastoid processes, chin shape, browridge flatness, sharpness of the upper margins of the eye orbits, nuchal and supramastoid crest development, cranial size and shape, long bone seriation (intragroup) and comparison with known-sex skeletons.

Due to the fragmentary condition of the skeletons, stature could only be determined for 4 individuals (3 females and 1 male). Trotter and Gleser's (1952) formula for American Blacks was used. In most instances the long bones of the legs had to be reconstructed before measurements could be taken.
Paleopathological analysis is based on a three-category system designed to classify the bone cell response (to disease) present in the bone. The categories consist of bone loss (e.g., resorption, porosity), bone apposition (e.g., periostitis) or both. Each category has specific codes that further narrow and define the bone lesion according to severity, location (joint or nonjoint) and, in some instances, specific disease (e.g., lepromatous leprosy).
**Burial Analysis**

**In situ Burials**

**Burial 1.**—Female, race indeterminate, 50+, 5'1¼". This skeleton is in a fair state of preservation with the following elements present: both femora, tibiae, fibulae, right foot, fragmentary left radius, ulna, hand bones and innominates. Most of the arm bones and long bone ends are missing (post mortem). This female exhibits moderately robust long bones but a gracile radius and ulna. Female traits consist of a wide, shallow sciatic notch and a delicate ischium. Marked osteoporosis combined with porosis of the acetabula suggest old age.

Pathological Condition: The left hand exhibits a swollen and disfigured metacarpal, eburnated (polished) carpal, arthritic destruction of one distal phalanx and an osteochondritic pit in the greater multangular. There is an area of ossified connective tissue (enthesopathy) on the ventral surface of the left patella and posterior surfaces of the tibiae resulting from repeated physical stress. The right fibula exhibits a healed fracture near its midshaft. It is probable that this female favored her right leg following an injury, as noted by the slightly atrophied right femoral shaft. The midshaft circumferences of the femora are 8.5 cm (left) and 8.0 cm (right).

**Burial 2.**—Female, race indeterminate, 20–30. This fragmentary skeleton is in a poor state of preservation with the following elements present: most of the skull, mandible and teeth of both jaws, and a fragmentary left humerus, left femur and dens of the second cervical vertebra. Sex is based on the sharp orbital margins, a pointed chin, flat browridges, small mastoids, cranial shape and gracile long bones (Krogman, 1962; Bass, 1971; Stewart, 1979). Aging criteria consist of slight dental attrition, open cranial sutures, thick cortical bone and lack of degenerative joint disease. The overall size of the skeleton suggests a small female. There is a green copper salts stain on the right frontal bone suggesting a shroud pin or other ornament was buried with her (Fig. 1).

Pathological Condition: Slight erosion and porosity of the right mandibular fossa. Bilateral cribra orbitalia and slight porotic hyperostosis (örtner and Put- schar, 1981). The teeth exhibit slight attrition and no abscesses; 3 teeth are carious and present hypercementosis. Eleven teeth have enamel hypoplastic lines encircling the crowns.

**Burial 3.**—Male, race indeterminate, 35–45, 5'4". Both legs and feet are present (the upper skeleton was destroyed by bulldozers). Muscle markings, a femoral head diameter of 46 mm and large long bones suggest this individual to be one of the larger males recovered. The contour of the femora is relatively flat. An age of 35–45 is based on moderately thick cortical bone and only slight arthritic lipping of the proximal articular surface of the left tibia.

Pathological Condition: This individual presents a number of pathological lesions. First are the osteophytes on the articular surface of the distal right femur. Both tibiae exhibit superiorly directed bony projections (enthesopathies) on the tibial tuberosities. Two proximal foot phalanges exhibit severe osteoarthritis of the distal joint surfaces.

Anomaly: Both calcanei (although the right calcaneus is damaged a trace of the trait is still visible) exhibit evidence of what Dwight (1907) terms a secondary os calcis (Fig. 2, 3). This true accessory bone lies within the joint spaces between the calcaneus, talus, cuboid and navicular. The secondary os calcis is a small, roughly semilunar-shaped bone that is slightly convex along its medial border and convex...
at its lateral margin where it articulates with a "notch" in the anterior talocalcaneal facet. The presence of such a bone would not cause pain or discomfort. Although the frequency of this accessory bone (in skeletal and extant populations) is not known, preliminary research by one of the authors (RWM) shows it to occur in about 1 of every 8 individuals examined (general population).
Fig. 5 (above).—Burial 4. Left lateral view of skull.
Fig. 6 (below).—Burial 4. Superior view of skull.
Table 3.—Burial 4 cranial measurements (in millimeters).

| Measurement                        | Value |
|------------------------------------|-------|
| Glabello-occipital L               | 195   |
| Nasion-occipital L                 | 196   |
| Basion-nasion L                    | 115   |
| Basion-bregma Ht                   | 146   |
| Maximum cranial Br                 | 135   |
| Minimum frontal Br                 | 94    |
| Biauricular Br                     | 113   |
| Minimum cranial Br                 | 80*   |
| Biasterionic Br                    | 99    |
| Mastoid Ht                         | 23    |
| Mastoid Br                         | 10    |
| Orbital Ht                         | 32    |
| Orbital Br                         | 32    |
| Bifrontal Br                       | 90    |
| Biorbital Br                       | 91    |
| Check Ht (minimum)                 | 20    |
| Supraorbital projection            | 5     |
| Glabella projection                | 1     |
| Frontal chord                      | 122   |
| Frontal subtense                   | 29    |
| Parietal chord                     | 118   |
| Parietal subtense                  | 24    |
| Occipital chord                    | 98    |
| Occipital subtense                 | 23    |
| Foramen magnum L                   | 34    |
| Foramen magnum Br                  | 29*   |
| Nasion radius                      | 108   |
| Bregma radius                      | 135   |
| Vertex radius                      | 136   |
| Lambda radius                      | 119   |
| Opisthion radius                   | 41    |
| Basion radius                      | 12    |

* Approximate measurement.

**Burial 4.** — Female, Black, 60+, 5'1/4". This female is the most complete individual recovered. The only elements missing are most of the ribs, sternum, portion of the maxilla and right pubis. Sex is based on the size and shape of the skull (Fig. 4–6; Table 3), flat browridges, small mastoids, pointed chin and a wide, shallow sciatic notch; note the small, rounded eye orbits in Fig. 4. Racial traits consist of nasal guttering and alveolar prognathism. Although the cranial sutures are open, an age of 60+ is based on the edentulous maxilla and mandible, marked osteoporosis, eroded symphyseal face, degree of osteoarthritis and auricular surface changes. There is a green copper salts stain on the left frontal bone.

Pathological Condition: Bilateral cribra orbitalia (Fig. 7). The endocranial surface of the frontal bone exhibits 3 or 4 small protuberances, often referred to as enostoses or Hyperostosis Calvariae Interna (Perou, 1964), probably of a benign nature. The innominates exhibit porosity in the acetabular surfaces and a small lytic lesion superior of the left acetabular rim. The left thumb (metacarpal) exhibits a healed fracture. The right patella and joint surface of the distal right femur are erumated. The corresponding articular surfaces display deep grooves and erosion resulting from bone on bone contact (osteoarthritis). Based on the lack of long bone atrophy it is probable that this individual remained active until or near the time of her death. The most striking pathological condition seen in this skeleton is the marked degree of osteoarthritic changes in the femoral heads (Fig. 8). The
surfaces exhibit porosity and new bone growth as well as periarticular mushrooming. The femoral necks appear normal in length but display small areas of bone apposition, possibly in reaction to hyperextension of the legs (Angel, 1964) or contact with the rim of the acetabula (Fig. 9, 10).

Burial 5.—Female, race indeterminate, 50+, 5'1". The skeleton is represented by both lower arms and hands, distal left humerus, 4 lumbar vertebrae, left innominate, both femora, tibiae, fibulae and feet. Sex is based on a wide, shallow sciatic notch, small long bones and femoral head diameter of 40 mm. Age is based on the degree of osteoporosis and auricular surface changes (Lovejoy et al., 1985).

Burial 6.—Female, race indeterminate, 18–35. This individual is represented only by the tibiae and a crushed right femur and fibula. Sex is based on the small
Fig. 9 (above).—Burial 4. Posterior view of right femur (note the small osteophyte extending from the neck).

Fig. 10 (below).—Burial 4. Close up of posterior right femur (porosity artifactual).

size of the tibiae and gracile muscle markings. Age is based on the adult size of the tibiae and thick cortical bone.

Pathological Condition: The distal right tibia exhibits a small area of nearly healed periostitis, possibly the result of acute trauma (fracture?).

Burial 7.—Male, Black, 25–35. The only elements present consist of a nearly complete skull (Fig. 11, 12) and mandible. Male traits consist of a well developed nuchal crest, intermediate mastoids, square chin and a large gonial angle with a wide ascending ramus. Because of the fragmentary nature of the facial region race is based on the general contour of the skull (R. L. Jantz, personal communication, 1986). The open cranial sutures, moderate dental attrition, obliterated incisive suture (Mann et al., 1987) and thick diploe suggest an age of 25–35 years.
Fig. 11 (above).—Burial 7. Right lateral view of skull (portion of frontal bone is missing).

Fig. 12 (below).—Burial 7. Superior view of skull.
Fig. 13 (above).—Burial 9. Robust left femur in comparison to a known large adult male.
Fig. 14 (below).—Bones 14 and 15 (hand phalanges) of the multiple burial exhibiting enlarged nutrient foramina.
Pathological Condition: The right mandibular condyle displays slight erosion. Bilateral cribra orbitalia and slight porotic hyperostosis. Active endocranial porosity is visible in the frontal and parietales bordering the superior sagittal sinus. Enamel hypoplasias. There is a pipe-stem groove in the left mandibular canine.

Anomalies: The left maxilla exhibits a small supernumerary tooth (crown missing) on the buccal surface, interproximal of M2 and M3. Another supernumerary tooth is present in the socket of the right mandibular incisor (two-rooted). A third small supernumerary tooth is present but the alveolus is missing. The mandibular central incisors present bulbous lingual cingula.

Burial 8. — Female, race indeterminate, 40+. This individual is in a very poor state of preservation and represented only by the shafts of the femora, a few long bone fragments and the left mastoid process. The extremely small mastoid and gracile femur strongly suggest female. Age is based on thin cortical bone and a rugged cortex.

Pathological Condition: The posterior surface of the right tibia displays a small area of porous, striated bone indicating active periostitis.

Burial 9. — Male, race indeterminate, 40+. This large male is represented by portions of the left femur, tibia and both ulnae. The left femur is extremely robust and measures 34 mm (anteroposterior) and 27 mm (mediolateral) at the midshaft (Fig. 13). The development of the aspera contributes heavily to the robust appearance. The right ulna is also robust. Age is based on the presence of marginal lipping of the olecranon fossa and thin cortical bone.

Pathological Condition: The left femur is the most robust bone in the sample and measures within the stenomeric range (103) on the platymeric index (Bass, 1971).

Burial 10. — Male, race indeterminate, 35–45. The only bones presented are the femora, tibiae and one left metatarsal. No articular surfaces survive. The generally smooth, thick cortex of the leg bones suggest middle age. Muscle markings are moderate indicating this to be a male of medium build (intragroup comparison).

Multiple Burial (Disturbed by Construction)

Burial 11. — Probable male, race indeterminate, 18–40. This individual is represented only by a portion of the left femur. This bone is intermediate in size and robusticity but fits better within the male range. The thick cortical bone suggests young to middle age.

Burial 12. — Male, race indeterminate, 18–40. Present only is the left femur missing both articular ends. This bone is moderate to robust and has a well developed linea aspera and thick cortex suggesting young to middle age.

Burial 13. — Male, race indeterminate, 18–40. Present only is the left femur missing both articular ends. This bone is also robust and exhibits a thick, smooth cortex suggesting a young to middle age adult.

Burial 14. — Subadult, 7–8. The only element present is a left femur, missing both articular ends. Based on intragroup seriation and comparison to a known-age femur this individual is 7–8 years of age.

Burial 15. — Subadult, 8–10. Elements present are both femoral shafts and tibiae. Intragroup seriation and known-age comparison suggest an age of 8–10. The right tibia exhibits active porosity over much of its surface.

Burial 16. — Subadult, 10–12. Bones present consist of fragmentary femora. The right femur exhibits a portion of the billowy epiphysial surface for attachment of the head. Intragroup seriation places this child at 10–12 years.

Burial 17. — Subadult, 14–16. Present are fragments of both femora and tibiae.
This is the largest subadult in the sample. The right femur and tibia exhibit active periostitis.

Bones of the Multiple Burial Indicating Age and Sex

Bone 1.—Female, race indeterminate, 60+. This fragment consists of the right innominate with a wide sciatic notch and small acetabulum. The auricular surface is eroded and macroporotic suggesting an age of 60+.

Bones 2 and 3.—Female, race indeterminate, 60+. Both femoral heads (left measures 36 mm and the right 37 mm) are present and match. The small size of the heads and obliteration of the epiphyseal lines indicate this to be a small, adult female. The femoral heads fit the small right acetabulum listed above (Bone 1) and belong to the same individual.

Bones 4 and 5.—Left and right femoral heads (each 45 mm in diameter); size suggests this to be a good match and probably of the same adult male.

Bone 6.—Right femoral head (45 mm), adult male.

Bone 7.—Right maxilla and 5 teeth, adult. The shape of the nasal aperture suggests a probable Black (admixture?). Dental development and attrition suggest an age of 20–30 years.

Bone 8.—Portions of a skull (one individual). Active porotic hyperostosis of the parietals and occipital. This is probably a young adult female as evidenced by small mastoids processed and undeveloped supramastoid crests. Cranial sutures are open.

Bone 9.—Mandible fragment with a pointed chin, probable adult female.

Bone 10.—Mandible fragment with a pointed chin, probable adult female.

Bone 11.—Edentulous mandible, female 60+ (probably goes with the innominate and 2 femoral heads noted above).

Bone 12.—Right clavicle (adult) with a green copper salts stain.

Bone 13.—Numerous cranial fragments of one individual (sex and age indeterminate). Green copper salts stain on the left frontal bone.

Bones of the Multiple Burial Exhibiting Pathological Conditions

Bones 14 and 15.—Two middle hand phalanges with enlarged nutrient foramina (Fig. 14) suggesting lepromatous leprosy (Brothwell and Sandison, 1967; Steinbock, 1976; Donald Ortner, personal communication, 1986).

Bone 16.—One metatarsal with an oval-shaped lytic lesion in the diaphysis.

Bone 17.—One left metacarpal with a healed fracture of the diaphysis.

Bone 18.—Left ulna fragment with healed periostitis.

Bone 19.—Male, Black, 30–40 years. This maxilla (palate and 11 teeth only) is very large and exhibits classic Black features (Fig. 15, 16): a wide nasal aperture (27 mm), alveolar prognathism, vertical subnasal corrugations, nasal guttering, tapered central incisors, crenulated molars and a diastema between the central incisors. Age is based on slight dental attrition, erupted third molars and visible incisive suture. Carabelli’s cusp is present.

Pathological Condition: Linear enamel hypoplasias and slight to moderate hypercementosis. Chronic osteitis of the right maxillary antrum (Fig. 17) due to a periapical abscess of the second premolar. The left first molar has a large occlusal caries. The mandibular premolars and molars exhibit large buccal wear facets. There were a few loose mandibular teeth recovered in the multiple burial that show corresponding wear facets on their lingual surfaces. This pattern of dental wear suggests that the mandible may have been much smaller than the maxilla.
Fig. 15 (above).—Bone 19 of the multiple burial (maxilla of adult Black male; missing bone is artifactual).

Fig. 16 (below).—Bone 19 of the multiple burial (lingual surface of maxilla).

Another possibility for the uneven wear is that pain associated with the periapical abscess may have caused the individual to favor chewing on the left side.

**Dental Summary**

A total of 92 teeth (both loose and in sockets) were recovered from the site and include the following: 18 incisors, 13 canines, 27 premolars and 34 molars. Many
Fig. 17.—Bone 19 of the multiple burial (chronic osteitis of right antrum; note the thickened and porous appearance of the new bone).

of the teeth exhibit caries (17 of 92), root hypercementosis and enamel hypoplasias similar to those described by Corruccini et al. (1982, 1985), of a Black slave cemetery in Barbados. The frequency of dental caries by tooth type includes the following: 1 incisor, 1 canine, 8 premolars and 7 molars. Also present are 3 periapical and 1 periodontal abscesses. Two individuals exhibit pipe-stem grooves. In this small sample there is no evidence of intentional tooth mutilation or shovel-shaped incisors.

In general the teeth reflect a moderately high fiber diet resulting in a slight to moderate dental attrition. The high frequency of dental caries (18%) may reflect a diet high in natural sugar, possibly from chewing sugar cane (Owsley et al., 1985b). Dental attrition and wear patterns of this sample do not reflect a rough, gritty diet as seen in prehistoric Amerindian groups. The dental wear patterns of this group represent a diet between the abrasive diet of the Amerindian and the refined diet of the more industrialized peoples.

**Discussion and Summary**

Final analysis suggests that the skeletons examined are those of Blacks, possibly slaves from the nearby Bransby sugar plantation. The lack of fetal and infant
The males in the Harney site sample are moderate to robust in build yet short in stature and differ from the historical description of the “best slave” as being 5’11” (Williams, 1970). The stature of the three measurable females clustered around 5’1”. A general comparison of Harney femora and tibiae with known-sex and -race individuals suggests generally taller but less robust than the Amerindian sample (Arikara of the Northern Plains), and shorter but more robust than the White sample (forensic cases). Development of the linea aspera (femur) and a greater anteroposterior diameter are distinguishing features of the Harney skeletons.

Due to the fragmentary nature of the skeletons only 3 individuals could be reliably raced (Black; a fourth individual exhibits Negroid traits but not as strongly as the others). The general contour of most femora (anteroposteriorly) is flattened, further suggesting Black individuals.

The age distribution by sex presents an interesting pattern. Five of the 6 identifiable males were less than 45 years old at death and the sixth 40+ years. The females, on the other hand, outlived the males in this sample; of the 6 identifiable females 4 are 40+ and only 2 died in their thirties.

Most of the Black slaves brought to the West Indies were either bought or captured on the coast of West Africa. Fully 16% of the slaves died aboard ships during “middle passage” and another 33% within three years of their arrival in the West Indies (Williams, 1970). Since there was little value in bringing older slaves to work on the plantations, the presence of old females suggests that they had survived as slaves for many years (not necessarily on Montserrat). Further research to detect the presence and amount of lead present in the bone may help clarify this question (Handler et al., 1986). The subadults, on the other hand, may have either been brought to Montserrat from Africa or were born on the island. The 5 subadults identified in this sample comprise nearly 30% of the individuals recovered from the Harvey site.

The overall disease pattern reflects a high frequency of anemia as evidenced by cribra orbitalia and porotic hyperostosis. Although present in a few individuals, periostitis doesn’t appear to have been a major problem among these people. The most interesting disease noted in this sample is the presence of enlarged nutrient foramina (2 hand phalanges) suggestive of lepromatous leprosy. The lack of other diagnostic evidence precludes a firm diagnosis of the disease.

Another point of interest is the relatively high frequency of fractures in this group: 3 females (burials 1, 4, and 6) as well as an unprovenienced metacarpal in the multiple burial. It is interesting to note that fractures are identified only with the females.

The incidence of degenerative joint disease is moderate and seems to fit the expected scenario that joint involvement increases with age, probably commencing sometime in the late twenties. In only one individual is there evidence of severe osteoarthritis, this being in the right knee and hip. The sacra, innominates and few recovered vertebrae are relatively free of osteophytosis and osteoarthritis. Muscle attachment sites are also nearly free of enthesopathies which suggests that
these individuals were not engaged in prolonged activities that produce ossified connective tissue in the extremities.

Examination and measurements of the hand bones suggest these individuals had long, slender fingers in comparison to a sample of Amerindians and Whites. The hands appear to have been subjected to arduous grasping activities, as evidenced by the developed muscle attachment areas in the phalanges and metacarpals of the five individuals with recovered hands or feet; four individuals exhibit one or more of the following pathological conditions: osteoarthritis, healed fractures and volar curvature. Speculations concerning the bony changes present in these individuals are of little substantive value due to the small sample size.

In conclusion, the skeletons of at least 17 Black slaves consisting of 6 adult females, 6 adult males, 1 probable male and 4 subadults were recovered from the Harney site. Although the ratio of males to females is even, the males appear to have died at earlier ages, possibly reflecting a harsher and more disease prone lifestyle. Although excavation of the entire cemetery was not possible, the lack of fetal and infant skeletons suggests a selective burial pattern. The frequent occurrence of fractures, cribra orbitalia, porotic hyperostosis and enamel hypoplasias suggests that these individuals suffered the effects of periodic severe malnutrition, common illnesses and a harsh lifestyle that resulted in the early deaths of the plantation males.

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