the teeth are not heavily worn, so the individual should be considered middle aged (possibly in the 30s or 40s at the time of death).

e) *Stature*

Based on the length of the tibia and femur and using a regression equation derived from white males, the stature of this individual is 163.0 +/- 2.99 cm (64.2 inches). Estimates based on the individual bones (femur, tibia, radius, and humerus) are all within the range given for this estimate.

f) *Population Affinity*

There is a sharp nasal sill on the right side of the nasal aperture and there seems to be one on the left side as well. There may have been a nasal spine. The nasal aperture is narrow. The position of the face relative to the rest of the cranium is impossible to evaluate since it was broken off and many cranial measurements could not be taken. However, those features which are present suggest that this individual was of European ancestry.

g) *Summary*

This individual was a middle-aged male at the time of death. His dental health was poor and he had experienced some form of health stress as a child (as evidenced by bands of enamel hypoplasia). In addition , there was evidence of aging in his postcranial skeleton. He was about 64.2 inches (5 feet, 4 inches) tall.

9. FEATURE 40

a) *Skeletal Inventory and Condition*

This skeleton is in poor condition. The cranium has been crushed; however, portions of the occipital, parietal, temporal, and sphenoid bones are identifiable. The mandible is also broken but the right side is present. In addition five teeth are present: RM_3, a mandibular incisor crown, LC, LP_1 or LP_2, and LM_3.

The first two cervical vertebrae (the atlas and the axis) are in excellent condition. The rest of the vertebral column is represented by very fragmentary portions of vertebrae.

The sacrum is very fragmentary. The pelvis is represented only by two similar portions of the right and left innominate, which includes portions of the acetabula and sciatic notches.

The ribs, manubrium, and sternum are represented only by very small fragments.

The lower limb bones are all extremely fragmentary with the exception of the femoral heads and a portion of the left femora shaft. Fibulae, tibias, and bones of the feet are all extremely fragmentary.

The upper limb bones are slightly more complete than the lower limb, but still extremely fragmentary. The scapula and clavicles are represented only by small portions (regions at the base of the scapular spines and the middle portion of the clavicles). The humeri have only shaft portions and broken bits of the proximal articular surface preserved. The ulnae and radii are similarly fragmentary, with only shafts and the proximal articular end of the right ulna preserved. The hands are represented by two left carpals, six metacarpal, and six phalangeal fragments.

b) *General Description and Pathology*

1) Cranium

The cranial bone is fairly thick but muscle markings are not terribly strong. The nuchal region is less smooth than that of some of the females in this sample, but is not as robust as in most of the males. The mastoid process is small. The temporal line is marked anteriorly.

The surface of the bone is free of any visible bony pathology. Many mandibular teeth had been lost well before death. The portion of the mandible which is preserved shows considerable resorption of the alveolus, from the region where the left second incisor would have been all the way to the region where the right second molar would have been. The single tooth which is in the portion of mandible that was preserved is the right third molar. The crown of this tooth was decayed, so that what remains is the root and the very lower margin of the enamel on the crown. The left teeth which are preserved also all show evidence of pathology. The lower left canine has two carious lesions: one buccally, below the cemento-enamel junction, and one on the mesial interproximal wear facet just above the cemento-enamel junction. The lower left premolar that was preserved has a small interproximal carious lesion on its mesial surface. Finally LM_3 has a large carious lesion on the buccal surface of the root.

2) Vertebral Column

The first two vertebrae are small and free of pathology. The remaining vertebrae have moderate marginal osteophytic development, with some lipping and porosity of the superior and inferior articular facets of the vertebral bodies. There is very mild lipping on the superior and inferior articular processes.

3) Sacrum and Pelvis

The superior articular facet of the sacrum is extremely porous, suggesting a considerable amount of osteoporosis. The acetabulum has considerable osteophytic development and marginal lipping. These both suggest that the individual was of an advanced age at the time of death. The sciatic notches, though not complete on either side, are clearly quite wide, suggesting that this individual was female.

4) Lower Limb

The femoral heads are fairly small and very smooth. The linea aspera on the left femur is extremely well developed.

5) Upper Limb

The deltoid tuberosities on the humeri are extremely pronounced. The right ulna has extreme osteophytic development on the trochlear notch and is consequently quite misshapen. It is difficult to say precisely what form this took, given the fragmentary condition of the bone.

c) *Sex*

This individual is almost certainly female. Although the skeleton is very fragmentary, it is clear from the portions of innominate which include the sciatic notch, that the notch was quite wide. Evidence from the remainder of the skeleton (such as cranial morphology and long bone robusticity) is consistent with this diagnosis.

d) *Age*

The great amount of antemortem tooth loss and subsequent alveolar resorption suggests that this individual died at a fairly advanced age (50-60 years). The osteoporosis of the vertebral bodies, lipping of the acetabula, and osteophytic development of the vertebral bodies and right ulna are consistent with this conclusion.

e) *Stature*

The fragmentary nature of the postcranial skeleton makes it impossible to measure long bones in order to estimate stature.

f) *Population Affinity*

The fragmentary nature of this skeleton makes it impossible to determine population affinity for this individual. There is no evidence to contradict the hypothesis that, like the other individuals from the site, this individual was of European ancestry.

g) *Summary*

This individual was a female who was elderly at the time of death. She had a great deal of antemortem tooth loss and some degenerative changes in her skeleton, but no other pathology.

C. CONCLUSIONS

This sample of nine individuals from historic burials spans the entire range of the human life cycle from an infant and young child to elderly individuals in their 50s or 60s. Both males and females are represented (three males and four females, among the adults). Demographic reconstruction is not possible with a sample of this size.

As is usual in archaeological skeletal samples, there are no instances where the cause of death is known. In order for a disease or injury to manifest itself on the skeleton it must persist for some time before the individual dies. In fact, with the exception of dental disease there is little evidence of pathology in the individuals in this sample. There is some evidence of nutritional stress (in the porotic hyperostosis of Feature 5, the cribra orbitalia of Feature 29, the mild pitting on the occipital of Feature 39, and the enamel hypoplasia of Features 9 and 39). These are mild indicators of generalized stress, but in the absence of a larger sample it is not possible to quantify the stress.

Normal degenerative changes associated with aging are quite common in all adults from this sample, ranging from only extremely minor arthritic lipping in Feature 36, slightly more in Features 38 and 39, moderate changes in Features 9, 15 and 40, and finally, extremely severe, debilitating arthritis and other related changes in Feature 5.

The single pathological condition which is ubiquitous among adults in this sample and extremely severe is dental disease. Every adult individual had some degree of dental decay, abscess and loss, ranging from a moderate number of carious lesions and antemortem tooth loss (in Features 9, 36, 38, and 39) to extreme dental disease and loss long before the individual died (as in Features 5 and 40). There was no evidence of dental work on any of the individuals. It is clear that dental health in this population was very poor. In addition, dental attrition (tooth wear) was quite heavy in this sample compared with modern populations. This is the result of a diet made up of food which was less processed and/or more gritty and consequently more abrasive. If this sample is representative of the total population with respect to dental health, the life cycle of individuals in this population was commonly characterized by dental decay, abscess, and then loss of many teeth in middle age.