

# 8

## Human Skeletal Remains from Pikillacta

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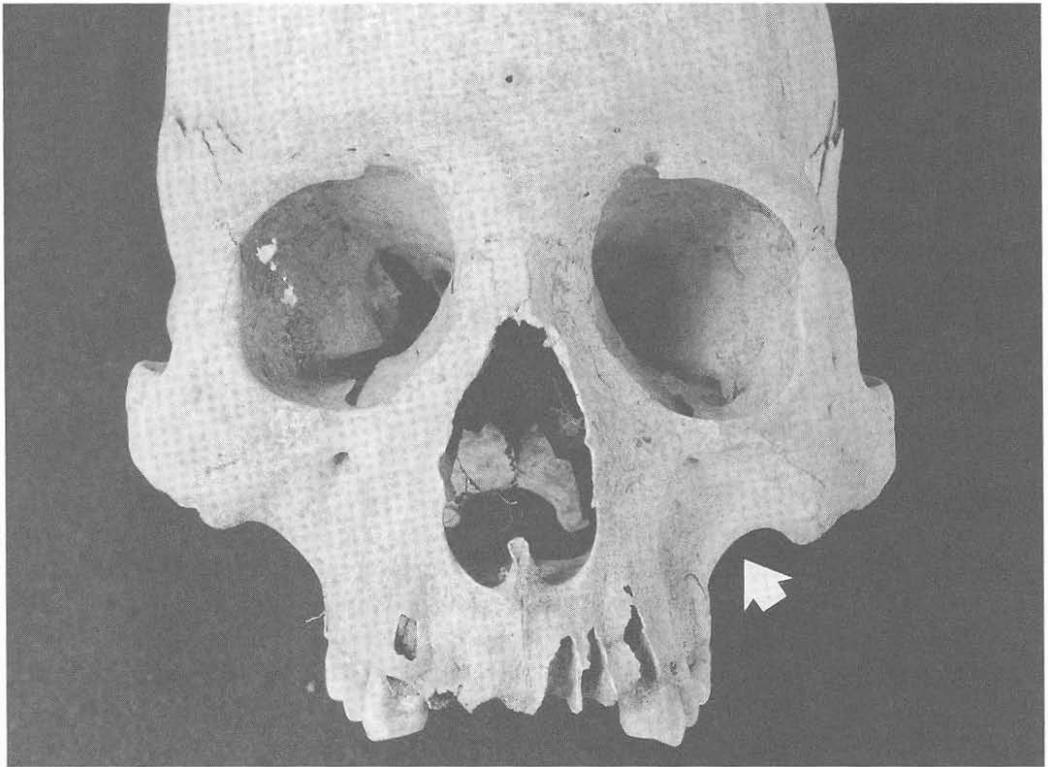
Human skeletal remains recovered from excavations at Pikillacta include four complete or partial skeletons and a cache of ten crania, as well as isolated skeletal elements recovered from various excavation units. The crania from the cache pit, excavated during the 1982 field season, have been described previously by Thomas and Brian Bauer (Bauer and Bauer 1987). During visits to Cuzco in 1989 and 1992, I was able to study four skeletons found during subsequent field seasons and examine three of the crania from the cache.

### Tombs in the Southwest Perimeter Wall

#### Wall Tomb 1

Tomb 1 contained the skeletons of an adult male (Skeleton 1) and adult female (Skeleton 2). Skeleton 1 is an adult male, mostly complete except for some hand and foot bones. Age at death was estimated at 35 to 45 years based on the morphology of the pubic symphysis, sternal end of the fourth rib, dental attrition, cranial suture closure, and degenerative changes on the joints and vertebral bodies. Sex was determined on the basis of pelvic and cranial morphology. Maximum length of the left femur (405 millimeters) yielded an estimated living stature of approximately 158 centimeters, or 5 feet 2 inches, using Genovés's (1967) stature formulae.

Skeletal pathologies include degenerative changes on the left acromioclavicular joint (porosities and joint surface breakdown) and slight marginal lipping on the proximal ulnae and glenoid fossae of the scapulae. The third and fourth lumbar vertebral bodies have pronounced osteophytes; other vertebrae do not show degenerative changes. A large semicircular depression is present on the left maxilla below the orbital margin (fig. 8.1). It appears to be a well-healed depressed fracture from a blow to the face. The



8.1. Cranium of Tomb 1, Skeleton 1. A semicircular depression (arrow) is present on the body of the left maxilla.

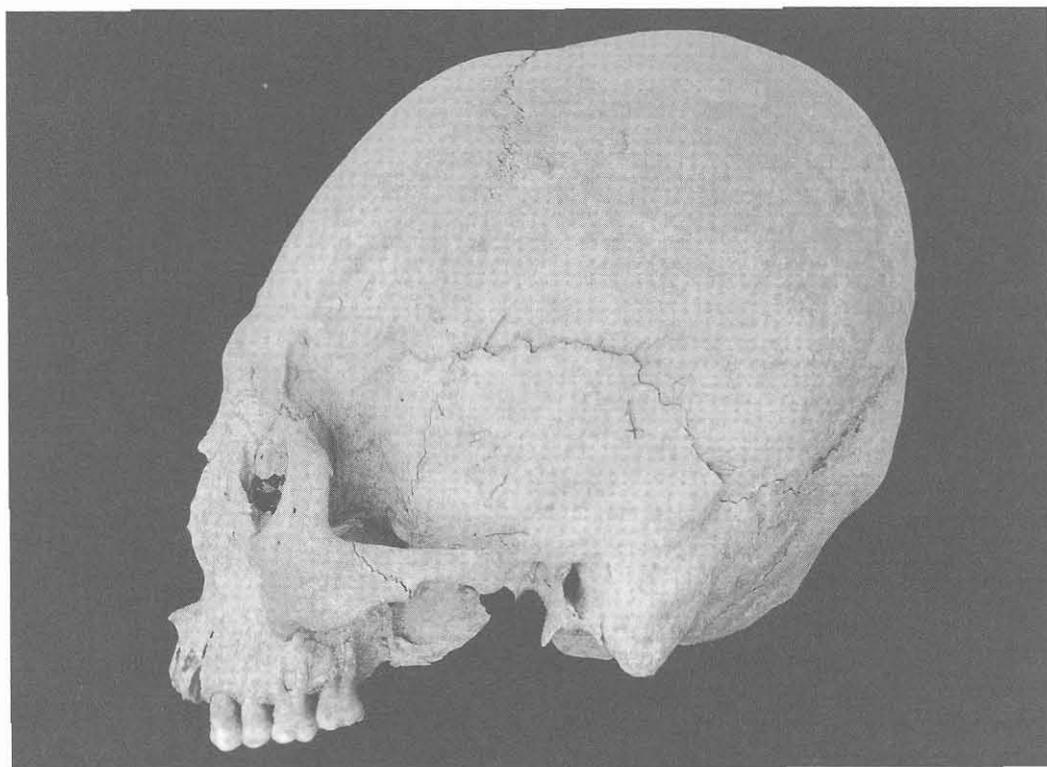
cranium shows artificial cranial deformation in the form of angular flattening of the frontal and occipital squama (fig. 8.2).

Dental attrition is moderate, limited to patches of dentine exposure on the occlusal surfaces of the first molars and cusp-blunting of the second molars. The upper third molars appear to have been congenitally absent. Three teeth were lost antemortem and carious lesions are present on the distal interproximal surfaces of both lower second molars. There is pronounced alveolar resorption around the roots of the left first and second lower molars, suggesting periodontal disease.

Skeleton 2 is complete, although some vertebrae are poorly preserved and long bones were not complete enough to be used to calculate living stature. Age at death is estimated at approximately 35 to 50 years, based on morphology of the pubic symphysis and degenerative changes

in the postcranial skeleton. Sex was determined by the presence of a well-defined preauricular sulcus and a wide greater sciatic notch.

Degenerative changes are present on the proximal and distal ends of the left radius, on the proximal end of the left ulna and capitulum of the left humerus. Lipping is present on the bodies of the tenth and twelfth thoracic and fifth lumbar vertebrae. The fifth lumbar vertebra also shows pronounced degenerative changes on the superior and inferior surfaces of the body. Dental pathology is limited to two carious lesions—an occlusal carie on the left upper second molar and a large cervical carie on the lower left third molar. Tooth wear is slightly more pronounced than in Skeleton 1, with more dentine exposure on the occlusal surfaces of the molar teeth. The cranium shows frontal flattening similar to that seen in Skeleton 1. The mandibular body of Skeleton 2 appears unusually thick and mas-



8.2. Left lateral view of the cranium of Tomb 1, Skeleton 1.

sive, but is otherwise normal in appearance. No other pathological conditions or anomalies were noted.

#### Wall Tomb 2

Tomb 2 contained the complete skeleton of a female, estimated between 17 and 20 years of age based on degree of epiphyseal closure. The following epiphyses showed incomplete union: the iliac crests and ischial tuberosities, distal femora, proximal tibiae and fibulae, the acromion processes of the scapulae, proximal humeri, and distal radii and ulnae. The basilar suture (sphenooccipital synchondrosis) is fully united, and the third molars had erupted and were in occlusion. Maximum length of the left femur (398 millimeters) yielded a living stature estimate of approximately 153 centimeters, or 5 feet. No dental pathology is present. Skeletal pathology in-

cludes deposits of unremodeled periosteal bone on the body and rami of the mandible—most pronounced on the medial surface of the left ascending ramus (fig. 8.3)—as well as on the body of the left maxilla. The cause of this periosteal reaction is unclear, although it may have resulted from an infection with a focus near the recently erupted left third molar. The left maxilla is noticeably swollen in comparison to the right maxilla (fig. 8.4). While this swelling could be associated with the inflammatory process, its appearance is more consistent with some form of long-term developmental asymmetry in the growth of the facial skeleton.

#### Partial Skeleton from Unit 49

In 1991 a partial skeleton was discovered in Unit 49. I was able to examine the remains in Cuzco

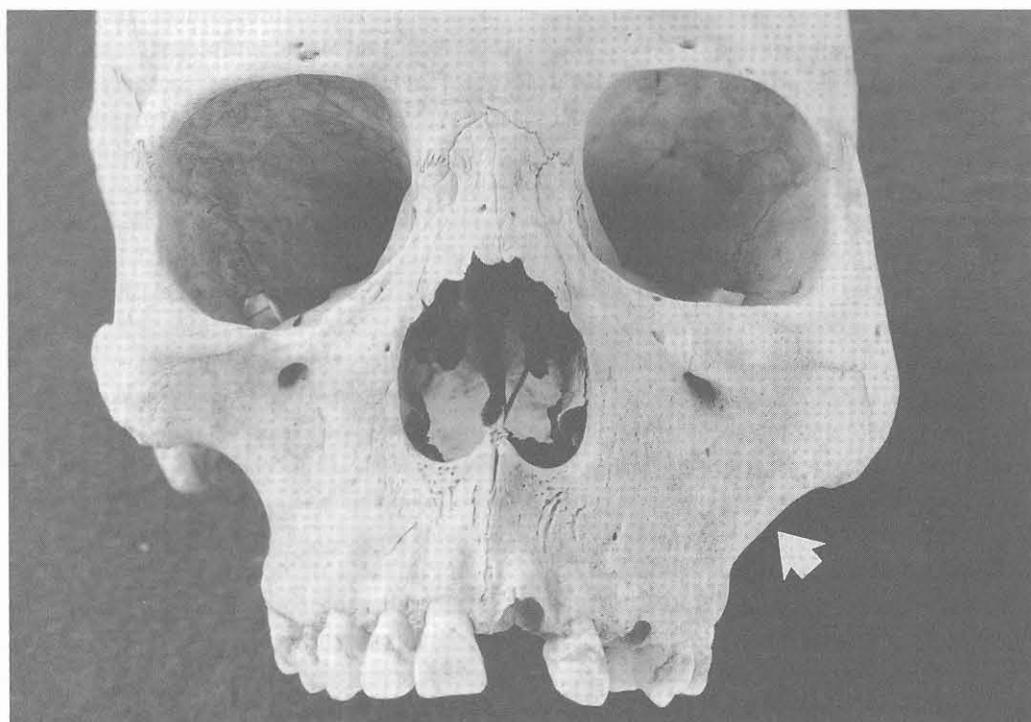


8.3 Individual from Wall Tomb 2, left ascending ramus of mandible with periosteal reaction (arrow).

in 1992. Present was the partial skeleton of an adolescent male approximately 16 to 18 years of age. Sex was determined by pelvic morphology; age on the basis of epiphyseal closure. The following epiphyses were united: distal femur, proximal tibia and fibula, distal radius and ulna, iliac crest, and ischial tuberosity. Epiphyses of the phalanges and metacarpals of the right hand and phalanges and metatarsals of the feet showed partial union. Bones missing include the cranium and mandible, the cervical vertebrae, and all of the bones of the left upper limb and shoulder girdle, including the scapula, humerus, radius, ulna, and hand bones. Curiously, examination of the remains did not reveal cut marks, fractures, or other indications of trauma to the skeleton that would be consistent with decapitation or dismemberment. It is difficult, therefore, to explain the absence of the left arm, skull, and neck vertebrae. Perhaps the remains are those of a partially decomposed body that was brought to this location for burial.

### **Crania from the Skull Cache**

In 1992 I was able to examine three of the crania (Skulls 1, 2, and 3) from the skull cache that had previously been described by Bauer and Bauer. (A search for the other crania in the National Institute of Culture's storage facility was unsuccessful.) The results of my examination agree largely with the observations of Bauer and Bauer. Skull 1 shows slight cranial deformation, as noted by Bauer and Bauer. My age estimate for Skull 2—approximately 14 to 17 years—differs from their estimate of young adult. I based my assessment on calcification of the third molars rather than tooth eruption, and the teeth in question have complete crowns but no root development. I also noted a high frequency of lambdoid ossicles (sutural bones), some quite large, in the three skulls I examined. Bauer and Bauer classified all of these as "Inca bones." None that I observed would qualify, in my opinion, as a classic Inca bone, which is generally defined as a single



8.4. Individual from Wall Tomb 2, anterior view of the face showing swollen left maxilla (arrow).

large, roughly triangular ossicle whose terminal points are defined by Lambda and the left and right Asterion (Hauser and De Stefano 1989). In other details, however, we are in agreement, and Bauer and Bauer should be consulted for additional data, including skull measurements and observations on one skull that shows three healed trephinations.

## Discussion

The human skeletal sample from Pikillacta is very small, but not atypical of highland Wari sites. Relatively few intact Wari burials have been excavated by archaeologists, and very little of this material has been studied and described beyond the level of assessment of age and sex. Even the most basic information on the physical characteristics and health of Wari populations is lacking, due to the small samples available and the lack of physical anthropological studies on material

that has been excavated. From what is currently known, Wari mortuary behavior was complex—including primary and secondary interments of complete individuals and offerings of isolated skeletal elements, most commonly skulls. The significance of these different mortuary behaviors is unknown; interpretation is hampered by a small number of samples scattered across numerous sites, both in the highlands and on the coast. Highland Wari cemeteries are particularly elusive, and coastal Wari cemeteries have suffered intense looting and destruction.

Some general observations can be made on the skeletal remains recovered from Pikillacta. Examples of both deformed and undeformed crania are present in burials and in the skull cache. The presence of cranial deformation in some individuals but not others suggests either ethnic diversity or social differentiation in the skeletal sample at Pikillacta. The fact that both females and males are deformed suggests that this differentiation was not along gender lines,

but more likely a marker of group identity. Cranial deformation appears to have served as an important social identifier in Andean South America, differentiating groups along multiple axes (Hoshower et al. 1995). Unfortunately, given the small sample at Pikillacta, it is not possible to link cranial deformation with form of burial, associated grave goods, or inferred social status. At present one can only note that there is diversity in the practice of cranial deformation as evidenced by human remains from the site.

The pattern of dental pathology seen at Pikillacta—which is characterized by moderate dental wear and frequent caries—is what would be expected in an agriculturally based population consuming relatively soft and carbohydrate-rich foods such as corn and potatoes. The sample is too small to attempt generalizations about work or activity patterns on the basis of degenerative changes in the joints and verte-

brae. The living stature estimate for the male burial in Tomb 1 (158 centimeters) is similar to mean statures reported for modern highland Peruvian Quechua males by Hurtado (1932) ( $N = 478$ , Mean = 159 centimeters) and Frisancho and Baker (1970) ( $N = 50$ , Mean = 160 centimeters). The stature estimate for the adolescent female in Tomb 2 (153 centimeters), however, is higher than mean statures for Quechua women (ranging from 146 to 150 centimeters) reported in other surveys (Stinson 1990: Table 1).

Clearly, more Middle Horizon skeletal remains need to be excavated and studied before any generalizations can be made about the physical characteristics and skeletal biology of the Wari people. The limited remains recovered from Pikillacta are nevertheless important in documenting, albeit in a limited way, mortuary and ritual practices and the physical remains they left behind.

# PIKILLACTA

## The Wari Empire in Cuzco

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