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The Addicks Dam Site

II. Indian Skeletal Remains from the Doering and
Kobs Sites, Addicks Reservoir, Texas

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# INDIAN SKELETAL REMAINS FROM THE DOER-ING AND KOBS SITES, ADDICKS RESERVOIR, TEXAS

By Marshall T. Newman

#### INTRODUCTION

The purpose of this report is to describe and analyze the skeletal remains from burials 1, 2, 3, and 4 (Doering site) and 5, 6, 7 (Kobs site). Due to their fragmentary nature, few measurements could be taken, and much of the description is in terms of morphological observations. Unfortunately, these observations are more subjectively determined than are the measurements, and hence are less useful in comparisons with the work of others. For this reason, most of the comparative analysis has to be based upon a few actual or estimated measurements and upon the stereographic drawings of the skull vaults (figs. 24-48). These drawings are approximately ½ life size.

The comparative data from the Texas coast has been taken from an unpublished State-wide study by Dr. Marcus S. Goldstein. In addition to permitting the writer to use his study, Dr. Goldstein was also kind enough to examine the Doering-Kobs material. His comments, based upon first-hand experience with a great deal of Texas skeletal material, are most valuable and have been incorporated in the present report.

Both Dr. Goldstein and the writer are reluctant to make any sweeping interpretations of the Doering-Kobs material. There simply is not enough of it, and even after careful restoration it is still fragmentary. But it possesses definite value since it is archeologically documented material.

While burial 1 has been tentatively assigned to the middle phase of occupation at the Doering site, the other burials (2–7) were probably made in intrusive pits from the thin midden surface of both sites, most likely during the late phases of occupation (see pp. 238–239). The absence of European trade materials suggests the sites were not occupied in historic times. From an archeological standpoint, then, the remains of burials 2–7 can be considered as one series. In a

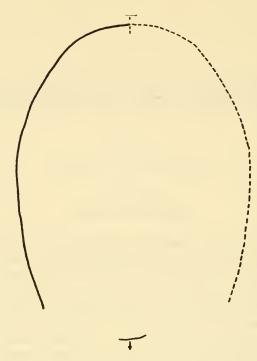


FIGURE 24.—Stereograph contour of the skull from Burial 2. (Approximately ½.)

properly tentative way, Wheat has linked the Doering and Kobs sites with the Akokisa band of Atacapan-speakers, who occupied the area at the time of the earliest French and Spanish explorations (see pp. 245–246). Thus, for present purposes, the series from burial 2–7 is probably late or protohistoric, and possibly Atacapan.

The measurements and observations were made according to techniques previously discussed (Newman, 1947, appendix A, B). The contour drawings were made with the Schwarz stereograph. No photographs of skulls are included because of their fragmentary nature.

#### DESCRIPTION

Burial 1 (Doering site).—Unrestorable skull fragments, almost intact lower jaw, incomplete long bones, fragmentary pelvis and ribs of a middle-aged (36-55 years) male. One skull fragment shows a "pinched" occiput, suggesting a long-headed individual. No occipital deformation is apparent. Strong areas for muscle attachment on the skull are indicated by large mastoid processes and a large mound-type occipital torus. The lower jaw is massive, with a mediobilateral chin of medium projection, and strongly everted gonial angles. No teeth were lost during life, but heavy (fourth degree) wear into the

dentine exposed the pulp cavities of three of the molars. Apical abscesses resulted, apparently involving the antrum in one case. The wear is diagonal, heaviest on the lingual surfaces of the upper teeth and the buccal surfaces of the lower teeth.

Since only the condyles and part of the most distal shaft are missing from the right femur, an estimate of the dimensions of these missing parts was based upon a comparable femur from another collection. This gives an estimated maximum length of 430 mm. and suggests a short stature in the neighborhood of 162–163 cm.

Burial 2 (Doering site).—Partly restorable undeformed skull, part of right maxilla, most of lower jaw, and a few very small long bone and pelvic fragments of a middle-aged individual—probably female. The sphenoid-shaped vault and "pinched" occiput suggest a long-headed individual. Cranial deformation is absent. skull characteristics are: small, divided-type browridges; low forehead of medium slope; medium development of median frontal and sagittal crests; small parietal bosses; medium temporal fullness; small mastoid processes; medium lambda position; and a ridge-form occipital torus of medium size. The lower jaw is small, with narrow bilateral chin form, and only slight chin projection. The eversion of the gonial angles is medium. The lower right molar was lost during life through exposure of its pulp cavity by wear, with an apical abscess resulting. The pulp cavity of the opposing upper molar was also exposed, but caused no apparent abscess. All the first molars present show excessive (fourth degree) wear, especially on the lingual surfaces of the upper and the buccal surfaces of the lower teeth, where the entire crown and neck structure has been worn away. The second molars are less worn, although no enamel remains on their occlusal The third molars show even less wear, with the dentine only visible in spots. No caries is present except in the cases of exposure already noted.

Table 1.—Cranial measurements and indices

	Measurements (mm.) and indices	No. 1 male	No. 2 female?	No. 4 male	No. 5 female?	No. 6 female	No. 7 male
Minimum frontal dlameter.     96     86     90       Breadth of ascending ramus.     34     32     38     30     30     33       Length-breadth index.     275     (81.5)     68     70.9     71.5       Mean height index.     (82.3)     (83.7)     (83.7)     61.3       Length-auricular height index     65.7     (63.3)     61.3	Maximum breadth Basion-bregma height		182	1(150+)	<sup>2</sup> 128 (130)	122	133
Mean height index.       (82.3)         Length-auricular height index.       65.7         (63.3)       61.3	Minimum frontal diameter Breadth of ascending ramus	34		96 38	30	30	90 33
	Mean height index				(82.3)	(83.7)	61. 3

<sup>&</sup>lt;sup>1</sup> Figures in parentheses are close approximations. <sup>2</sup> Estimates.

Burial 3 (Doering site).—Partly restorable skull vault, facial fragments, part of lower jaw, fragments of femoral and tibial shafts and

pelvis, bodies of three cervical vertebrae of a young adult (21-35 years), probably female. What there is of the vault suggests a moderately long-headed individual. There is slight flattening on the occiput just above the inion, which may not be artificial. Other skull observations: small, divided-type browridges with a medium glabella; low forehead of medium slope; small frontal bosses with no median crest in-between; medium mastoid processes; medium occipital form; medium-sized ridge-type occipital torus. The lower jaw is medium in size, with a narrow bilateral chin. Gonial eversion is pronounced. All teeth, except a heavily worn upper incisor, were either lost or broken off after death.

The lower jaw exhibits a hook-shaped excrescence of bone just below the left mental foramen, which is probably of traumatic origin. The three bodies of cervical vertebrae show considerable crushing and lipping, probably arthritic.

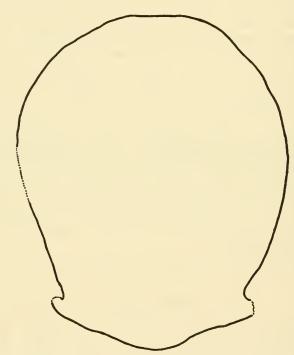


FIGURE 25.—Stereograph contour of the skull from Burial 4. (Approximately 1/2.)

Burial 4 (Doering site).—Partly restorable skull, with parts of the face, most of the lower jaw, large portions of both femora, tibiae, humeri, pelvis, and part of the radii, fibulae, and sacrum of a male in advanced middle-age. The skull is round and rather high-vaulted, with the length-breadth index estimated at 81.5, and the length-auricular height index 65.8. A trace of occipital flattening is present.

The strong areas for muscle attachment on the skull and long bones bespeak a very rugged individual. An estimated maximum length for the left femur of 455 mm, suggests a stature in the neighborhood of 166 cm. Skull observations: Medium-sized divided-type browridges; medium glabella; low forehead with pronounced slope; pronounced postorbital constriction; pronounced median frontal crest; medium sagittal elevation and parietal bosses; large mastoid processes; medium occipital curve; broad occipital form; large ridge-form occipital torus; deep glenoid fossae; massive malars and lower jaw; mediobilateral chin form with medium chin projection; pronounced eversion of gonial angles. Tooth loss cannot be determined. Wear on the three remaining lower molars is fourth degree. No mandibular caries is present, but two apical abscesses resulting from pulp exposure are evident. On the mandible the left first premolar is in inverted position, with part of its crown showing through the mandibular bone on the lingual surface. The corresponding tooth on the right side erupted in normal orientation, but is misplaced toward the lingual side.

A bony fusion of the left fibula and tibia took place about midshaft, and may be traumatic in origin. The body of the fifth lumbar vertebra shows heavy (arthritic?) lipping, as does the corresponding articular surface on the sacrum.

Burial 5 (Kobs site).—Part of the skull vault and base, showing anterior crushing; most of lower jaw; shafts of both femora and tibiae; left humerus; part of left pelvis of a middle-aged individual, probably female. The vault dimensions and the stereographic contour indicate a long-headed skull, with an estimated length-breadth index over 68 from the measurements, and over 71 from the contour. Vault height appears low, with an estimated mean height index between 82 and 83. Flattening occurs in the obelionic region, more likely natural than artificial. Other cranial observations: pronounced sagittal elevation; small parietal bosses; slight temporal fullness; medium mastoid processes; pronounced occipital curve and low position of lambda; pinched occipital form; ridge-formed occiptal torus of medium size. The lower jaw is medium in size, with mediobilateral chin form and pronounced eversion of the gonial angles. No teeth are present for observation. The long bones are light and gracile.

Burial 6 (Kobs site).—Skull lacking most of left parietal, but with face and lower jaw; fragments of femoral, tibial, fibular and humeral shafts of an apparently young adult female. The skull is small, gracile, and long-vaulted, with a length-breadth index of 70.9. It is not very high-vaulted, and has an estimated mean height index of 83 to 84. Cranial deformation is absent. Other cranial data: small, divided-type browridges; small glabella; low forehead of pronounced

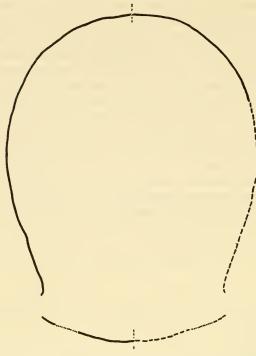


FIGURE 26.—Stereograph contour of the skull from Burial 5. (Approximately 1/2.)

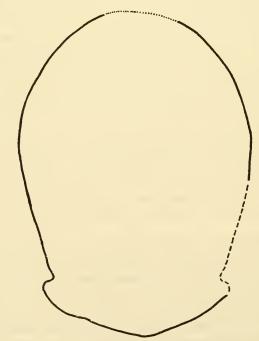


FIGURE 27.—Stereograph contour of the skull from Burial 6. (Approximately 1/2.)

slope with a large median frontal crest and small bosses; pronounced postorbital constriction and slight temporal fullness; medium mastoid processes; pronounced occipital curve, with low lambda position; pinched occiput; small mound-type occipital torus. Orbits are rectangular in form and medium in inclination; suborbital fossae are small; anterior malar projection pronounced; nasion depression slight; alveolar prognathism pronounced. The lower jaw is small, with a mediobilateral chin of slight projection, and medium eversion of gonial angles. No teeth were lost during life; no caries is present, and the wear is second degree (dentine visible).

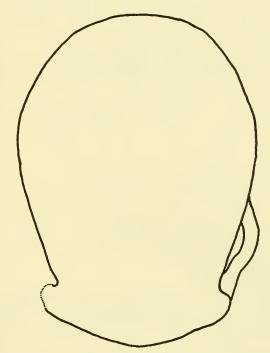


FIGURE 28.—Stereograph contour of the skull from Burial 7. (Approximately ½.)

Burial 7 (Kobs site).—Skull with fragments of face, almost complete lower jaw; complete right femur; fragments of left femur, both tibiae, humeri, radii, ulnae, pelvis; hand and foot bones; and a few ribs of a middle-aged male individual. The skull is long-headed (71.5) and rather low-vaulted (length-auricular height index 61.3). There is some (natural ?) lambdoid flattening. Other cranial data: medium-sized divided browridges; medium glabella; low forehead of pronounced slope; pronounced postorbital constriction; small frontal bosses; medium median frontal crest and pronounced sagittal elevation; over-medium parietal bosses; slight temporal fullness; large mastoid processes; pronounced occipital form; medium ridge-form

torus. The lower jaw is large with wide bilateral chin form of medium projection, and pronounced eversion of gonial angles. No teeth were lost during life; the diagonal tooth wear is fourth degree, which in three cases exposed the pulp cavities and resulted in apical abscesses.

The long bones are long and slender. The measurable right femur has a maximum length of 482 mm., suggesting a stature of about

172 cm.

### ANALYSIS

Racial position.—The fragmentary remains from Burial 1 (Doering site), which is the sole candidate for a middle occupation phase position, suggest long-headedness and short stature. This information is patently insufficient to permit any inferences concerning the middle phase population of the Addicks Reservoir area.

Burials 2–7, probably representing the late phase of occupation at the Doering and the Kobs sites, afford a better but still inadequate sample of the protohistoric population. Pooling of these remains may be justified from an archeological standpoint, since the late phase cultural remains from the two sites appear identical (see p. 257). Yet the physical differences between the skeletal remains from the two sites seem to call such pooling to question. In head form, for example, the three Kobs site skulls (Burials 5, 6, 7) are on the border of extreme long-headedness (c. 68, 70.9, 71.5 respectively). In this respect, they are similar to most precontact Texas crania from all but the eastern part of the state (Goldstein ms.). For the Doering site, however, the skull from Burial 2 is barely long-headed (c. 75), and the one from Burial 4 is definitely round-headed, with a closely approximated index of 81.5.

Morphological contrast between the Kobs site longheads and Burial 4 is afforded by several observations as well. The longheads have pronounced sagittal elevations and occipital curves, while Burial 4 is medium in both respects. The longheads also have pinched occiputs in contrast to the broad occiput of Burial 4. Any distinction in the long bones is difficult to appraise. The greater thickness and ruggedness of the shafts shown by Burial 4, as compared with the only Kobs site male (No. 7), may be only a function of shorter stature in the former.

The question raised by these physical differences may now be more fully stated: Are these differences of sufficient magnitude to make it unlikely that we are dealing with two samples of the same population? A final answer cannot be expected, but some indications are given by an inspection of Goldstein's figures for two other south Texas series. The first comes from the Caplen Mound on Galveston Bay, a historic site identified with the Atacapa.¹ The second series is from the Oso

Mound, Nueces County, which is probably Karankawa.¹ Limiting the comparison to the length-breadth index, the Caplen Mound range for 13 male and female skulls is 73.4–83.8. The three Kobs site skulls fall below this range, but fit into the Oso range of approximately 65–79.1 for 25 skulls of both sexes. The Doering site skull from Burial 4, on the other hand, fits into the Caplen range. According to Goldstein's observations, this skull would not be out of place in the Caplen series.

Whether the Kobs site skulls would be out of place in the Caplen series is the next question. To this, Goldstein has provided two answers. In the first place, he states that inland from the coast in the historic Atacapa area, long-headed skulls are more frequent (personal communication). Since the Addicks Reservoir area is some 60 miles from the coast, as compared to the littoral location of the Caplen Mound, increase in long-headedness might be expected in the former. Secondly, Goldstein's tables show that in all regions of Texas covered by his study, the pre- or protohistoric series are longer-headed than those from contact sites (Goldstein, n. d.). This seems precisely the contrast between the protohistoric Doering-Kobs series and the series from the historic Caplen Mound.

In the light of these arguments, the Doering-Kobs sample could have been drawn from one population, provided it is assumed that the sample represents the extremes in head form. This view is essentially a conservative one, consistent with the premise that meager data are more safely "lumped" than "split." The proviso to this view, however, is by no means conservative. Although it is impossible to appraise accurately the chances that the head-form extremes of a population could be present in an unselected sample of seven skulls, it is likely that they would not be high. As an alternate view, the Doering skulls could be considered representative of the Atacapa (Caplen Mound), and the Kobs skulls the Karankawa (Oso) people. Some credence is given this view by Neumann's (n. d., p. 70) pronouncement that the Atacapa of Louisiana and the northern part of the Texas gulf coast were the westernmost of the Centralids typical of the Southeastern States in late times. If this is so, the larger area including Addicks Reservoir could have been a meeting ground of these long-headed and round-headed peoples. On this basis, the alternate view as stated above seems plausible. But it is hardly demonstrable, at least in the writer's opinion, by the meager data furnished by seven fragmentary skulls lacking facial skeletons.

From a physical standpoint there are several other notable features, which cannot for the most part be used in a comparative analysis. Table 1 indicates that the two long-headed Kobs site females (Nos. 5,

<sup>&</sup>lt;sup>1</sup> Also reported on by Woodbury, 1937.

6) are not particularly high-vaulted, and in this respect most closely resemble the females from west Texas around the Big Bend (Goldstein, n. d.). The three female skeletons (Nos. 2, 5, 6) appear to be very light-boned and gracile, except possibly for their masticatory apparatus. Characteristic of the entire sample is a low forehead, with small frontal bosses, and medium to pronounced slope.

Cranial deformation.—There is no definitely artificial cranial flattening in the Doering-Kobs series. The closest approach is the trace of occipital flattening on the skull of Burial 4. Burial 3 shows a slight amount of flattening just above the inion, which seems a natural rather than artificial phenomenon. Burials 5 and 7 show some apparently natural flattening above lambda.

Pathology.—Manifestations of possibly traumatic origin are to be seen in the hooklike formation of bone on the lower jaw of Burial 3, and the midshaft fusion of the left tibia and fibula of Burial 4. There is no evidence of vault fractures.

The cervical vertebrae of Burial 3 and the fifth lumbar of Burial 4 show heavy lipping, probably of an arthritic nature.

Heavy and usually diagonal wear on the teeth led to pulp exposure and consequent caries and apical abscesses in the case of Burials 1, 2, 4, and 7. No teeth were present for observation in the cases of Burials 3 and 5. Burial 6 was caries-free, and wear was only second degree (dentine visible). The heavy wear with occasional pulp exposure is wholly in line with Goldstein's (1948) observations.

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