

A Human Skeleton Found Near Carrollton, Texas

Geology of the Site

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Several months ago a human skeleton was taken from a gravel and sand pit in northwestern Dallas County. The bones were embedded in sand about 6 feet below the surface of a terrace spur on the south side of Denton Creek, a branch of Elm Fork of the Trinity River. Owing to the manner in which the bones were removed, it is not known whether they had been covered over contemporaneously with the fluvial deposition of sand forming the terrace deposit, or whether they were buried by man at some later date. In spite of the absence of any geological evidence to indicate the age of the skeleton, it has been thought advisable to place on record an account of the find; in view of the fact that when the history of man in Texas is better known, these bones may find a place in the story.

The site is located on the north side of the Carrollton-Denton highway 1.1 miles by road west of Carrollton dam. It was accidentally discovered by workmen digging in the gravel pit behind the roadside store at this locality (Fig. 1).

The workmen removed the bones with pick and shovel and carried them to the Sheriff's Office at Dallas. Subsequently, Professor Herbert Gambrell of Southern Methodist University obtained the skeleton for the Dallas Historical Society, and it was through Professor Gambrell's kindness that the bones were loaned to Dr. Marcus S. Goldstein for study. Until Dr. Goldstein completes work on the physical anthropology of the Texas Indians, a project sponsored by the Works Progress Administration, the skeleton will remain at the University of Texas.

Three terraces are present in the vicinity of the site: the Bethel, Farmers Branch, and Carrollton, named in order from highest to lowest. All three terraces parallel Denton Creek in an easterly direction. They terminate abruptly on the east at the floodplain of Elm Fork, master stream of the area.

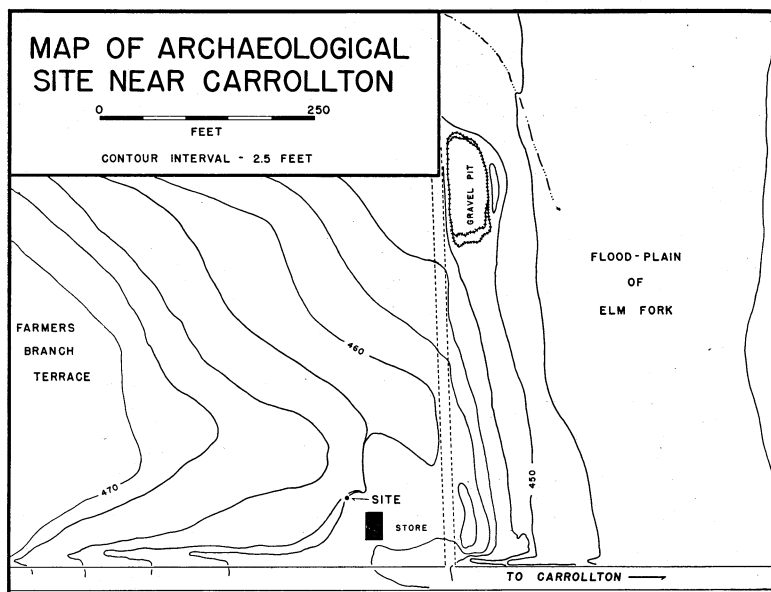


Fig. 1. Map showing location of the site in relationship to the Farmers Branch terrace and the flood-plan of the Elm Fork. (Surveyed in co-operation with the class in field geology at Southern Methodist University).

The location of the site with respect to the configuration of the surrounding country is shown in Figure 1. The site is situated near the eastern tip of an eroded spur of the Farmers Branch terrace which slopes toward the floodplain of Elm Fork. The Carrollton terrace is missing at this locality, but were it present, its level would lie near the 460 foot contour, which marks the approximate elevation of the site itself.

Sections through the upper few feet of the material underlying the surface of the terrace spur may be seen in the gravel pit at the site and along the Carrollton-Denton highway to the west. The material is alluvium, evidently deposited by the Elm Fork system before the local streams lowered their valleys so as to form the bench which is the Farmers Branch terrace. In the pit the alluvium consists of upper reddish-brown pebbly silt and sand resting disconformably on gray sand and gravel. The surface of the disconformity is irregular, and it is evident in Figure 2 that

the brown sand and silt fills narrow channel-depressions in the underlying gray sand and gravel. It was from near the bottom of one of the larger channel-fillings, approximately 6 feet below the surface, that the human skeleton was taken. The section of sand above the bones was removed during

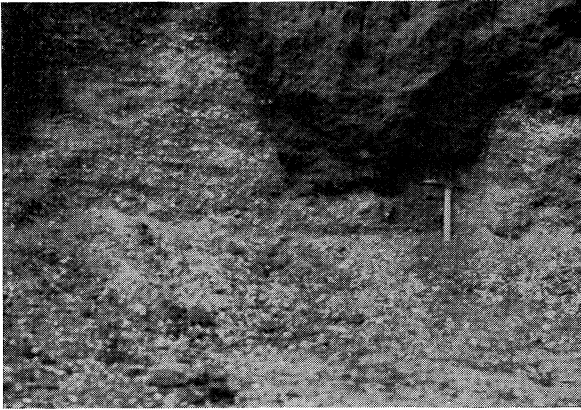


Fig. 2. Section in wall of gravel and sand pit a few feet from the site. The dark material at the top is reddish-brown pebbly silt and sand; the gray material at the bottom is sand and gravel.

the excavation—thus was destroyed the evidence that might have indicated whether the bones were deposited in one of the channels during its alluviation, or whether they represent a human burial in a pit fortuitously situated in one of the channel-fillings. Dr. Goldstein, for reasons listed in his section of this report, is inclined to believe that the condition of the bones indicates a human burial.

Pattillo,¹ in his account of the terraces in the Carrollton area, has cited indirect evidence to suggest that the Carrollton terrace is Mid-Pleistocene. The Farmers Branch terrace is older than the Carrollton, though how much older is not known. Hence, if the skeleton in question is to be correlated in regard to age with the alluvium of the Farmers Branch terrace, it may date well back into the Pleistocene. If, however, the bones were buried by man, they are less

¹Pattillo, L. G., Jr. "River Terraces in the Carrollton Area, Dallas County, Texas," *Field and Laboratory*, Vol. 8, No. 1 (1940) pp. 31-32.

ancient than the alluvium of the Farmers Branch terrace, and may date within historic times. There is also a possibility that the channel-filling is younger than the alluvium of the Farmers Branch terrace, although this seems improbable in the light of field observations. It is hoped that future archaeological and geological work in the Carrollton area will settle the question.

Description of the Skeleton

*Marcus S. Goldstein*²

The skeletal remains consist of a skull in fragmentary condition (including the mandible), the femora, tibiae, sacrum, vertebrae (3 lumbar, 2 cervical, 1 thoracic), foot bones (talus, calcaneum, 1 phalange), an ulna and fibula. Almost all of these bones were in a damaged condition when received.

All of the remains represents a single individual, definitely a female, and about 60 years old. Both sex and age were determined first on the skull and later checked on the other bones. Advanced age is indicated by wear of teeth, loss of teeth, complete absorption of the alveolar process in the maxilla, and by arthritic lesions and signs of friction on the articular surfaces due to loss of synovial fluids at the joints.

The considerable wear of the teeth, as well as the degree of platycnemia (flattening of the shaft of the tibia), strongly indicate the remains to be that of an Indian. According to the leg bones, the stature of this individual was about 4 feet 11 inches. The head form was mesocranic (cranial index, 77.0). The Wichita Indians were in the neighborhood of Dallas in historic times, but unfortunately little is known of their physical type. According to Hrdlicka³ the "Caddo and Wichita are brachycephals with medium high vault." But only 5 skulls are represented, Hrdlicka himself stating that "collections of these tribes are very inadequate." In any case, the measurements of the present skull could very well

²Works Progress Administration—University of Texas (Department of Anthropology).

³Hrdlicka, Ales: "Catalogue of Human Crania in the U. S. National Museum Collections," *U. S. National Museum, Proc.*, Vol. 69 (1927).

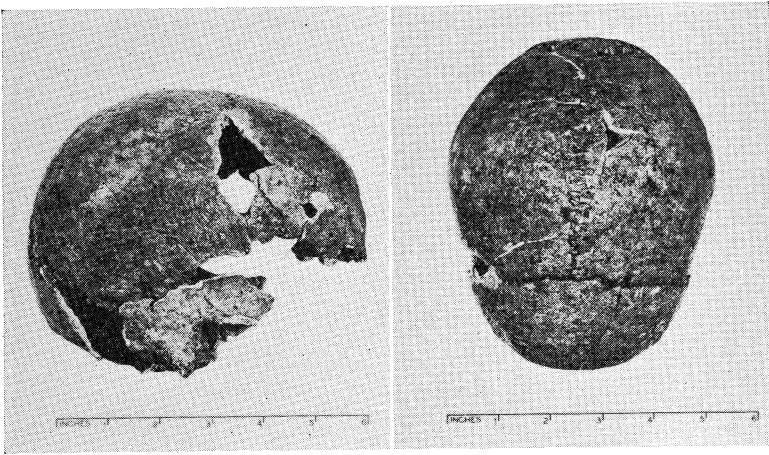


Fig. 3. Top and side views of the "Carrollton" skull. An aged female, about 60 years old; very probably Indian (Caddo?); mesocranic (cranial index 77.0).

be within the lower limits of the Wichita or Caddo groups. It may be mentioned that more definite information as to tribal affiliations will probably be possible after the mass of skeletal material already stored in our laboratory is studied, although more material, and especially from the area around Dallas, would be very welcome, indeed.

As regards pathology, it has already been indicated that teeth were lost and at a considerable time before death (to wit the marked absorption of the alveolar process); the right tibia evinces inflammatory lesions (Periostitis); the vertebrae, especially lumbar vertebrae, manifest marginal exostoses, an arthritic affection; the articular surfaces of several of the joints show signs of abrasion, probably due to loss of synovial fluids and consequent friction. Also, some osteoporosis is evident on the skull itself, especially on the occiput. This is often a deficiency disease.

An animal bone accompanying the other remains seems to be part of a femur; it is too fragmentary, according to the men in the Paleontological Laboratory, for any further identification.

Listed below are the more important measurements and observations that could be taken on the skull.

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| 1. Cranial deformation—None | 16. Parietal bosses—Pronounced |
| 2. Maximum length—178 mm. | 17. Auditory exostoses—None |
| 3. Maximum width—137 mm. | 18. Glabella—Slight |
| 4. Basion-bregma height (137) mm. ⁴ | 18. Supraorbital ridge—Slight |
| 5. Porion-bregma height—118 mm. | 19. Mastoids—Small |
| 6. Left parietal thickness (1 cm. above squamosal suture)—5-6 mm. | 20. Nasal root depression—None |
| 7. Minimum frontal—90 mm. | 21. Occipital suture—Moderate serration; no synostoses; one small wormian bone on left side. |
| 8. Basion-Nasion—(101) mm. | 22. Inca—None |
| 9. Auriculo-Nasion—91 mm. dible)—(29) mm. | 23. Inion—None |
| 11. Cranial index—77.0 | 24. Forehead—No slope; height moderate |
| 12. Cranial contour—Pentagonoid; vault oval and somewhat ridged on vertex. | 25. Occipital crest—Slight |
| 13. Coronal suture—Serration simple, synostosis slight, no wormian bones. | 26. Chin—Round; mental (chin) prominence, moderate. |
| 14. Sagittal suture—Serration moderate, synostosis 1/3; no wormian bones. | 27. Teeth—Considerable wear; upper right canine and first premolar lost ante-mortem (alveolar process completely absorbed); lower right second premolar lost ante-mortem (possibly abscess at root). |
| 15. Metopism—None | |

With regard to the long bones, the maximum length of the femur is 393 mm.; that of the tibia, 334 mm.

The skeletal material seems to indicate a human burial, for three reasons. First, a fairly complete skeleton is represented, something which would be quite unlikely if the remains were washed along a stream for any length of time, although of course the body may have been washed to the location where found shortly after death of the individual. Second, a number of the bones were whole, unbroken (e. g. femur), and further, another long bone broken in half, fitted together perfectly. Assuming that the break did not occur since excavation, the latter could not occur if the bone was in the water for a considerable time, nor would it seem likely that many bones would remain whole. Third, edges and spines on the bones are still sharp, and breaks on long bones and skull appear fresh.

⁴Figures in parentheses are approximations.