

LEWISVILLE ARCHEOLOGICAL SITE

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Lewisville Site, an archeological site presently lying under fifteen feet of water in the Garza-Little Elm Reservoir, Denton County, Texas revealed evidence of an early man living area in North America more than 37,000 years ago during the latter part of the Pleistocene Epoch.

The Pleistocene Epoch timewise, according to the main divisions of Geologic time, lies within the Cenozoic Era, quaternary period which began one million years ago. The period is characterized by great glaciers covering much of the northern portion of North America, the presence of the giant mammals and the appearance of modern man late in the epoch.¹

Geologically the site lay in the northern portion of the Gulf Coast Plain in the upper Shuler subformation of the Pemberton-Hill Lewisville alluvial terrace of the upper Trinity River System.²

Geographically the locality of the protected site is in the extreme southeastern portion of Denton County, North of the City of Lewisville, on the western banks of the Hickory Creek just above its junction with the Elm Fork of the Trinity River.³ More specifically, the site encompassing approximately fifteen acres⁴

lies partially within two land surveys, John Wagner Survey, Abstract 1399 and James Sutton Survey, Abstract 1156⁵ at 33°5'5" longitude and 96°59'55" latitude⁶ on land owned by the Federal Government, under the supervision of the District Engineer of the U. S. Army Corps of Engineers, Southwestern Division, Fort Worth District, within Lewisville Lake Park which is controlled by the City of Lewisville.⁷

The site was discovered during the construction of the Lewisville Dam for the Garcia-Little Elm Reservoir by the U. S. Corps of Engineers. A gigantic burrow pit one-half mile in length was excavated near the western anchor of the dam during 1949-1951.⁸ Twenty feet of overburden was removed as fill for the dam. On the floor of this pit, while making a routine paleontological collection for the River Basin Surveys, Theodore E. White of the National Park Service, Dinosaur National Monument, Jensen, Utah, first observed in 1951 what he considered indications of the presence of man.

White, along with Glen L. Evans, geologist for the Texas Memorial Museum and Edward B. Jelks of the River Basin Surveys, test excavated the first hearth. Tests indicated burned deer bones, a horse vertebra, packrat bones and charred hackberry seeds.⁹ White and Jelks introduced Wilson W. Crook, Jr. and R. King Harris of the Dallas

Archeological Society to the site. Sporadic excavations occurred between 1951 and 1956.

Sheetwash erosion of the floor of the pit revealed in February 1956 an irregular circle measuring 8 x 10 feet with a red-burned basin up to 18 inches deep -Hearth No. 1.¹⁰ Crooks and Harris called in Dr. Alex D. Krieger, then research archeologist for the University of Texas, who visited the site and confirmed that the hearth appeared to be of human origin. At the time no funds were available for professional excavation. Dr. Krieger helped organize the excavation which was subsequently conducted by the members of the Dallas Archeological Society under the direction of Harris and Crooks along with interested individuals from Denton and Dallas Counties as well as members of the Tarrant County Archeological Society.¹¹

The hard red-burned appearance of the hearths contrasted sharply with the yellow sandy clay of the surrounding matrix. This yellow sandy clay constitutes the local Upper Shuler subformation of the Pemberton-Hill Lewisville Terrace which lies 60-70 feet above present stream grade/^{of}the Elk Fork of the Trinity River. The Upper Shuler subformation was apparently the result of successive depositions of some seven individual layers of similar material. Each layer surface forms a minor nonconformity with its own period and zone of caliche development.¹² (Caliche (calcium carbonate) forms during periods of aridity when annual rainfall is less than 14".)

Five of these layers offered unusual concentrations of faunal material and four yielded suggestive evidence of man.¹³ Assigning number one to the bottom layer, three hearths were located at the surface of layer one, thirteen, including White's test hearth, at layer two, one at layer three and four at layer five.¹⁴

At a group dig on March 25-26, 1956 Mr. and Mrs. Harris discovered on the surface of layer two a Clovis Point in situ in Hearth No. 1. It was a large Clovis Point which measured 82mm in length, 33mm in width and 8.5mm thick at midpoint.¹⁵ Twenty inches from the point lay a charred fibrous vegetable material, a sample of which was sent to the Humble Oil and Refining Laboratory, Production Research Division in Houston, Texas for radio-carbon dating. The sample, sample No. 1 (Humble 0-235), revealed an age of more than 37,000 years.¹⁶ Within this No. 1 Hearth, the largest of all the hearths discovered, were found remains from horse, deer, wolf, prairie dog, rabbit, terrapin, bird as well as mussels, snails and hackberry seeds.

Hearth No. 8, also on layer two surface, of a much smaller dimension, roughly 28 inches in diameter and seven inches deep contained four small logs of excellent quality charcoal which yielded a second radio-carbon date for the site of over 37,000 years (sample 5, Humble 0-248).¹⁷

Hearth No. 4 in reality consisted of three successive hearths

each of which had been dug at almost, but not exactly, the same spot.

A total of twenty-one hearths have been defined at the Lewisville Site. The site has no recorded number other than that given it by

R. King Harris, No. 18 C 1713.¹⁸ The hearths and associated faunal material were confined to the eastern end of the eroded burrow pit and comprised about 10% of the total pit area. The remaining 90%

was sterile of any remains.¹⁹ Thirteen of these hearths have been excavated and recorded, three were lost by erosion, two were looted and three were unexcavated when the rapidly rising waters in the reservoir caused by the torrential rains of February, March and April of 1957 inundated the site. Today (1978) at conservation pool level fifteen feet of water cover the site.

The faunal remains located within the hearths as well as in the immediately adjacent surroundings were identified by Morris K. Skinner of the Frick Laboratory, American Museum of Natural History. They included wolf, coyote, bear, peccary, raccoon, skunk, horse, bison, deer, camel, mammoth, prairie dog, ground squirrel, cottontail, jack rabbit, packrat, white-footed mouse, meadow mouse, mole, tortoise, box turtle, snake, small and large frog or lizard, small fish and bird.²⁰ The most prevalent bone fragments were those of terrapin and turtle. These made up 50% of the total faunal material.²¹ Thomas M. Celrich of the University of Michigan identified the turtle material as *Testudo* species and *Terrapene canaliculata* Hay, both

of which are now extinct.²²

In addition to the Clovis Point, six artifacts, a hammerstone, a chopper, flake scrapper and three flakes were uncovered in close proximity to the hearths on layer two.²³ All the artifacts and faunal remains were covered with a thin layer of caliche.

R. King Harris displays the artifacts and many of the faunal remains in a museum at his home in Dallas, Texas.²⁴ Theodore White's findings are located in the Southern Methodist University Museum of Paleontology.

The Lewisville Site is important in that it is 1) the first Clovis camping station to be discovered and investigated archeologically and 2) the first Clovis site off the Plains, in place, in a recognized river terrace formation. The site produced extensive faunal association for the Paleo-Indian Period and supplied²⁵ ample material of Clovis age and provenance for radio-carbon dating.

The results of radio-carbon dating indicate that man actually inhabited North America much earlier than had generally been believed. There can be little doubt that man piled the bone fragments so neatly beside the hearth within the inverted turtle shell.²⁶ Only a man hustling for his existence may be credited with the unusual occurrence of such diverse animal remains, concentrated in such a small area.

The fact that there were so many hearths discovered and that

some hearths had been built on top of older hearths, would indicate that this had been a popular, repeatedly visited campground for a nomadic group of people. The presence of small hearths and the small animal remains found therein might indicate that women and children had been left in the campsite while the men went off to hunt big game. There is no evidence of a complete carcass, only fragments of larger animals such as portions that may have been carried in from afar. The East Texas Caddo Indians and later the white man traveled to the Elm Fork of the Trinity River to hunt buffalo in the fall of the year. The presence of hackberry seeds - contemporary trees produce seeds that mature August-October - attest to such a hunting cycle as far back as Clovis times.

Indications are that the climate of the region was warmer and more humid than today since present day living relatives of the extinct Terrapin are confined to the Central and South American tropics.²⁷ These humid periods were interspersed with dry periods as revealed by the presence of caliche at different levels.

About ten miles up the Upper Trinity system on the banks of Hickory Creek in mid-Denton County is a similar geologic stratum associated with highly similar faunal remains. It is unlikely that more than one type of man was present at the same time in such a limited area at so remote a period in the past.

With the discovery of the Lewisville Site, other evidences of the occurrences of early man may now be expected upon the Gulf

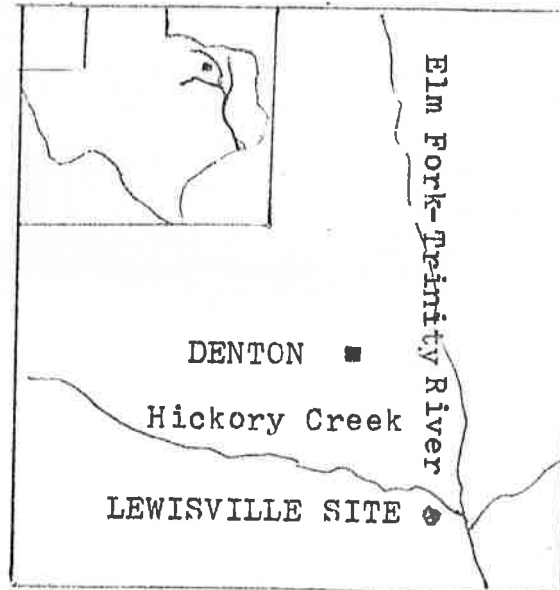
Coastal Plain in alluvial terrace formations of recognizable geologic provenance as well as upon the High Plains to the west.^{29, 30}

FOOTNOTES

1. Dunbar, Carl O., Historical Geology, (New York, N. Y. John Wiley & Sons, 1949) p. 29.
2. Nunley, Parker, "An Assessment of the Archeological Resources of the Garza-Little Elm Reservoir", Richland Archeological Society Miscellaneous Paper, No. 1. Richland College, Dallas, Texas, June, 1973, p. 327.
3. Crook, W. W. Jr and R. K. Harris, A Pleistocene Campsite near Lewisville, Texas, American Antiquity 23 (3) p. 235, (1958). See Figure 1.
4. Ibid, p. 235. By computation according to scale of drawing in Figure No. 2. $873' \times 736' = 642,528' + 43,560 = 14.75$ acres.
5. Personal communication with Corps of Engineers personnel using maps located in office at the Lewisville station.
6. Determined by R. King Harris.
7. Information contained in map of Lewisville Dam, Garza-Little Elm Reservoir, (U. S. Army Corps of Engineers, Southwestern Division, Fort Worth District) Fort Worth, Texas Revised September, 1965.
8. Crook, W. W. Jr and R. K. Harris, Hearths and Artifacts of Early Man Near Lewisville, Texas and Associated Faunal Material, Bulletin of the Texas Archeological Society, 28; p. 10 (1957)
9. Personal communication to R. K. Harris as cited above p.8.
10. Crook, Amer. Ant., p. 234.
11. Ibid, p. 233.
12. Ibid, p. 234.
13. Ibid, p. 240.
14. Ibid, p. 234.
15. Crook, Bull. Texas Arch. Soc., pl 20.
16. Brannon, H. R., Jr., A. C. Daughtry, D. Perry, L. H. Simmons, W. W. Whitaker, and Milton Williams. Humble Oil Company Radio-carbon Dates. Science, 125 (3239): pp. 149-150 (1957).
17. Ibid, pp. 149-150. The logs were identified by E. S. Barghoorn, Curator of Paleobotany, Harvard University as wood charcoal as opposed to the carbonaceous material found in Hearth No. 1.

17. cont. A second radiocarbon dating was made on samples from these same logs by a Swiss scientist who visited R. K. Harris sometime in the mid sixties at his home. Personal communication to Harris revealed an age of over 40,000 years. The sample had been left in the counter for a two weeks longer period of time.
18. Personal communication with R. King Harris.
19. Crook, Amer. Ant., p. 240.
20. Ibid, p. 240.
21. Ibid, p. 241.
22. Ibid, p. 241.
23. Ibid, p. 236.
24. R. King Harris resides at 9024 San Fernando, Dallas, Texas 75218. Phone 214-321-1660.
25. McCormick, Olin F. Bicentennial: Man Earl Visitor. Metro Monitor, Lewisville, Texas, p. 12 May 23, 1975.
26. Crook, Bull. Texas Arch. Soc. p. 18.
27. Ibid, p. 17.
28. Crook, Amer. Ant., p. 245.
29. Ibid, p. 246.
30. A point of contention among archeologists lay in the Clovis Point. Prior to this finding the Clovis Point has been associated with the Recent Epoch (12,000 years ago). Conjecture is that someone may have planted the point at the Lewisville site, or it may have filtered down from an upper, more recent, level.
The radiocarbon dating technique has been questioned also. Ample carbon sample is available for testing when improved carbon dating techniques have been developed in the future.

FIGURE No. 1



Denton County, Texas with
location of Lewisville Site.
Upper left insert- Elm Fork
of the Trinity River.

BIBLIOGRAPHY

- Brannon, H. R., Jr., A. C. Daughtry, D. Perry, L. H. Simmons, W. W. Whitaker, and Milton Williams. Humble Oil Company Radiocarbon Dates. Science 125 (3239):147-150. 1957.
- Brannon, H. R., Jr., M. S. Taggart, Jr. and M. Williams. Review of Scientific Instruments 26.p. 269 (1955).
- Crook, W. W. Jr. and R. K. Harris, A Pleistocene Campsite Near Lewisville, Texas. American Antiquity 23 (3) pp. 233-246 (1958)
- Crook, W. W. Jr. and R. K. Harris, Hearths and Artifacts of Early Man Near Lewisville, Texas and Associated Faunal Material. Bulletin of the Texas Archeological Society 28 pp. 7-97 (1957).
- Crook, W. W. Jr and R. K. Harris. Significance of a New Radiocarbon Date From the Lewisville Site. Bulletin of the Texas Archeological Society 32 pp. 327-30 (1961).
- Dunbar, Carl O. Historical Geology, (New York, New York, John Wiley & Sons) 1949
- McCormick, Olin F. Bicentennial: Man Early Visitor. Metro Monitor, Lewisville, Texas May 23, 1975.
- Nunley, Parker, An Assessment of the Archeological Resources of the Garza-Little Elm Reservoir. Richland Archeological Society Miscellaneous Paper, No. 1 Richland College, Dallas, Texas, June, 1973.
- Time 68 (6) p. 42 (1956)
- UCLA Radiocarbon Dates I. Radiocarbon, Vol 4 (American Journal of Science) 1962