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## Initial Findings from the Archeological Investigations of the Hardin A Site (41GG69), Gregg County, Texas

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## Initial Findings from the Archeological Investigations of the Hardin A Site (41GG69), Gregg County, Texas

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# ***INITIAL FINDINGS FROM THE ARCHEOLOGICAL INVESTIGATIONS OF THE HARDIN A SITE (41GG69), GREGG COUNTY, TEXAS***

***Bryan E. Boyd and Timothy K. Perttula***

## **INTRODUCTION**

The Hardin A site (41GG69) is a pre-historic Caddo Indian settlement located on a high terrace overlooking the Sabine River flood-plain in Gregg County, Texas. The modern channel of the river is about 650 m to the south, and there is a small, intermittent tributary ca. 180 m to the west. The senior author discovered the Hardin A site in 1997, after he was told about it by informants who were looting a midden and cemetery area, and he formally recorded it in February 2000.

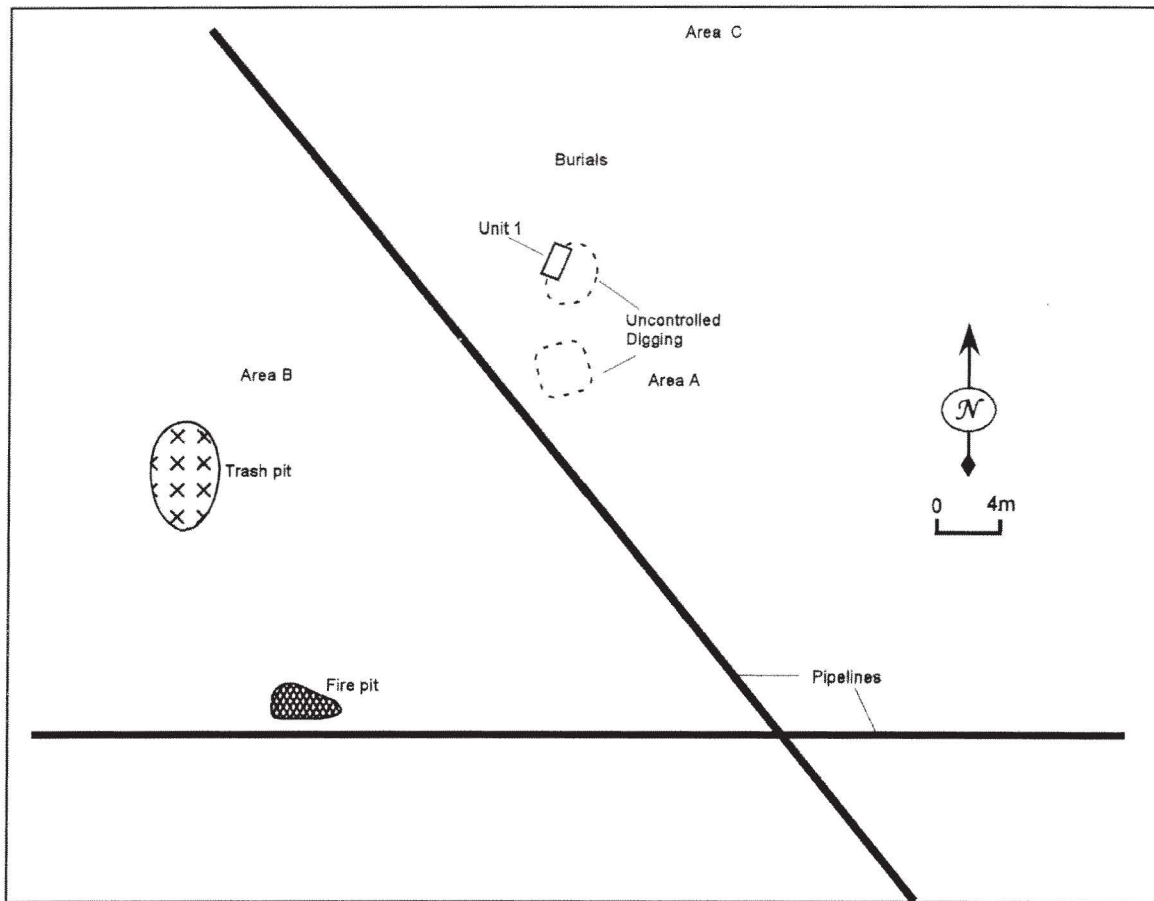
In an effort to better understand the temporal and archeological context of the prehistoric Caddo occupation at the Hardin A site, limited hand excavations (Unit 1, a 1 x 2 m unit) were completed in the midden area (Figure 1) by the senior

author, with the assistance of Mark Walters, Texas Archeological Steward, in the spring of 2000. That work exposed deep (+90 cm) archeological deposits in a sandy loam soil (Figure 2a) with some preserved midden, as well as part of a pit feature in the northern and eastern part of the unit (Figure 2b). The pit feature (Feature 1) extended to approximately 160 cm below surface (bs), and contained dark brown to very dark grayish-brown fill with large amounts of ceramics (including about 50 decorated sherds), animal bone (Schniebs 2000), and charred plant remains (especially hickory nutshells). Analyses are ongoing on these remains. In this paper, we discuss the results of our radiocarbon and oxidizable carbon ratio (OCR) studies in the Hardin A midden.

## **RADIOCARBON DATES**

Two radiocarbon dates have been obtained from the Hardin A site, one from the midden (50 - 70 cm bs) in Zone B of the Unit 1 profile (Figure 3), and the other

from near the base of Feature 1 (140 - 150 cm bs). The calibrated radiocarbon age range (following Stuiver *et al.* [1998] and Talma and Vogel [1993]) from the midden



*Figure 1. Map of the Hardin A site.*

is AD 1285 - 1445 at 2 sigma, with a cal AD 1405 intercept (Beta-143815). The calibrated radiocarbon age of the charred nutshells in Feature 1 is AD 1315 - 1350

and AD 1390 - 1490 (2 sigma), with a cal AD 1425 intercept (Beta-143814). The two calibrated age ranges overlap between AD 1315 - 1445.

### **OXIDIZABLE CARBON RATIO DATES**

Sixteen OCR samples were submitted to OCR Carbon Dating, Inc. (Essex, Vermont) from Unit 1 (Table 1). Six are from the east profile (Figure 1), either in the Zone B midden or in the Feature 1 pit (Figure 3). The other 10 are from the south profile (Figure 3), five in Zone A, three in

the Zone B midden, and the other two from sandy loam deposits below the midden. Zone A appears to be a recent mixture of midden and disturbed sediments, and it is likely the result of modern looting and pothunting activities in this part of the Hardin A site. It overlies



the undisturbed midden and Feature 1 in the east profile, and lies at the same level as the upper part of the midden in the south profile. OCR dates from Zone A range between 134 - 281 years B.P., or A.D. 1669 - 1816. In actuality, these dates are probably a composite of modern pedoturbation activities (associated with the recent pothunting) and older oxidizable carbon from the underlying midden. Either way, the OCR dates from Zone A are not relevant to ascertaining the age of the site's undisturbed archeological deposits.

Four of the five Zone B OCR dates range from 459 - 610 B.P., or A.D. 1340 - 1491 (Table 1), and three fall in a much tighter range of 554 - 610 B.P. (A.D. 1340 - 1396). The four OCR dates from Feature 1 comprise a good cluster of dates that range only from 532 - 605 B.P. (A.D.

*Figure 2a. Photo of Unit 1 excavations.*



*Figure 2b. Pit feature in north and eastern part of Unit 1.*

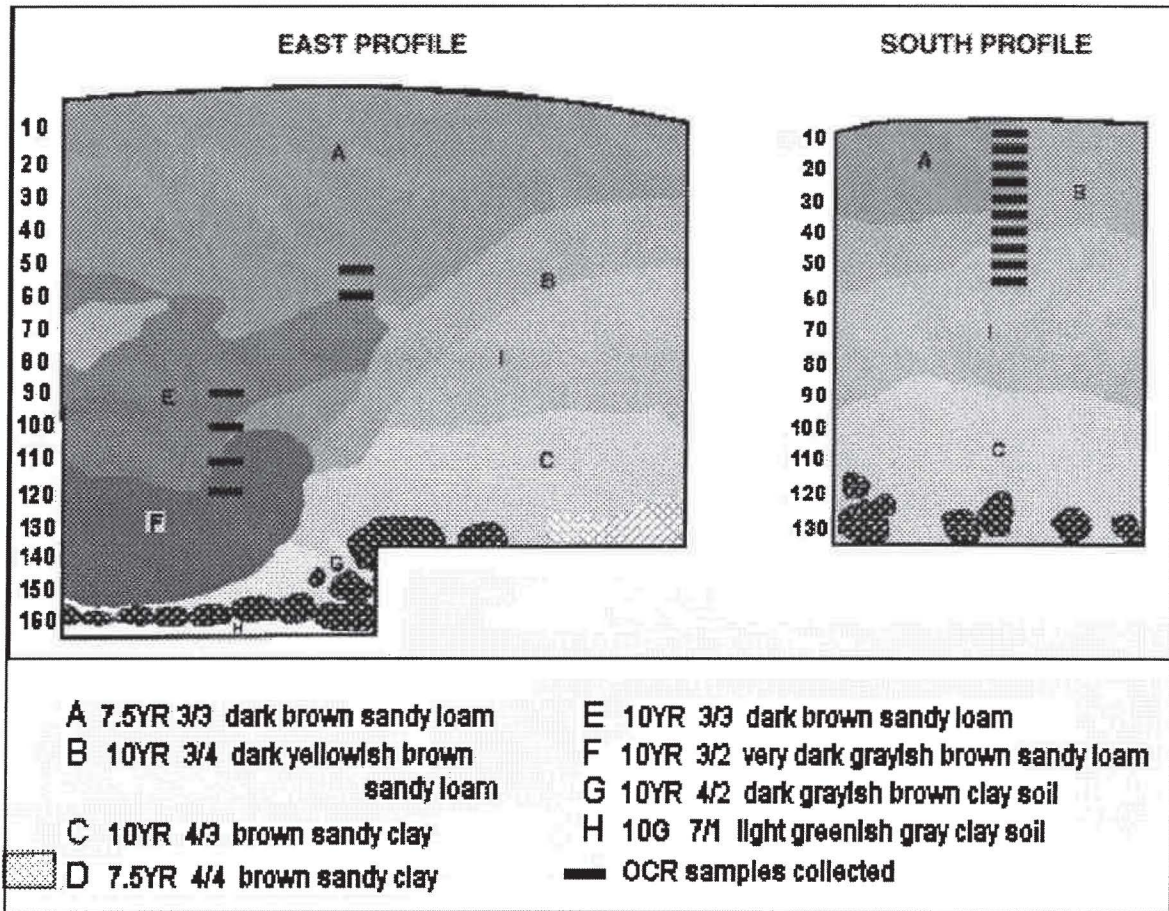


Figure 3. Unit 1 profile.

1345 - 1418). Averaging these dates produces a mean OCR age range of 552 - 585 B.P. or A.D. 1365 - 1398 for Feature 1. The lowermost Zone B date in the south

profile, and the two dates from Zone I below the midden, range from 709 - 1206 B.P. (A.D. 744 - 1241).

## CONCLUSIONS

Although much analytical work remains to be completed on the material culture remains from the Hardin A site, particularly the ceramics and the charred plant remains, the limited excavations there in 2000 have produced an interesting set of radiocarbon and OCR dates that provide a

reasonable temporal context for the prehistoric Caddo occupation. The earliest dates from Zone I suggest the possibility of an initial occupation between ca. A.D. 750 - 1250, although it is just as likely that these dates simply reflect the pedogenic age of the soils under the midden. Certain-

**Table 1. OCR Dating Results from the Hardin A Site (41GG69).**

Unit and Profile Range	Zone	Depth	OCR #	OCR Age (B.P.)
1, South Profile	A	10 cm	4979	134 - 142
		15 cm	4980	146 - 154
		20 cm	4981	134 - 142
		25 cm	4982	144 - 152
		30 cm	4983	265 - 281
1, South Profile	B	35 cm	4984	459 - 487
		40 cm	4985	567 - 601
		45 cm	4986	709 - 749
1, South Profile	I	50 cm	4987	1136 - 1206
		55 cm	4988	749 - 796
1, East Profile	B	50 cm	4989	554 - 588
		60 cm	4990	576 - 610
1, East Profile	Fea. 1	90 cm	4991	538 - 570
		100 cm	4992	571 - 605
		110 cm	4993	532 - 564
		120 cm	4994	567 - 601

ly there are few artifacts from Zone I, and if there was an occupation during this broad interval, it was not extensive.

The Zone B midden and Feature 1 appear to be virtually contemporaneous, with the best cluster of OCR dates from the midden ranging between A.D. 1340 - 1396, with a

calibrated radiocarbon intercept of AD 1405, and the Feature 1 OCR dates averaging A.D. 1365 - 1398. The calibrated intercept for the radiocarbon sample near the base of Feature 1 is AD 1425. Speculating a bit, however, if we look just at the OCR dates from the east profile of Unit 1, they suggest that Feature

1 (A.D. 1365 - 1398) was dug by the prehistoric Caddo into the midden (mean average of A.D. 1351 - 1385), and is slightly younger (ca. 10 - 20 years) in age. The radiocarbon intercept for Feature 1 is also 20 years younger than the radiocarbon

sample from the midden. Nevertheless, the combination of radiocarbon and OCR dates from the Hardin A site indicate that the principal Caddo occupation took place in the late 14th and early 15th centuries.

#### **ACKNOWLEDGMENTS**

We would like to thank the landowner, Mr. Hardin, of Hardin Recyclables (Longview, Texas), for allowing the senior author to work at the site. We are grateful

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