serious questions about Orr’s (1968) assertion that only humans could have been responsible for abalone shells found in ancient terrestrial sediments on the islands. Our work also suggests that bald eagles can create middens that mimic those produced by humans in some important ways.

We thank Chanel Islands National Park (CINP), the National Marine Fisheries Service (NMFS), the University of Oregon, and the Santa Barbara Museum of Natural History for logistical or financial support of this research. We are particularly indebted to Bob Delong, Ann Huston, Sharon Melin, and Ian Williams.

References Cited


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Earliest-Holocene Tool Assemblages from Northern Florida with Stratigraphically Controlled Radiocarbon Estimates (Sites 8LE2105 and 8JE591)

Michael K. Faught, Michael B. Hornum, R. Christopher Goodwin, Brinnen Carter, and S. David Webb

Two sites in northern Florida have produced reliable radiocarbon determinations indicating earliest-Holocene ages for both side- and corner-notched projectile points and associated formal chipped-stone tools. Site 8LE2105 is a stratified site in Leon County, northwestern Florida, reported by R. Christopher Goodwin & Associates, Inc. as part of CRM phase III mitigation project (Hornum et al. 1996). In addition to abundant debitage, the excavations produced 12 Bolen points (7 corner-notched and 5 side-notched), 4 Hendrix (side) scrapers, 4 unifacial adzes, and 2 fluted bifaces preforms in a single stratigraphic unit (Component III). The project was completed in 1995 and published as a limited distribution report in 1996. The artifacts are curated at the Department of Anthropology, Florida State University. Three radiocarbon ages average 9870 ± 40 RCYBP for this occupation (Table 1).

Table 1. Radiocarbon ages and pooled mean averages for 8LE2105 and 8JE591. Ages were first tested for clumped contemporaneity, then averaged.

<table>
<thead>
<tr>
<th>Site</th>
<th>Age (RCYBP) and sample number</th>
<th>Pooled Mean Average (RCYBP)</th>
</tr>
</thead>
<tbody>
<tr>
<td>8LE2105, Component III</td>
<td>9,850 ± 50 (Beta 81467)</td>
<td>Average of 3: 9870 ± 40</td>
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<td></td>
<td>9,900 ± 60 (Beta 81468)</td>
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<td></td>
<td>10,090 ± 70 (Beta 81469)</td>
<td></td>
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<tr>
<td>8JE591, Bolen Surface</td>
<td>9,930 ± 60 (Beta 58858), log above surface</td>
<td>Average of 4: 9958 ± 40</td>
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<tr>
<td></td>
<td>9,950 ± 70 (Beta 101688), hickory nut in surface</td>
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<tr>
<td></td>
<td>10,000 ± 120 (Beta 21750), charred wood</td>
<td></td>
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<tr>
<td></td>
<td>10,000 ± 80 (Beta 058857), wood stake in surface</td>
<td></td>
</tr>
<tr>
<td></td>
<td>10,280 ± 110 (Beta 21752), &quot;desiccated wood&quot;</td>
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</tbody>
</table>

Another site with earliest-Holocene age estimates for both side- and corner-notched points is the Page/Ladson site (8JE591) in the Azurilla River (Carter 2003; Dunbar et al. 1988, 1989). The submerged sediment bank at Page/Ladson is one of the deepest stratigraphic sections in the Southeast and includes both late-Pleistocene and early-Holocene sediments (Ellis et al. 1998). The stratigraphy at Page/Ladson contains a sealed occupational surface with Bolen notched points (both side- and corner-notched specimens), broken unifacial adzes, probable manufactured rocks, and charred wooden stakes. Radiocarbon ages averaging 9958 ± 40 RCYBP for this occupation are shown in Table 1. A full report on early-Paleoindian evidence for this site is forthcoming (Webb pers. com.); we draw attention here only to the earliest-Holocene age and co-occurrence of side- and corner-notched projectile points in a single stratum.

The fact that both side- and corner-notched points occur together in two stratigraphically secure and well-dated sites in Florida counters any previous assumptions of a sequential relationship between these varieties (i.e., side notching before corner notching). Similar radiocarbon ages for side-notched projectile points at Dust Cave in Alabama confirm the very early Holocene age of notched points in the Southeast (Driskell 1996). Given this evidence, to our
knowledge notched points in the southeastern United States represent the earliest such artifacts anywhere in the New World.

References Cited


Below Folsom at Two Moon: Paleoamericans and Rockshelters in Wyoming’s Bighorn Mountains

Judson B. Finley, Chris C. Finley, Marcel Kornfeld, and George C. Frison

In 2003, we reported a fragmented Folsom projectile point and an associated 10,000-year-old radiocarbon date from Two Moon Shelter, a rockshelter located in northwestern Wyoming’s Bighorn Mountains (Finley et al. 2003). Such finds are rare in Paleoamerican research, but a handful of western North American rockshelters yield early artifacts or contemporaneous age estimates. This note supplements recent findings at Two Moon Shelter by reporting new information regarding a cultural level positioned stratigraphically below that bearing the Folsom artifact.

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Test excavations at Bighorn Mountain rockshelters utilize a detailed methodology designed to maximize information on both natural and cultural formation processes. In dense cultural deposits such excavation becomes a time-consuming endeavor, requiring at sites like Two Moon nearly 10 years to excavate completely a 1-by-2-m unit less than 1 m deep. The reward comes, however, in resolving issues where potentially important discoveries are found in stratigraphically complex situations.

Deposits in the 1-by-2-m unit at Two Moon have returned more than 32,000 pieces of Phosphoria chert debitage, nearly 4,000 of which are plotted in situ. Owing to the sheer density of artifacts, distinguishing cultural levels during excavation is sometimes difficult. Approximately 1 to 2 cm of culturally sterile sediment separates the lowest component from the overlying Folsom level (Figure 1). Figure 1 demonstrates the relationship between the 10,060 ± 60 RCPB date (Beta 164002), the Folsom projectile point fragment, and the lowest component. Whereas debitage from the Folsom level represents mid-stage bifacial reduction (few cortex-bearing flakes present and minimal bifacial thinning), the lower level bears a full range of debris from initial core reduction to bifacial finishing. Present are awl and thrust flakes, intentionally prepared to remove the margin opposite the striking platform, as well as possible blades.

Figure 1. A two-dimensional artifact backlight demonstrating the association between the Two Moon Shelter 10,060 ± 60 RCPB date (Beta 164002), the Folsom artifact, and the lowest cultural level.

Currently we cannot secure an age estimate for this lowest level, only to say that it is "below Folsom." A fragmented deer-size mandible is directly associated with artifacts, but as yet no age estimate is available. Until this becomes known, we are reluctant to assign cultural affiliation to Two Moon’s lowest component. Although awl and thrust flakes are characteristic of Clovis manufacturing techniques, their presence alone is not enough to make this association since they may just as likely represent an older Folsom component. Most importantly, however, Two Moon represents an important addition to our understanding of Paleoamerican landscape utilization through repeated use of rockshelters for the express purpose of procuring toolstone.