



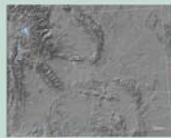
Prehistory of the Jonah Field

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The Jonah Field

The Jonah Field is a nearly 30,000 acre natural gas field located in Sublette County, Wyoming. Beginning in 1993, a new technique for fracturing the rock substrate was put to use in the Jonah Field and has since made it one of the nation's largest natural gas fields in the lower 48 states. A Jonah Research Plan was developed, in part, to manage and preserve the cultural resources encountered in the Jonah Field and to help provide further understanding of past human lifeways by filling in the gaps in the archaeological record. Another purpose of the Research Plan is to inform and share with the public the information gained through the study of the cultural resources in the Jonah.



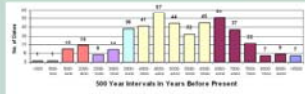
State map showing the project area.



Topographic map of the Jonah Field.

Chronology of the Jonah Field

Over the last 15 years, information about the prehistory of the Jonah Field has increased exponentially. Approximately 3500 prehistoric sites have been recorded. To date, these sites have produced approximately 450 radiocarbon dates spanning from the Paleoindian to the Protohistoric Period. Additionally, almost 275 diagnostic projectile points have been collected from the Jonah Field by Current Archaeological Research, Inc. alone. From these dates, projectile points and their associated sites, the prehistory of the Jonah Field paints an interesting picture through time.



Graph showing the number of radiocarbon dates per 500 years in the Jonah Field. The colors of the bars approximate the time periods below.



Timeline showing the periods and phases for the Jonah Field along with typical point styles attributed to each phase or period.

The Paleoindian Period

- Seven radiocarbon dates (>8500 years before present (BP)) from fire hearth type features in the Jonah Field.
- Most Paleoindian sites consist of surface finds of diagnostic projectile points.
- Paleoindian fire hearths contain faunal bones from unidentified small mammals or jackrabbit and the primary fuel sources include sagebrush and birch.
- Two Eden points found in buried contexts.
- Point types have included Folsom, Agate Basin, Hell Gap, Alberta, Cody (Scottsbluff and Eden) and Angostura and are often made from the local Alkali Creek, fossiliferous and oolitic chert materials.
- Preservation of Paleoindian sites is poor in the Jonah Field.



Paleoindian projectile points found in the Jonah Field. From left to right, a large side-notched point, an Elko-Bitterroot point, a Bitterroot (Northern) Side-notched point and a Mulberry point.

The Early Archaic Period

- Separated into the Great Divide Phase from 8500-6000 years BP and the Opal Phase from 6000-3500 years BP.
- 117 radiocarbon dates from the Great Divide Phase and 217 radiocarbon dates from the Opal Phase.
- Common artifacts include ground stone manos and metates, bone tools (awls, fishers), debitage, expedient stone tools (e.g., end-scrapers, side-scrapers, spokeheaves, retouched flakes) and bifaces (e.g., knives, drills).

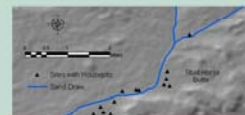


Crew excavating at the J. David Love Site.



An Early Archaic surface structure from site 48U16582.

- Faunal remains often from jackrabbits, cottontail rabbits and antelope; Bison remains occasionally identified in later Opal Phase features.
- Macrofossil analysis has identified charred prickly pear cactus, goosefoot seeds, Indian ricegrass seeds, mustard seeds, bitterroot and biscuitroot. Sagebrush is the primary fuel source.
- Great Divide Phase projectile points: straight sided to triangular shaped blades with side notches; in the Jonah Field, include Pryor Stemmed, Hawken and Bitterroot (Northern) Side-notched.
- Opal Phase projectile points: triangular shaped blades with side or corner notches; in the Jonah Field, include Duncan, Hanna, McKean Lanceolate, Elko Corner-notched, Yankee and Pinto Basin (Square-shoulder and Sloping-shoulder).
- Twelve housepits and nine surface structures along Sand Draw.
- Interior feature radiocarbon dates show the structures were continuously revisited.
- Housepits: large circular to oval shaped stains with basin shaped profiles that are partially to completely surrounded by 3-26 postmolds (average of 10 per structure).
- Two to twelve interior fire hearths and/or storage pits per structure.
- Surface structures: ring of postmolds surrounding fire hearth features or shallow amorphous staining with features.
- Different from housepits: the floors are not excavated and interior features are exposed on the same surface as the postmolds.
- The J. David Love Site: nine structures, seven fire hearths and a human burial.
- Human burial: elderly woman represented by over 100 deteriorated bone fragments.
 - Dates to 7200±50 years BP (Beta-169796) making it chronologically the oldest known in Wyoming.



Shaded relief map of the Sand Draw area showing the distribution of sites with housepits and/or surface structures.



Late Prehistoric projectile points, including Cottonwood Triangular, Desert Side-notched, Rose Springs and small unnamed side- and corner notched points.



Excavation of the Raven's Nest site. This area contained prehistoric ceramics, a glass pipe bead, Late Prehistoric projectile points, debitage, faunal bone fragments and a posthole.



Excavation of the Wolf Tooth site. The block contained prehistoric ceramics, faunal bone fragments and prehistoric ceramics.

The Late Archaic Period

- Divided into the Pine Spring Phase (3600-2900 years BP) and the Deadman Wash Phase (2900-1800 years BP).
- Seventy-three radiocarbon dates.
- Increase in bison remains; antelope, rabbit, ground squirrel and other small animals still present.
- Bitterroot, biscuitroot, Indian ricegrass, goosefoot and prickly pear cactus found in macrofossil samples.
- No structures found from the Late Archaic Period.
- Fire hearths filled with cobbles, slabs or fire-cracked rock, suggesting use as roasting pits.
- Artifacts include numerous ground stone manos and metates, debitage, expedient stone tools and bifaces.
- Most common projectile points are unnamed large corner-notched, triangular bladed points. Other types include Elko (Corner-notched, Eared and Contracting Stem), Pinto Basin (Square-shoulder and Sloping-shoulder) and Pelican Lake.



Late Archaic projectile points. From left to right, a Duran-Hanna point, Black Rock-Humboldt-Rose Spring point, two Elko Setae points and a large corner-notched point.



Excavation of a Late Archaic component at site 48U2220. The component had general features and a large fire-cracked rock slab dated area.

The Late Prehistoric Period

- Divided into the Uinta Phase (1800-1000 years BP) and the Firehole Phase (1000-250 years BP).
- Thirty-four radiocarbon dates.
- Mostly surface scatters with projectile points.
- Buried fire hearth features have bison bone and/or a variety of plant species.
- Uinta Phase projectile points: Rose Springs (Corner-notched, Side-notched and Expanding Stem) and small corner-notched, triangular bladed points.
- Firehole Phase projectile points: side-notched and tri-notched styles, Desert Side-notched, Cottonwood Triangular, Plains Side-notched and Prairie Side-notched.
- One decorated steatite artifact that looks like a rattlesnake rattle may be a gaming piece or adorned pendant.
- Several tipi rings and a small possible "shaman circle" are located on Yellow Point Ridge.
- Prehistoric ceramics, mostly small sherds of gray utility ware, are present at 10 sites, which are generally thought to be Late Prehistoric in age.
- Intermountain Ware, which is considered a cultural marker for Shoshonean tribes, is one possibility for the prehistoric ceramic type.
- The Wolf Tooth Site: ceramics formed part of the serrated rim of a single small vessel.
- Violek's Archaeological District (48SU4000) has five locations with ceramics: 48SU2194, 48SU2205, 48SU2508, 48SU3577 (Raven's Nest) and 48SU3880 and represents the highest concentration of ceramic sites known in south-western Wyoming.
- Recent excavations at Raven's Nest recovered approximately 1100 sherds; refit analysis is currently being conducted.

The Protohistoric & Historic Periods

- Protohistoric Period from 250 years ago until fur trappers, traders and explorers enter the Upper Green River Basin.
- Raven's Nest: only Protohistoric date in the Jonah Field.
- Other artifacts at Raven's Nest included a glass trade bead and a pipe stem fragment.
- Historic Period begins mid 1800s: multiple historic wagon roads and auto roads near the Jonah Field.
- Three documented cow camps (Johnny Wendell's Castle, Granite Camp and an unnamed cabin) that were used by local ranchers during the first half of the 20th century.
- Sheepherding camps/historic debris scatters (e.g., cans, bottle glass and wire) also present.



Granite Camp with the cabin, animal pens, stock pond and windmill.