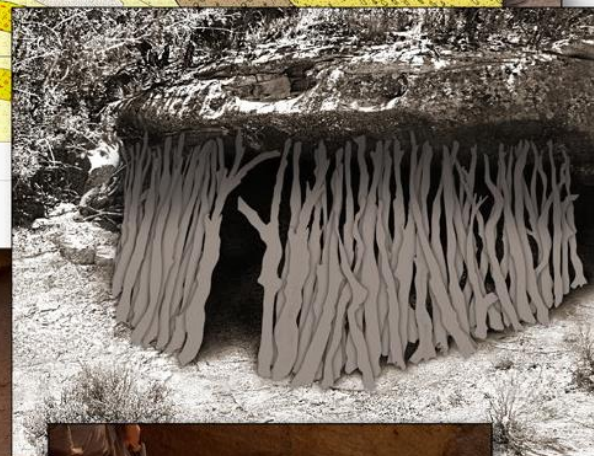
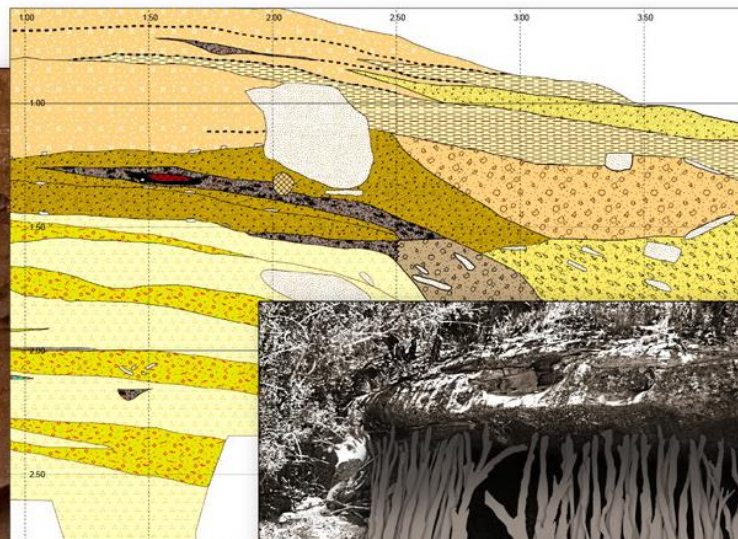


Archaeological Investigations at the McClane Rockshelter 5GF741 Garfield County, Colorado



Dominguez Anthropological Research Group



- ▣ State Historical Fund #2010-02-029
- ▣ Private Contributions by:
 - ▣ Rhino Energy
 - ▣ Grand River Institute

Lead participants and key staff for this project:

Co-Principal Investigators:

Michael Berry and Carl Conner

Project Coordinator: Richard Ott

Project Geoarchaeologist: James Miller

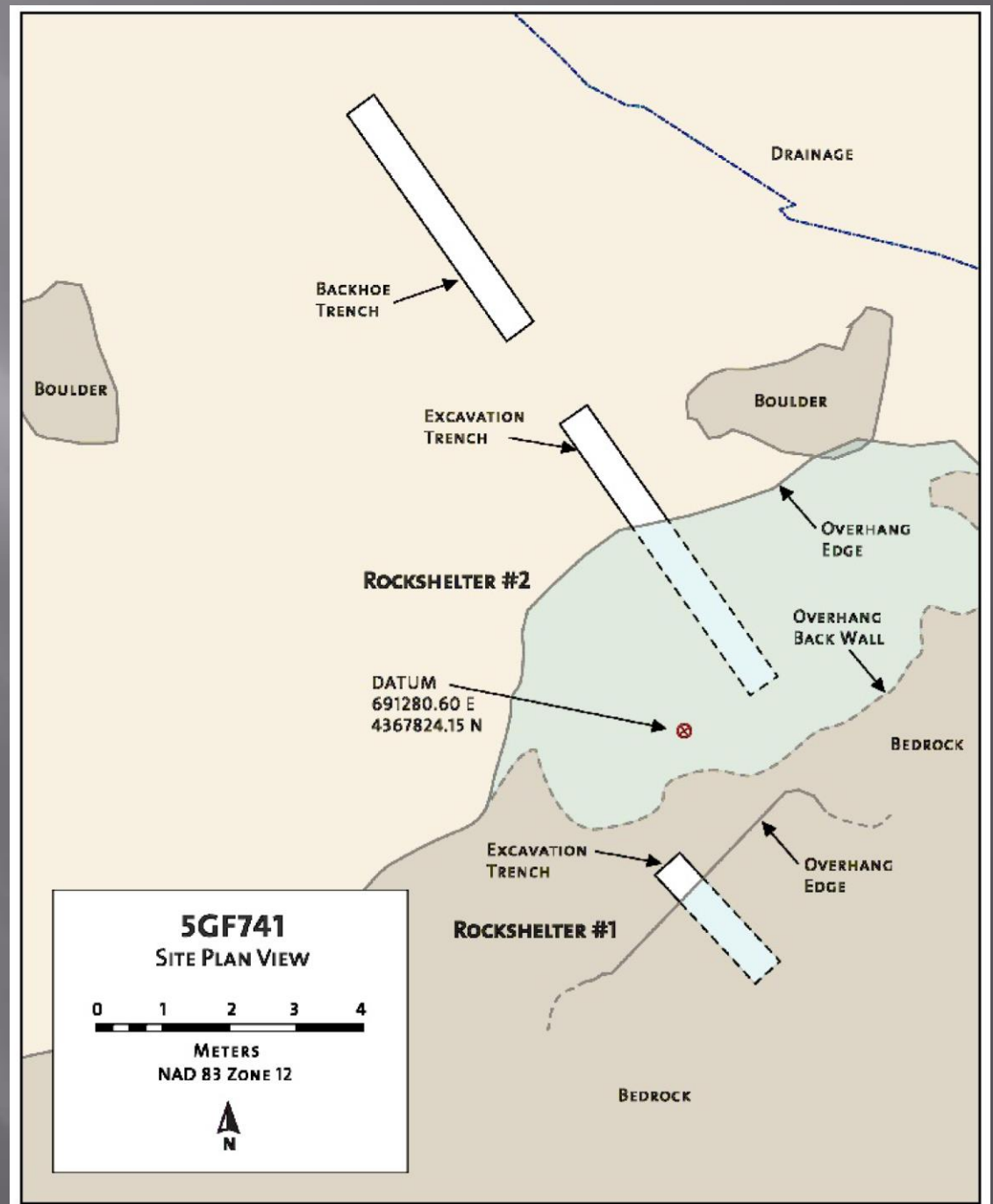
Principal Staff: Courtney Groff, Carl McIntyre,
and Michael Brown.

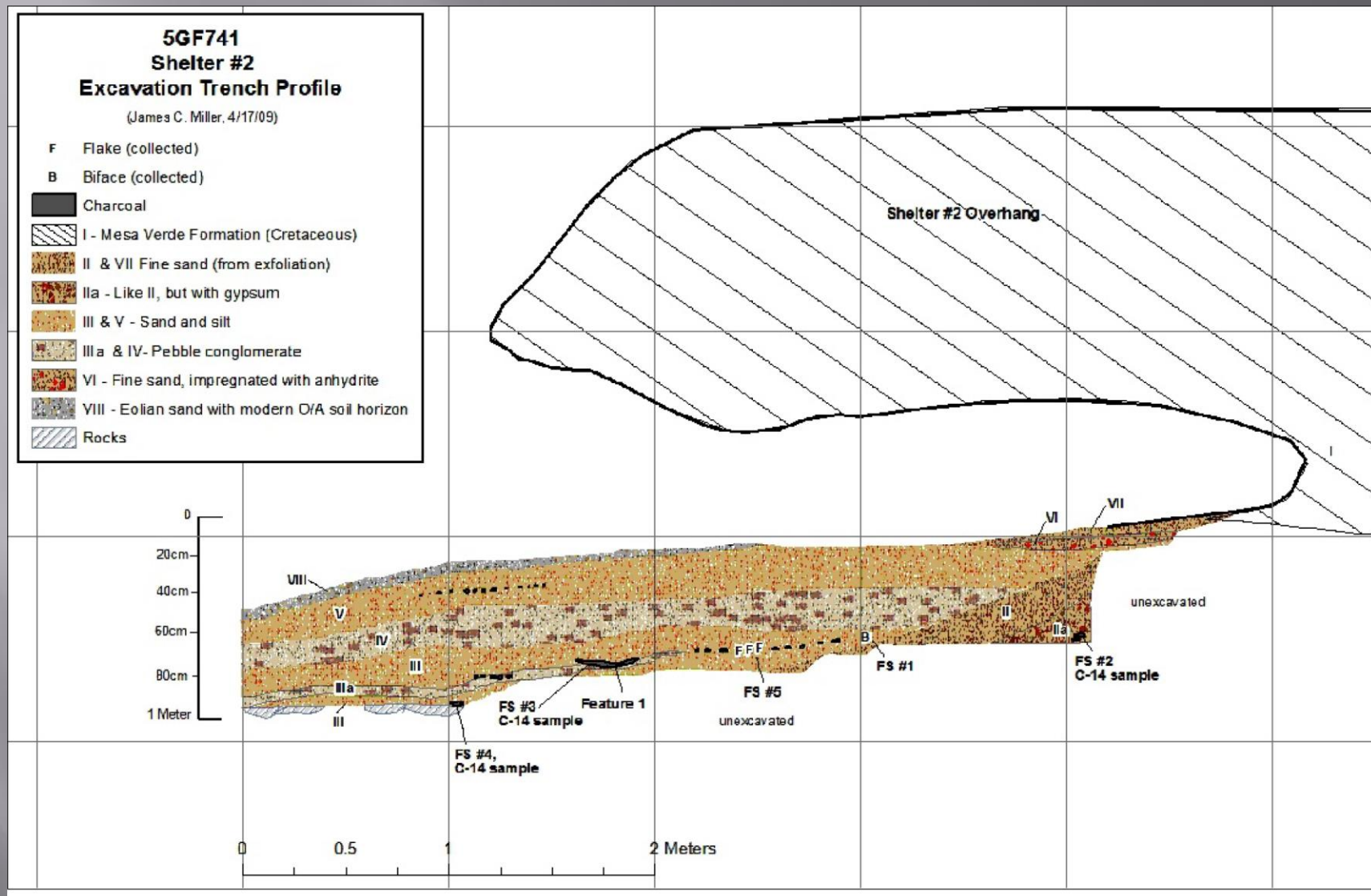


Landscape setting of 5GF741. View south toward Colorado River.



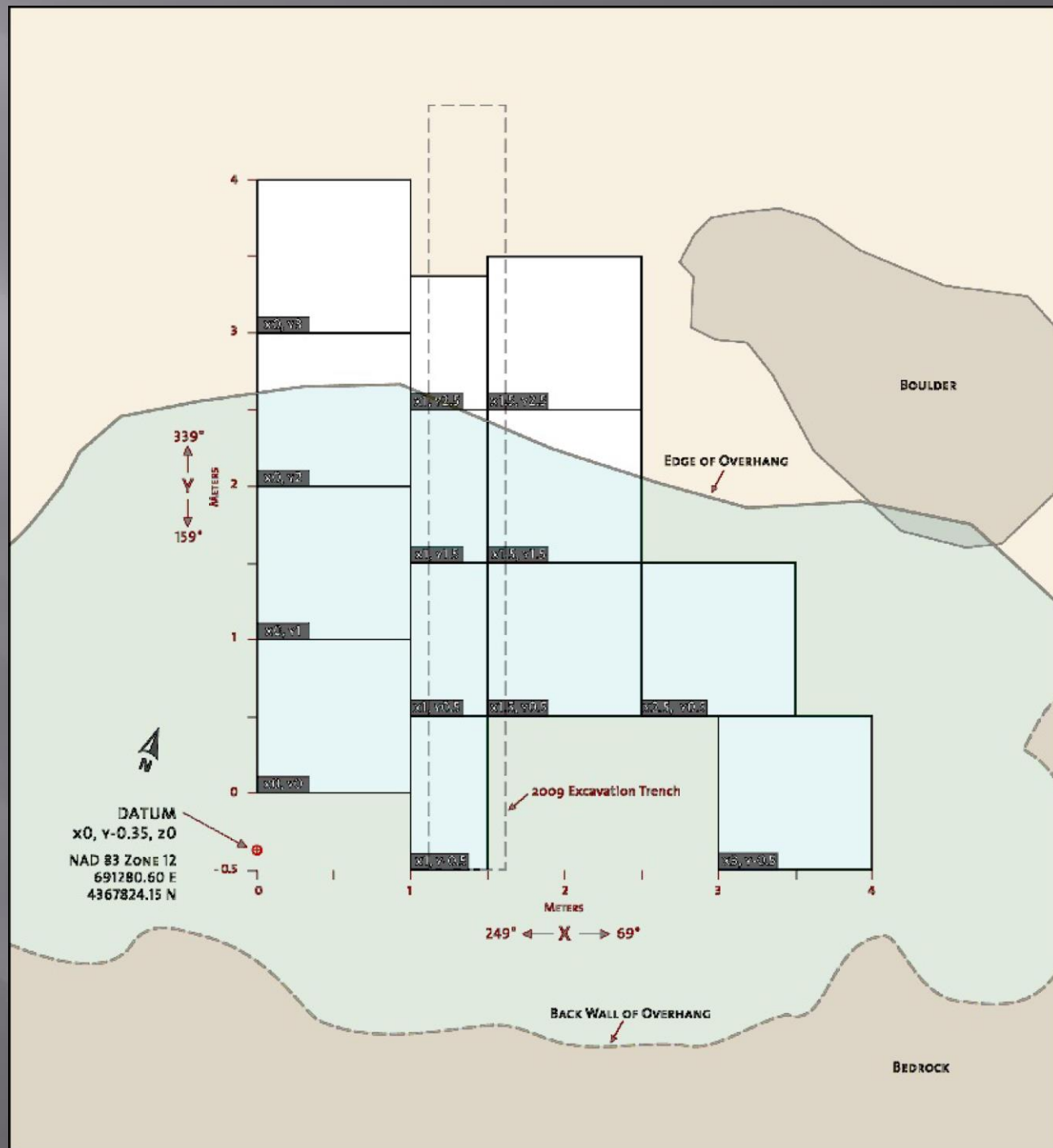
Distribution of excavations during the 2009 testing of Shelters #1 and #2, and the backhoe test of 2010.






Shelter #2, 2009 profile showing the 5.0m long trench excavated to a maximum depth of 70cm.

Schematic plan view of 2011 excavation units in relation to Shelter #2



The project entailed the excavation of 10.5 square meters within and on the perimeter of the overhang. Cultural deposits ranging in age from about 4200 to 300 years ago were encountered, primarily in four cultural levels. McKean Complex is represented in the two lowest stratigraphic units, which contained three occupation levels dating between ca. 4200-3000 BP.



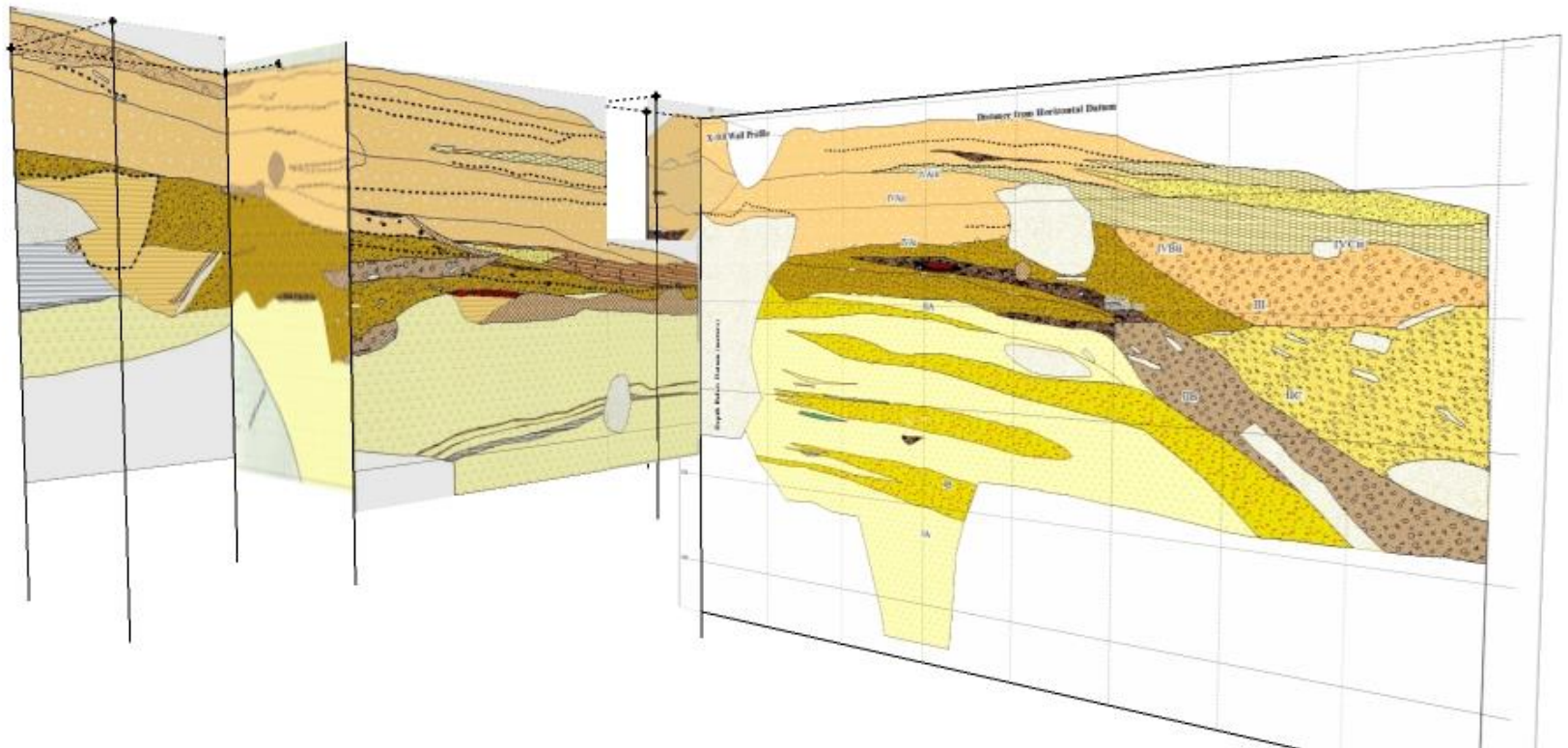


56F741
DATE: 06/14/11
PHOTO: D5-1
DIR. S-SE
POOR FEATURE
W/ SOME OXIDATION

The image shows an archaeological excavation of a pit. The central feature is a dark, irregularly shaped area, possibly a poor feature or a small pit, with some oxidation. A yellow measuring tape is stretched across the top of the pit, and a black and white striped measuring rod is placed horizontally below it. A small, open container, likely a compass or a small jar, is visible near the center. A pink tag is attached to the right side of the pit. The surrounding soil is light brown and appears to be a mix of sand and silt.

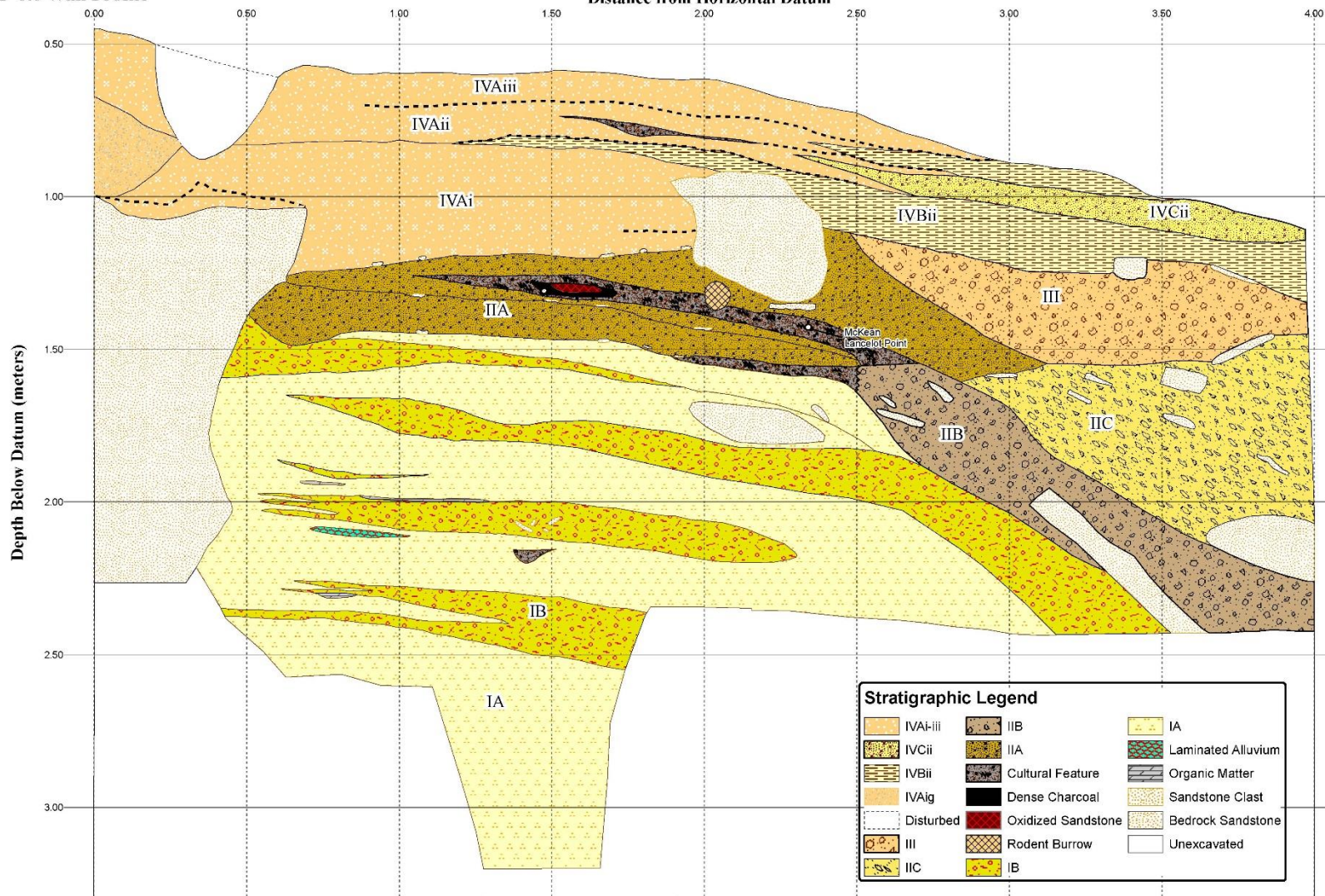






X=0.0 Wall Profile

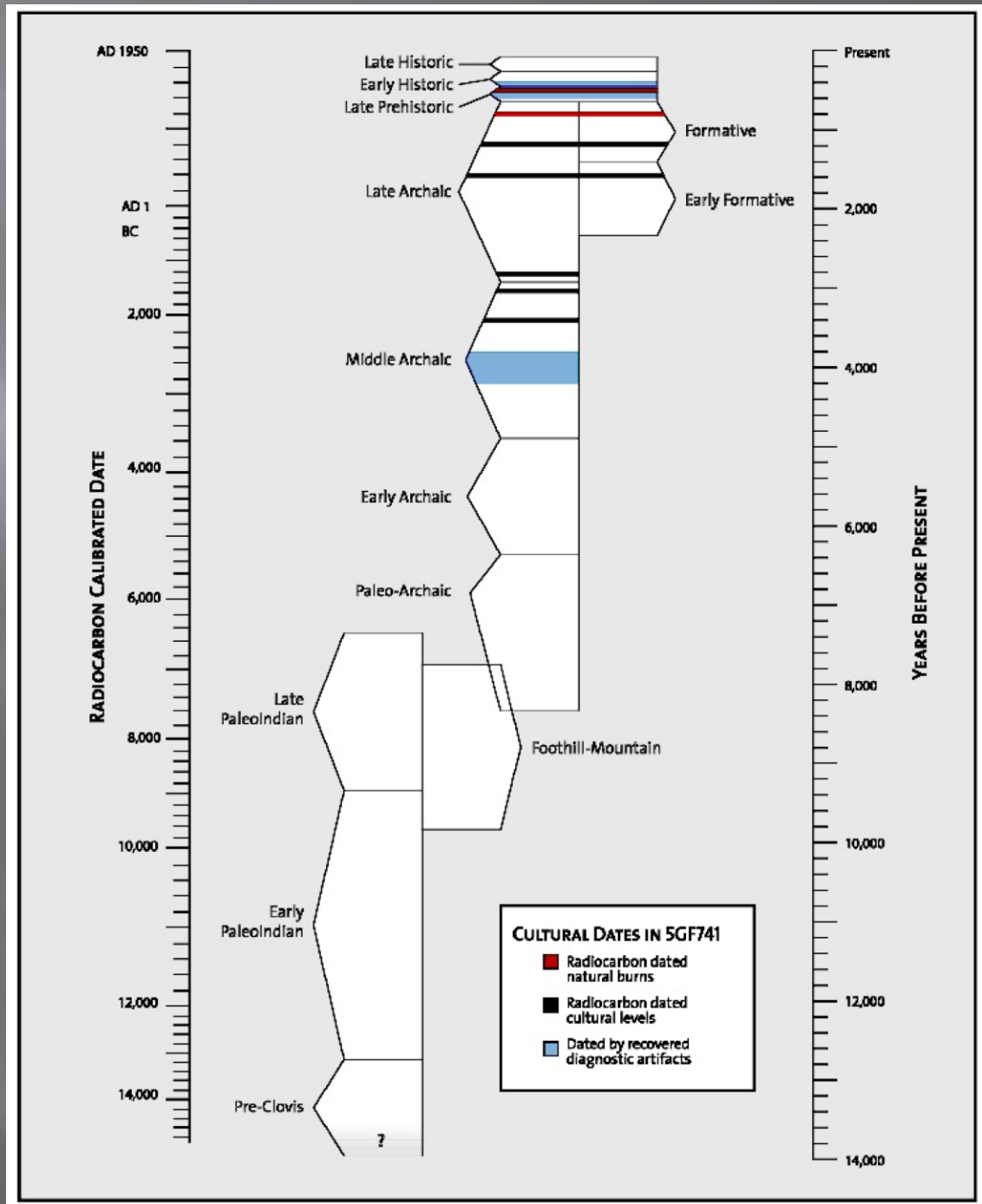
Distance from Horizontal Datum



Radiocarbon Dates from 5GF741













Lab Number	Provenience	Culture	$\delta^{13}\text{C}$	Conventional ^{14}C	Material
Beta-312257	NA	NA	-25.5 ‰	111.4 ± 0.3 pMC	Intrusive Root
Beta-304087	Unit IV	NA (root burn)	-21.1 ‰	400 ± 30 BP	Charcoal
Beta-316336	Unit IV	NA (root burn)	-20.9 ‰	450 ± 30 BP	Charcoal
Beta-259174	Unit IV/VII	NA (root burn)	-20.7 ‰	490 ± 40 BP	Charcoal
Beta-304083	Unit IV	NA (root burn)	-21.9 ‰	480 ± 30 BP	Charcoal
Beta-316337	Unit IV	NA (root burn)	-21.0 ‰	800 ± 30 BP	Charcoal
Beta-259176	Unit II	Late Archaic/ Formative	-22.2 ‰	930 ± 40 BP	Charcoal
Beta-304085	Unit II	Late Archaic/ Early Formative	-20.7 ‰	1260 ± 30 BP	Charcoal
Beta-259173	Unit II	Late Archaic/ Early Formative	-20.5 ‰	1320 ± 40 BP	Charcoal
Beta-259175	Unit III	Late Archaic	-20.4 ‰	2730 ± 40 BP	Charcoal
Beta-304082	Unit III	Late Archaic	-22.3 ‰	2820 ± 30 BP	Charcoal
Beta-304081	Unit III	Late Archaic	-20.7 ‰	2880 ± 30 BP	Charcoal
Beta-304086	Unit III	Late-Middle Archaic	-20.9 ‰	3020 ± 30 BP	Charcoal
Beta-304084	Unit III	Middle Archaic	-21.1 ‰	3430 ± 40 BP	Charcoal
Beta-304088	Unit VI	Paleo-Indian (?)	-24.3 ‰	25600 ± 130 BP	Organic Matter

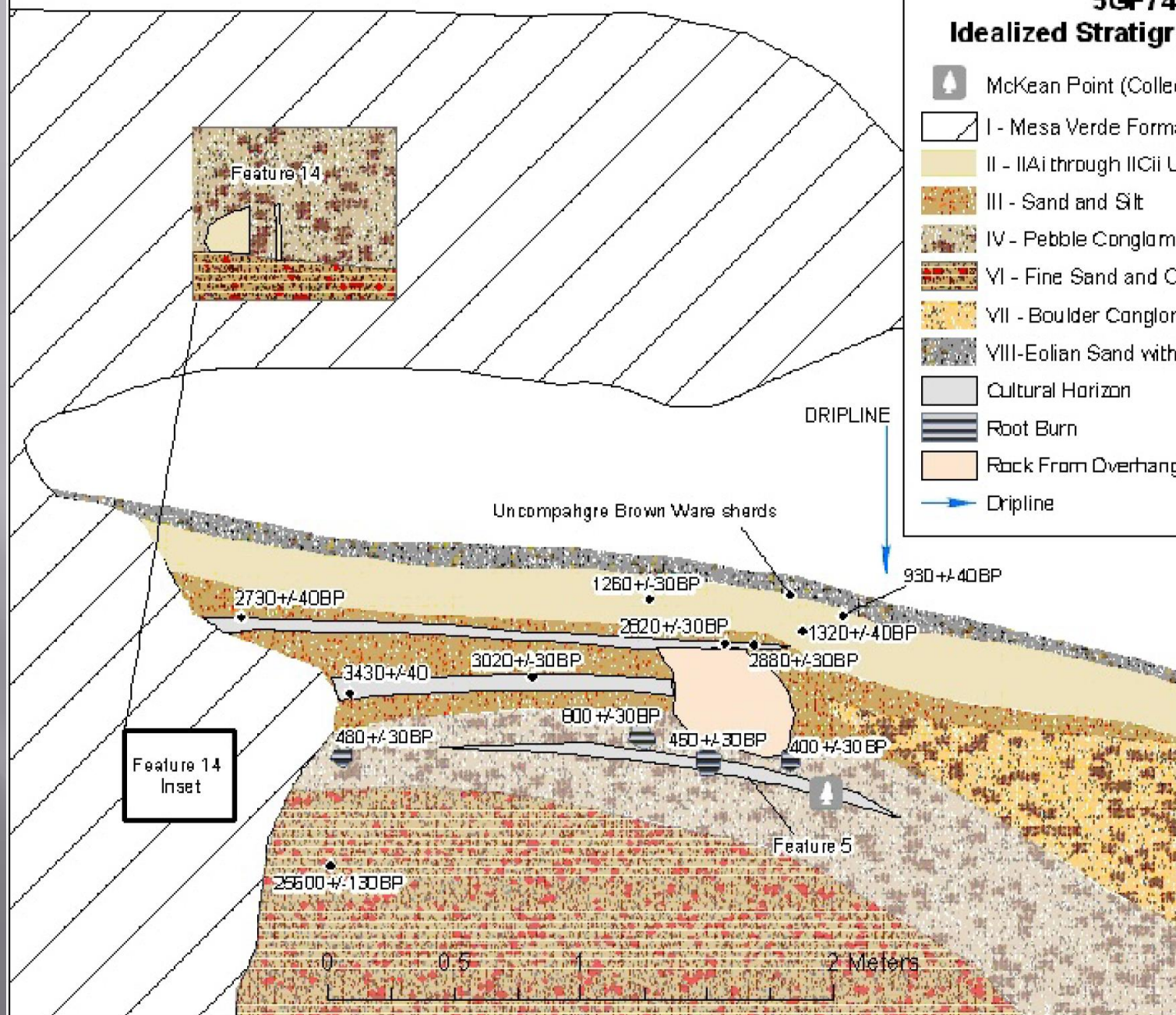
Temporal relationships of cultures in the region compared with those found in 5GF741 -- shown in colored blocks



5GF741

Idealized Stratigraphic Profile

-  McKean Point (Collected) 249°
-  I - Mesa Verde Formation (Oretaceous)
-  II - IIAi through IICii Undifferentiated
-  III - Sand and Silt
-  IV - Pebble Conglomerate
-  VI - Fine Sand and Clay
-  VII - Boulder Conglomerate
-  VIII - Eolian Sand with Modern O/A Horizon
-  Cultural Horizon
-  Root Burn
-  Rock From Overhang Roof
-  Dripline



Cultural Level IV – Middle Archaic

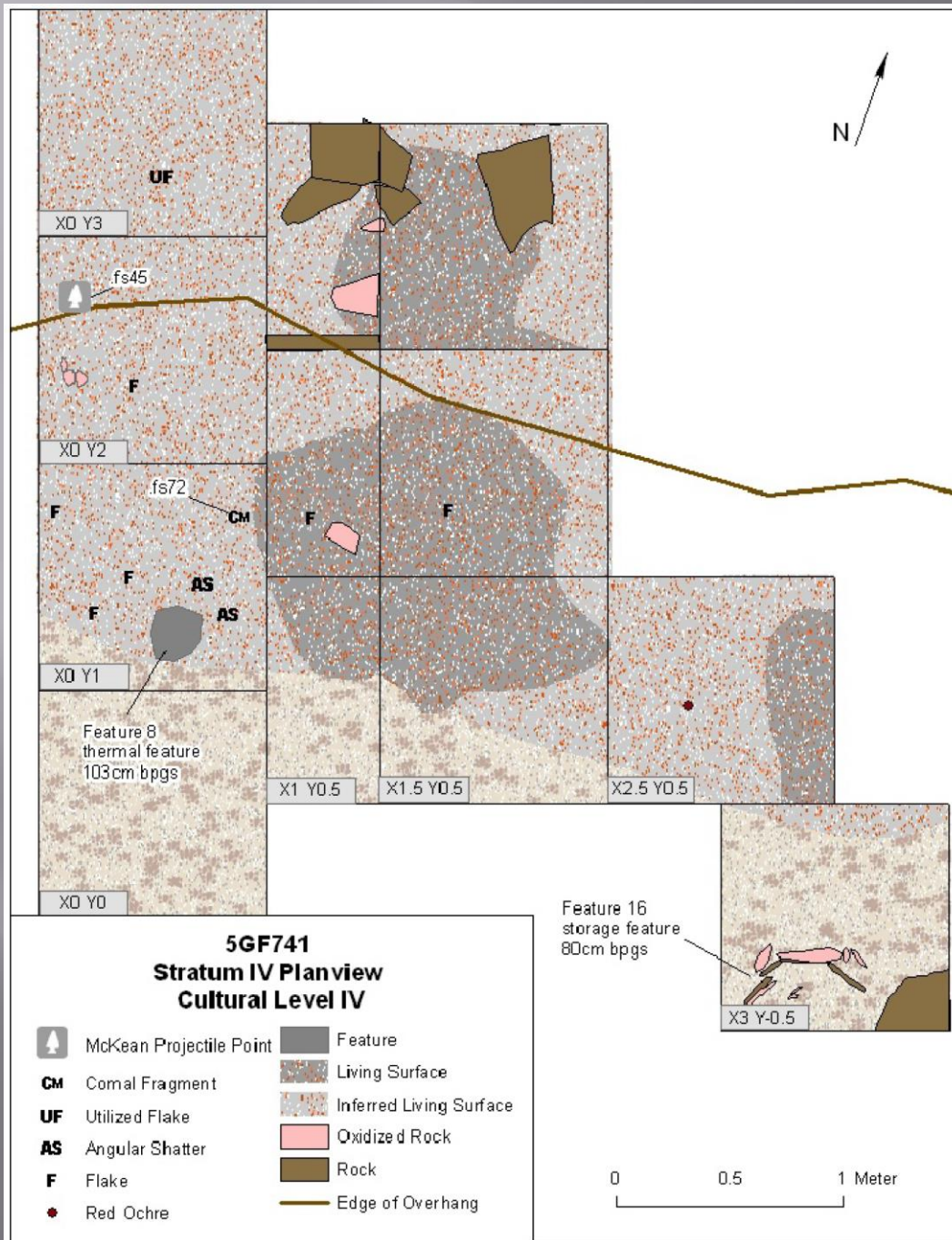
This cultural level (CL-IV) corresponds with Stratigraphic Unit IV. It contained a McKean Lanceolate point of the McKean Complex, which dates after 5000 BP to as late as 3000 BP on the Plains. At the Signal Butte site in western Nebraska, McKean Lanceolate points were found in association with Mallory-type side-notched points in dated levels from 4550-4170 BP (Frison 1991:89). Considering that the oldest radiocarbon date from Stratigraphic Unit III is 3430 ± 40 BP (Beta-304084), it is likely that the date range for CL-IV is 4200 and 3800 BP. The comparative dating of the Lanceolate point and confirmation by stratigraphic unit clearly establishes the temporal association of this cultural level.



CL-IV contains two, vertically separated, ash lenses (Features 5 and 7) within the shelter that converge at the dripline into a single expression, and continue as such as the deposits dip to the northwest outside the overhang. These lenses have a radius of approximately three meters from the back of the shelter and extend downslope about 2m past the dripline. The separate lenses within the shelter most likely represent separate occupations during the 4200-3800 BP time period, but could date as early as 4500 BP.

The surface of the cultural deposits occur about 1.6m below the ceiling of the shelter, and the covered floor at this level is about 10m². The height and floor space provided by the shelter would allow a relatively comfortable living area for eight or more people. The floor of this living area exhibits a low artifact count, as would be expected from an habitation area.

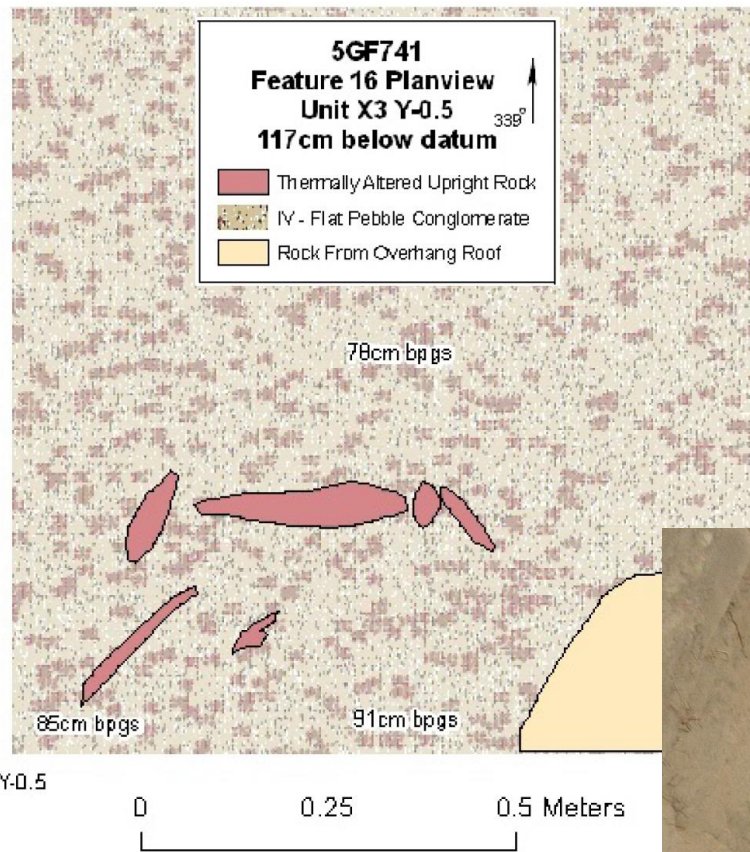
Importantly, this level contains several features including a storage cist and a small thermal feature.



Composite of plan views and profiles illustrating features and artifacts of Cultural Level IV.

X3 Y0.5

X4 Y0.5



Plan view of Feature 16, a slab-lined storage pit

Photograph of the largest slab in Feature 16, a slab-lined storage pit

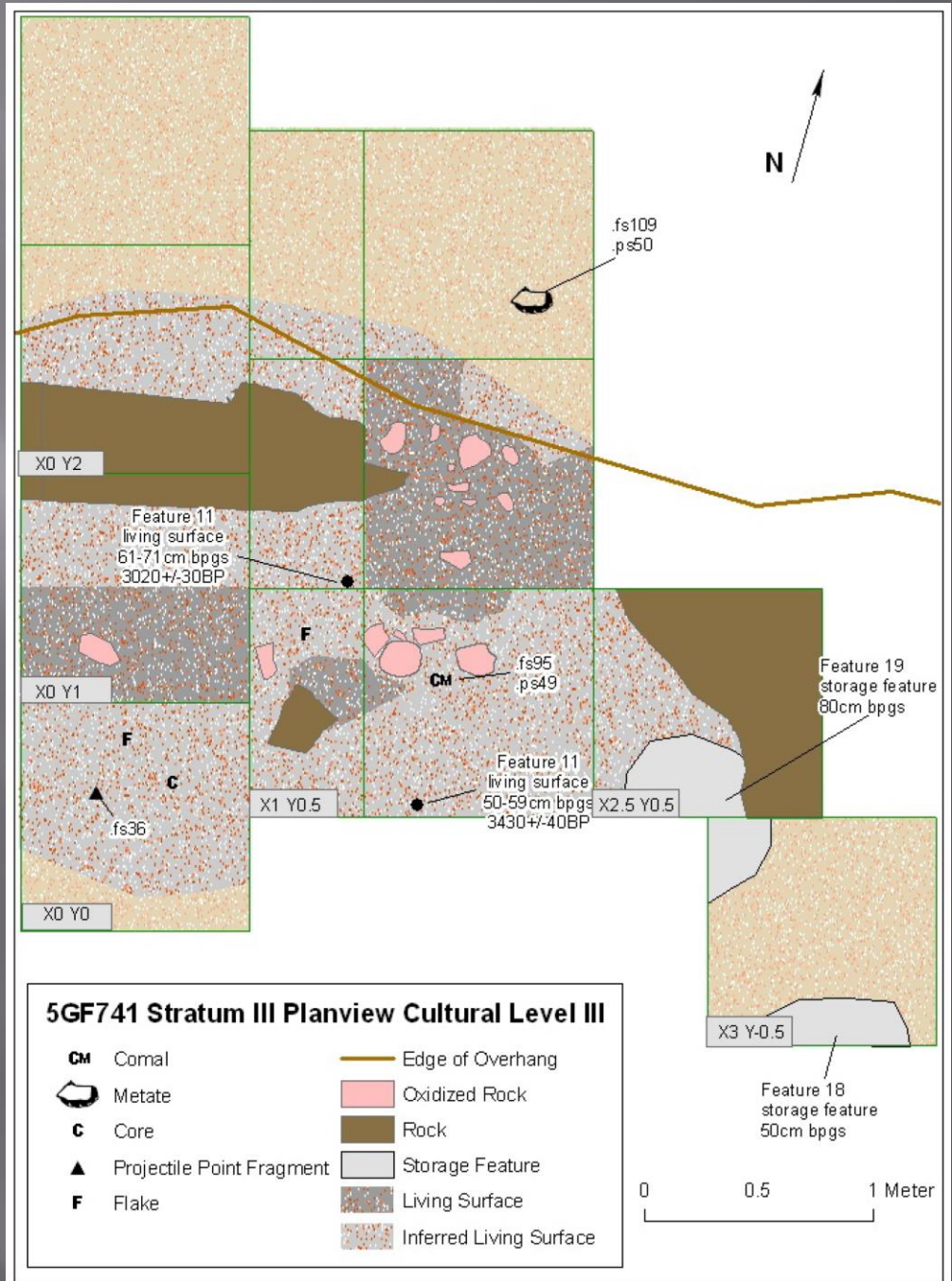


Cultural Level III – Middle Archaic

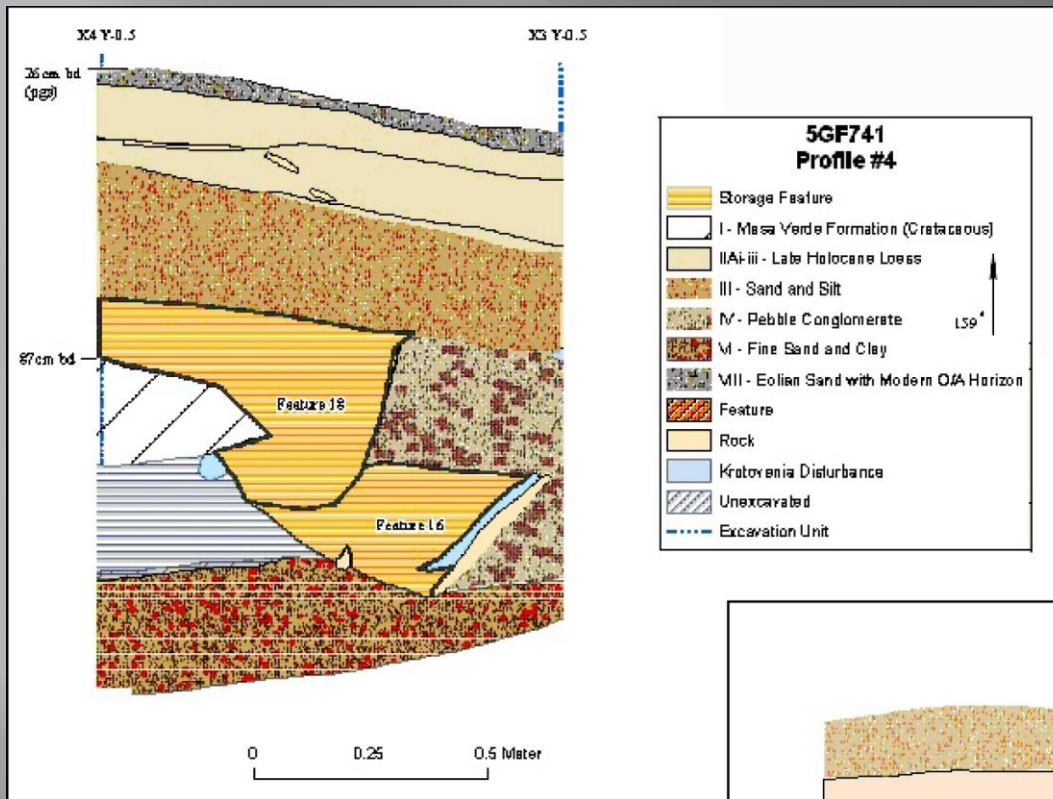
This cultural level (CL-III) occurs in the lower portion of Stratigraphic Unit III, which has an average thickness of 40cm within the shelter. Two dates (3430 ± 40 BP [Beta-304084] and 3020 ± 30 BP [Beta-304086]) were obtained from there and bracket the cultural level. Based on the broad range of projected dates for McKean Complex of 5000 to 3000 BP, CL-III could be culturally related, as is CL-IV.

This level is defined by Features 11, 18 and 19. Feature 11 is an ashstain that averaged about 10cm thick and covered most of the floor of the shelter. Since two radiocarbon samples produced dates stratigraphically corresponding to the bottom and top of the ashstained soil layer, Feature 11 probably represents the compressed floors of two occupations.

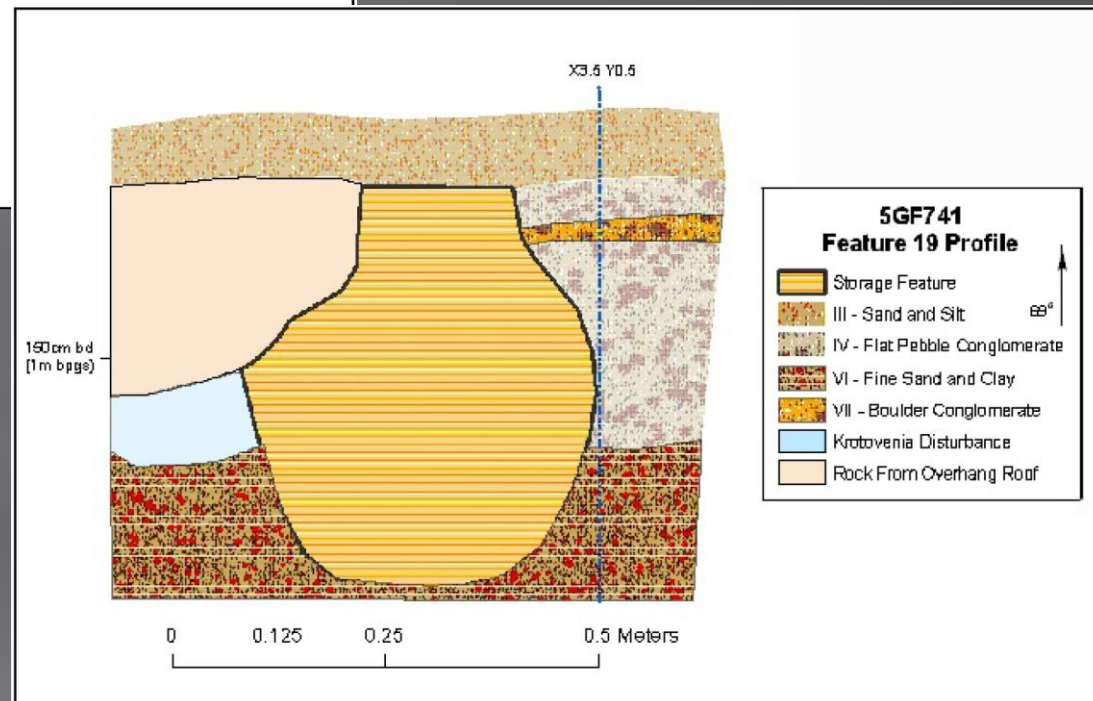
Composite of plan views and profiles illustrating features and artifacts of Cultural Level III.



Profile showing stratigraphic relationship of Feature 18 CL-III, an unlined storage pit, in relation to Feature 16 CL-IV.

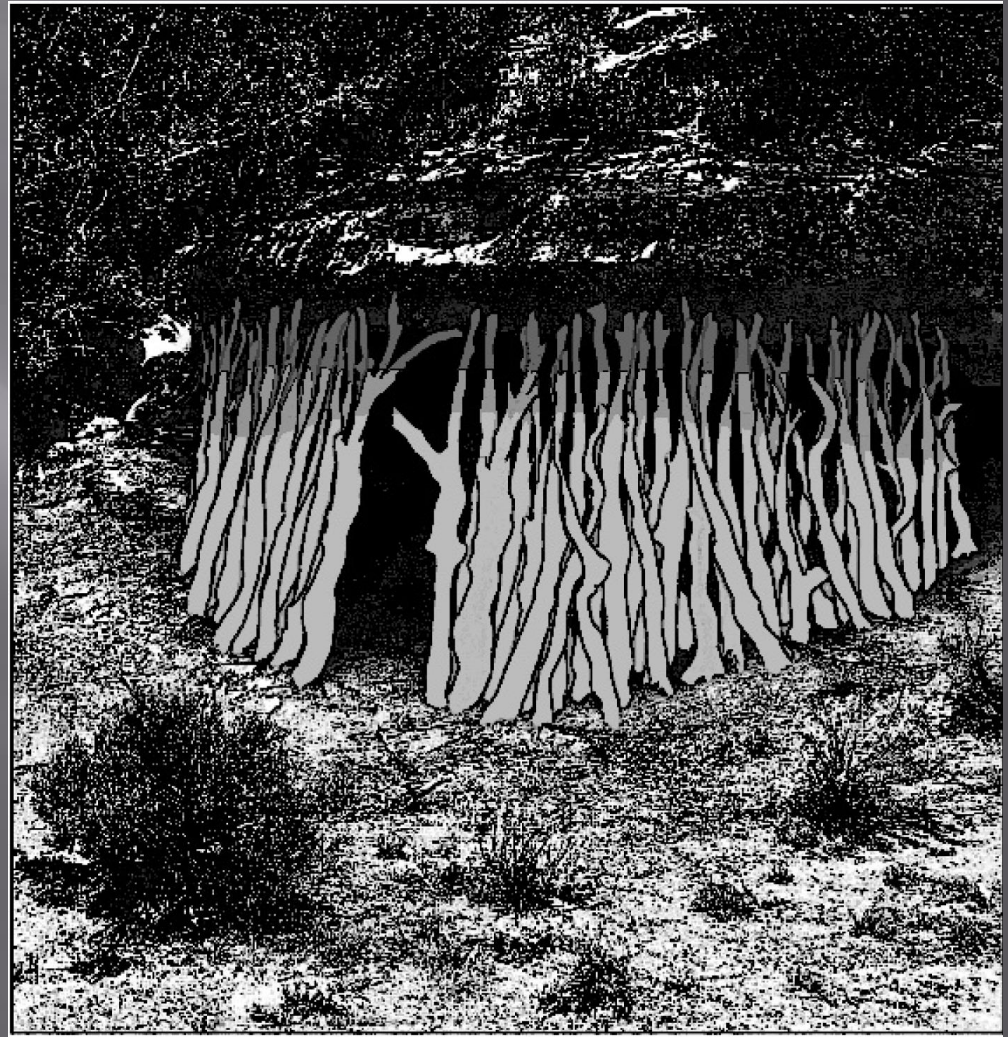


Profile showing Feature 19, an unlined, bell-shaped storage pit in CL-III.



The 3020±30 BP date was recovered from a deposit near a scatter of fire-cracked and altered rocks (FCR) near the top of the 10cm deep cultural deposits – ash-staining that occurs across the floor. This floor level is about 1.4m (~4ft 8in) below the ceiling of the shelter. In the vicinity of the FCR scatter, were a couple flakes, a core, a comal fragment, and a projectile point midsection. A metate fragment was recovered from outside the dripline of the shelter.

CL-III characteristically resembles CL-IV. Based on the presence of the storage units in each of these levels, the shelter-centered positioning of the thermal features, and the height of the roof during those periods, the shelter was likely used for winter habitations and was probably enclosed with a wall of wood poles leaned against the overhang's ledge, as illustrated.



Cultural Level II – Late Archaic

Three dates (2880 ± 30 BP [Beta-304081], 2820 ± 30 BP [Beta-304082] and 2730 ± 40 BP [Beta-259175]) were derived from thermal features or charcoal lenses higher in SU-III than CL-III (Figure 6.8). Thermal features 3 and 17 were also recorded in this level. Interestingly, the features and lenses that contained charcoal dated to this level were not set near the center of the shelter, rather just inside the dripline or at the back. There were no associated storage features with this level and it is probable that occupation activities were related to short-term camping for resource procurement.

Cultural Level I – Late Archaic/Formative

Three dates define this cultural level: 1320 ± 40 BP [Beta-259173], 1260 ± 30 BP [Beta-304085], and 930 ± 40 BP [Beta-259176], as well (Figure 6.9). The thermal feature dating 1320 ± 40 BP was found just in front of the dripline – outside but near the center of the overhang. The ash and charcoal lens dating 1260 ± 30 BP was found near the center of the overhang. Based on the previous indications, this may be indicative of a winter occupation and a possible structural feature to enclose the shelter at this time, but no storage features were recorded with this level. The 930 ± 40 BP date was derived from a charcoal lens just outside the dripline and near the center of the overhang, which again is suggestive of short-term camping in the shelter.

Late Prehistoric/Early Historic period

Two Uncompahgre Brown Ware sherds were found mixed in the surface layer of the shelter. The presence of these sherds suggest another cultural level dating to the Late Prehistoric/Early Historic period on the surface of the site, but later use by domestic animals completely disturbed that layer. Luminescence dates on Uncompahgre Brown Ware sherds from sites in northwest Colorado indicate the appearance of Uncompahgre Brown Ware about 650 BP and the termination of use by ca. 300 BP.