THE WYOMING ARCHAEOLOGIST

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WYOMING ARCHAEOLOGY SOCIETY

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NOTE: If you move or have a change of address, please notify the Executive Secretary, Judy Pinner, Anthropology Department, University of Wyoming, Laramie, Wyoming, 82071. Your WYOMING ARCHAEOLOGIST will not be forwarded unless a payment of 50¢ is received for return and forwarding postage.

NOTE: Checks for Chapter Subscriptions and renewals should be sent to the Chapter Secretary involved. All other checks, subscriptions, and renewals should be addressed to: Milford Hanson, Route # 1 - Box 1080, Cody, Wyoming, 82414. Correspondence and orders for back issues should be addressed to Judy Pinner, Anthropology Department, University of Wyoming, Laramie, Wyoming, 82071.

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WYOMING ARCHAEOLOGICAL SOCIETY, INC.

_______ Individual Associate Membership @ $6.00 per year.

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APPENDIX C

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ARCHAE ANNIE

George Frison's new book "Prehistoric Hunters of the High Plains" is out. We especially appreciate George's first hand all over familiarity with the area covered and his unique capabilities of applying archaeology and anthropology with present day knowledge of climate, flora, and fauna to the probable problems of the hunters of other centuries. This book has many answers for the thinking amateur archaeologist of this part of the country.

The $29.50 "Prehistoric Hunters" with 450 pages has many maps, pictures, and understandable illustrations. The price is subject to change, but you can save the postage and a 50¢ handling charge by sending payment with your order to:

Academic Press
Attention: Order Department
111 Fifth Avenue
New York, New York 10003

From time to time Archae Annie will offer you gleanings from "Prehistoric Hunters of the High Plains". The following is taken verbatim from a flyer advertising the Studies in Archaeology Series.

***

The High Plains of Colorado, Wyoming, and Montana have long been a testing ground for human ingenuity: sand dunes, bad lands, blizzards, droughts, and grasshoppers alternating with lush grazing and plentiful game to form a crazy quilt pattern over space and time. "Prehistoric Hunters of the High Plains" is a scholarly study of man's struggle to cope with this land of sometimes scanty, sometimes plentiful resources. From the Clovis elephant trappers of 12,000 years ago to the rise of the modern buffalo-driving Blackfeet, Sioux, Crow, and Cheyenne, Frison synthesizes archeological, ethnographic, and ecological data on communal animal hunting, driving, jumping, trapping, killing, butchering, processing, and use of big and small game. He breaks new ground by enterpreting animal procurement using both archeological data and known facts of animal behavior.

Besides giving a vivid picture of human cultural systems based on hunting and trapping, the book constitutes perhaps the first comprehensive account of the prehistory of the North American Northwestern Plains. It will be a great value not only to researchers and students in New World Archeology, but also to all archeologists and anthropologists studying paleolithic and neolithic hunter-gatherer economies and societies. In addition, laymen and amateur archeologists interested in western archeology on the Plains Indian will find the book both accessible and fascinating.

***

Judi Myers submitted some rather pertinent questions to Archae Annie. Here are a few facts, plus possible answers.

Dear Archae Annie:
Is it really against the law to collect artifacts? The report of the 1978 summer meeting (September issue of THE WYOMING ARCHAEOLOGIST

mentions that 'one group hunted artifacts'... I have also noticed that any Wyoming 4-H Geology member is required to collect ten artifacts. I have heard there is an Antiquities Law....is it just to be ignored? Has it ever been taken to court? I would appreciate a discussion of this issue in your column. Thanks.
Sincerely,
Judi Myers - Pinedale, Wyoming.

Yes, Judi, there is an Antiquities Act passed June 8, 1906, for the preservation of American antiquities. Part of the law reads..."Any person who shall appropriate, excavate, injure, or destroy any historic or prehistoric ruin or monument, or any object of antiquity, situated on lands owned or controlled by the Government of the United States, without the permission of the Secretaries of the Interior, Agriculture, or War, having jurisdiction over the lands on which said antiquities are situated, shall upon conviction be fined in a sum of not more than $500 or be imprisoned for a period of not more than 90 days, or shall suffer both fine and imprisonment, in the discretion of the court."

No, Judi, as far as we know, no one in Wyoming has taken this Federal law to the courts.

The above, as far as we can ascertain, are the facts. Now for the maybe facts. We do not believe the Wyoming Archaeological Society as a group has settled on a common stand for the 70 year old Antiquities Act. We believe if a member were to take it to court they would be given all possible assistance. We feel each concerned member must realize there is an Antiquities Act which has been around possibly longer than any of us have been collecting artifacts and each must decide how it applies to his surface hunting on Federal lands.

We would appreciate hearing from other members of the Wyoming Archaeological Society on this or any other subject. We will do our darndest to dig up some kind of an answer to your questions or observations. Write to Archae Annie, Box 703, Saratoga, Wyoming, 82331.

NOTES FROM THE EDITOR . . . . .

Contributions from amateurs to the WYOMING ARCHAEOLOGIST are a vital part of this publication. They provide valuable data to amateur and professional alike, and are very often a reference source for other writers.

Why not try a few lines about some favorite subject or site for use in your periodical? The language and terminology need not be what is professionally regarded as correct, your own thoughts and ideas may indeed make a more viable report.

Your efforts are needed to insure a timely publication of quarterly issues, filled with meaningful materials.

Professional papers continue being published and we are grateful for all these, but more amateur participation is needed. Send me some letters to dream on.

THE EDITOR

A complete listing of officers and members of the Wyoming Archaeological Society and the Wyoming Recreation Commission will be published in the June issue of THE WYOMING ARCHAEOLOGIST.

The Spring Meeting will be in Casper, April 6 - 8, with a schedule and agenda supplied to each Chapter Secretary.

Word has been received of the death of Dr. Raymond Bentzen at Umpqua, Oregon, after a long illness.

Dr. Bentzen was one of the six people who met at the Fred Hilman home in Sheridan on February 4, 1953, to institute and organize the Wyoming Archaeological Society.

His expertise, acquired through working with Dr. Mulloy at Glendo Dam site, Bald Mountain, Kaufman Coal, Powers-Yonkee, Buffalo Creek, and others, implemented publication of valuable information on each site.

The Sheridan Chapter and the entire Society has lost a valuable and enthusiastic member and contributor of viable information.

This gem of wisdom is contributed by Gertrude Berger from the Cherokee Trail Chapter... "A cardinal rule is never to hunt in your friend's favorite spot which he has shown you, unless he is along or has given his consent. Violation of this courtesy could lead to the end of a fine relationship."

MINUTES OF THE SPRING MEETING, APRIL 8, 1978

Friday Evening - April 7th

On Friday evening, April 7th, an informal meeting was held to organize the agenda for Saturday. The Treasurer's books were audited and approved. The Credentials Committee met to organize their information on voting delegates for Saturday's meeting.

Opening of Meeting - Credentials Committee

On Saturday Mary Helen Hendry, President, opened the meeting at 9:45 A.M. at the Natrona County School District Office. The officers were introduced: Bob Ellis, First Vice President, Grover Phelan, Second Vice President, Milford Hanson, Treasurer, Judy Pinner, Executive Secretary, and George Brox, Editor. The Credentials Committee verified the voting delegates for each chapter.

Secretary's Report for 1977

Reading of the full report of the 1977 meeting was waived. However, one necessary correction was brought up and passed. This was the ommission of the vote on the proposed constitutional change which would amend the place where the annual Spring meeting is held. At the 1977 meeting an amendment was passed stating that the Spring meeting will be held in Wyoming. This propcsed change has been presented at the Workshop at Rock Springs in January, 1977. All Chapters were to discuss this before the April meeting. At the April 2, 1977, meeting this proposed change was brought up and passed. This will now allow the Spring meeting to be held anywhere in the state. Any Chapters desiring to host the meet should make plans early, preferably the year before so they can be presented at the April meeting.

Treasurer's Report

The Treasurer's Report, as approved by the Auditing Committee, was read by Milford Hanson. This showed a net gain of $366.43, resulting in a balance of $5,032.03. The Foundation report was also read, showing a final balance of $12,270.18. Both reports were approved as read.

Editor's Report

George Brox presented the Editor's Report. He presently is receiving lots of material for publication. The biggest problems at the moment are the subscriptions particularly of non-Chapter members, and back issue requests. Newsletters from each Chapter were strongly encouraged.

Librarian's Report

Although we have no official Librarian at present, all matters are being kept at the University, Department of Anthropology. Judy Pinner has been trying to organize both the old books and the new exchange publications being received. An occasional list of newly arrived publications will be published in The Wyoming Archaeologist. All materials are available for use by students and members of the Society.

Standing Committee Reports

Standing Committee reports started with Larry Osborne on the educational film proposed two years ago. At this time, no further work has been done, mainly due to the expected high cost of such a project.

B.L.M. District Archaeologist

Ann Johnson, the new Casper District B.L.M. Archaeologist was introduced and welcomed to Wyoming.

Constitution and By-Laws

Henry Jensen presented a discussion on the difficulty of changing the Constitution and By-Laws. He proposed a change, to be voted on at next year's Spring meeting, allowing action at any regular meeting on either the Constitution or By-Laws. This motion was seconded and approved.

Henry then raised the point of the inflexibility of the date of the Spring meeting. This year's meeting is actually being held unconstitutionally (the second weekend of April) due to the unavailability of both Dr. Frison and Dr. Advasio, our banquet speaker, on the scheduled first weekend. Henry proposed a change allowing the meet to be held anytime in April. The exact date and place (chosen from the bids by Chapters) would be set six months in advance by the Executive Board. Discussion followed, during which it was pointed out that this type of change can be accomplished by passage of a resolution. That is, the By-Laws don't have to be amended. Henry's proposal, in the form of a resolution, passed 10-4.

This led to a discussion of the confusion concerning the Constitution and By-Laws. A committee was appointed to look over both documents carefully and to present the needed changes at the 1979 Spring Meeting. The committee is: Imogene Hansen, Bob Ellis, John Albanese, and Bob Randall.

Subscription Chairman

Jim Adams moved that a Subscription Chairman be appointed to aid the Editor and relieve the Executive Secretary of these duties. The discussion which followed brought out several points where difficulties arise, such as subscriptions being received as late as October for the current year. Jim's motion was approved. The Editor will appoint a Subscription Chairman, preferably from the same Chapter, who will be voted upon by the Executive Board.

Summer Meeting Invitation

A letter from the Fremont Chapter was read. This is an invitation to a no-host dinner meeting at Bear Creek, near the Helen Lookingbill Site, on the first weekend of August, 1978. At present, Dr. Frison plans to be there at that time. No other invitations were presented. A motion was made and approved to accept the Fremont Chapter's invitation.

Workshop Advertisement

It was brought up that our workshops have received no advertising for the public.

Craig Casner suggested that this should be done, preferably in the form of news releases. Discussion which followed pointed out some of the difficulties, including the limit on space at most workshops. However, depending on the nature of the workshop, there are times when the public would be welcome. A motion was made and approved having either the Executive Secretary or the Department of Anthropology send out news releases prior to workshops, when it is appropriate for the public to be invited.

Nominating Committee

The Nominating Committee, headed by George Brox, recommended the following:

President: Mary Helen Hendry
First Vice President: Bob Ellis
Second Vice President: Grover Phelan
Appointments -
Treasurer: Milford Hanson
Executive Secretary: Judy Pinner

There were no nominations from the floor. A motion was made and passed accepting the Committee's recommendations.

Raffle Funds to Mulloy Scholarship

Helen Bryant presented a beautiful steatite mask she carved. Donated by Helen, this is being raffled off, at $1 a chance, with the proceeds to go into the Mulloy Scholarship fund.

Casts Raffled

Milford Hanson presented the case of casts he has donated to the Society. These included replicas of artifacts from the Horner and Anzick Sites. The case is being raffled for $1 a chance, with the money to go to the Society.

Memorial to Art Lookingbill

The Mulloy Scholarship has been presented with extra funds this year. These are from a Memorial Fund for Art Lookingbill set up by the Fremont Chapter. Art had been a highly regarded member of that Chapter for several years. The stipulations on the memorial are that this extra money be used as an added amount for the Mulloy Scholarship this year only.

Dr. Frison's Review of the Year

Dr. Frison talked of the past year's activities and problems. Comments on the crowded conditions at the Arts and Sciences Building were made. Plans for the move to the Old Law Building are still uncertain. A lot of remodeling needs to be done, both for the facilities needed and to meet safety and handicap regulations. Even after the move the needed room will not be available. A steel storage building has been promised by the University, but no definite plans have been made.

The University has supported another position for an archeologist but so far nothing has happened. There is also confusion of Dr. Frison's position, both the University and the State. When the State Archaeologist's position was created in 1967, no clarification

was made as to what he is responsible for or what authority he has. A recent audit of the Recreation Commission wants clarification on this point, but the University is hesitant. Dr. Frison has been placed in the situation, at times, of having a possible conflict of interest due to this situation.

Comments were made on the amount of support received from various agencies in the State. This ranges from very good from the Recreation Commission to actual circumvention of the law whenever possible by certain other groups. Outside of Wyoming many look upon our state as a "happy hunting grounds". Dr. Frison has had to step on some toes to minimize the number of unqualified personnel showing up in our state.

The proposed Occasional Papers are now a reality, with the Little Goose Creek Report being on sale now. Plans for future issues include one on the Dead Indian Creek Site and the Helen Lookingbill Site.

A quick review of the year's work included comments on Agate Basin, the Horner Site, the Carter-Kerr McGee Site, Little Canyon Creek Site (which may be pre-Clovis), Bush Shelter, and the Helen Lookingbill Site. Data from Medicine Lodge Creek is being readied for publication next year.

In his final comments Dr. Frison asked for help from the Society in obtaining statewide support for archaeology. This is vital in view of the rapid influx of large numbers of people, when it becomes easy to push archaeology aside if popular and legal support is not maintained.

Comments by George Zeimens

George Zeimens reported on the survey crew's activities during the past year. Thirty to sixty drill sites per week have been checked. This has made it possible for several students to get some training and experience, as well as earning some money. However, recent problems have arisen with the B.L.M. requirements. Several large surveys have also been done.

Further work at the Greyrock's Sites has revealed as many as twenty components, including a 5000-8000 BP level.

Paper by Kim Smiley, Recipient of the 1977 Mulloy Scholarship

Chuck Reher was presented to introduce papers being given. First, Kim Smiley, recipient of the 1977 Mulloy Scholarship, presented "Changes in Holocene Bison Cursorial Ability". This paper attempts to show behavioral changes in both man and bison based on bodily changes of the bison. It appears that earlier buffalo were larger and had greater running ability. Arroyo traps, procuring small numbers of animals, were common. Through time the bison size decreased, as did the running ability. This led to formation of larger herds for protection, which in turn caused man to use the jump or pound as the preferred method of kill.

Further Papers

Afternoon papers presented were led off by Rhoda Lewis, who discussed the

"Carter-Kerr McGee Methodology". One of the main items was the use of overhead photographs of each unit. These were developed at the site and then used for mapping.

Mary Lou Larson presented "The Charity Site: A Plains Archaic Site in Southeast Wyoming". She discussed the nature of the site, the method of selecting portions to be excavated, and different approaches to excavation of the same type of feature (in this case, firehearths).

William Tibesar presented a report of the Greyrocks Site. This nicely stratified site will be impacted by construction of the Missouri Basin Power Project at Wheatland. The site has yielded, among other things, pottery of the Woodland type.

A report on the stratigraphy and age of materials from Little Canyon Creek Cave was presented by Leslie Shaw. Due to discontinuities, the stratigraphic sequence of the cave is very complicated. Part of it appears to be older than 12,000 years. Good material from the Altithermal period is present.

Bill Latady also talked about Little Canyon Creek Cave. He has studied the large faunal remains and sees evidence for seasonal occupation of the site.

Judy Pinner presented "Firehearth Excavation Methods", a talk on the attempts to gain the greatest body of data with the least expenditure of time and money when digging firehearth sites.

Larry Todd presented "Long's Butte # 2: An Example of Controlled Surface Collection". He explained how the site was carefully surface mapped and collected. From this information several theories concerning the site purpose and usage can be proposed, such as use of the site at particular seasons as evidenced by the source of lithic materials.

John Albanese discussed the Geochronology of the Powder River Basin, with particular emphasis on the Holocene Period. John also demonstrated how archaeology and geology interact to the benefit of both. The rapid erosion and deposition of the area has produced several distinctive terraces such as the Lightening and Moorcroft.

Chuck Reher presented material on the River Bend Site, a protohistoric village on the outskirts of Casper. Work done at this site by both the University and Casper College led to recovery of much information on this site. Surprisingly, few sites of this age have been found and excavated in Wyoming, so this helps fill a gap in our knowledge of the area.

Jim Adams presented a complete report on the Smiley Springs Survey done by the Fremont Chapter during the past year. This well executed project included research on the geology and vegetation of the area as well as any historical significance. The on-the-ground survey revealed the existence of several prehistoric sites, which add significant information on the area to the State Site files.

Jack Hofman presented a talk on the Spiro Mound Site in southeast Oklahoma. There are both burial and village components in this site, which dates from 1150-1400 AD. A history of the management (mismanagement ?) of the site was also presented, clearly demonstrating how improper handling of archaeological materials can be highly destructive.

Wrapping up an enjoyable afternoon, Julie Longnecker's paper on the Burials at Ft. Phil Kearny showed how a research design must be changed as information demands. What was originally thought to be the graves of several men previously unaccounted for, turned out to be horses buried by a local rancher!

Closing Comments

Closing comments included the plans to publish Chapter reports in The Wyoming Archaeologist. Dr. Frison's new book, Prehistoric Hunters of the High Plains, is now out and order blanks are available. Kim Smiley outlined the student publication presently being worked on. Orders can be placed through the Department of Anthropology. The Little Goose Creek Report is now on sale for $1.50.

The Montana Archaeological Society state meet will be in Bozeman on April 15. The Bivaneses invited everyone to a cocktail party at their home tonight, following the banquet.

The meeting was adjourned.

Banquet, Awards Presented

At the banquet, held in the Drawbridge Room of the Town House Hotel, the Mulloy Scholarship was awarded to Mary Lou Larson who plans to start graduate studies next fall in California. The extra money in the Scholarship fund, collected by the Fremont Chapter in honor of Art Lookingbill, was presented to Julie Longenecker. Julie will also start graduate studies in the fall.

The Golden Trowel Award was presented to Irene Morgan for her many efforts in furthering archaeology in Wyoming. Due to her absence, Judy Pinner was very proud to accept the award for Irene.

Meadowcroft Rockshelter

Dr. James Adovasio of the University of Pittsburgh, presented a very lively talk and slide show on Meadowcroft Rockshelter near Pittsburgh, PA. This site was excavated with painstaking care, employing such things as light systems which provided shadow-free working in all areas of the cave. The site appears, at present, to be the best candidate for proving the existence of man in the New World before 11,500 BP.

A very pleasant cocktail party at the home of John and Evelyn Albanese brought the Wyoming Archaeological Society 1978 Spring Meeting to a close.

Respectfully submitted, Judy A. Pinner, Executive Secretary.

ANNUAL REPORT - FREMONT COUNTY CHAPTER - 1978
By: Janet Johnson, Secretary

Membership: 13 Family Members and 17 Single Members.

Elected Officers:

President:	Dr. Ray Gosset
Vice-President:	Jim Adams (Resigned)
Secretary:	Janet Johnson
Treasurer:	Ora Hawkins
Appointed Officer:	Helen Lookingbill (Vice-President)
Directors:	LaVerda Mann, Irene Morgan, Harry Fabrizius, Bob Rudd.

Meetings: 2nd Wednesday - alternating between Lander, Lander Firehall, and Riverton, Dobler Room, Central Wyoming College.

The January meeting consisted of setting a special casting meeting for February 12th in Lander. February 18th was the date for a workshop in Laramie where Bruce Bradley would demonstrate flint knapping on Paleo style lithics. During the January meeting Jim Adams, Vice President, resigned.

Jim Adams presented an interesting program on Indian Ruins of the Southwest. Slides were shown on many ruins around the Mesa Verde area in Colorado. Slides were also shown on a collection of artifacts at Trail Lake and Torrey Lake in Fremont County.

The February meeting consisted of a report by Irene Morgan and Mr. and Mrs. Jim Adams that the June Survey at Smiley Springs was completed and that it was a 14 page report. The Board of Directors met and Helen Lookingbill was appointed Vice-President. Larry Osborne presented two interesting films: Archaeological dating: Retracing time and Rock Paintings of Baja, California.

Special Meeting - February 12th:
A casting workshop was held at the Lander Firehall with eleven members making molds and casts for the Chapter's project of display in Riker frames with cards giving types, measurements, material used, and area where found.

It was decided at the March meeting to purchase a copy of the Muddy Ridge Survey to be placed in the Library at CWC and to present memorial money to State Archaeological Scholarship Fund to be presented to student as coming from the Art Lookingbill Memorial Scholarship Fund from the Fremont County Archaeological Society. It was also decided to write a letter to the President of the State Archaeological Society to be read at the State Meeting to invite them to a No-Host Summer Meeting at Bear Creek and to have Jim Adams make a paper on the Smiley Springs Survey to be presented to the State Meeting. An informative program was presented by Dan Hutchison from Cheyenne, State Archaeologist for the B.L.M. Jim Adams also presented slides on Bruce Bradley showing how to make a Folsom Point.

At the April meeting reports were given by members on the State Meeting in Casper. Our own Society member, Irene Morgan, received the "Golden Trowel" award. Mary Lou Larson and Julia Longnecker were recipients of the $400.00 from the Art Lookingbill and Mulloy Scholarship funds. A very interesting and educational program was presented by Charlie Love on Mexican-Yucatan-Central American Cultures.

A field trip was planned for June 24th at the May meeting. An invitation was received to attend Judy Pinner's graduation from the University of Wyoming on May 21st. A program was presented by three of our members, Ken Johnson, Gene Iverson, and Jim Adams, who are also members of the Gem & Mineral Society. A number of mineral and artifacts were displayed from several states.

Field Trip - June 24th. Nine members, two children, and two guests, Ginger and Eric Boyer, met at the Husky Station in Lander and were led by Jim Adams to a beautiful Quarry Site below Beaver Rim about three or four miles west of Highway 287. The site extended over two miles along the top of a rocky bluff in the midst of Juniper trees. There were quantities of white quartzite flakes, four or five fire pits and a few artifacts. In exploring the area, Jim and Lucille Adams discovered some petroglyphs and took pictures of them. Some members spent the night but no artifacts were found on the 25th.

August 4, 5, and 6 - Summer meeting of State Archaeological Society at Bear Creek: Forty members representing chapters from Cheyenne, Casper, Rawlins, Saratoga, Lander and Riverton, and one guest, Mary Sucke, a former member from Longmont, Colorado, George and June Frison and Judy Pinner from Laramie drove to the Lookingbill Site. Dr. Frison reported that it had been too wet to get any work done at the Site, which disappointed everyone. We then visited a quarry site, where several tools were found. Sheep traps were also visited in the area. A wonderful trip to view the petroglyphs at Trail Lake was guided by Jim and Lucille Adams. Over the three days several nice artifacts were found and a very old buffalo bone was found.

In September it was reported that cataloging was being done by the casting committee. Irene Morgan reported that we were invited by George Zeimens to go on a survey in the Sand Draw area at the Woodard Site the weekend of September 16th. A letter is to be written by Dr. Day, President of CWC requesting classes in field archaeology. The program was presented by Janet and Ralph Johnson on their tour in July of a dig at the McPhee Site at Dolores, Colorado. Slides were shown. The most interesting thing was of a burial of a two year old child found while they were at the site.

The October meeting consisted of several committee reports. One member met George Zeimens at the Sand Draw Survey on September 16th and five members from Lander met George for a trip to Smiley Springs on September 18th. Larry Osborne presented filmstrips, Concepts of Archaeology, How the Indians Discovered a New World, Man on the Move, and An Island World - Polynesia for the program.

Two films were the program for the November meeting. They were: Snake Town and The Big Dig.

Officers for 1979 were elected as follows:

President: Dr. Burt Stockhouse, 400 N. First, Riverton, Wyoming, 82501 telephone 856-2460.

Vice-President: Helen Krause, 1621 Gannett Drive, Riverton, Wyoming, 82501, telephone 856-9067.

Secretary: Janet Johnson, Route 1 - Box 68, Riverton, Wyoming, 82501, telephone 856-5222.

Treasurer: Doris Rudd, 776 Cliff, Lander, Wyoming, 82520, telephone 332-2664.

The annual Christmas dinner of the Fremont County Chapter was held at Svilar's in Hudson on December 8, 1978, at 7 P.M. with 17 members and two guests, Mr. and Mrs. Jerry Heckart, in attendance. Visiting was enjoyed by the group following the dinner.

We hope that 1979 will be a good year for all of you and Happy Hunting!

ALONG THE CHEROKEE TRAIL

SUMMER SURPRISE

by Sophia Swanson

Artifacts are my passion. Fishing is not. But who would turn down the chance for a summer Sunday's outing in the mountains with one's daughter and her family? They can fish. I will wander.

My wanderings took me along a deer's watering trail leading to the stream the family was fishing and, from years of habit, my eyes automatically swept the ground. Ah ha! Evidence of early man, as Ada Jackson would express it! In the path is a chipping. I bent over to pick it up and found it was a little more difficult to grasp than I had anticipated. Any intelligent primate can use a stick for a tool so I looked about for a sharp one. I dug and scraped at the soil. It seemed indeed a large flake. A little more digging and I saw it was worked on the edge and of very nice material, some sort of red-brown agatized chert was my very amateur guess.

Further digging. To put it mildly, I was getting interested. I threw down the stick in favor of a sharp rock and tore at the earth like an irritated badger. Success at last. My artifact came to light and proved to be a nearly perfect knife of the late archaic. Only the upper corner that was exposed to hooves of animals has a tiny corner missing. It had been buried in the ground at a verticle angle and escaped damage.

My excited yell probably startled the family into thinking I'd broken an ankle, but they are as enthusiastic as I over Indian tools, so the sympathy I received was all of the happy kind and I had another fine artifact to add to my collection.

THE DUNLAP - McMURRY BURIAL (48 NA 67)
Natrona County, Wyoming

By George Zeimens, Danny Walker, Thomas K. Larson,
John Albanese and George W. Gill

Prepared Under Cooperative Agreement Between the Wyoming Recreation Commission and the Wyoming Highway Department

Cultural Resource Report Project F-034-1 (26) U.S. Highway 20-26, Natrona County

November, 1978

INTRODUCTION

What appears to be an Early Plains burial was discovered during highway construction (Wyoming Highway Department Project Number F-034-1 (26)) near Casper, Wyoming. The site is situated on the second terrace above a tributary to Six-Mile Draw approximately five miles west of Casper along the Casper-Shoshone Highway (U.S. 20-26). It is approximately 150 yards south of the present right-of-way in the NE 1/4 of the NE 1/4 of section 24, T. 34 N., R 81 W., Natrona County (Figs. 1 & 2). The landowners are Robert T. Schnieder and Jack Wilhelm of Mills, Wyoming.

The burial was uncovered on September 18, 1975, by the McMurry Brothers Construction Company as they stripped top soil to be used for a detour around a bridge construction project. The scraper operator and highway department inspector became aware of the bones as soon as they were uncovered and halted work in that area. Several fire pits had also been exposed and were flagged so they would be avoided by the heavy equipment. Highway Department officials then contacted the Office of the State Archaeologist in Laramie, Wyoming. The investigators consisted of George Zeimens, Danny Walker, Thomas Larson, George Gill and John Albanese, all contributors to portions of this report. Also involved in the excavations were Evelyn Albanese, Larry Todd, Pamela Gill, Suzanne Araas, and Ruthie Shepard.

The site (48 NA 67) has been named the Dunlap-McMurry Site for its discoverers, John Dunlap of the Wyoming Highway Department and the McMurry Brothers Construction Company. It was their concern and quick action which prevented total destruction of the site.

NATURAL SETTING

The Dunlap-McMurry Burial Site lies on a Holocene alluvial terrace located adjacent to a second order perennial stream 650 feet east of the burial. The topography at the time of occupation was very similar to that of the present, i.e., a broad, flat surface just above the stream level. Whether the stream was perennial or ephemeral at the time of the burial is not known.

The stream is an unnamed tributary to Six-Mile Draw, which in turn flows into Casper Creek about seven miles north of its confluence with the North Platte River. The flora of the area includes sunflower (Helianthus annuus), big sagebrush (Artemisia tridentata), birdsfoot sagebrush (A. pedatifoda), Gardner saltbush (Atriplex gardneri), plains prickley pear (Opuntia polyacantha), cattails (Typha sp.), small soapweed (Yucca glauca), and numerous grasses, including common reed (Phragmites communis), Indian ricegrass (Oryzopsis hymenoides), bottlebrush squirreltail (Sitanion hystrix), blue gramma (Bouteloua gracilis), prairie sandreed (Calamovilfa longifolia), and sand dropseed (Sporobolus cryptandrus) (Beetle and May 1971).

Several mammals and birds are common or occur occasionally in the immediate vicinity of the site. Mammals found in the region include shrews (Sorex spp.), Audobon's cottontail (Sylvilagus audobonii), white-tailed jack rabbit (Lepus townsendii), ground squirrel (Spermophilus richardsonii and S. tridecemlineatus), prairie dog (Cynoms leucurus), pocket gopher (Thomomys talpoides), pocket mice (Perognathus spp.) kangaroo rat (Dipodomys ordii), deer mouse (Peromyscus maniculatus), grasshopper mouse (Onychomys leucogaster), woodrat (Neotoma cinerea), prairie vole (Microtus ochragaster), muskrat (Ondratra zibethica), coyote (Canis latrans), red fox (Vulpes), badger (Taxidea taxus), skunk (Mephitis mephitis), bobcat (Lynx rufus), mountain lion (Felis concolor), mule deer (Odocoileus hemionus), whitetail deer (O. virginianus), wapiti (Cervus elaphas), and pronghorn (Antilocapra americana) (Long 1965). Historically, the grizzly bear (Ursus arctos), wolf (Canis lupus), bison (Bison bison ssp.) and mountain sheep (Ovis canadensis) were also present (Long 1965).

Common birds near Casper include Canada goose (Branta canadensis), mallard (Anas platyrhynchos), pintail (A. acuta), common merganser (Mergus merganser), rough-legged hawk (Buteo jamaicensis), golden eagle (Aquila chrysaetos), bald eagle (Haliaeetus leucocephalus), marsh hawk (Circus cyaneus), American Kestrel (Falco sparverius), great horned owl (Bubo virginianus), killdeer (Charadrius vociferus), red-shafted flicker (Colaptes auratus), Downy woodpecker (Dendrocopos pubescens), horned lark (Eremophilia alpestris), black-billed magpie (Pica pica), crow (Corvus brachyrhychos), raven (Corvus corax), black-capped chickadee (Parus atricapillus), American robin (Turdus migratorius), bohemian waxwing (Bombycilla garrulus), mountain bluebird (Sialia curracoides), redwing blackbird (Agelaius phoeniceus), western meadowlark (Sturnella neglecta), tree sparrow (Spizella arborea), Harris sparrow (Zonotrichia querula), cardinal (Cardinalis cardinalis), and lapland longspur (Calcarius mccownii), (American Ornithological Union 1957, 1974).

Lower vertebrates found near Casper include several reptiles, amphibians and fish (Baxter 1946, Stebbins 1966, Baxter and Simons 1970). These include the prairie rattlesnake (Crotalus viridis), leopard frog (Rana pipiens), bull snake (Pituophis melanoleucus sayi), Rocky Mountain toad (Bufo woodhousei woodhousei), painted turtle (Chrysemys picta), short horned lizard (Phrynosoma douglassi), common garter snake (Thamnophis sirtalis), creek chub (Semotilus atromaculatus), white sucker (Catostomas commersoni), longnose sucker (Catostomas catostomas), black bullhead (Ictalurus melas), and plains killifish (Fundulus kansae).

The above is a preliminary flora and fauna list for the Dunlap-McMurry Burial site region. It was abstracted from the references cited, includes limited personal observations, and it is not meant to be complete. Rather, it reflects those plant and animal resources which may have been utilized in some manner by the prehistoric inhabitants of the area.

GEOLOGY OF THE SITE

A brief geological study of the site area was conducted while the site was being excavated. The investigation was of a reconnaissance nature only. No profile trenches were dug and interpretation of the sedimentation is based solely on limited vertical exposures.

Bedrock in the area is the Steele Shale of upper Cretaceous age. It is not exposed at the site and Holocene sediments cover the surface. The Holocene sediments are light tan, poorly sorted, very calcareous, coarse, bimodal sands with thin lenticular stringers of arkosic gravel. A lithologic description of the Holocene sand samples can be found in Appendix 1. The human burial was enclosed in the aforementioned sand. The total thickness of sand is not known but based on evidence from limited exposures, it probably exceeds five feet. Bedding structure in the sands, as observed in limited vertical exposures, is massive with some vague horizontal bedding.

Figure 3 is a topographic map made after earth moving machinery had altered the original terrain. It is estimated that the original land surface was lowered two to three feet by machinery excavation. The location of the burial and numerous firehearths are also shown in Figure 3.

Figure 4 is a topographic profile across the site area. Three terrace surfaces are well developed on the east side of the stream. The lowest and youngest terrace (Terrace 0) lies six inches above the stream surface. It is approximately 160 feet wide and much of the terrace surface is "swampy" and covered with cattails and tall grass. This youngest terrace surface probably correlates with the Lightning Terrace described by Leopold and Miller (1954). The terrace is less than 700 years old (Albanese and Wilson 1974:17). Terrace 1 lies five to six feet above Terrace 0 and is Holocene in age. The burial was located approximately two to three feet below the top of Terrace 1. Terrace 2 is located four to five feet above Terrace 1 and forms a broad, very flat geomorphic surface that extends two and one-half miles to the east. This third terrace is Pleistocene in age. From the very limited investigation of the area, it was not possible to determine whether these terrace treads are erosional or depositional surfaces.

A broad, very flat, low relief valley extends one-half mile to the west of the burial site. This "flat" valley floor (see Fig. 1) dips to the south at the rate of one foot of drop per 400 feet of horizontal distance. This "valley floor" surface correlates with the Terrace 1 surface and has been modified by erosion. Broad gentle swales and linear mound-like "highs", usually with less than six feet of relief, parallel the two drainages present on both sides of the valley (see Fig. 1). The burial site is located

on one such linear "high" that has six feet of vertical relief.

An extensive irrigation system is present in the general area. The question of whether some of the water in the perennial stream adjacent to the burial is due to seepage from the modern irrigation system or is wholly natural in origin would require further investigation. Thus, it is not possible to say that the modern perennial stream existed in the area at the time of the Indian burial. Stream flow may have been perennial or intermittent at that time.

THE DUNLAP - McMURRY BURIAL

The main feature of the site was a prehistoric Indian burial containing the human remains of an old age (ca. 50 years) adult male. The skeleton is complete except for parts of the hands and feet that were removed by the scraper at the time of discovery. The skeleton was fully flexed, interred in a shallow pit dug into the Holocene sand terrace (Terrace 1, see above). The head was oriented southeast and the body was lying on its right side with the head lying on the right humerus. The left hand was under the right femur and the right hand was by the face (Figs. 5 and 6).

The dimensions of the interment were twenty-four inches in a southeast-northwest direction and sixteen inches in a northeast-southwest direction. Thickness of the burial was eight inches. Grave dimensions were thirty-five inches north-south and twenty-two inches east-west. Its total depth is unknown. The shape was an oval shallow pit dug into the sand deposits. The burial was surrounded by a different type of matrix, much more compact than the sand. This was probably sandy mud that was deliberately packed around the body before the pit was refilled. No grave goods were found with the skeleton.

ASSOCIATED FEATURES

Associated features include a minimum of 60 fire pits scattered over an area approximately 100 yards square. This is the total area where overburden was removed by construction operations. An area northeast of the site was covered with topsoil from the operations and so it is unknown if the site extends in that direction. Many of the fire pits were partially destroyed by construction activities before the archaeological crew arrived but most of them were still visible. Most of the pits excavated were rock-lines, bowl-shaped pits containing flecks of carbon but usually no bones, seeds, or artifacts. In most cases depth could not be determined because the top portion of the pits were removed by heavy equipment. At least one bell-shaped pit was present which contained fragmentary burned bone (probably Bison bison ssp.), fragments of fresh water mussel shell, small pieces of fire cracked rock, and several pieces of burned roots, probably sage (Artemisia sp.). The diameter of this pit at the surface was twenty-one inches by twenty-three inches, the depth was fourteen inches, with the bell-shape extending beyond the maximum width of the lip about two inches in all directions. The exterior walls of the pit were highly oxidized. Oxidation along with fire fractured rock, which apparently lined the bottoms of the pits, suggest the pits were heated to extreme temperatures. The fill was very disturbed by rodent

activity and, in fact, a skull and limb bones of a groundsquirrel (Spermophilus cf. richardsonii) were found in one of the rodent burrows within a pit.

RADIOCARBON DATES

Charcoal samples from two of the excavated fire pit features were submitted for dating. The first of these (R.L. 543) yielded a date of 5250±150 years B.P. or 3300 B.C., while the other sample (R.L. 651) was dated at 5350±160 years B.P. or 3400 B.C. Chronologically, these dates would place the time of occupation within the Altithermla or Early Plains Archaic Period (Frison 1978:40-46). If these dates are correct, and there is no reason to doubt them, this site becomes particularly unique in light of the fact that there are very few known Early Plains Archaic sites in the basin areas of Wyoming.

ARTIFACTS

Aftifact material recovered on the surface and during testing of the site includes three projectile point fragments, scraping tools, several mano and metate fragments, a problematical carved stone piece (figs. 7 through 10) and a few bone fragments.

The larger point fragment (Fig. 7c) is manufactured from a medium-grained red quartzite. The exact source for this material could not be determined. The closest locality of this general type of material is the Shirley Basin area about forty miles south of Casper but another locality is the Hartville Uplift near Guernsey, Wyoming. The other two point fragments are both of an agate-like material. One (Fig. 7a) is a translucent light brown material, the other (Fig. 7b) is a translucent green and brown "mossy" agate material. The bases of these last two points are missing. None of these artifacts appear particularly diagnostic of any cultural period.

The scraping tools were made from a variety of material types, including a medium grained light red quartzite, a fine grained grey quartzite, a reddish brown banded chert and three varieties of translucent grayish agate (Fig. 8).

The major material type for the manos and metates is sandstone, although two pieces are of a Precambrian schist which can be found only in the Rattlesnake Hills region about thirty to forty miles west of Casper (J.D. Love, Personal Communication). Both manos of the Precambrian schist are highly eroded on their soft surfaces but enough remains to reveal that they bear grinding striations (Fig. 9a). The faces of the larger piece are completely eroded and it could not be determined if they had been used for grinding, however, excellent grinding surfaces appear on the ends. One mano is an oblong, water-rounded river cobble (Fig. 9b). One edge parallel to the long axis has been ground. Striations on the flat grinding edge appear to run in all directions. A second mano is from a very fine grained limey-sandstone (Fig. 9c). This specimen was pecked to a semi-oval shape and both faces were used for grinding across the short axis of the flat surfaces.

It appears that a minimum of six metates are represented in the collection. All

metates were from sandstone with both fine-grained and medium-grained material being used. No complete specimens were found and in no case was complete reconstruction possible. The fragments all appear to be from a basin-shaped form and quite often both faces of the metates have been used.

A small piece (2.0 cm long by 1.4 cm wide by 0.4 cm thick) of modified green Precambrian schist (different from the mano fragments) was found in one of the basin-shaped fire pits. The piece has been notched and grooved (Fig. 10). This is possibly a "gaming piece" of some type. No literature reference to such a piece was found.

Non-intrusive faunal material consists of pieces of Bison bone (Bison bison ssp.), a partial scapula blade of a small artiodactyl, and two distal left tibias of a canid, probably the swift fox (Vulpes velox). A partial ground squirrel (Spermophilus cf. richardsonii) skeleton was found in a rodent burrow in the bell-shaped fire pit described above.

DISCUSSION

No burials from Wyoming other than Dunlap-McMurry are believed to be from the Early Plains Archaic. It is the oldest well dated burial from the state. The McKean skull, a female described by Stewart (1954) is a Middle Plains Archaic specimen approximately 4500 years old, and the Stone Fence Burial (Miller n.d., Gill n.d.) may also be from that temporal period. The Stone Fence skeleton is presently being radiocarbon dated and so will soon provide another well-dated burial. A few more from a little later, in the Late Plains Archaic, are known (Steege 1960, Agogino 1961, Scoggin 1978, Gill 1978a), and some like the Boar's Tusk specimen are even accurately dated (see Gill 1978b). So, even though a few well dated burials are slowly coming in, the one from the Dunlap-McMurry site is still the oldest and perhaps the most important human burial from the State of Wyoming.

Figure 5 shows the Dunlap-McMurry burial and Figure 11 the restored skull. As may be seen from Figure 11, the basic outline and dimensions of the cranium have been restored, and a valuable set of measurements have resulted (Gill n.d.). The bones reveal clearly that the individual was an old male approximately 50-65 years of age at the time of death. Details regarding the inventory of bones, procedures of analysis and features of anatomy are included in Appendix II.

As stated above, none of the projectile points recovered from the site (Fig. 7) are particularly diagnostic. This is due to the fact that all three specimens are lacking bases. Their general size and flaking patterns, however, indicate that they were large dart points, quite likely dating from some time in the Archaic. This would be consistent with the radiocarbon dates for the site. If the points are from the Early Archaic, they were probably large side-notched specimens similar to those recovered at other Early Plains Archaic sites in Wyoming (e.g., Frison et al 1976, Frison 1978).

The scanty chipped-stone assemblage and lack of debitage further suggests Archaic affiliation for the site. This situation also seems to lend credence to the

hypothesis that the Dunlap-McMurry site is a vegetable gathering camp. The lack of sharp cutting and scraping tools together with the general lack of faunal remains indicates that hunting, if engaged in at all, was a very limited activity.

Grinding stones seem to be the real hallmark of the Archaic. The edge-ground cobble specimen (Fig. 10b) may be significant. Mulloy (1958:162) lists edge-ground manos as possibly being diagnostic of the Late Middle (Middle Archaic) Period. Before work at Dunlap-McMurry, edge-ground cobbles had not been found in any other context on the Western Plains and were dated no later than A.D. 658 (Buckels et al, 1963). In the Plateau and Northwest Coast areas they are most common in the Paleo-Indian and Altithermal Periods (Keeler 1973, Sims 1971, and others), but extend into the Late Prehistoric Period.

The function of edge-ground stones is not known. Mulloy (1958:162) says they are probably some kind of tanning stone. This is somewhat inconsistent with his vegetable gathering hypothesis but several other authors also believe they were used in hide preparation (Keeler 1973:53, Lewis 1944:336-338, Sims 1971:22-27). Others believe they were used for grinding roots and berries as opposed to hard shelled seeds (Butler 1962:48) or for processing shellfish (McGimsey 1956:156) or for stiking blades from cores (Crabtree and Swanson 1968:50-58). That they are found with the more common face-ground manos probably indicates that they served for some specialized function. In archeological sites in the Northwest the number of edge-ground cobbles seems to decrease as the number of scrapers increases (Sims 1971:27). Like many tools, they may have functioned for a variety of tasks and to belabor the point at this time will only result in more speculation.

None of the metates could be reconstructed but they all appear to be flat, basin-shaped sandstone slabs. Pecking on the grinding surfaces is evident and probably is the result of attempts to roughen surfaces that become smooth and nonfunctional due to use. Metates are considered to be indicative of vegetable food preparation but are also known to have served for grinding insects and dried meat.

The significance of the notched and grooved piece of schist (Fig. 10) has not been determined. Such items are not common in this area and nothing was found from which to make a comparison.

CONCLUSIONS

It is believed that both the burial and the camp area at Dunlap-McMurry site date from the Early Plains Archaic. Although much of the top soil had been removed before the archeological investigation, there is little doubt that the burial was associated with the fire pit features of the site dated at 3300 and 3400 B.C.

The site was probably occupied by a small nomadic family group on several different occasions. Length of occupation was probably very short and for the purpose of exploiting one or more vegetable food resources which were available on a seasonal basis. During one of the visits, one of the older male members of the group died and

was buried in a shallow grave. No offerings or personal items were included with the body.

The topography of the site area at the time of prehistoric occupation was similar to that of the present, i.e., a broad flat plain adjacent to and a few feet above a stream. The Holocene sediments in the site area are probably fluvial in origin. This is suggested by the presence of arkosic gravel lenses in the sand. The sand and conglomerate were probably derived from nearby Pleistocene terraces which are capped by arkosic gravels and sands.

Due to the efforts of McMurry Brothers Construction Company and the Wyoming Highway Department, the Dunlap-McMurry site has made a significant contribution to the study of the prehistory of this area. The site could have easily been destroyed in a matter of a few minutes by heavy construction equipment. All significant materials have now been removed from the site and are stored at the University of Wyoming Anthropology Department which serves as the official repository for archeological materials from Wyoming.

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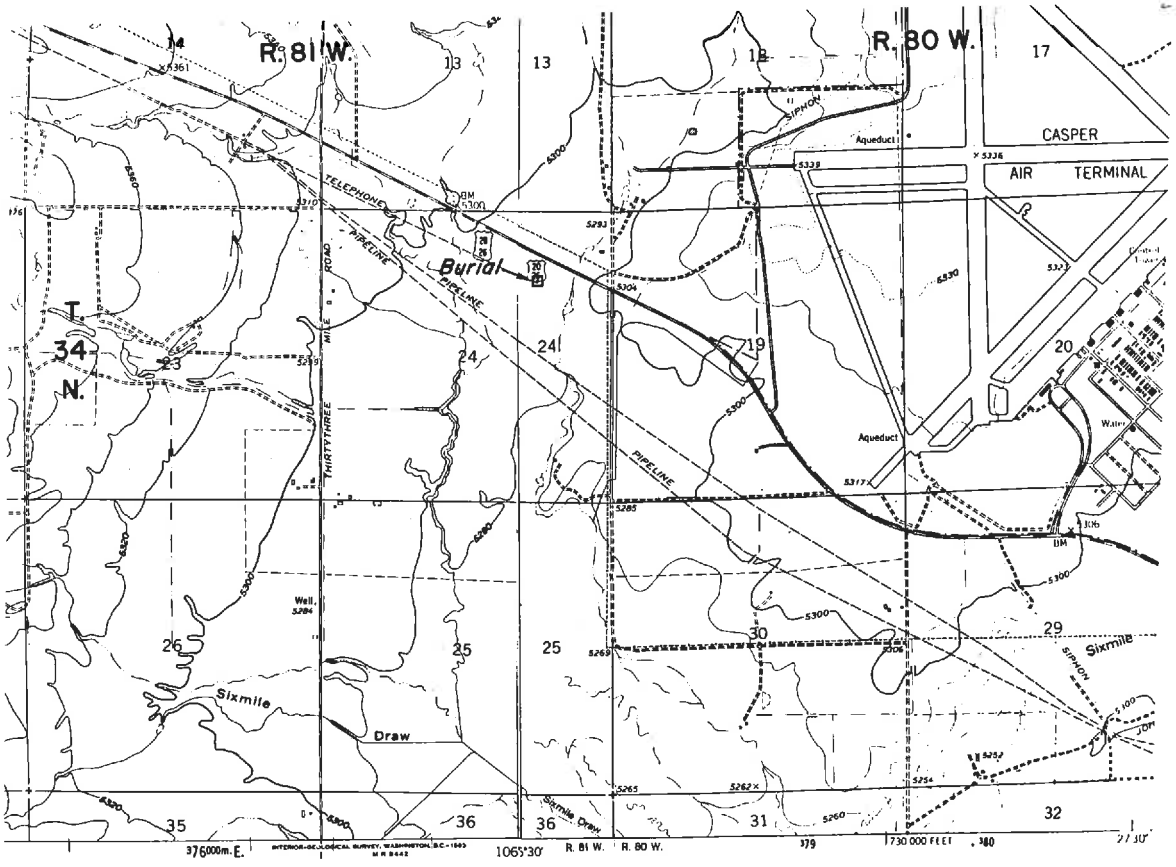

Figure 1: Locality map showing the burial site in relation to regional features.

Figure 2: The Dunlap-McMurry Site (48NA67).

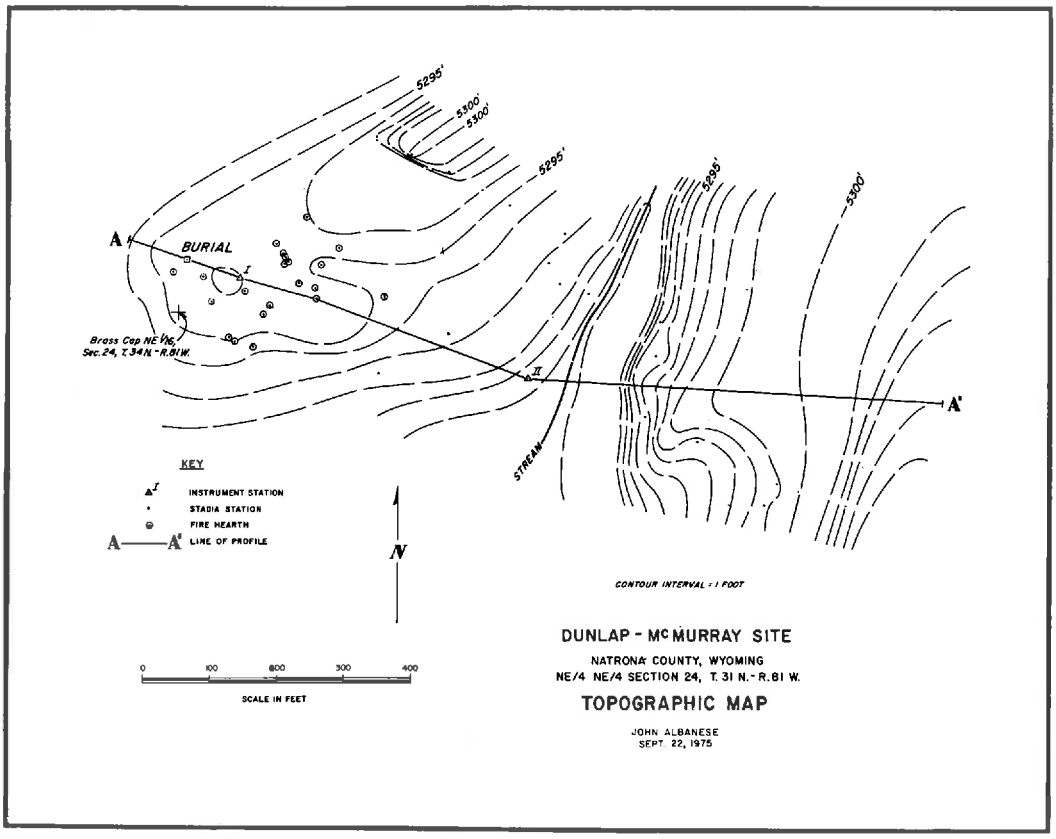

Figure 3: Plane table topographic map showing the location of the burial, the fire pits, and the local topography.

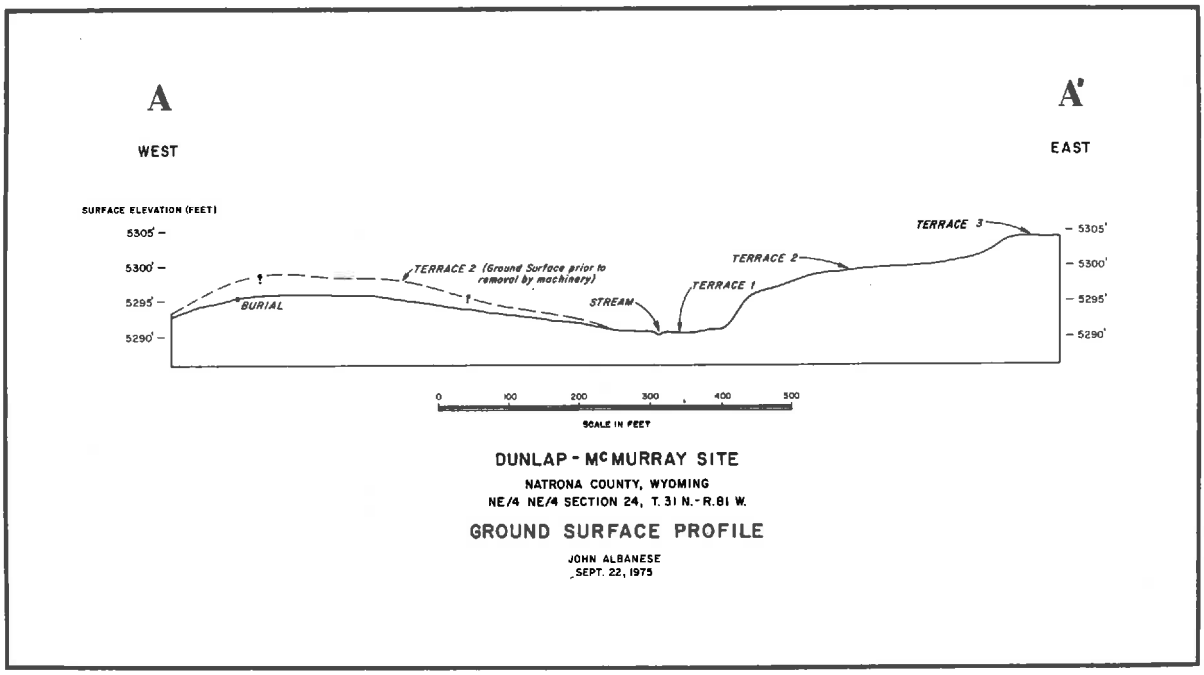

Figure 4: Topographic profile across line A-A' on figure 2.

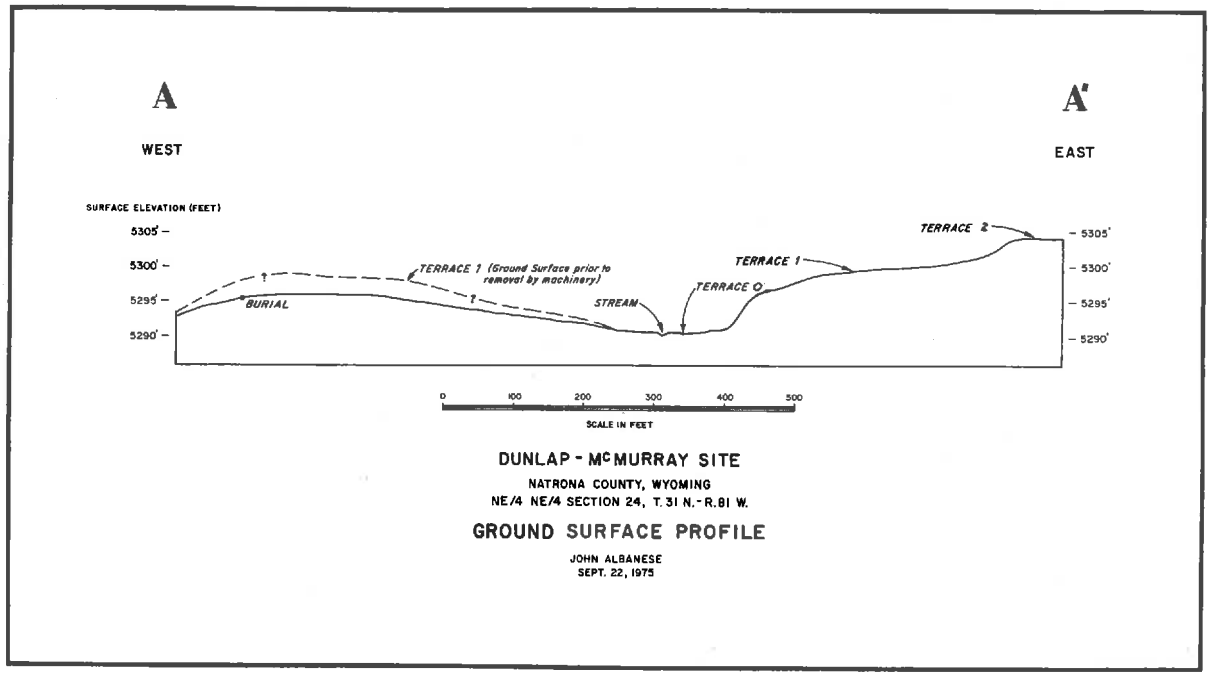

Figure 4: Topographic profile across line A-A' on figure 2.

Figure 5: The Dunlap-McMurry Burial showing position and orientation of the skeleton. Trowel is pointing north.

Figure 6: Cranial fragments of the Dunlap-McMurry skeleton before final restoration and selected long bones.

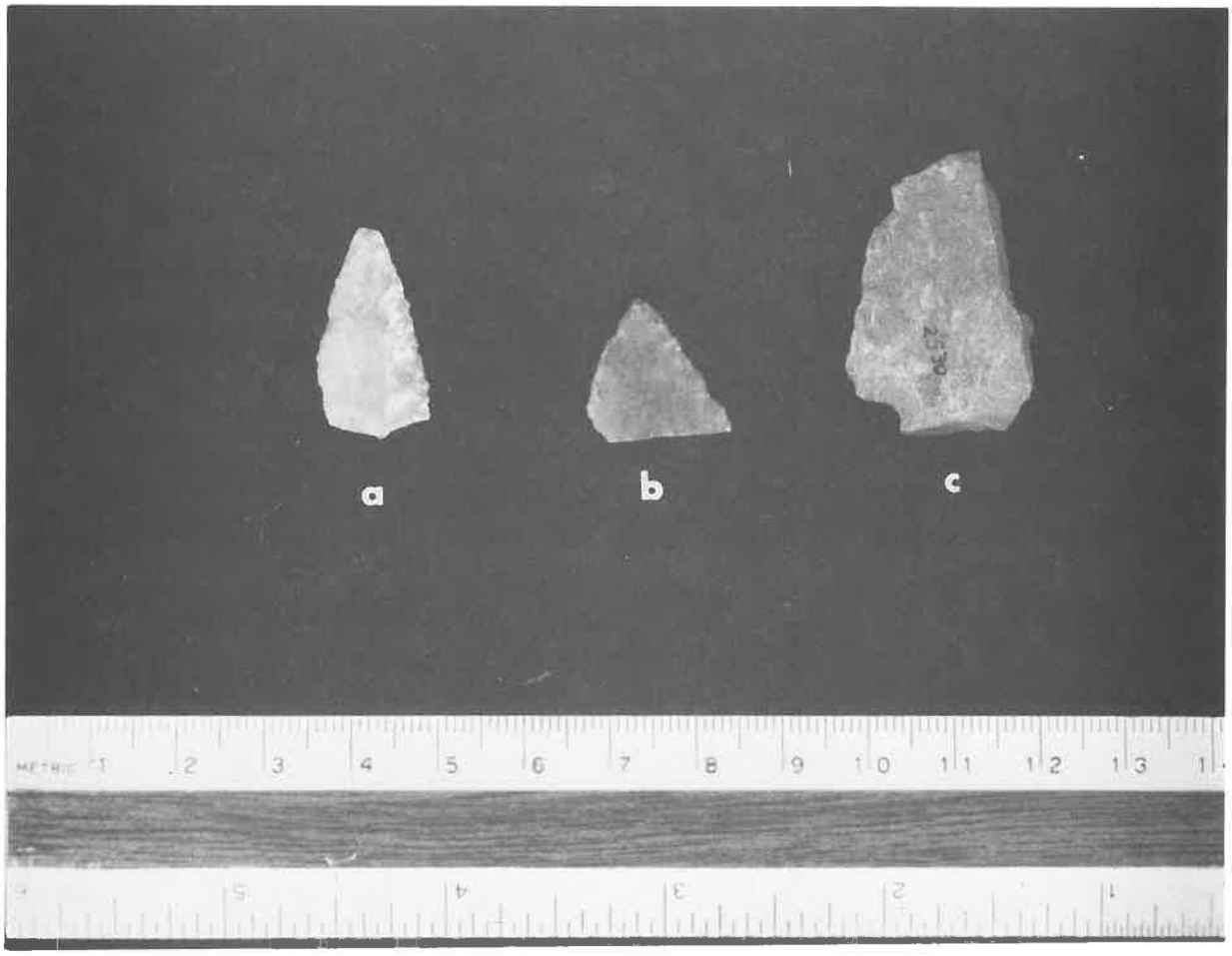

Figure 7: Projectile points from the Dunlap-McMurry Site.

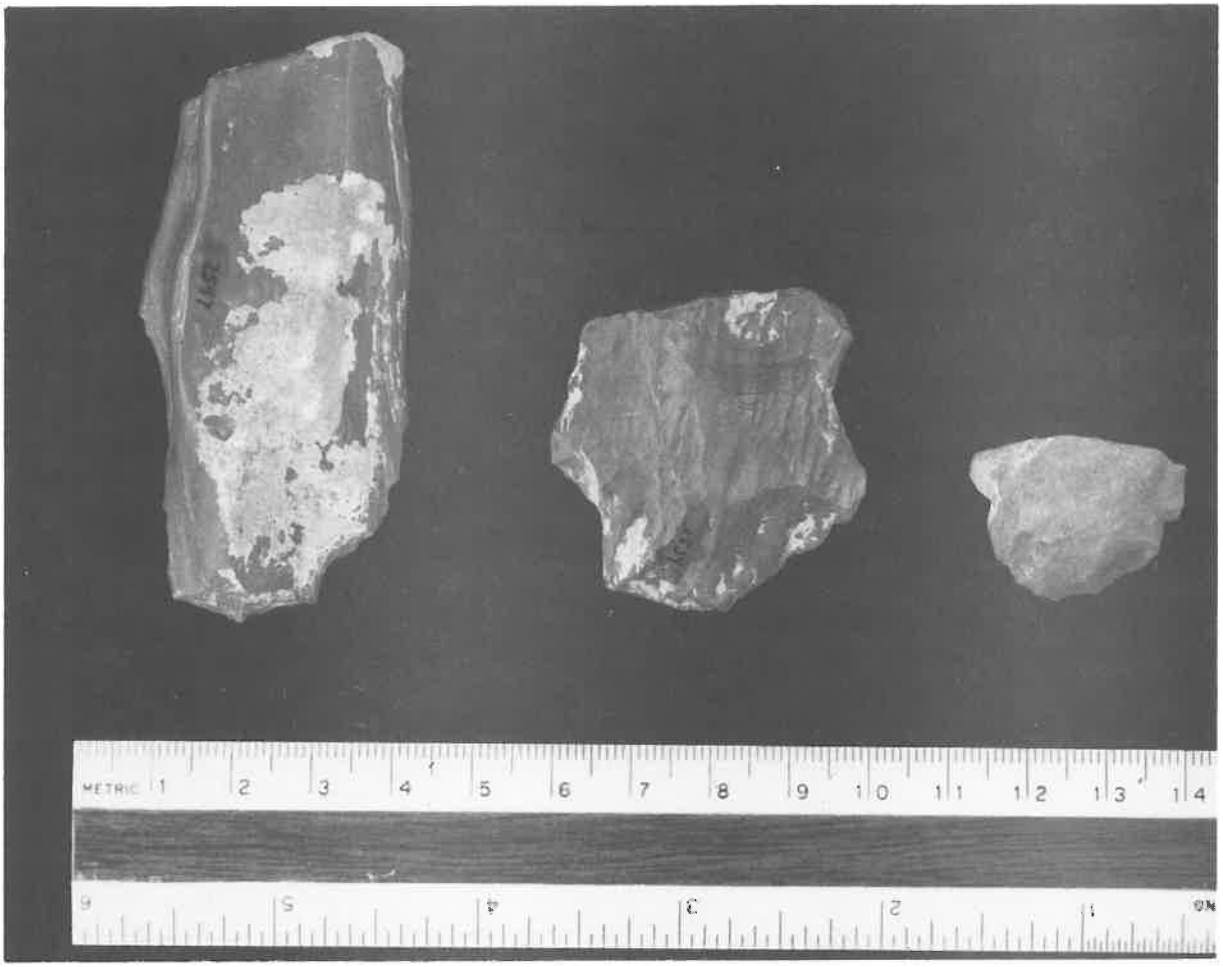

Figure 8: Scraping tools from the Dunlap-McMurry Site.

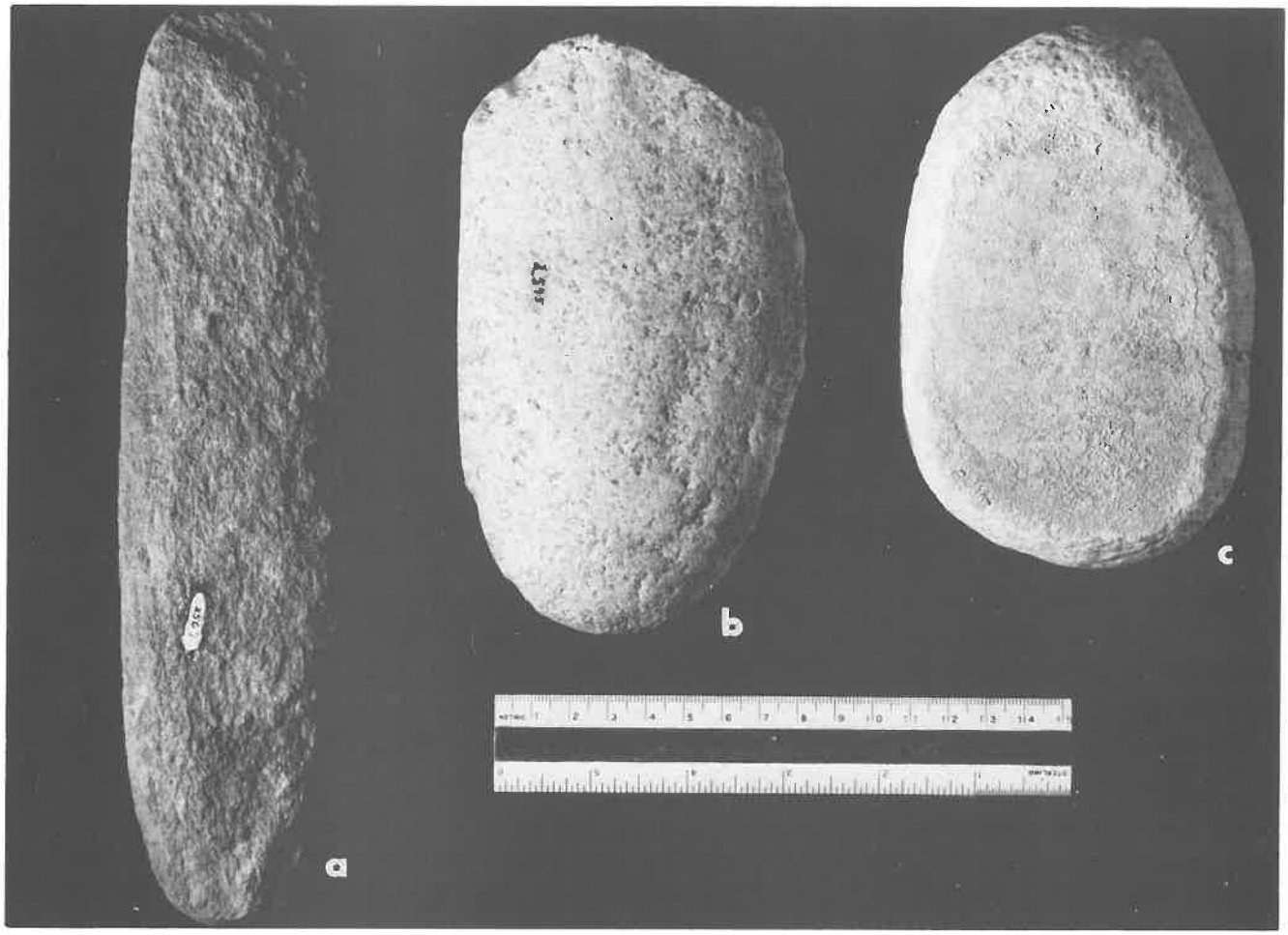

Figure 9: Grinding stones from the Dunlap-McMurry Site.

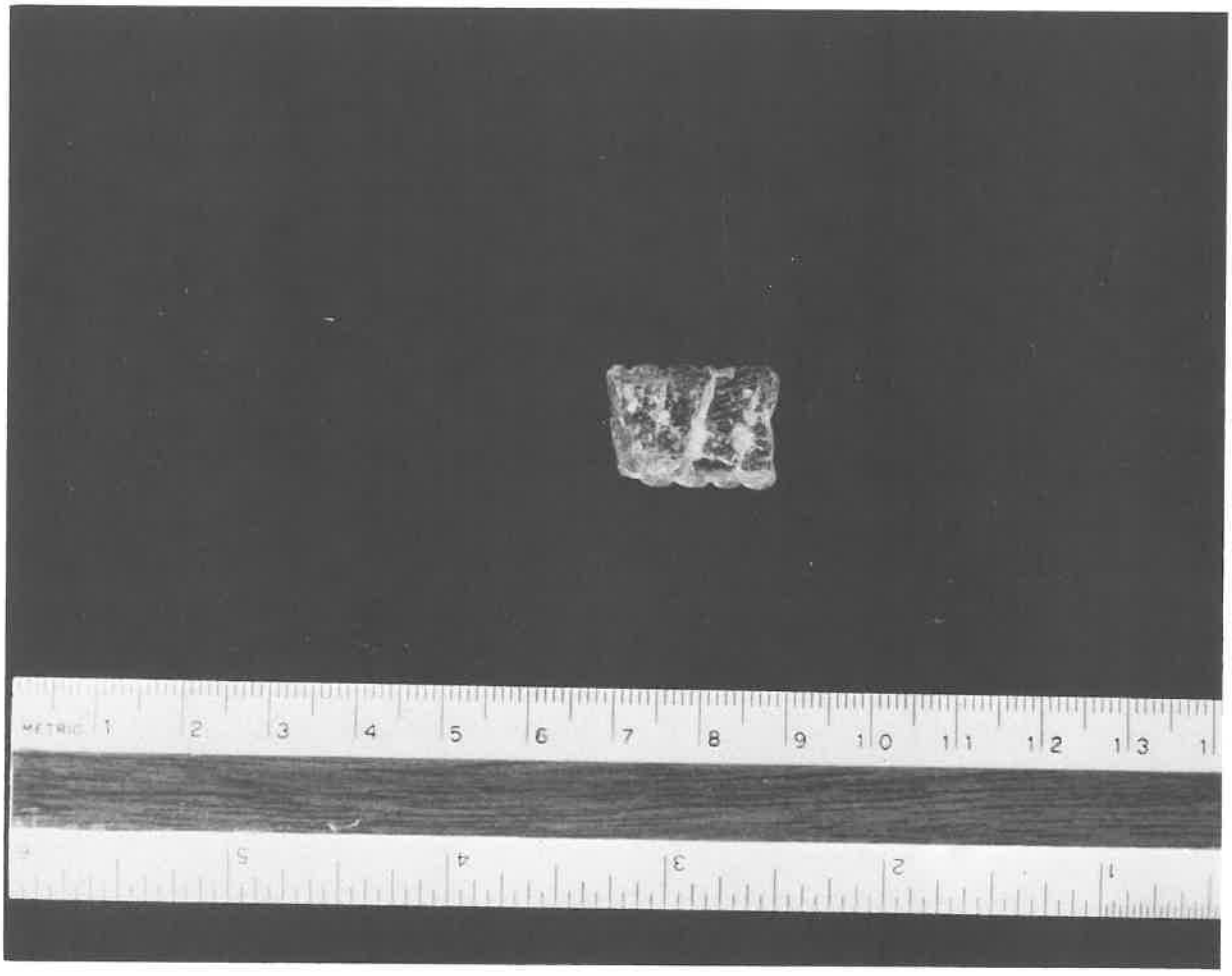

Figure 10: Problematical notched and grooved stone from the Dunlap-McMurry Site.

Figure 11: Left lateral view of the Dunlap-McMurry cranium.

APPENDIX I

Binocular Microscopic Examination of Holocene Sediments
Dunlap-McMurry Burial Site

by John Albanese

SAMPLE 1 - sediment underlying human skeleton

Sand, light tan, medium grained, well rounded, very poorly sorted, calcereous--10% of sample is composed of coarse and very coarse grained sand grains (1 - 3 mm) --some coarse grains are nearly spherical in shape--some white, coarse, well rounded feldspar grains are present--remainder of sample is very fine grained sand with some silt. Grass root molds are abundant.

SAMPLE 2 - sediment adjacent to burial

Sand, light tan, conglomeritic, poorly sorted with prominent white, amorphous calcereous cement--grain size varies from 1 - 60 mm, grains are well rounded, matrix is predominently coarse to very coarse grained, well rounded quartz grains--some "stringers" of medium grained sand are present.

SAMPLE 3 - sample collected 50 feet north of burial

Sand, light tan, coarse grained, rounded, very poorly sorted, calcereous--well rounded, coarse size quartz grains make up 25% of the sample--medium size, well rounded quartz grains make up 15% of sample--coarse and medium size grains are dispersed through matrix of very fine sand and silt size particles--grass root molds are abundant.

SAMPLE 4 - sample collected 100 feet northeast of burial

Sand, light tan, loose, unconsolidated--well rounded and medium to coarse size quartz and white feldspar grains are dispersed in very fine grained sand and silt particles--coarse grains (0.5 - 1 mm long) predominate. 5% of sample consists of well rounded grains, 2 - 12 mm in length.

SAMPLE 5 - sample collected 200 feet northeast of burial

Gravel, light tan, poorly sorted, calcareous--composed predominently of very coarse size quartz grains and slightly rounded, light gray chert and sandstone fragments that are 1/8 inch to 1-1/2 inches long-- 25% of sample consists of silt and sand grains that very in size from medium to fine.

APPENDIX II

The Dunlap-McMurry Skeleton

by George W. Gill
University of Wyoming

INTRODUCTION

The skeleton from the Dunlap-McMurry Burial was badly eroded and broken, but restoration was possible as may be seen from the photographs (Figs. 5, 6, and 11). Four long bones have been sufficiently restored for measurement. They are the right femur, left tibia, left fibula, and the left humerus. Portions of both radii and ulnae were recovered, as well as the distal end of the right humerus and much of the right tibia and fibula. The left femur is missing entirely. All ribs and vertebrae are quite fragmentary. The skull and mandible were badly broken but many portions were recovered as may be seen in Figure 11. Seven teeth are missing from the specimen due to both antemortem and post-mortem loss. Most of the teeth present were found loose within surrounding soil rather than in place within the alveoli. One pubic symphasis and a small portion of right ilium are present but the remainder of the pelvis is gone. Two scapular fragments have survived but no significant portion of either clavicle. Phalanges, carpals, tarsals, metacarpals and metatarsals are all quite fragmentary.

DISCUSSION

SEX: Determination of sex was not particularly easy in this case due to the fragmentary nature of certain diagnostic bones, and some conflicting criteria. Once full restoration and analysis was accomplished, however, a rather clear assessment of maleness resulted.

AGE: Age at the time of death was assessed by three independent methods, and all are in agreement with an age range of 50-65 years.

STATURE: Adult living stature was calculated from the complete long bones utilizing the Trotter and Gleser (1958) male Mongoloid formula. The statute of this Early Plains Archaic male, as a young adult, would have been 165.4 ± 3.18 cm or approximately 5 feet 5-1/2 inches in height. By the time of his death, however, structural age changes had probably reduced his stature to about 164 cm, or a little over 5 feet 4-1/2 inches. Judging from our limited sample of other males from this region and general temporal horizon the Dunlap-McMurry individual appears to have been somewhat below the average in stature.

It is impossible to accurately assess pathological conditions of the skeleton in this case (other than dental pathology) due to the advanced stage of deterioration of the bones from subsurface chemical erosion. Suffice it to say that from the limited amount of material available, no pathological conditions were evidenced, other than some lipping along the margins of the sacroiliac joint. The teeth, however, present

a different picture. Of the 25 teeth recovered seven of them show caries. A few of these were apparently quite severe and at least one of them had resulted in periodontal abscess by the time of death.

CONCLUSIONS

One of the most fruitful aspects of this osteological study has been the metric analysis (Gill n.d.) since a nearly complete skull was obtained. Also, observations of both discrete and continuous nonmetric traits were recorded, but in light of the small number successfully collected they will not be tabulated here.

When compared to Middle and Late Plains Archaic males from the Northwestern Plains (Steege 1960, Gill 1974, 1978B), and to a biologically related Plains Woodland skeleton from the same geographical region (Gill and Lewis 1976), certain similarities are apparent. It should be pointed out, however, that this particular plains population, of which this specimen appears to have been a part (and to which it is presently being compared) consists of only six additional males and seven females. Other skeletal samples from the Northern Plains (Plains Woodland Sonota Complex of South Dakota) may also represent a closely related biological population, but that has not yet been confirmed.

At any rate the Dunlap - McMurry skeleton shows medium cranial proportions (mesocranic), medium upper facial form (mesene), and medium orbits (mesoconch) like those of the Middle and Late Plains Archaic populations. Also like them this skeleton shows a relatively high (orthocranic) cranial vault. This is in marked contrast to the conditions found among Late Prehistoric populations of the same region. Judging from our somewhat small samples these later groups showed a much lower vaulted (chamaecranic) skull form (Gill 1978b). In fact, the 132 mm cranial height of the Dunlap - McMurry specimen places it completely outside of the range established by our sample of Late Prehistoric males. Furthermore, size differences do not account for this situation since the Dunlap - McMurry skull is slightly smaller in its other cranial dimensions than the averages for Late Prehistoric Period skulls.

So, in summary, it can be stated that the Dunlap - McMurry skeleton in many important ways reflects traits quite characteristic of other early males from the Middle and Late Plains Archaic Period of the Northwestern Plains.

A SURFACE STUDY OF THE DRY CREEK SITES

(48 Ca 179 and 48 Ca 180)

Campbell County, Wyoming

by Jack L. Hofman and Lawrence C. Todd, Jr.

ABSTRACT

The Dry Creek sites consist of two distinct surface scatters defined on the basis of chipped stone tools and debris. The area designated 48 Ca 179 is interpreted as a short term camp possibly used repeatedly by hunting groups. This area produced evidence of one stone ring and two additional stone features of questionable function. Site 48 Ca 180, defined by a few lithic specimens, may represent a game processing area. Projectile points indicate that at least the 48 Ca 179 area was utilized during the Late Prehistoric Period. Shell casings indicate utilization of the same locality by historic hunters.

INTRODUCTION

During the survey of a proposed drill location and access road for Davis Oil Company in Campbell County, Wyoming, a small quantity of prehsitoric lithic tools and debris was encountered. This material was mapped and collected in order to mitigate potential destruction of the sites during drilling operations. Although the sites are small and the archeological material is of limited importance in itself, we believe that the study and documentation of such surface sites as these which are rapidly being destroyed by energy development activities is critical. Only through the study of all varieties of sites in all ecological situations will we be able to document the full cycle of prehistoric human activities for the region during any segment of prehistoric time. As Metcalf (1977:37) has pointed out, the study of small specialized activity sites forms an important part of our overall study of prehistoric human adaptation. Studies of small sites representing short term utilizations or limited activities, such as presented by Frison and Huseas (1968), McGuire (1977), Metcalf (1977), Larson and Todd (1978), may allow us to pinpoint specific exploitative activities of prehistoric groups which are conducted away from major habitation sites. Functional analyses of small sites should enable us to interpret the range of activities of prehistoric groups within a region. Further, analysis of past environmental situations and variations in resource availability may allow the placement of these sites into models of annual cycles of past human subsistence.

By attempting to interpret the dynamic prehistoric activities from static remains at small or "simple" site situations and learning about these site formation and transformation processes, we may eventually increase our ability to analyze and interpret the static remains of more complicated sites and proceed toward explanations of prehistoric activities which lead to the formation of such sites. In other words, the dynamic systems which produced static archeological remains and patterns (Binford 1977) might be more readily interpreted through data from "simple" sites which are not overly complicated by numerous occupations and activity sets.

The definition of tool kits from a single surface site is probably an unrealistic goal. This is because of the extreme variety of transformation processes and ecological variables (post-depositional disturbances, pre-depositional curation activites, and resource variability) which affect the composition of an archeological site (cf. Binford 1978). But, we must study the "simple" sites when possible and interpret each as precisely as we are able in order to provide a basis for defining activities which result in predictable artifact and debris constituents in given situations.

What follows, then, is a case of "simple site archeology" which we view as an economical and potentially fruitful use of our limited archaeolgical data base. Perhaps through numerous such studies of surface patterning of archaological remains from small sites we can provide a few building blocks, or at least hints, for the interpretation of more complex situations. And, we may be able to add supplemental or perhaps critical data for developing more precise models of annual cycles of prehistoric peoples.

ECOLOGY AND SETTING

We will assume that, in general, the ecology of the area today is similar to that of the Late Prehistoric Period. There were certainly fluctuations in precipitation, plant productivity, and the density of animal populations (Reher 1977). But, we can consider today's situation as an example of how it might have been from 200 to 800 years ago.

The site area is located between intermittant tributaries of Dry Creek which is located about one half mile to the north. Dry Creek drains into the Belle Fourche about five miles northwest of the site. Elevation is approximately 4900 feet and the soil is brown with a high silt and clay content. A veneer of burned coal "scoria" and hematite pebbles covers much of the surface and exposures of coal are present in eroded banks. Vegetation is dominated by bunch grass and sage with prickley pear, other cactus, and a few flowing plants represented. The site is within the gramma grass district outlined by Brown (1970 : Figure 25). Ground cover ranges from 25% to 50% with even greater exposure on steep slopes and eroded areas. The region represents a high plains environment with between 12 and 18 inches of precipitation per year at present (Brown 1970 : 16). Animals evidenced at the time of the survey include antelope, rodents, mule deer, and sage hen. To this list can be added bison during Late Prehistoric times. Rock exposures on ridges consist of hematite and sandstone. The topography can be described as rolling plains dissected by gulleys or arroyos.

DRY CREEK SITE # 1 (48 Ca 179)

The Dry Creek site is located approximately 25 miles southeast of Gillette, Wyoming, in Township 46 North and Range 70 West. This places the site on the east side of Campbell County and within the Belle Fourche River Basin (Figure 1). The site is situated on a prominant rise on a north-south ridge. Vegetation cover is sparce over most of the site, however, the west slope of the ridge has a fairly dense cover of sage. Hematite rocks outcrop on the highest point of the ridge. Sandstone

does not occur naturally on this ridge but can be found on the surface of ridges a few hundred yards away. The situation offers a good view to the north, east and west which includes two small north-draining tributaries of Dry Creek. By standing on the site, or on an even higher rise slightly to the south, a hunter could watch the movement and activity of game animals within an area several hundred acres in extent. The site itself covers an area of approximately one acre. Site elevation is near 4920 feet.

Methodology

The site was located during survey of the proposed access road. Subsurface testing was not considered necessary as the site is on a high wind and water eroded location with good exposure. No evidence of a buried soil horizon or cultural level was observed in the eroded areas. Also, the limited nature of the site indicated that only a surface study was merited.

Mapping of the site was completed by using a 50 foot tape and determining the angle and distance to each object from datum. Datum was established as an X on a large hematite boulder on the highest point of the site. Each item was numbered and described in the field.

Disturbance was evidenced in several forms. Deflation and slope wash has affected this ridge and presumably the archeological materials on it. Two stone concentrations may represent eroded stone rings and these two features occur on the slopes of the ridge whereas the complete ring was on a more level spot less apt to erode. A vehicle trail is present which crosses directly over the site and the stone ring. The damage from this little used trail is apparently minimal, but with increased traffic the site could have easily been obliterated. Another potential source of disturbance is that relic collectors may have removed specimens such as arrowpoints from the site in the past. Having noted these possible disturbances, we will now discuss the features, artifacts, and debris recorded on Site 1.

Features

Three concentrations of flat sandstone slabs were mapped. As noted, this sandstone does not occur naturally on the site but was apparently carried in from a short distance away.

Feature # 1 is a stone ring (Figures 2 and 3) consisting of 19 rocks. These vary in size from 3x3 to 16x8 inches. The diameter of the ring is approximately 11 feet. No evidence of a hearth was present in or near the ring. The only associated cultural material included two small procelainite flakes. The ring is located on the north part of the site area. Function of this ring is somewhat problematical but it may describe the location of a small temporary shelter, such as a tipi.

Feature # 2 is a concentration of 11 sandstone rocks 109 feet southwest of datum (Figure 2). No chipped stone items were directly associated. The concentration is located on the west edge of the site and may represent a disturbed stone ring. The

diameter of the concentration is approximately 11 feet.

Feature # 3 may represent the disturbed sandstone rocks from one or more hearths or stone rings. The eight slabs from a linear configuration on an eroded slope on the east side of the site to the south of datum.

Artifacts - Prehistoric

A total of eight lithic artifacts were collected and mapped. Provenience for all artifacts is indicated on the map in Figure 2. The numbers on Figure 2 refer to the numbered specimens described below and in Table 1. For dimensions of the specimens and information on lithic materials see Table 1.

Projectile Points

Specimen # 1 is a complete arrowpoint triangular in outline with side notches and a basal notch. The arrowpoint from Dry Creek illustrated as Figure 4a, is typical of Late Prehistoric sites in the region (see Frison and Reher 1977; Frison 1967, 1971, 1978; Mulloy 1958; Reher 1978).

Specimen # 2 is the tip of a second arrowpoint. The lower part of the blade and base are missing and it is not known if this specimen was notched. Both of these arrowpoints had been manufactured from flakes as evidenced by the presence of part of the ventral flake scar facet from the original flake blank. This specimen is shown as Figure 4b.

Biface

Specimen # 3 is the edge of a quartzite biface. Because only the edge fragment is present the original shape of the specimen cannot be determined. The original tool may have functioned as a cutting implement. This biface fragment is illustrated in Figure 4c.

Flake Tools

Specimen # 4 is a tertiary core reduction flake with evidence of utilization along both margins. See Figure 4d.

Specimen # 5 is a large biface reduction flake having minimal evidence of utilization on both lateral edges. The distal end is broken. Wear is evident on the dorsal surface flake scar ridges. See Figure 4e.

Specimen # 6 is a small broken secondary decortication flake with one lateral edge showing modification on the ventral surface. See Figure 4f.

Cobble Tools

Specimen # 7 is a small porcelainite cobble with unifacial retouch on one corner. This sharp irregular edge could have served as a cutting implement. See Figure 5a.

Specimen # 8 is a large porcelainite cobble with poor fracture quality (numerous faults which caused flakes to terminate in step fractures) which nevertheless has been flaked to form two sharp jagged edges. The tool may have served as a chopper or heavy duty butchering or digging tool. It is deemed unlikely that the specimen was a core primarily used for the production of flakes as the quality of the cobble is too poor to produce flakes of a predictable form or size. See Figure 5b.

Stone Debris

A total of seven flakes were collected which represent the results of various stone working activities on the site. Two core reduction flakes, two broken flakes (those lacking platforms and which cannot be assigned to the core reduction or biface thinning categories with certainty), and three biface thinning flakes are represented (see Table 1).

Specimen # 9 is a quartzite biface thinning flake (Figure 5c).

Specimen # 10 is the midsection of a non-volcanic natural glass flake. No cortex is present on this specimen. See Figure 5d.

Specimen # 11 is a porcelainite core reduction flake which lacks cortex (Figure 5e).

Specimen # 12 is a porcelainite biface thinning flake lacking cortex (Figure 5f).

Specimen # 13 is a porcelainite biface thinning flake with no cortex (Fig. 5g).

Specimen # 14 is a broken flake of porcelainite (Figure 5h). No cortex is present on this specimen.

Specimen # 15 is a core reduction flake of porcelainite. There is no cortex on this specimen (Figure 5 i).

Artifacts - Modern

Three metal shell casings were found just east of datum on the highest part of the site. These specimens indicate the utilization of this spot as an observation point and hunting stand by modern hunters. Prehistoric hunters may have used the site in much the same way, lacking only the long range projectiles.

TABLE 1. A description of prehistoric items from Dry Creek # 1, 48 Ca 179.

Specimen Number	Description	Lithic Material	Dimensions in mm: Length	Width	Thick.	Figure Illustrated	Comments
1	triangular notched arrowpoint	reddish agate	26	16-10 at notches	3	4a	made on a flake
2	arrowpoint tip	brown quartzite	--	--	3	4b	made on a flake
3	biface fragment	brown quartzite	--	--	5	4c	
4	flake tool	brown chert	34	28	7	4d	c.r. flake
5	flake tool	brown quartzite	--	27	7	4e	b.t. flake
6	flake tool	gray porcelainite	--	16	6	4f	s.d. flake
7	cobble tool	gray porcelainite	51	29	16	5a	
8	cobble tool	gray porcelainite	110	88	49	5b	
9	b.t. flake	brown quartzite	13	16	3	5c	no cortex
10	broken flake	non-volcanic glass	--	18	4	5d	no cortex
11	c.r. flake	gray porcelainite	20	16	5	5e	no cortex

c.r. = core reduction b.t. = biface thinning bkn = broken

TABLE 1. (continued) A description of prehistoric items from Dry Creek # 1, 48Ca179.

Specimen Number	Description	Lithic Material	Dimensions in mm: Length	Width	Thick.	Figure Illustration	Comments
12	b.t. flake	gray porcelainite	13	10	2	5f	no cortex
13	b.t. flake	gray porcelainite	11	8	2	5g	no cortex
14	bkn. flake	gray porcelainite	--	10	2	5h	no cortex
15	c.r. flake	gray porcelainite	13	8	3	5i	no cortex

Specimen # 16 is a 25-35 caliber center-fire rifle cartridge casing.

Specimen # 17 is a 30-06 Springfield center-fire rifle cartridge casing.

Specimen # 18 is a second 30-06 Springfield casing.

DRY CREEK SITE # 2 (48Ca180)

This activity area, designated 48Ca180, is located approximately 1500 feet southeast of Dry Creek # 1 (48Ca179). The area was defined on the basis of five chipped stone items (Figure 6). It is situated on a level spot at the head of a small intermittant tributary at an elevation some 20 to 30 feet lower than Dry Creek # 1. Very sparce vegetation cover is present on this location. The center of the quarter-quarter section was used as datum for the site as this location had been surveyed by Powers Elevation in preparation for drilling. The same field methodology was used for recording as at Site # 1. Because the site was located in an area which would be directly impacted by the development of a drilling operation all material was collected. No stone features were found and the chipped stone items are described below and in Table 2.

Artifacts - Prehistoric

Four artifacts were mapped and collected from 48Ca180. These include a scraper, core and two flake tools. Some sheet erosion may have occurred on this site which would have resulted in erosional (horizontal) displacement of some small items. Dimensions are not available for the specimens but all items are illustrated actual size in Figures 7 and 8 and estimated dimensions taken from the drawings are given in Table 2. Notes on the lithic materials represented by the specimens are also presented in Table 2.

Scraper

Specimen # 1 is a large unifacial, plano-convex end scraper made on a flake. The flake blank was a large core reduction flake lacking cortex (Figure 7a-c).

Core

Specimen # 4 is a roughly circular, plano-convex (pyramidal) core. No cortex is remaining on the specimen (Figure 8a-c).

Flake Tools

Specimen # 2 is a large broken flake lacking cortex which exhibits minimal secondary flaking along both lateral edges. The sharp jagged edges may have served some cutting function (Figure 8f-g).

Specimen # 5 is a secondary decortication flake exhibiting minimal bifacial

TABLE 2. Prehistoric Material from Dry Creek # 2

Specimen Number	Item	Lithic Material	Approximate * Length	Width	Thick.	Illustrated in Figure:
1	scraper	white mottled chert	57x48x25			7 a-c
2	flake tool	brown mottled chert	42x43x ?			8 f-g
3	retouch** flake	white mottled chert	15x8x ?			8 h
4	core	black banded chert	85x70x45			8 a-c
5	flake tool	gray procelainite	26x28x ?			8 d-e

* Measurements were taken from the drawings.

** This retouch flake was apparently removed from the scraper, specimen # 1.

scarring along one sharp lateral edge. This specimen may also have served as a small knife (Figure 8d-e).

Stone Debris

Specimen # 3 is a small unifacial retouch flake (Frison 1967, 1968) which is of lithic material identical to the end scraper described above. Although this flake could not be fitted back to the scraper with confidence, we believe that it was almost certainly removed from the scraper and that this indicates the use and resharpening of the scraper on the site. Such resharpening was common in animal processing areas associated with kills (Frison 1967, 1968).

DISCUSSION OF THE DRY CREEK SITES

Function of the Dry Creek sites is of interest because identification of function may allow us to compare the site to functionally different sites of the same time period. This should aid interpretation of the annual cycle of activities of groups who occupied the region in Late Prehistoric times. Before functional interpretations will have much meaning, however, we must be able to identify, as nearly as possible, the cultural group responsible for creating the archeological site.

The meager evidence collected from Dry Creek can be interpreted as the results of Crow Indian activities. That the Crow were using the Belle Fourche River area around the Dry Creek sites is evidenced by finds of Crow pottery in the area (Frison 1976:37, 44). At present, ceramics of the Intermountain Tradition (Shoshoni) are not reported from the Belle Fourche River Basin (Frison 1976; Wedel 1954). This is not to suggest that the Shoshoni never utilized the area or hunted there, only that Crow Indian activities may have been more intensive along the Belle Fourche than were Shoshonean activities.

The complete projectile point from Dry Creek # 1 is a triangular side and basal notched form similar to specimens from Crow sites such as Piney Creek (Frison 1967, 1967b) and Big Goose Creek (Frison, Wilson and Walker 1978). But, comparable point types have also been recovered from sites believed to represent Shoshonean occupations (Frison 1971, 1976:41; Brox and Miller 1974:17, Figure 7). The John Gale and Eden-Farson sites, however, are located in the Great Divide Basin of southwestern Wyoming in an area known to have been occupied by the Shoshoni (Frison 1971; Brox and Miller 1974).

A third aspect of the Dry Creek sites also points to possible Crow occupation. Some of the lithic materials represented at the site is the same as materials considered typical of Crow occupations in the Powder River Basin 50 to 100 miles to the northwest (Frison 1967, 1967b; Frison et al 1968; Frison 1974; Frison, Wilson and Walker 1978:3, 22-23). These lithic materials include porcelainite (metamorphosed shale) from the Powder River Basin and natural glass from burned coal beds in southeastern Montana (Frison, Wilson and Walker 1978). These materials, along with small amounts of

TABLE 3. Comparison of Lithic Material Frequencies from Two Crow Sites and the Dry Creek Sites

Site/Area	Porcelainite *		Cherts		Quartzite		Natural Glass/Obsidian	
	%	#	%	#	%	#	%	#
Piney Creek:								
(48 Jo 311) Flakes	38	(234)	33	(198)	13	(79)	16	(98)
(48 Jo 312) Points	43	--	38	--	14	--	5	--
Kill Area Flakes	63	(721)	28	(321)	9	(103)	0	--
Butchering Area Flakes	49.4	(1618)	37.7	(1231)	12.1	(394)	.8	(27)
Big Goose Creek:								
Kill Area Points	30	--	28	--	40	--	2	--
Camp Site A Points	44	--	26	--	20	--	10	--
Flakes	2.9	(330)	27.6	(3140)	67.4	(7657)	2.1	(237)
Dry Creek Site # 1								
All lithics	53	(8)	13	(2)	27	(4)	7	(1)
Dry Creek Site # 2								
All lithics	20	(1)	80	(4)	0	--	0	--

* Porcelainite = metamorphosed shale

obsidian, occur repeatedly on Crow sites. Table 3 compares the frequency of porcelainite, natural glass, obsidian and other lithics from the Dry Creek sites, the Piney Creek sites and the Big Goose Creek site. The data from the latter two sites is taken directly from Frison (1967:Tables 1 and 2) and Frison, Wilson and Walker (1978:Tables 1 and 2). Because the samples from the Dry Creek sites are so small they must be viewed with some caution. The frequencies of lithic materials from the Dry Creek # 1 site fall within the range of variation represented by the Crow sites. The Dry Creek # 2 site frequencies appear aberrant, but this may be an artifact of the very small sample size. These lithic frequencies indicate that the people at Dry Creek had access to similar lithic materials as did the Crow. Variations which occur in these lithic frequencies may reflect seasonality or direction of movement as discussed by Rher and Frison (1977) and will not necessarily indicate that more than one group is represented.

We have, then, three lines of evidence which tend to support the assignment of the Dry Creek sites to the Crow. These are as follows: (1) geographical location -- The Belle Fourche and Dry Creek site area are known to have been utilized by the Crow in Late Prehistoric times (see Frison 1976; Reher 1977b); (2) the projectile point style-- Triangular side and basal notched arrowpoints are a recurrent type on known Crow sites; (3) frequencies of lithic materials -- The types and frequencies of lithic material from Dry Creek # 1 is very similar to those of known Crow sites. While we have argued that the Dry Creek sites may represent Crow activities in the Belle Fourche River Basin, we emphasize that this is simply one hypothesis for which there is some support. We recognize that several distinct ethnic groups were active in the region during Late Prehistoric times (Reher 1977b) and lacking precise chronological control it is difficult to even determine what part of the Late Prehistoric occupance of the area we are actually dealing with. Therefore, we do not wish to preclude the possibility that the Dry Creek sites may represent activity of non-Crow bison hunting groups such as the Cheyenne who were active in the Black Hills to the northeast of Dry Creek during terminal Late Prehistoric and Protohistoric times (Reher 1977:20; 1977b).

Despite potential problems, we believe it is of value to search for the cultural identity of such sites as Dry Creek. Cultural identification makes functional interpretations of sites relevant to the study of a particular group's overall settlement - subsistence pattern.

Site Function

As suggested, we believe that Dry Creek # 1 may represent a hunters stand where individuals could watch for game and camp for brief periods. It is possible that the stone ring represents the remains of a temporary shelter used by hunters. The artifacts and debris from the site were all carried to the camp spot. The site does not represent a lithic processing station or workshop where individuals came to manufacture tools or blanks. Suitable lithic material is not available at the site nor are any close-by sources of knapable material known. This means that whatever was brought to the site was part of the tool kits of the individuals who utilized the site for a given, possibly preconceived, task. Debris and artifacts that were collected from the site should reflect the nature of the tool kits which were carried in and used there. Items collected

during the survey may represent items of the original tool kits which were lost, items worn out or broken, or items that resulted from refurbishing or sharpening tools. That any entire tool kit would be represented is highly unlikely. Most items used in a special purpose or limited function site such as Dry Creek were probably closely curated as readily accessible lithic sources were not available for replacing lost or broken items. The near absence of cortex on flakes also indicates that there was probably no source area nearby, or at least that all items brought to the site were in finished, or nearly finished form. Therefore, what remains for the archeologist to interpret is only a small fraction of the items which were probably used on the site. Several functional interpretations were possible and we present our interpretation of the site as a hunting stand as only one hypothesis.

The projectile points, "chopper", and cutting or scraping tools made on flakes would all be items expectable in the tool kit of hunters. The absence of grinding stones indicates that final processing of plant foods was probably not important at the site. Finally, the presence of historic shell casings indicate the use of the same spot by historic hunters for locating and ambushing game. This provides us with a likely analogy for the interpretation of the prehistoric activities. Dry Creek # 2 is obviously a small discrete activity area of short term use. The large scraper and single retouch flake removed from it provide evidence of processing activities at this spot. The two flake tools would also be serviceable in an initial processing situation where a bison or antelope carcass was being prepared for transport or use. The core from this area is interesting and it may represent a source for butchering tools (flake knives and scrapers) which were carried with the hunters since no local source was available.

SUMMARY

The Dry Creek sites represent two small lithic scatters in the Belle Fourche River Basin of northeastern Wyoming. In our interpretation, Dry Creek # 1 represents a hunting stand and probably short-term visitation site used by Late Prehistoric hunters. During their time at the site, hunters probably watched for game and performed maintenance activities associated with their hunting equipment. A small stone ring may provide evidence of temporary shelter used by the hunters while at the site. Dry Creek # 2 is located a short distance away and is believed to represent a processing station where initial field butchering and possibly hide preparation may have taken place. One hypothesis is that the sites represent limited activity hunting stations of the Crow Indians, but assignment of the sites to the Crow is not conclusive. The sites document the occurrence of individual or small group hunting activities in northeastern Wyoming during Late Prehistoric times and as such help outline part of the annual cycle of activities engaged in by the most recent prehistoric hunters of the area. We feel that further studies of such sites will complement studies of larger Late Prehistoric kill situations in the region (Frison 1967, 1970; Frison, Wilson and Walker 1978; Reher 1977) and allow for a more complete perspective of prehistoric life to be documented.

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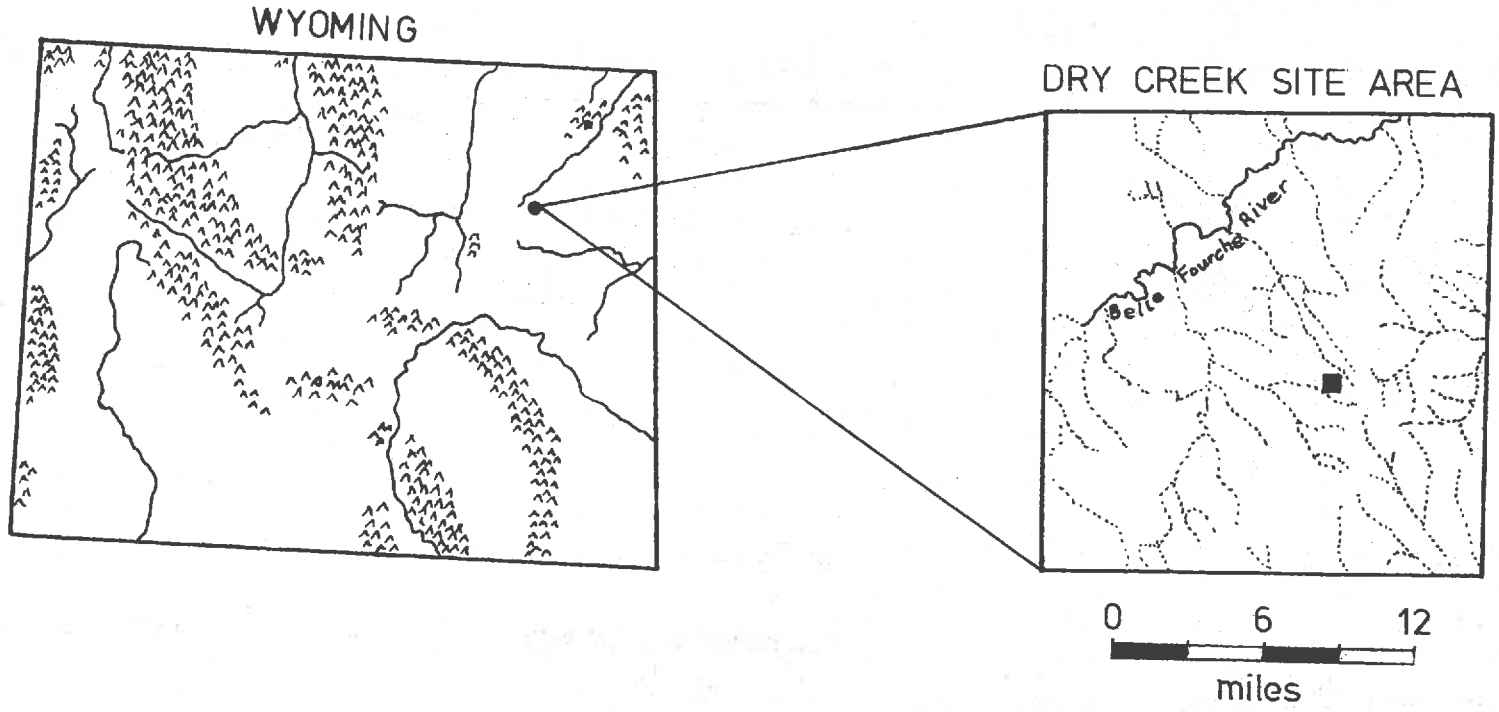

FIGURE 1

LOCATION OF THE DRY CREEK SITES CAMPBELL CO., WYOMING.

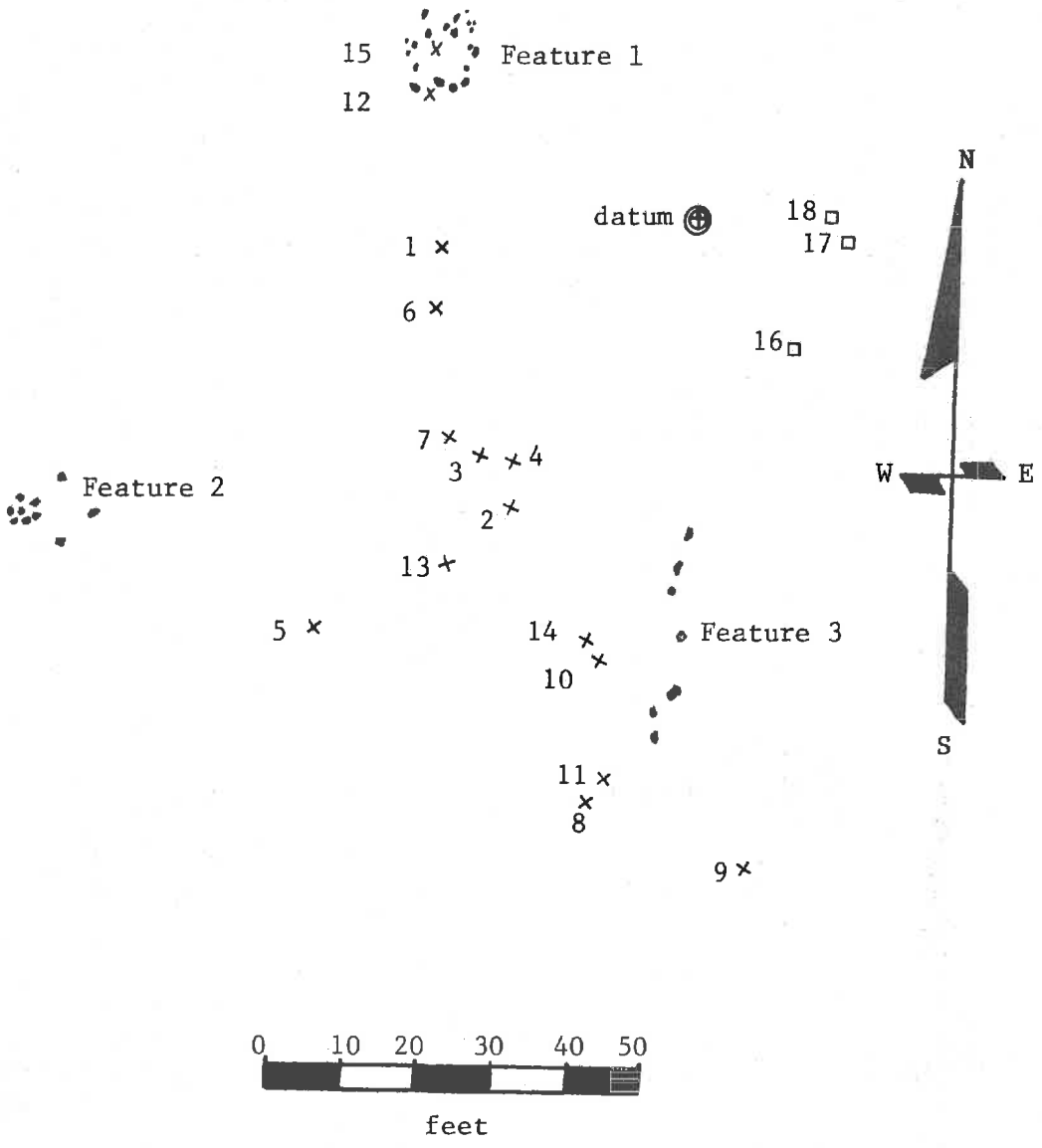

FIGURE 2: Dry Creek Site # 1, horizontal distribution of cultural debris. Numbers refer to descriptions in the text and in Table 1.

⊕ Datum
• Sandstone
× Chipped stone items
□ Historic shell casings

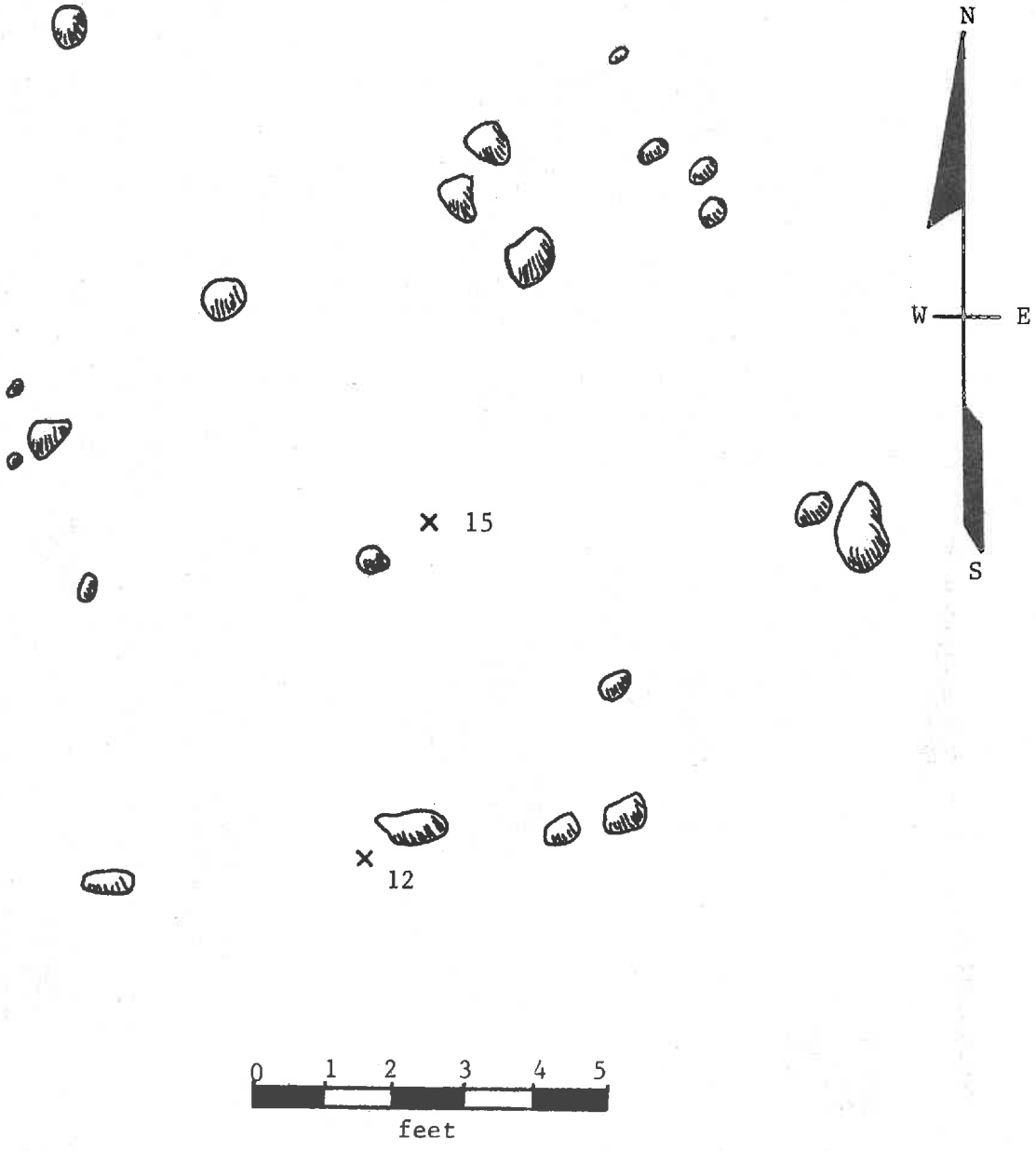

FIGURE 3: Feature #1 (stone circle) at the Dry Creek #1 site. Flakes described in text indicated by 'X' and number.

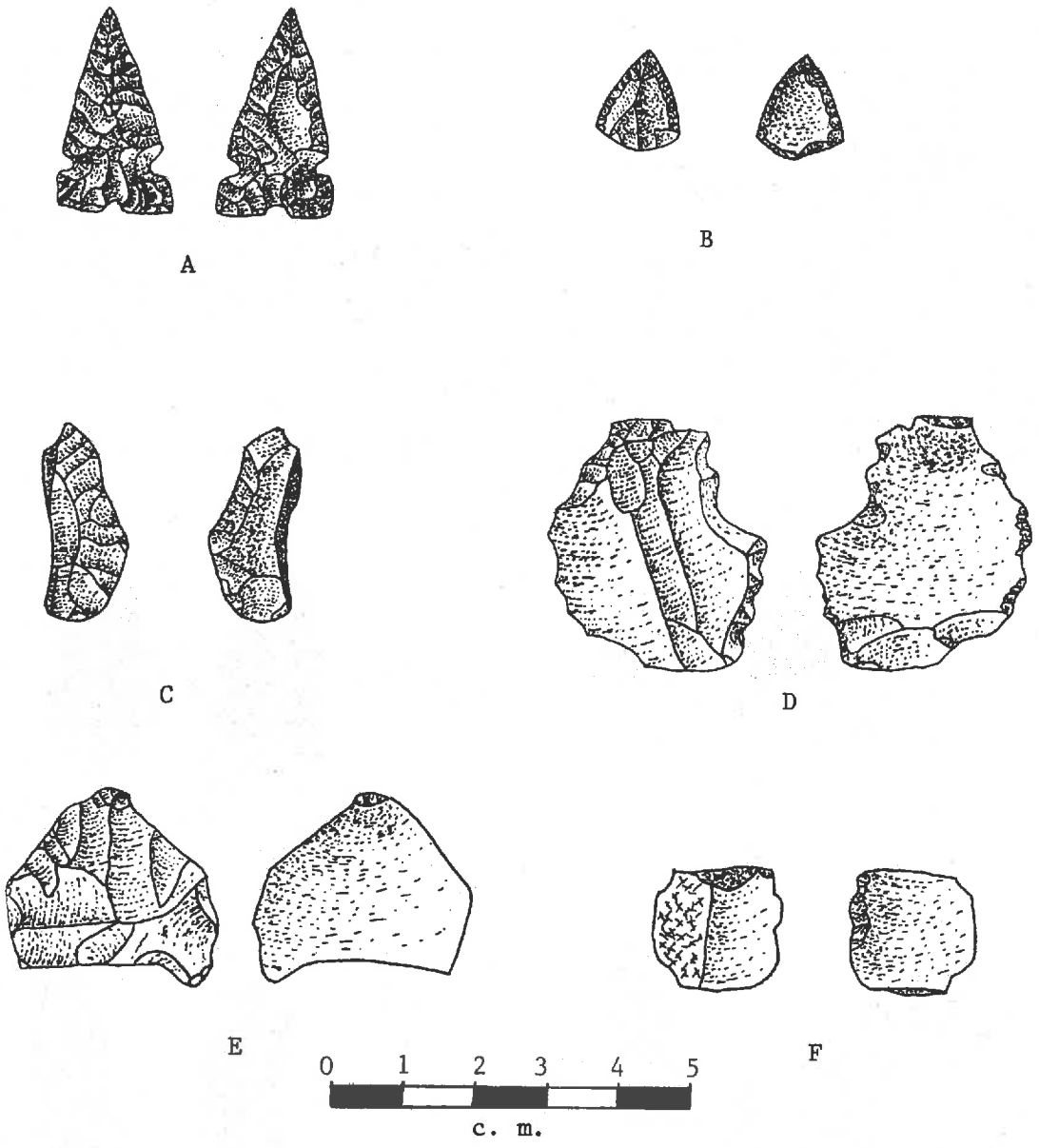

FIGURE 4: Lithic artifacts from 48Cal79, Dry Creek #1. A--triangular notched arrowpoint; B--arrowpoint tip; C--biface edge fragment; D-- utilized flake; E--utilized flake; F--utilized flake.

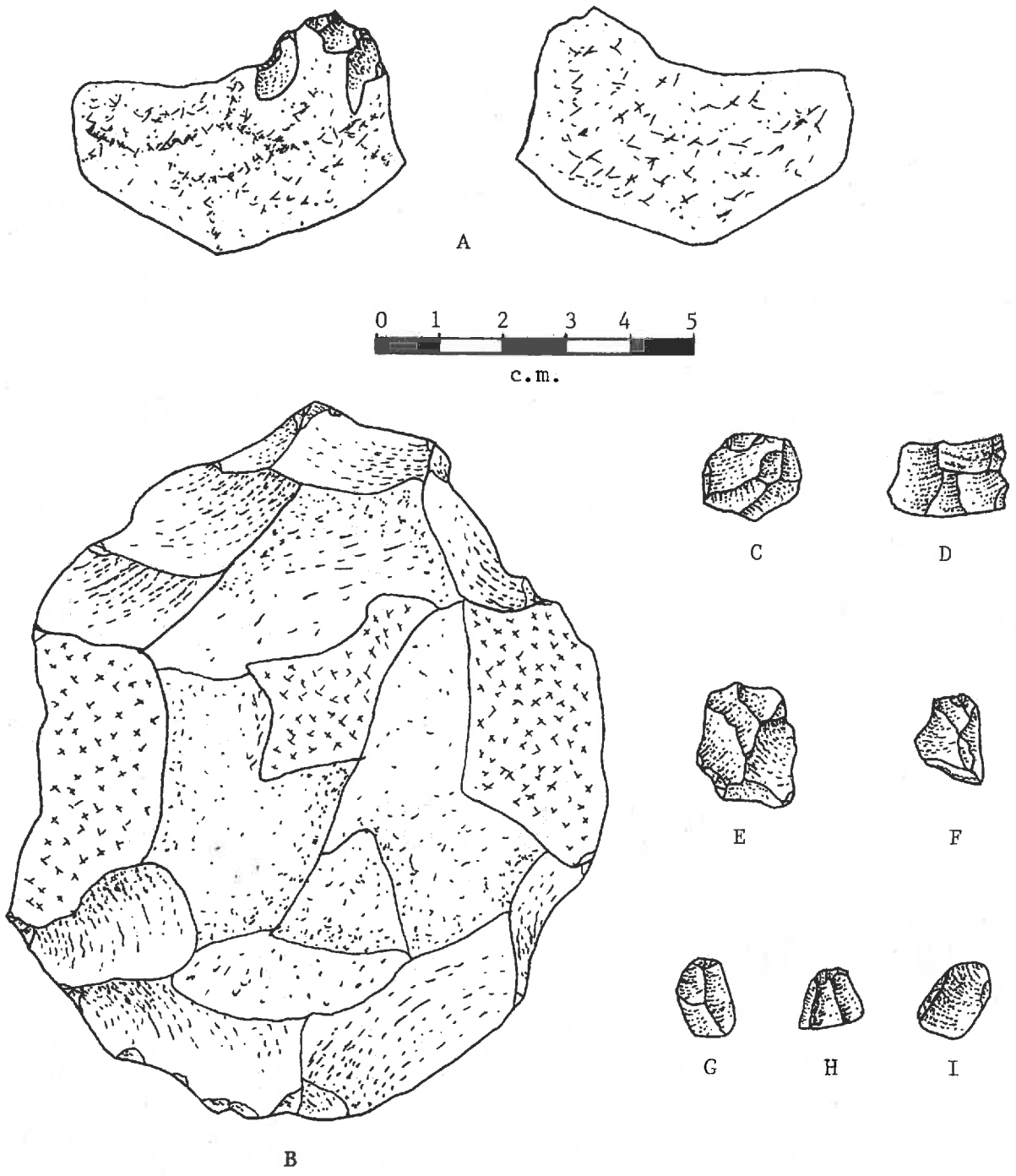

FIGURE 5: Lithic artifacts from Dry Creek #1, 48Cal79. A--Cobble tool; B--Cobble tool; C--Thinning flake; D--Broken natural glass flake; E--Core reduction flake; F--Thinning flake; G--Thinning flake; H--Broken flake; I--Core reduction flake.

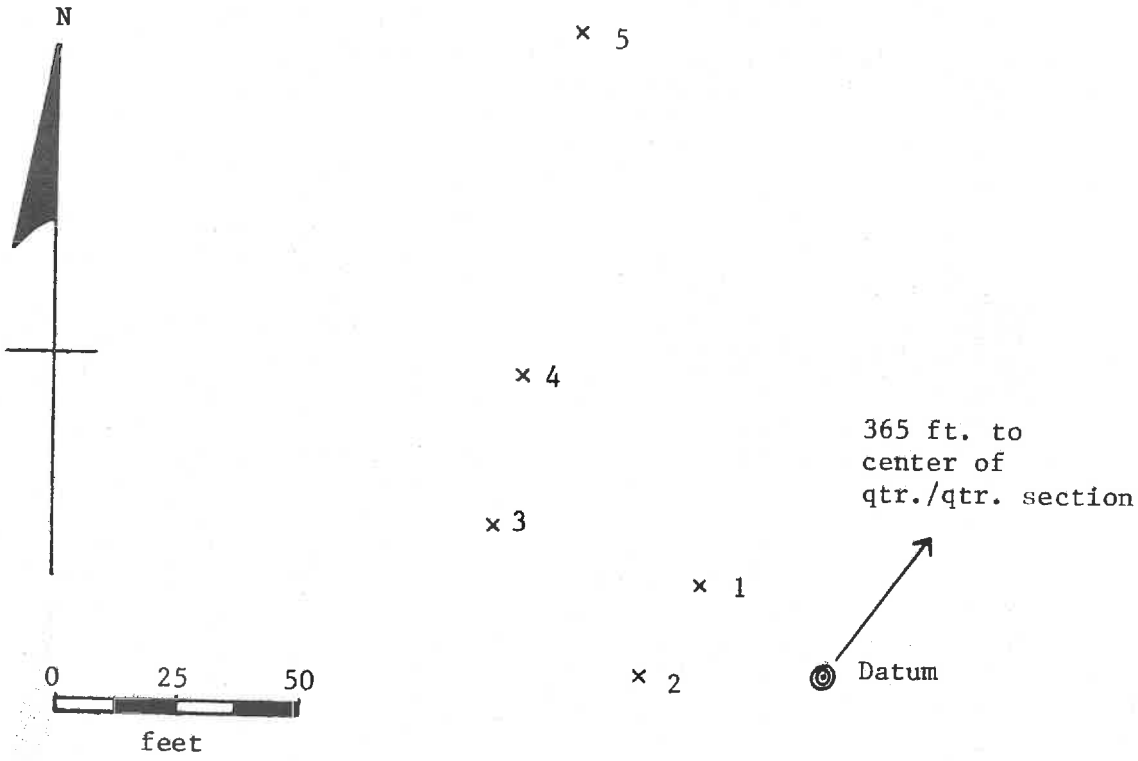

FIGURE 6: Distribution of material at 48Cal80, Dry Creek #2.

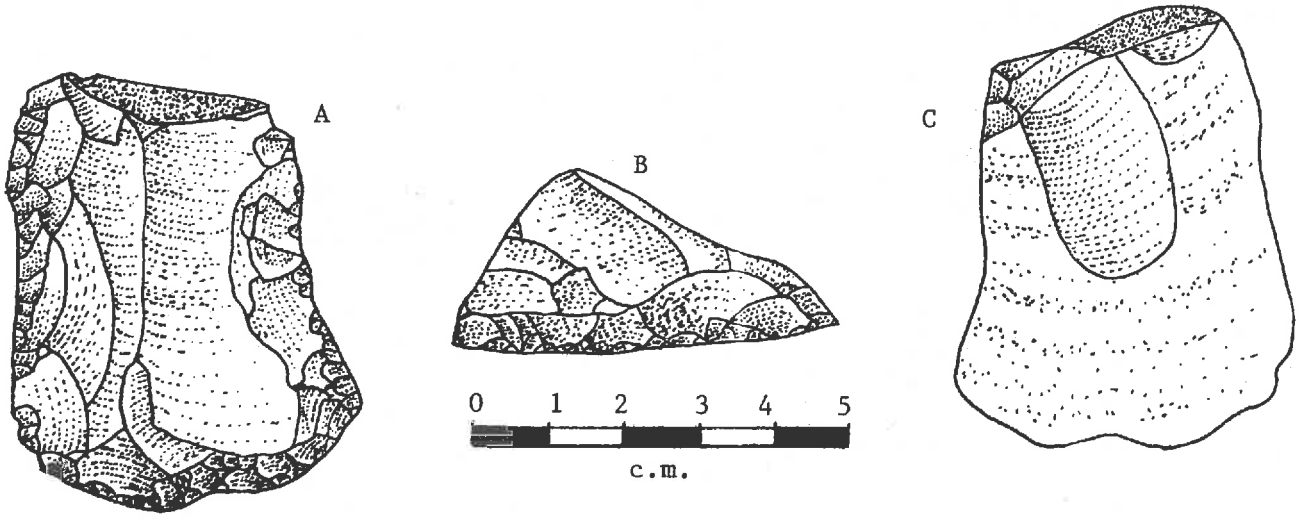

FIGURE 7: Scraper, Artifact #1, from the Dry Creek #2 site; A--dorsal view; B--front view; C--ventral view.

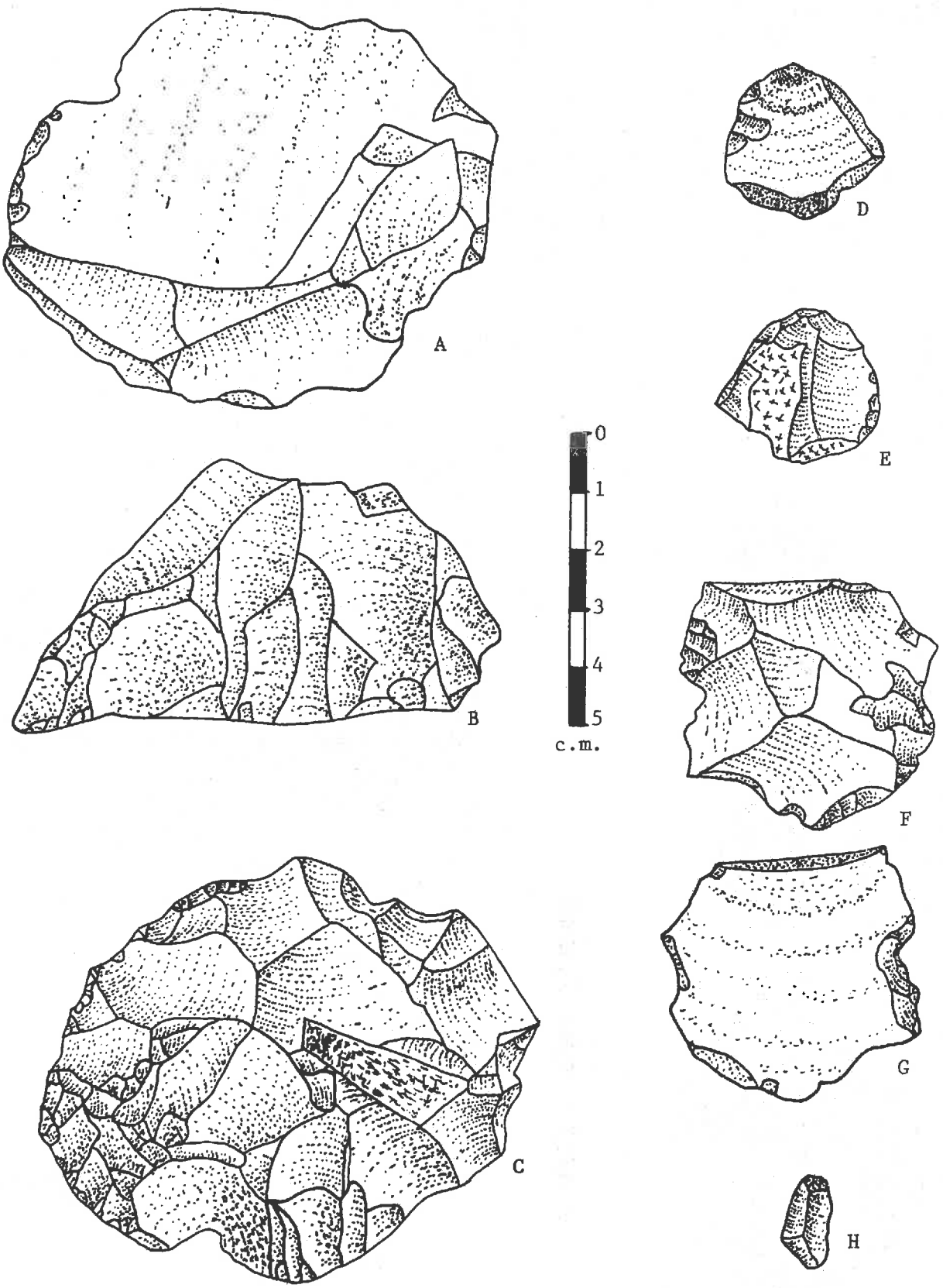

FIGURE 8: Chipped stone from 48Cal80, Dry Creek #2. A,B,&C-- platform, side and bottom view of core (#4); D,E--ventral and dorsal views of flake tool (#5); F,G--dorsal and ventral views of flake tool (#2); H--dorsal view of scraper retouch flake (#3).