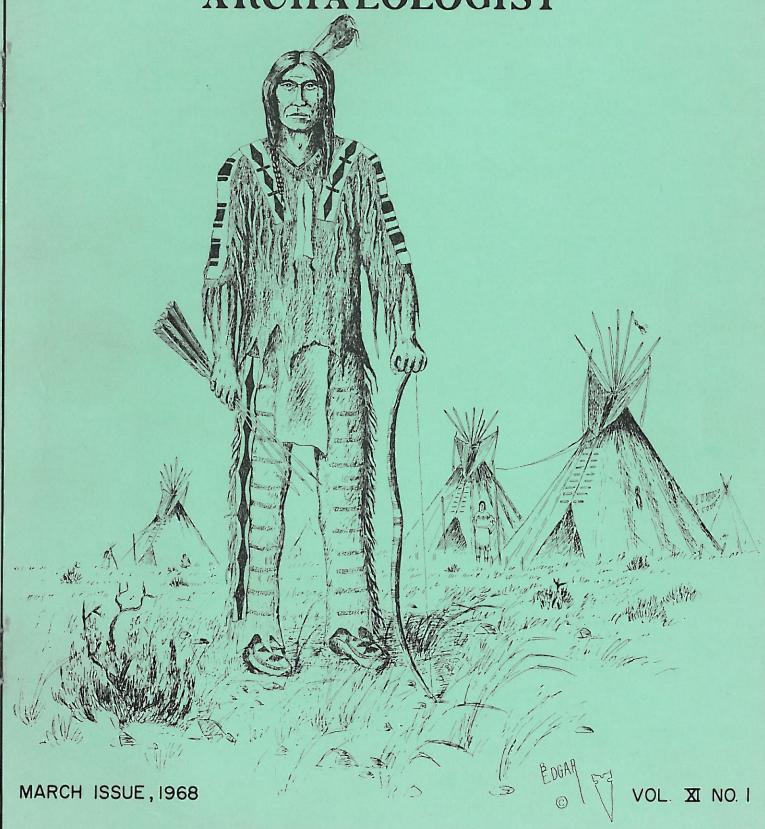
WYOMING ARCHAEOLOGICAL SOCIETY

THE WYOMING

ARCHAEOLOGIST



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MARCH ISSUE CONTENTS

| | <u>Page</u> | |
|---|-------------|----|
| Chapter Officers | Appendix | 1 |
| Membership Information and Renewal Notice | Appendix | 11 |
| March Contents | 1 | |
| Notice of Annual State Meeting | 2 | |
| Chapter News | 3 | |
| Avoiding Evolution by T. J. Weber | 10 | |
| The Billy Creek Burials by Gene Galloway | 16 | |
| Analysis of Spanish Diggings Region | 20 | |
| by James O. Duguid & Gabriel A. Bedish | | |

Cover Plate by Bob Edgar, Cody, Wyoming

EDITOR'S COMMENT

It is great to have another fine paper from Ted Weber. Our membership has really gotten together to produce fine articles for the Archaeologist. Held over until next issue because of lack of space is a most interesting paper on The White Mountain Petroglyphs by the Bozoviches. You all make the editing a real great pleasure.

A new chapter was formed March 2 which will embrace the North Platte Valley and will be known as the Cherokee Trail Chapter. Both Lou Steege and President Henry Jensen were in attendance at the meeting held in Saratoga. The following officers were installed: George Berger, President; Earl Jones, Vice President; Mary Chillemi, Secretary-Treasurer; Deborah Chastain, Harley McCord, Berneil McCord, and Lucile Garetson, Directors. Our best wishes to the new chapter and hope to meet all at the state meeting in Casper, April 5 and 6.

The Spanish Diggings have always been a fascinating area and it is a privilege to explore it with Jim O. Duguid and Gabriel Bedish. Jim, of course, knows every nook and crany in this area as it has been his backyard for many, many years. Gabriel's art work is tremendous.

Next issue will contain a most fascinating report on an Avonlea site by Mr. Jim Duguid.

NOTICE

1968 ANNUAL STATE MEETING

HOLIDAY INN, CASPER, WYOMING

Friday, April 5, Pre-Conference Meeting

8:00 P.M. in Room 200. An open business meeting for all Chapter Officers as well as for any society member desiring to discuss proposals to be offered at the formal meeting on Saturday.

Saturday, April 6, Annual Meeting in Enterprise Room

| 9:00 A.M 10:00 A.M. | Registration and set up displays |
|---------------------|--|
| 10:00 A.M Noon | President's report, Committee reports, and Chapter reports |
| Noon - 1:30 P.M. | No host luncheon |
| 1:30 P.M 3:30 P.M. | Business session |
| 3:30 P.M 5:00 P.M. | Open Forum |
| 5:00 P.M 7:00 P.M. | Recess. Please Remove Displays |
| 7:00 P.M 9:00 P.M. | Evening banquet, Dr. George Frison, Wyoming State Archaeologist – Speaker |

All members are requested to bring displays for exhibition during our convention. Casper Chapter members will guard displays.

Evening banquet will be a Baron of Beef Buffet and the \$3.50 per person charge covers dinner, tax and tip, and use of Inn facilities.

Extending a hearty welcome to all,

John Albanese, President Casper Chapter

CHAPTER NEWS

CASPER CHAPTER

The following is the list of our Chapter Officers:

President:

John Albanese, 3511 Carmel Dr., Casper

Vice-President:

Bob Barber, Box 72, Glenrock

Secretary-Treasurer:

Evelyn Albanese, 3511 Carmel Dr., Casper

New Directors are:

Holdover Directors:

Jay Smith, 126 S. Fenway, Casper

Wendell Hill, Box 311, Edgerton

Leon Campbell, Box 402, Midwest

Fred Poestkoke, 431 S. Beech, Casper

Our meeting place is Room 174, Administration Building, Casper College. The time is 8:00 P.M. on the first Tuesday of the month.

In May, Henry Jensen gave us a very interesting talk about the Indian Trails. It was decided that it would be a Chapter project for the summer to try to map and trace the Indian Trail.

Due to the heavy rains in the spring and summer we only managed to get out twice. One time in July and again in September with some of the members of the Lander Chapter. We are hoping for a more successful field season this summer.

Our first fall meeting was mainly for "show and tell". Members brought in the artifacts they had found during the summer.

We were fortunate in having our new State Archaeologist, Dr. Frison, give us a talk for our October meeting.

In November, Lou Steege gave us a talk about the Glendo Site and showed us some slides. He made all the members most envious when he showed us pictures of some of the goodies he had found.

Henry Jensen gave us a talk about the Kitchen Utensils of the Indians for our December meeting. He also showed some slides of pictographs and petroglyphs in various places in Wyoming.

In January, Mary Garling told us about the Ross Rock Shelter. Her talk made everyone anxious to go out and find another rock shelter.

In February, John Albanese described the various types of materials used in making artifacts. He also mentioned some of the known quarry sites in the state.

In March we will have the new antropology teacher at Casper College, Miss Nancy Cox, give us a talk about the evolution of Man.

That's about all for our doings during the year. We hope for a busier summer this year than last.

Evelyn Albanese

FREMONT CHAPTER

January 11, Riverton - Plans outlined by the new officers for activities of coming year. Preparations completed for visit and talk by Bob Edgar. The Flintstones and the Riverton and Lander Gem & Mineral Clubs to be hosts for occasion at Riverton at the First Guaranty Savings and Loan Hospitality Room. President asked for a report on "How to locate a site".

February 9, Lander - Bob Edgar accepted our invitation to speak to our combined clubs. Several new artifacts were looked at and discussed and six new members joined our club.

March 8, Riverton - Discussion on several places for a field trip but due to stormy and cold weather have been unable to get out. Two films were shown, "Indian Families of Long Ago" and "Glimpses of the Past" which we all enjoyed.

April 19, Lander - The April meeting was held in Lander on the 3rd Wednesday due to Bob Edgar speaking to the clubs on the 2nd Wednesday. Bob Edgar's talk on the Mummy Caves near Cody was greatly enjoyed as was our visit with him after his talk. Helen Lookingbill, Betty Hutchinson and Jim Adams attended the State Spring Meeting in Casper on April 14th. Jim gave us a report on the meeting. The Flintstones gave \$5.00 to the Mulloy Fund. We voted to alternate our meetings between Lander and Riverton, which would make it more convenient for all members. Jim Adams showed pictures of the pictographs in Red Canyon near Lander. Five new members joined our club.

May 10, Riverton - Report on the procedures and slow progress of obtaining a permit for a dig we have located. Plans made for a trip by the Rock Springs and Fremont County Chapters to have a field trip near Farson to dig for fish and cane on May 21st.

June 14, Lander – Helen Lookingbill gave a report on the field trip to Farson to dig for fish and cane. Everyone had a nice time and found some nice specimens. It was decided to have the State Summer Meeting here on August 5th and 6th. Carl Lembke gave a report on McKean points which was very interesting. A

field trip to the Oregon Buttes and on to our dig was planned for July 18th if the roads were passable.

July 12, Riverton - Jim Adams reported on the exploratory trenches dug on the site June 18th. Some fragments of charcoal was also found at a 3 ft. level. Nearby locations produced a few surface finds.

August 5-6, Lander – The State Summer Meeting was held in Lander August 5th and 6th with President Henry Jensen presiding. The business meeting was held afterwhich there was a trip to Red Canyon to see the pictographs. The guide was Jim Adams, Vice President. Lander's Museum was visited in the evening and then back to the hall for a social hour and pictures. Sunday morning at 8:30, 35 members met for a trip to Dinwoody. Everyone had a nice time and many new friends were made. We did not have a regular business meeting in August.

September 13, Riverton - Members planned to meet the Casper Chapter, by invitation, on September 17, weather permitting, to explore the Indian Trail near Copper Mountain.

October 11, Lander - An invitation was issued from Joe Bozovich, President of the Rock Springs Chapter, for members to attend their meeting in Rock Springs on October 28th with Bob Edgar as the main speaker. Plans were made to investigate a site on the south side of Green Mountain on October 21st, with unusual rock alignment and shelters. Lyle Rolston to be our guide. Program was a study of the many variations in the Yuma type points brought by all the members from their own collections for comparison and classification.

November 9, Riverton - Helen Lookingbill reported that she and a committee of Jim Adams and Irene Morgan had placed the frame of artifacts from the Davis-Hutchinson Site in the Fremont County Pioneer Museum in Lander on October 20th as a loan from the Fremont County Archaeological Club to be displayed with a complete record of the excavation and findings from the site. Discoverer of the site was Don Davis and he regretted he could not attend with the committee. Reports of the Indian Trail Trek with the Casper Chapter were most interesting. Also were the investigation by a large attendance to the Green Mountain Area on October 21st. Jim and Loucille Adams attended the Rock Springs meeting. Bob Edgar gave an excellent talk on the Mummy Cave. Rock Springs members displayed some outstanding artifacts. Our program was on "What is it" artifacts brought by numerous members. New officers for 1968 were elected to take office in January.

President: Vice President: Ken Martinsen, Lander Carl Lembke, Riverton Recording Secretary:

Treasurer:

Esther Guthridge, Lander Betty Hutchinson, Riverton

Corresponding Secretary:

Diane Martinson, Lander

Meetings are held on second Wednesday of each month alternating between Lander and Riverton.

December 13, Lander – Jim Adams served as Acting President for our business meeting in the absence of the President and Vice President. Letters received by Jim Adams were read, acknowledging their appreciation of the loan of the artifacts placed there from the Davis-Hutchinson Site. A letter to Helen Lookingbill from George Frison, State Archaeologist, was read, offering assistance in future archaeological work. Breezy Wheeler (artist) offered three designs of Prehistoric Animals for imprints on our future chapter membership cards.

Irene Morgan

GILLETTE CHAPTER

Following is the list of Chapter Officers:

President:

William Barlow

Vice President:

Dr. M. J. Hannum, Jr.

Secretary:

James O. Bishop

Board:

Ralph Kintz (1967-68)

Audrey Maycock (1967–68) Russel Goud (1968–69) Jim Smith (1968–69)

Meetings are November through May, first Monday night at 7:30 P.M., Hospitality Room, Stockmens Bank. June through October field trips and/or dig work to be scheduled.

The Gillette Chapter organized in March. Two members attended the April State meeting. In May, Milford Hansen and Bob Edgar spoke at our "dutch treat" dinner and accompanied us the next day to a probable Besant phase site, a bison kill. This is 48 CA 302 – the Ruby Site.

On the same trip we also examined the Indian Butte breastworks and stone circles.

Our summer plan was that business meetings would not be scheduled but rather held in association with field trips.

On a wet June day Gillette Chapter examined stone circles, cairns, a grave site and an alignment in scoria country east of Town.

Several July weekends saw members test-screening at the Ruby site. A nearby but evidently associated site was located and it appears to have been a camp.

In August we visited a rifle pit site, a multiple-grave site, roasting pits, and stone circles formed with pleasing petrified wood chunks. These spots are found in a relatively small area west of Gillette.

In September we rested and in October we had no organized activity. Many of our members are ranch families so October, which is hunting season here, is a busy period.

Venturing into Crook County in November we admired anthropormorphic petroglyphs on a sandstone cliff along scenic Arch Creek. At a small rock shelter near Keyhole Reservoir we screened out several lithic implements. South of Rozet we inspected a large collection found by John Fox and his family. Also he guided us to a layer of bison bones exposed in a gulley bank. Jim Bishop has since test-screened here and recovered six partial points, side-notched and resembling Boarding School type.

The McKean site was Jim Bishop's program topic in January. In February Ralph Kintz of Gillette's Arrowhead Motel talked on the Sawyers Expedition of 1865 which passed through our area in a futile attempt to establish a short cut to the Montana Gold fields.

Gillette Chapter is tentatively planning an excavation for the coming summer.

On February 24th our Chapter meets with the local Historical Society for dinner and an illustrated talk by Glenn Sweem of Sheridan.

The program for March is a display of the Bishop collection.

William Barlow

SWEETWATER CHAPTER

The Sweetwater Chapter had a gainful and interesting year with many varied, profitable and well-attended meetings.

February, the Chapter met at the home of Jack Strain to view his fine collection of artifacts.

Our meeting place was moved to the Chamber of Commerce Building in March. Discussion was on the State Constitution and business for the April meeting in Casper.

Mr. Ed McAuslan and his son showed slides and gave a fine talk on the early day history of Sweetwater County at our April meeting.

In May, Mr. James Franks of the BLM talked on the American Antiquities Law and answered many questions put to him by the members.

Our June meeting was in the form of a field trip to the Big Piney area to investigate a reported buffalo jump. It was decided that the exposed bones were bison and that the site should be further explored.

Colorful films of mountain climbing, fishing and skiing in the Wind River Mountains, shown by Mr. Notzie Garnick, featured our July meeting.

Our fall meetings were concerned mainly with the investigation of two probable sites – one in Eden Valley and the other in the Big Piney area. Three test trenches were dug at what was decided to be a buffalo trap in the Big Piney area. Eight points, a knife and several worked flakes were screened. It was decided that if permission could be obtained, this site would be a good dig for 1968.

On October 28th, the Chapter in conjunction with the Rock Springs Gem and Mineral Society and the Fine Arts Center sponsored an outstanding lecture by Mr. Bob Edgar on Mummy Cave near Cody, Wyoming. About one hundred people from all over the County enjoyed not only the lecture, but seeing Mr. Edgar's drawings and paintings.

Finis Mitchell, noted photographer and Wind River Mountain expert, gave the program in November. His excellent slides of wildlife and mountain scenery are second to none.

December was concerned with the nomination of officers and discussion of the Pottery Trails Map.

The following officers were elected:

President:
Vice President:

Secretary Treasurer:

Two Year Board:

One Year Board:

Jack Krmpotich, 1226 Clark St., Rock Springs Ida Kappes, 112 First Street., Rock Springs Eugene C. Iverson, 1034 Lyle St., Rock Springs

Joe Bozovich, 811 Ridge, Rock Springs

Dennis Doak, 1221 10th St., Rock Springs

Emil Miltnovich, 615 B St., Rock Springs Norma Miltnovich, 615 B St., Rock Springs

Mrs. Josephine Larson

CHEYENNE CHAPTER NEWS

In January Joe LaRue, Bureau of Land Management, made a slide presentation of historic forts, stage stations, petroglyphs and stone circles found in Sweetwater and Carbon Counties.

The February program consisted of an "Introduction to Wyoming Archaeology" by Louis Steege. He discussed various cultural levels within the state from early prehistoric to historic.

For March we had a film from Utah, one from the series of "Man and Culture". Describing the methods and procedures in conducting an excavation.

Rita Acree, who had just came back from the far East gave a brief talk on Persepolis, stronghold of Persian emperors in the period 500-600 B.C.

Mr. Carl Christensen illustrated his talk with slides and a movie in color of the African bush country, its people and animals. He spent 30 days on a safari to Portugese, East Africa.

Three field trips were made through the summer. One to Pawnee Butte, another to the Happy Jack area and another trip to "Indian Caves" and Battle Canyon.

Milt Widholm showed slides on his recent trip to Mesa Verde. Dr. Schoondermark, Louis Steege and Widholm displayed artifacts.

"The Loon's Necklace", a movie dramatizing the Indian Legend of the loon and showing ceremonial masks carved by the Indians featured the November meeting.

In December, Dr. Frison gave a short talk outlining his aims as State Archaeologist and explained how he felt the Wyoming Archaeological Society could be a major factor in obtaining a more complete picture of prehistoric and early historic culture in Wyoming.

A movie by the New Mexico Highway Department, "Highway Salvage Archaeology" was shown. The movie was produced to encourage the preservation of paleontological, archaeological and historic materials and structures. Film may be obtained from the Highway Department on payment of postage and is well worth seeing.

Cheyenne Chapter Officers for 1968 are as follows:

President:

Louis C. Steege

Vice President:

Dr. A. H. Schoondermark

Secretary-Treasurer:

Bee Steege

Directors:

Wade Porter, Joe LaRue, Bill Lloyd, Ralph Casner

Meeting place is the Wyoming Highway Building, 2nd Monday of every month at 7:30 P.M.

AVOIDING EVOLUTION: AN APPRAISAL OF CURRENT HOMINID THINKING

By T. J. WEBER

ABSTRACT: In the academic circles of anthropology the proposition is sometimes put that, in general, two opposing views continue to exist on the interpretation of hominid evolution. One view maintains that modern man is very old as hominids go and thus it must be that one or more of the australopithecines, pithecantropines or neanderthal stages cannot be in our ancestry. The other view maintains that, in fact, modern man is quite recent and it is more likely that all or most of the above hominid variations represent stages in man's ancestry. The question, then, is what evidence may be cited in support of each view? The objective of this paper is to briefly examine some of that evidence. Detailed analysis of morphology and evolutionary trends are avoided here but if the reader is interested he may find a beginning point of inquiry in the appended bibliography.

AVOIDING EVOLUTION: AN APPRAISAL OF CURRENT HOMINID THINKING

By T. J. WEBER

INTRODUCTION

Even a cursory examination of the literature confirms that there are opposing views on the interpretation of hominid evolution. However, the implication that the sides are about evenly drawn between those favoring the idea that modern man is very old as against those arguing for a "stages of evolution" sequence (making modern man recent) is not warranted. Indeed, a perusal of the texts, old and new, seems to indicate that the majority view from the time of the first Neanderthal discovery to modern times has, in effect, allowed for an early modern hominid. On the other hand, the voices contending for a linear sequential development have been in a definite minority. While the neanderthals have been (and continue to be) the main villains in the piece, the pithecanthropines and austraopithecines have also had their day. The background to the essential controversy is brilliantly (albeit tendentiously) documented by Brace (1964). Whether or not one agrees with Brace's thesis that Cuvier's catastrophism is consciously or unconsciously a root factor in "early hominid thinking", it is at least clear that the major effect of the activities of many physical anthropologists over the last one hundred years in assessing fossil men has been to deny that the known forms fit into a sequential "stages of evolution" scheme.

Although a great deal of the impetus for the traditional conviction may be laid to soft sapiencentered thinking because "even the scientist may not find it easy to clear his mind entirely of an emotional element" (LeGros Clark 1954:121), still in the final analysis the position taken has had to rest on the hard fossil record. What is this evidence? For the majority, the data has consisted of a limited number of essentially unrelated fossils all of which have had at least two things in common: (1) they were seemingly "modern" looking, (2) yet they apparently appeared in an early time context. While the list is brief, it has surely been troublesome for the proponents of sequential, orderly evolution. Although not all these phantoms have as yet been dispatched as finally and convincing as the infamous Piltdown skull (an essentially modern braincase with an entirely ape-like jaw, all allegedly of great antiquity but now universally recognized as a hoax), a recent restatement indicates that the aberrants are gradually being accounted for:

"The hominid fossils, believed to be like modern man in morphology, but of early middle Pleistocene age, have been found at Swanscombe, Galley Hill, Bury St. Edmunds (England), Fontechevade (France), Ehringsdorf, Steinheim (Germany), Krapina (Yugoslavia), and Tabun (Mt. Carmel, Palestine). Some of these have been included in Progressive

Neanderthals; others have been considered true sapiens; others have been removed from consideration because of uncertainties in the dates assigned to them" (Buettner-Janusch 1966:150).

At this time probably only two of these forms present any continuing problem -Fontéchevade and Swanscombe. Ashley Montagu, co-author with Brace of a recent forceful statement placing the known fossils in a linear evolutionary relationship (Man's Evolution 1965) and thus an investigator whose bias is clear, still considers these forms worthy of special commentary (Montagu in Brace 1964:33). As far as Brace is concerned, while his original assessment of Fontéchevade (1964:7) was somewhat more astringent than a later view (Brace 1965:243), still this third interglacial specimen of an alleged pre-Neanderthal sapiens (it lacks the primitive browridges) does not do well upon re-examination. Probably the most charitable disposition to be made of these remains is to note that they were sufficiently distorted in reconstruction so as to leave some doubt as to proper evolutionary placement and to make diagnosis as a neanderthal at least possible. Again, Brace has attempted to deal with the Swanscombe remains (three skull bones of possible second interglacial age yet having a modern look) but here he seems to have been less successful in attributing the "modern" diagnosis to warping (Brace 1964:10 and CA commentary thereto). Possibly a worthwhile admonition on Swanscombe appears in an assessment made by Le Gros Clark in 1954 relative to these remains:

"But, although the geological and archaeological estimates of the antiquity of these gravels are reasonably sound, there are two reasons for a certain amount of caution in regard to this specimen. In the first place, it is an isolated specimen ... secondly, the so-called "skull" consists of only two (now three) bones of the brain case..." (1954:125-6).

A recent statement by good authority suggests Swanscombe man was probably a "progressive neanderthaler" and that now "...there is no evidence for modern man before the last interglacial...." (Harrison et al 1964:81).

For those who are fretful that the known aberrant fossil forms may ultimately all be accounted for we have recent developments to reassure them. Thus, what Leaky first called "pre-Zinjanthropus" (1963) has subsequently been dubbed "Homo habilis" by his co-workers (Tobias 1965) and is being offered as a hominine contemporaneous with the australopithecines and thus surely the earliest of early men. While the problem presented is not of the traditional variety, still the unhappy coincidence of tantalizing nomenclature plus a suggested new line of evolution (bypassing the australopithecine stage) serves to revive old notions. Happily for the sequential evolutionists, if one may gauge recent introductory texts as representative of at least the American viewpoint, Homo habilis may as

readily be identified as an australopithecine notwithstanding a cranial capacity range of 643 to 724 cc, a mean of 80 cc more than the largest known capacity of the australopithecines (Hoebel 1966: 146; Buettner-Janusch 1966: 166-7).

In contrast to all the foregoing supporting the traditional viewpoint, the most recent restatement of the opposition conviction that, in fact, modern man is quite recent is given by Brace and Montagu in Man's Evolution (1965:214-259). It is predicated upon their postulated sequential development of human evolution through a series of stages. Basically, the scheme is that of Schwalbe (Brace 1964:18) with the addition of an australopithecine phase of the bottom so that the four stages in human evolution can be summarized as follows (based on a variety of sources and intended as an approximation only):

| Stage | Physical Characteristics | Approximate Time | Cultural Development |
|-------------------|--|---|-------------------------|
| Australopithecine | Erect posture- reduced canines | 1 to 2 million year B.P. Upper Villafranchian times | Crude Tools |
| Pithecanthropine | Enlarged brain- reduced molars | 1/2 to 1 million year B.P. 1st to 2nd Interglacial | Fire |
| Neanderthal | Modern brain | 100,000 to 40,000 years B.P. 3rd Interglacial and 1st Wurm | |
| Modern | General facial- overbite reduction | 40,000 years B.P. Wurm I/II Interstadial | Food Production |

It has been noted that the "stages of evolution" notion is a minority view. This is believed to be an accurate diagnosis of modern anthropological thinking notwithstanding a recent tendency to accept "phases" (Harrison et al 1964:66–71) nor the perfunctory treatment now accorded to some former aberrants (Buettner-Janusch 1966:150–151). The fact remains that at least the "Classic" Neanderthals are practically universally considered a peculiar side branch of man which eventually became extinct without descendants and this view has prevailed for at least the last seventy years (Brace 1964:13,20). Considering that there has long been convincing archaeological evidence of an unbroken cultural sequence and an available reasonable postulate (as by Schwalbe) to account for the various forms in an orderly manner, the conclusion is fairly compelling that whatever the root causes and regardless of the oft proclaimed adherance to the principle of evolution through natural selection, the

majority viewpoint must be considered as essentially nonevolutionary (Brace would say anti-evolutionary - 1964:20) and thus irreconcilable with the "stages of evolution" viewpoint.

The reader has probably noted that the writer is compelled to the evolutionary side. It should also be apparent why this should inevitably be so. The fact is that no consideration of "early hominid thinking" is possible without a review of the fossil aberrants for the general record is essentially without controversy. Further, upon such re-examination it is invariably clear that the questioned forms were not aberrant at all and that their scanty remains should accordingly be added to the hundreds of accepted forms that otherwise already point to an evolutionary sequence. Beyond this observation on the "disappearing aberrants", the following represents additional compelling reasons one might summarize in support of the "stages of evolution" viewpoint:

- (1) It represents an orderly and reasonable way to account for a great mass of human paleontological evidence (concerning the bulk of which there is no disagreement) in a way most in accord with the principle of evolution by natural selection;
- "Since the various hominid fossils can be associated with successive stages in the relatively more complete archaeological record, it would be absurd to deny that these fossils represented previous stages in the evolution of modern man" (Brace 1965:215);
- (3) Any contention for an "earlier" form of necessity postulates at least two coexistent fossil man forms. However, ecological considerations argue against more than a single hominid genus or species at any time in the past. "The probability is very low that a distinct species of the same genus coexisted in the same econiche" (Buettner-Janusch 1966:171).
- (4) It seems unlikely that the cultural process was developed more than once a necessary corollary to coexisting early hominid thinking. "All the evidence for the existence of culture, from the present day back to the early Pleistocene, appears to stem ultimately from a single tradition, and any claim that different kinds of primates simultaneously invented the same cultural adaption puts a strain not only on our credibility but also on the laws of probability" (Brace 1965:216).

Adherence to a strict evolutionary viewpoint does not deny the existence of normal variation at any particular fossil time nor its attendant possibilities for confusion in evolutionary classification. However, the writer fully supports a basic contention of Brace that "we might better spend our time explaining how man could have evolved rather than denying the existence of evolution" (1964:20). (This article or any portion thereof, may not be reprinted or reproduced in any form without the prior permission of the author.)

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THE BILLY CREEK BURIALS

By Gene Galloway

During the summer of 1962, Phil Snider, age 7, and his friend Lee Dunham, age 8, were playing around some rocks about a quarter of a mile from the Billy Creek Pumping Station south of Buffalo. The boys discovered several artifacts and some bone fragments on the surface. The site was identified as a burial and subsequently fully excavated by their respective families.

The writer learned about the discovery in a roundabout fashion and visited the Snider home where he was able to examine the material recovered. He is indebted to Mr. Gene Snider for his interest and cooperation in making a brief report possible. Jim and Dorothy Goodwin and the writer later visited the site itself and mapped the immediate area.

THE SITE

The burials were located on the west and southwest side of a sandstone erosional remnant at the top of a small hill about 200 yards southeast of the Billy Creek employees residence area. There is no apparent difference in this particular hill and dozens of others in the general vicinity. The sandstone slabs littering the hilltops are apparently slumped caps of defunct buttes.

THE SKELETAL MATERIAL

The bones from the Billy Creek Burials were very fragmentary. Three individuals were represented and possibly all three had been at least partly exposed by erosion at one time or another.

The skeletal material was examined by Mr. Al Fix, a graduate student in physical anthropology at the University of Michigan. His classification of the individuals generally confirmed the writer's own and added some specifics. His determinations are as follows:

- I Juvenile, age approximately 14 years, sex undetermined. Represented by fragmentary long bones, one inominate bone, and one second molar. The estimate of age at death is based on the unfused epiphyses of the long bones and the degree of root formation of the erupted second molar.
- I Old (age 45 plus) Adult, probably female.
 Fragmentary mandible with three teeth, six
 loose teeth, part of pars petosa, and the first

and second cervical vertebrae. Extreme wear on teeth and several were lost before death with sockets reabsorbed. The only clue to sex is the wide gonial angle, which dosen't mean very much by itself.

Adult Male, probably young (20 - 30).
 Represented by most of one femur and few cranial fragments.

THE ARTIFACTS

A total of about IIO projectile points or portions thereof were recovered. The fragmentary nature of a number of these could be indicative of previous erosion. Several specimens showed definite signs of having been in a fire. The points are neatly triangular with a straight or gently concave base. Notch placement varies from distinct corner notching to definite side placement near the corner. The angle of the notch is quite uniformly given a definite slant toward the point. The projectile points are highly remoniscent of the Leath Burial material (see the Wyoming Archaeologist, Vol. 5, No. 2, June 1962) and on the basis of experienced guesswork, there seems a good probability of cultural relationship.

Twenty-three tubular beads of bird bone were found. Similar beads were present at the Leath Site. Length of the Billy Creek specimen range from .1 inch to 1.7 inches, and diameters range from .1 inch to .3 inch. All were moderately smoothed at the ends and one is slightly tapered toward both ends. About half a dozen Unio shell pendants are represented. Two of these specimen are complete. The edges of the pendents are only slightly smoothed. The specimen are drilled from both sides and the rest from one side only.

One sandstone shaft smoother and an undetermined number of small, rough core befaces and flakes were also included in the assemblage.

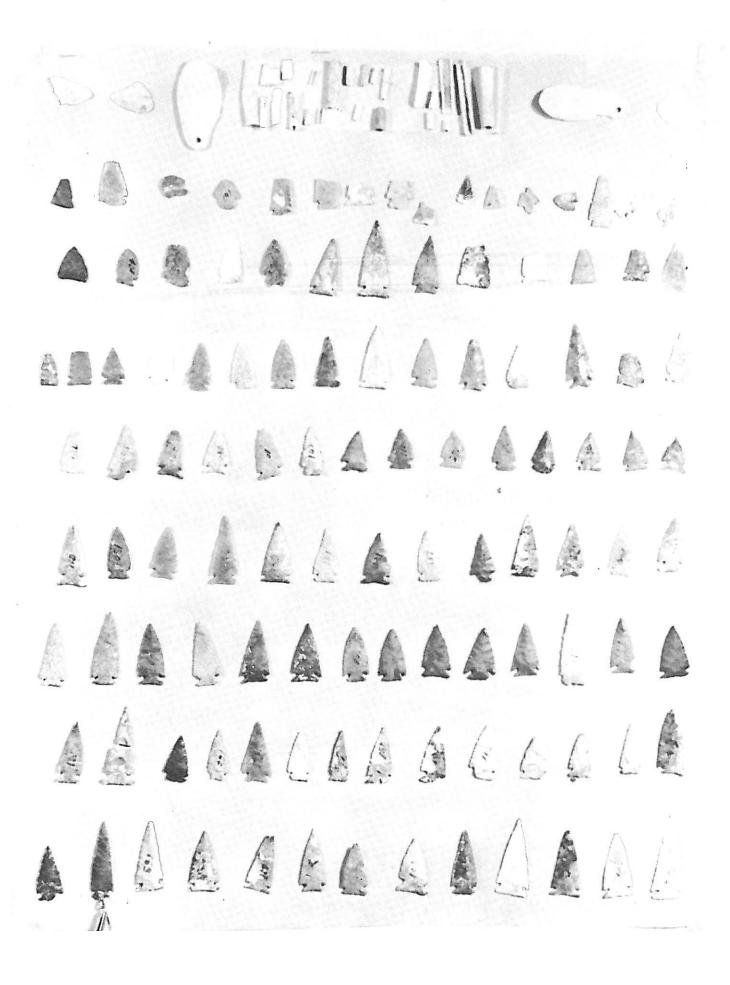
ANIMAL BONE

A number of thoroughly burned bison (?) bone fragments were found along with the human bone.

CONCLUSIONS

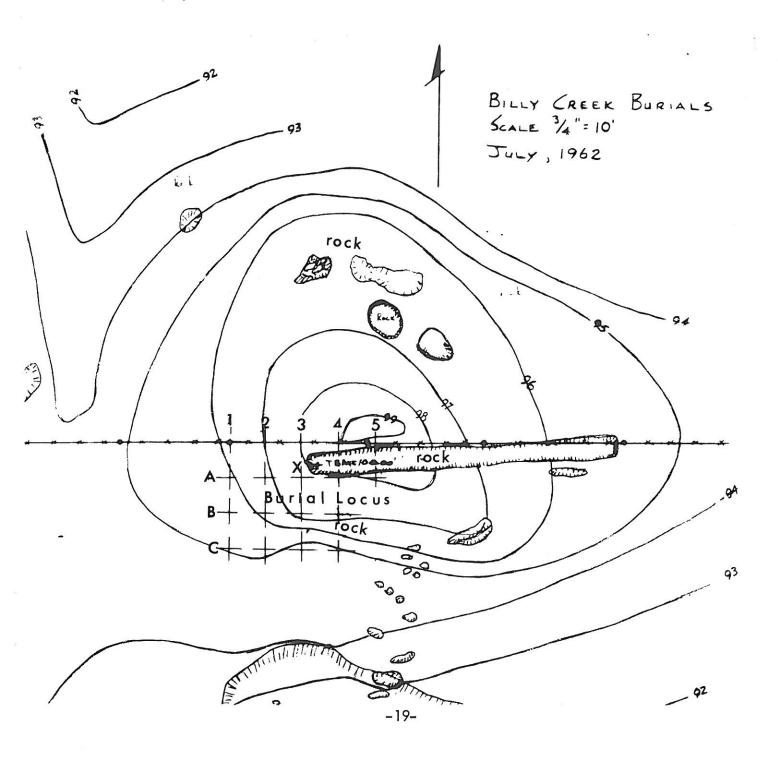
The Billy Creek Burial projectile points demonstrate a similarity to the Leath Burial points. Animal bones were apparently associated with both sites. Burned artifacts were present at Billy Creek only.

Some of the projectile points from both locations are very similar too, if



not identical with, Avonlea material as distinguished in northern Montana and southern Canada. The Avonlea horizon has been rather firmly dated at about 1,500 years before present. The similarity of the projectile points probably indicates some degree of contemporaneousness; possibly cultural affiliation as well.

Phot courtesy of Gene Snider Map by Jim Goodwin



AN ANALYSIS OF THE SPANISH DIGGINGS REGION OF WYOMING DURING PALEOLITHIC INHABITANCE

By Mr. James Duguid and Mr. Gabriel Bedish

A most curious happenstance of the advent of paleolithic man upon the region now known as the Northwestern Plains – is the origin and pursuit of quarrying and accompanying workshop activity common to the region known as the "Spanish Diggings" of Wyoming.

In this region of such extensive quarrying activities, we are only beginning to penetrate or uncover in a limited scope, the many peripherals of a gigantic paleolithic workshop. We find the actual area of the quarrying embraces over five hundred square miles. The Spanish Diggings, in northeast central Wyoming reach from south of Manville and the Rawhide Buttes, intermittently to 20 miles west of Laramie Peak. Southerly, they extend from the Rawhide Buttes to the North Platte River – south of Saw Mill Canyon. U. S. G. S. Map NK 13–5 provides a coverage of the region.

The name "Spanish Diggings" is a complete misnomer. The quarry site is neither of a Spanish origin, nor, of the nature of a "Diggings". No precious metals or minerals were sought. The first cowboys and white settlers of the region in the 1870's believed Spaniards entered the region in quest of gold and silver, and thus the extensive open pits must represent a tremendous mining activity.

When the Spanish explorers first penetrated into the New World, they did some digging for precious minerals, particularly in the Southwest. In Missouri, they also sought galena and lead. Thus, the term "Spanish Diggings" came to be applied to quarries throughout much of the country. At the time, nothing was known of the paleolithic inhabitants of the region. Thus the misnomer stuck and gave this name to the region.

First white men near the region were Robert Stuart and his Astorians, who traversed the nearby North Platte River about where Cassa remains – from west to east in 1812.

George Burke, early Texas trail cattle baron and drover, saw the region shortly following the Civil War. ,

In 1900, the region was an unknown facet in American Archaeology, when it finally was recognized as a paleolithic site by scientists. In that year, Dr. George A. Dorsey and his party visited the area. The following description is given in his report for the Field Columbian Museum, Chicago, Illinois:

"Here and there over the surface are many pits having a diameter of 20 to 50 feet, and a depth of 10 to 30 feet. The walls and bottoms are covered with flinty refuse, which, although artifically broken up, shows little indication of having been otherwise worked by man.

In the more open spaces between the pits, especially on the southern slope of the eminence, are many round tipi circles . . . no quarry implements except hammer stones were found . . . an examination of the rejectage of the shaping work about the pits shows that material most utilized was that which could be worked up into a knife blade or long and rather broad lance heads, or still larger leafshaped implements. Nothing was found in a finished state, and even partially worked specimens were not numerous."

Dorsey, George A., An Aboriginal Quartzite Quarry in Eastern Wyoming.

Robert F. Gilden, of Omaha, Nebraska, in 1906, visited the region. He published accounts of the phenomenal quarries he found in the Sunday Omaha World Herald newspaper dated September 2, 1906. Additionally, he prepared a sketch map locating some 20 groups of the ancient quarries to which he gave names of various persons who had taken part in the study of the quarry phenomena.

Figure I presents a composite map that may be joined together. On it are shown the locations of the major quarry sites, and will aid the reader as we attempt to summarize the cultures, complexes, and activities of paleolithic manin this area. Further contained in the Appendix are illustrative needs.

We will attempt to discuss the geology of the region; the anthropological-sociological factors; the manner and method of paleolithic mining and quarrying, combined with rough handling of the mined rock; a resume of the stone industries; analyze site working and traversing of the land common to the inhabitants; and, include other lore significant to inclusion – as then arrived with in the antiquities.

First investigations of the sites were brief. Subsequent research has brought to light both a hunting as well as agricultural ecology that was attracted to the region for the purpose of mining and quarrying cryptocrystalline quartzite, banded jasper, chalcedony, chert, and moss agate.

The accompanying listing is of the cultures and the time span of occupation as found at the Hell Gap Site – habitations of peoples that mined and quarried in the Spanish Diggings:

I. A TIME SEQUENCE OF INHABITANCE OF THE SPANISH DIGGINGS AND HELL GAP VALLEY (Dates represent first known inhabitance)

American Indian (After 1,200 A.D.)

Side Notched Points 800 years before present 2,500 years before present

McKean 4,500 years before present

Agriculturally oriented societies are assumed to have lived after the Altithermal and previous to arrival of the nomadic American Indian.

Altithermal (6,000 B.C. to 2,500 B.C.)

| | Approximate | |
|--|---|--|
| Frederick-Angostura Cody Complex | 7,200 years before present 7,900 years before present | |
| Alberta Hell Gap Agate Basin Midland Folsom Signs of a little known cu | ell Gap 9,200 years before presen gate Basin 9,600 years before presen lidland 10,200 years before presen | |
| have been observed, but are not classified. | | |

Soil profiles along the ravine sides of workshop areas often reveal occupational lenses prior to the Altithermal but during which little activity is noted. Following the termination of the Altithermal, activities in the region resume.

The more recent, somewhat arid climate of the locality has, in the past 12,000 years, tended to obscure details vital to good dating techniques.

GEOLOGY OF THE REGION

The geologic formation is presently known as the Spanish Hills. It is a semi-arid country, rolling with hills, low mountains, and of many buttes overcrossed with broad draws.

They are of a sedimentary formation of the Paleozoic Mississippian and Pennsylvanian eras (280 million years to 345 million years ago). Gigantic volumes of precipitating waters occurred with natural drainage through Saw Mill Canyon from the then existing system today visible as collapsed caves near Wendover Canyon, another drainage vent.

Creation of the present topography of the Spanish Diggings came with the upthrustings in the Hartville Uplift during the Laramide Revolution in the Late Pleistocene.

During the glacial envelopment of the Late Holocene, and the Mankato, it is believed an isolated glacial system independently formed over the northern Laramie Mountain Range, although it failed to advance much farther south into the vestiges of the Spanish Diggings. Upon melting, gigantic run-off spilled moraine, and now present river bed rock, over an area reaching to near the Chadron Breaks. The main torrent was spilled down what is known as Horseshoe Creek Canyon, thence through Wendover Canyon. For milleniums, the river presently known as the North Platte, followed this course until alternation to the present channel.

Most of the quarry sites are located on upper extremities of rounded or slightly rounded eminences of from one hundred to two hundred feet – attaining height with a gradual ascent. From the summits one looks off in almost every direction over complete reaches of uninterrupted plains as in Photograph A.

The upper capping of the buttes, upon which are deposits of crumbled rock, wind blown eoleum, and mounded soil, the ends of which expose stratification of predominantly horizontal rock. From this the hill and butte sides gradually slope to the plain. These stratum vary from 4 to 30 feet thick though most average from around 10 to 20 feet.

"Having been precipitated upon by silicous waters, they formed a quartzite. The stratum is of variegated color, passing from yellowish-brown to violet-gray, varied with shades of pink, violet, yellow, purple, and various other hues; it is a most beautiful and remarkable color effect to see".

Dorsey, George A., Ibid

Weathering has created vast overburden, but beneath the upper capping are often found irregular rounded or somewhat elliptical masses of more dense nature. Such masses resulted from solidification of silicous waters "percolating" into random cavities thereby refining and hardening such strata, displacing into bands by forming cores or irregular masses, or nodules. This fine grained material, because of its characteristic flaking ability, was the object of the quarrying activity.

Thus, the quarrying grounds came to exist.

ANTHROPOLIGIC - SOCIOLOGIC FACTORS FAUNA AND FLORA

To man of paleolithic years, living must have been awesome. The mere need for survival in those times of constant peril nurtured a human of great spirit able to face the ever present danger from adverse climatic conditions, danger from animals

and ever present sickness and hunger. Truly, he must have been great in many ways - most intelligent, and above all, adaptable.

During one interval, man survived while the great Columbian Mammoth, which is a behemoth standing 14 feet at the shoulder, became extinct. Whether hunting or precluding climatic change caused the extinction is not known. However, the appearance of Bison Antiquus and Bison Occidentalis – resolving the food supply by possibly a devine intervention – caused great emphasis to be placed upon the making of hunting tools – unrivaled by succeeding ages of Paleolithic Man and Indian. Tools, such as the Folsom and Cody Complex produced, demonstrated a tool making art never again approached by succeeding ages.

In the areas of initial quarrying, valleys below the hillocks were a marshland. Water and wood were in abundance in a bountiful climate of lengthy summers but with the arrival of the glaciation, summers passed into hard winters. But meat was near at hand and man additionally found various herbs, roots, berries, and wild vegetables.

A hearth of a campfire was his hearth of living. There, mostly in protected ravines, are found the location of his campsites. However vital was the apparent introspective way of life of the ages past, we can only strain our imaginations to picture what life must have been like.

Chief among the artifacts recovered from the past are the utilitarian scrapers, kn ives, ax-heads, hammers, milling stones, weapon or spear points, and some forms of agricultural implements.

Fauna of the times were, with existing life represented in years:

PALEOLITHIC MINING AND QUARRYING

Implements, rough blanks, and unworked or partially worked cores of this very distinctive and intensely quarried stone have been recognized throughout western North America, and have been found as far eastward as the Mississippi and Ohio River valley.

Man, too, did venture into the iron oxide deposits of what is now the Sunrise, Wyoming mining development presently in operation, to tunnel to depths of near 20 feet inasmuch near 80 feet in length, for the brownish-red hematite material found there.

New Stone Age Man achieved no prowess in metal work or pottery making in the subject region of the report. His geographically nearest known ranking cultural site is that of the Hell Gap Valley. Dating to 11,000 years before present, it is located 27 miles north of Guernsey, Wyoming. Refer to list I for summary.

Inhabitance of the report sites have been thought to be of many intervals. Over a considerable span of time, groups came to the site when in need of stone. The material itself is truly a fine specimen for working. It gives a metallic ring when struck, and breaks with conchoidal or extremely thin laminar fractures.

In reviewing the values sought after in mining and quarrying material for implements, it is important to note what remarkable strivings were in the inhabitant needs, in the prodigious labor performed in the sites. Among the hindering factors were oxidation – exposure to air – tending to rot rock; it is severe in accompanying the toll due to weathering.

Man was forced to probe deep within the recesses of the underlying levels and irregular formations to gather desired material. The removal of some ponderous sections in a slab of overburden mantle is – when considering the primative implements at man's disposal – a great feat of which Photograph B is testimonial.

It is thought combined employment of intense fire and subsequent dashing of the heated surface with cold water, or water placed in recesses to freeze and swell, would crack the massive ledges of rock. Followed up with a driving in of wooden and flint wedges, with a combined prying of poles, undermining of the slab to fell it, and hammering with shortened elk or deer horn, roughly flaked almond shaped large-size flint, or appropriately shaped river bed rock, toppled the overburden and mantle in the some times gigantic remains we see.

Then, sought after formations were battered out, to be sized into rough blanks for chipping. Three forms of quarrying and mining procedure existed. They are:

- 1. Assault of a mantle formation in its covering and periphery.
- 2. Caving or tunneling into a formation.
- 3. Descending with a circular or necessity-shaped pit; mining in concentric or outlying, ever-increasing margins.

Other visable methods of mining might have vanished. It must be remembered weathering and crumbling of the rock structure, the great eoleum deposit of

7

the altithermal, and even recent depositions such as we saw during the Greet Dust Bowl of the 1930's, have obliterated or buried many traces of activities.

Some horizontal running caves are 50 feet deep as evidenced in the Holmes and Barbour Quarries, while several pits adjacent to the Riggs Quarries are estimated to have descended 40 or more feet. Usual pit depth, however, is from 6 to 20 feet with diameters of from 12 to 50 feet.

Excavating of pits has revealed wedges left driven into place before abandonment, with subsequent filling in with refuse or reject rock. In pit form quarrying, the practice of locating pits directly adjacent to one another permitted the filling in of worked out pits with overburden and reject rock from pits excavated nearby. Photograph C presents a typical pit field from the Barbour Quarries.

Associated with the mining and quarrying of deposits, close at hand, were the preliminary sorting of useable rock from rejectage. From the material taken from deposits, the clinging calciferous rock had to be trimmed, areas of defect removed, and the first rough shapes of the desired implements, or cores, established.

Flint deposits in not far distant Muskrat Canyon to the southeast were utilized for shaping out hammer stones and wedges.

It is interesting to note that in our age of modern machines to mine and quarry vast undertakings from Mother Earth, that early man along with his first contemporaries, wrested a conservative estimate of 250,000 cubic yards of rock from one quarry site alone. A goodly amount of rock to be battering out by primitive types of man.

Photographs A, B, and C are typically symbolic of the features found for quarry sites. Drawings I, 2, and 3, correspondingly illustrate listed salient mining and quarrying methods.

RETROSPECT OF STONE INDUSTRIES

In the initial phase, stone industries for implement forming was done at the quarries; with wood, water, and food not far located. Implements of such cultural foundations, or site complexes, as are concerned for agricultural implements, drawn in the Appendix. Descriptions of other known implements are well known.

For this region, man's existance prior to the historical American Indian, was not established until the late 1920's. Then his presence in the west was validated by accepted scientific discoveries. No interpretation could be applied to the region of this report until after such validation. Other significant artifacts of succeeding periods are additionally illustrated in the Appendix.

Folsom Man's first established art of implement forming was never equalled in craftsmanship. Not many of his finished artifacts are found at quarry sites. Indians of the Late Period often reused artifacts of previous ages, along with making use of former quarry rejectage. He did not quarry to the extent of previous occupants. It was slightly before, and during the occupation by the American Indian, that phases of agricultural implements were worked.

Some chipping processes have been a result of a combined rough and finished forming immediately after removal of the rock from formations in the quarry. In a dampened condition, it could be more readily worked into difficult shapes. Hardening in the atmosphere often carried physical properties past proper ductility, or hardness, for proper chipping. In turn, sometimes cores, nodules, and roughed out pieces were layed in fire for intervals to fire-temper. Chipping reject was usually due to being too thick when chipped; or for adverse fractures, spores, breakage, or other small imperfection.

After the Altithermal, the quarry site no longer was a living site; succeeding peoples established living sites as workshops directly guided by needs of water, shelter, security, and wisdom, away from quarry sites to outlying peripheries. During the ages they lived, they often came to establish campsites where predessors to the region had been, leaving cultural artifacts in eveloping strata of what are sometimes ravines today.

SITE TRAILS AND TRAVERSING OF LAND

Prehistoric game trails began the trails of man in much of the west in his search for food.

Trails to the Spanish Diggings for paleolithic peoples were:

- a. from the north and northwest by way of North Lost Creek and Muddy Creek
- b. from the east by way of the Niobrara River and up Rawhide and Cottonwood Creeks
- c. from the west by way of Wind River and over South Pass, up along the Platte River and Laramie River.

River and creek trails were held to for presence of pasture, wood game, and shelter.

American Indians covered identical trails.

Fur traders, trappers, and early settlers established trails with saddles of the land as their guide.

LORE OF THE "SPANISH DIGGINGS"

No petroglyphs have been found in the region. However, stone circles abound about the plains emanating from the hillocks. One setting of the rings, or circles, cover a sector one mile by one-half mile west of Flat Top.

Rock alignments also exist north of the Dorsey Quarries near to the center of the quarried region. Mostly consisting of lines of boulder and rock, they are more near to straight line in alignment, than to any configuration.

A cross-shaped alignment is also found somewhat centered in the rock alignment formations. The form is in dimension alone of physical measurement of about eighty feet in length, and twenty-five feet in breadth.

It is with many years of study that the foregoing is presented. To us who have often visited the "Spanish Diggings" of Wyoming, there is known to be considerable archaeologic potential remaining for appropriate study.

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Technical Assistance: Mr. James A. Duguid, Jr., Laramie, Wyoming

Mr. Paul C. Henderson, Bridgeport, Nebraska

SUMMARY By Lou Steege

The area covered by the "Spanish Diggings" in East-Central Wyoming is huge, and includes portions of four counties. Some of the quarries are quite large and others are merely confined to single large boulders which have been beaten to remove spalls and flakes for artifacts. Thousands of tons of select material was removed and carried off by prehistoric man for many centuries. Actually, these prehistoric stone quarries are much more extensive than the better known "Flint Ridge Quarries" of Ohio, the "Alibates Quarries" of Texas, and the "Pipestone Quarries" of Minnesota. Yet, little is known about the Wyoming quarries.

One has only to visit these quarries to visualize the countless numbers of smashed toes, bruised shins, and bleeding fingers – accidents caused from the primitive mining methods.

The article by Mr. Bedish and Mr. Duguid is quite illustrative of these early mining techniques. Although the region is vast, very little research has even been conducted in the area. Perhaps in the future, studies in the region will bring to light many unknown facets in the mode of living of the many different people who inhabited this area for thousands of years.

INDEX TO QUARRY SITES

| Symbol and Number | Name of Quarry | Type of Activity |
|-------------------|----------------------|---------------------|
| A 1 | Black Agate Quarries | Strip and pit |
| <u> </u> | Everett Quarries | Strip and pit |
| " 3 | Brooks Quarries | Strip, Cave and pit |
| . " 4 | Adele Quarries | Strip and pit |
| " 5 | Gautschi Quarries | Strip only |
| " 6 | Barbour Quarries | Strip, Cave and pit |
| " 7 | Dorsey Quarries | Strip and pit |
| " 8 | Holmes Quarries | Strip, Cave and pit |
| " 9 | Riggs Quarries | Strip and pit |
| " 10 | Hi Smith Quarries | Strip only |
| <u>" , 11 </u> | Osborn Quarries | Strip only |
| " 12 | Culin Quarries | Strip and pit |
| " 13 | Owtwo Quarries | Strip and pit |

Symbol with no number, is a major quarry site with no known name present. Such listed are of strip and pit type of activity.

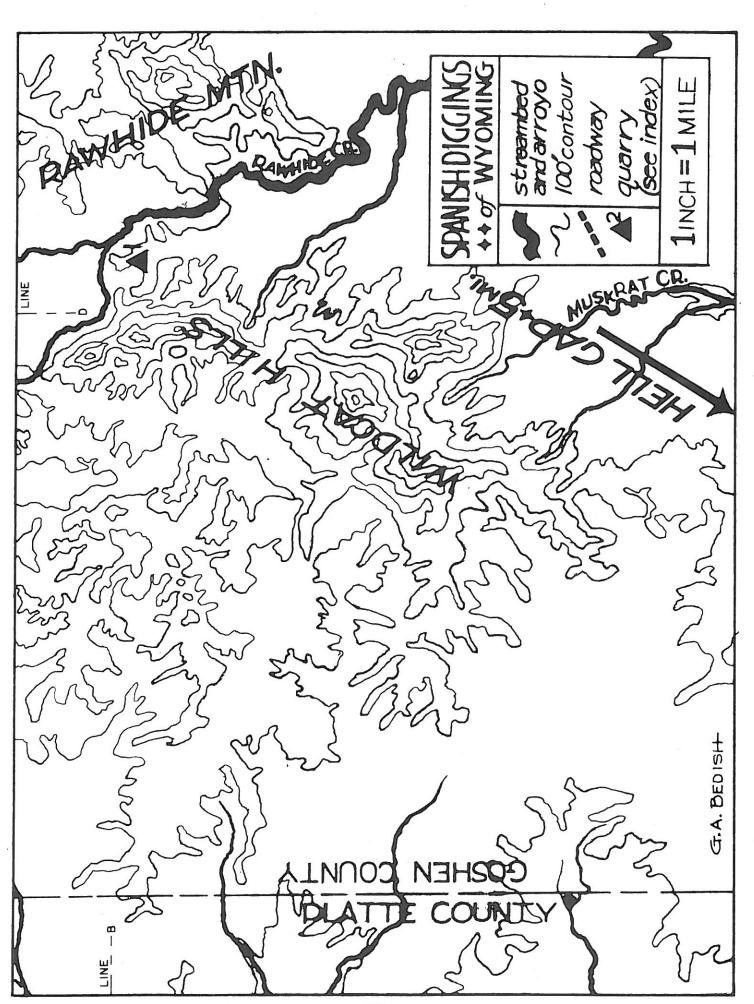
Strip Activity - refer to Figure 1
Cave Activity - refer to Figure 2
Pit Activity - refer to Figure 3

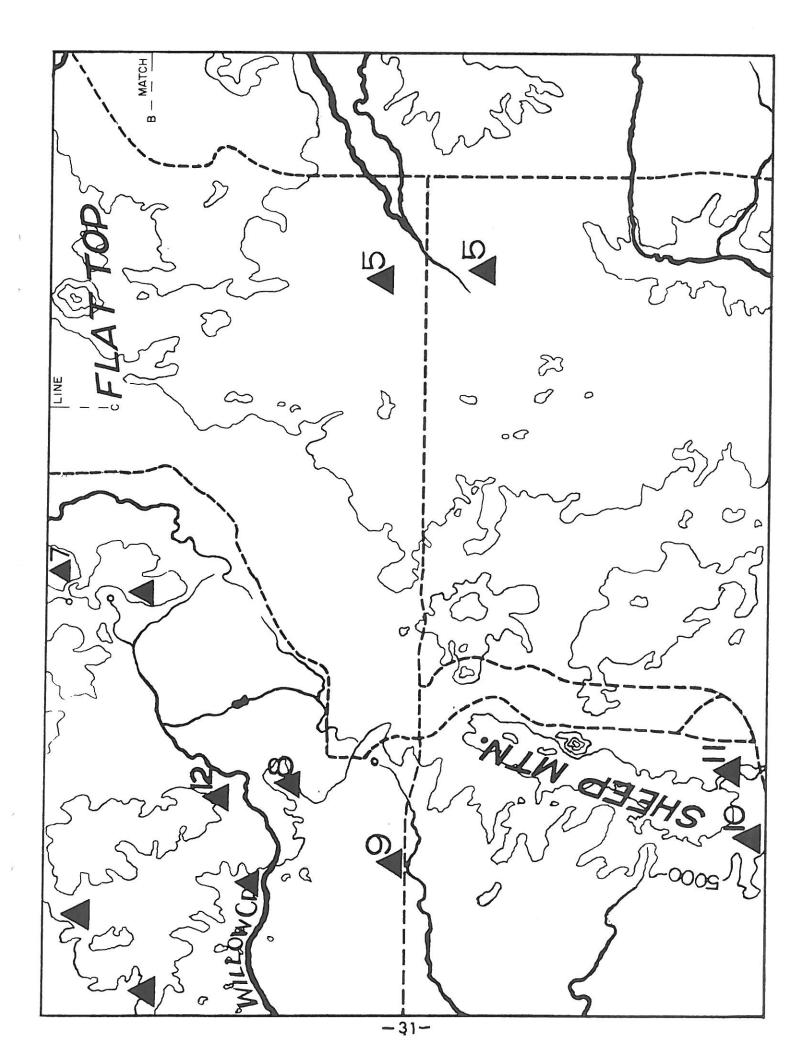
S F Corresponding to cross-shaped alignment*

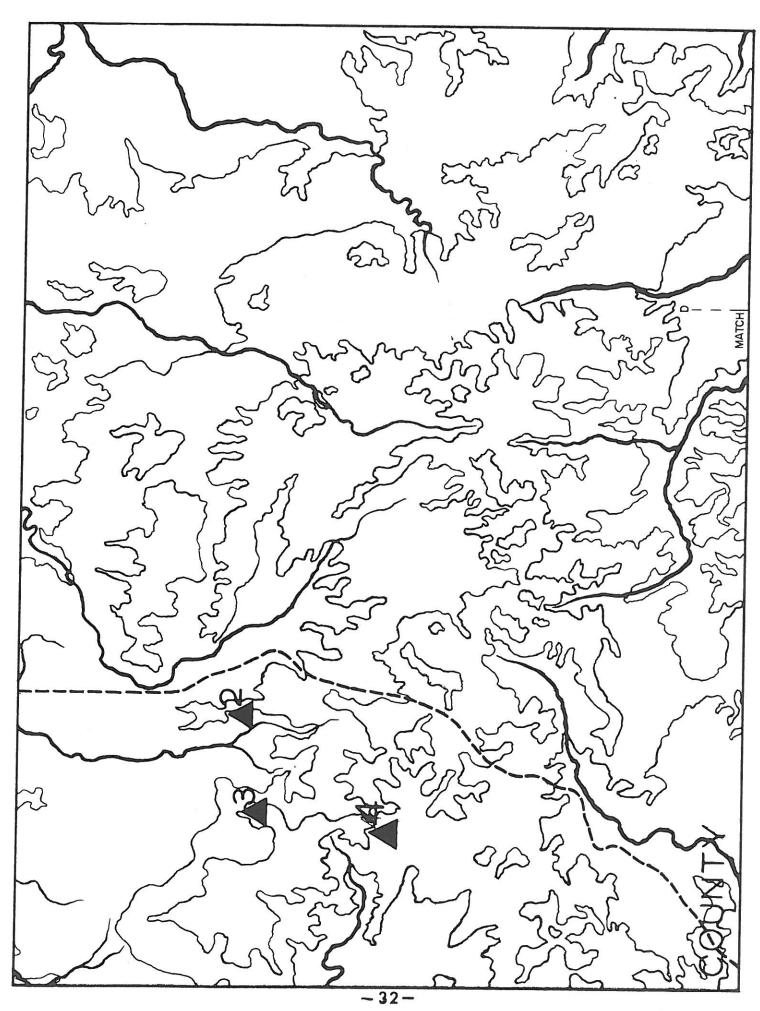
Principal quarry sites are listed of a larger area of "opened-up" rock formations. Also, many other sites exist among the many buttes overcrossed by numerous drawsnot listed on the map, nor named. The sites utilized for rock chipping, and living sites, were maintained throughout the existing countryside for as much as 20 miles from the listed quarries. Area of the various quarries total hundreds of acres.

Southerly lying Saw Mill Canyon holds strip, cave, and pit mining and quarrying sites; as does eastern lying Muskrat Canyon. However, the locations do not constitute the known, established region of the "Spanish Diggings", or are sites of the vast magnitude.

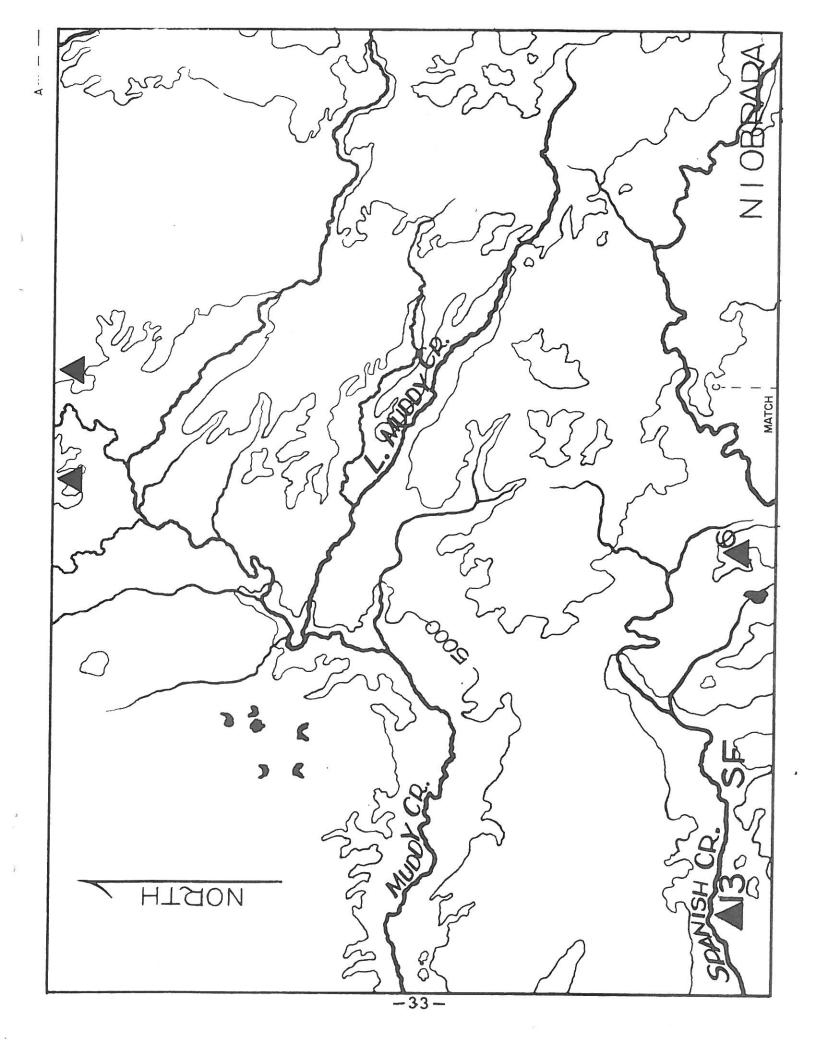
^{*} The "cross-shaped" rock alignment is a phenomenon of no known date of origin. In that there exists no medium, or mechanism, with which dating could be established.

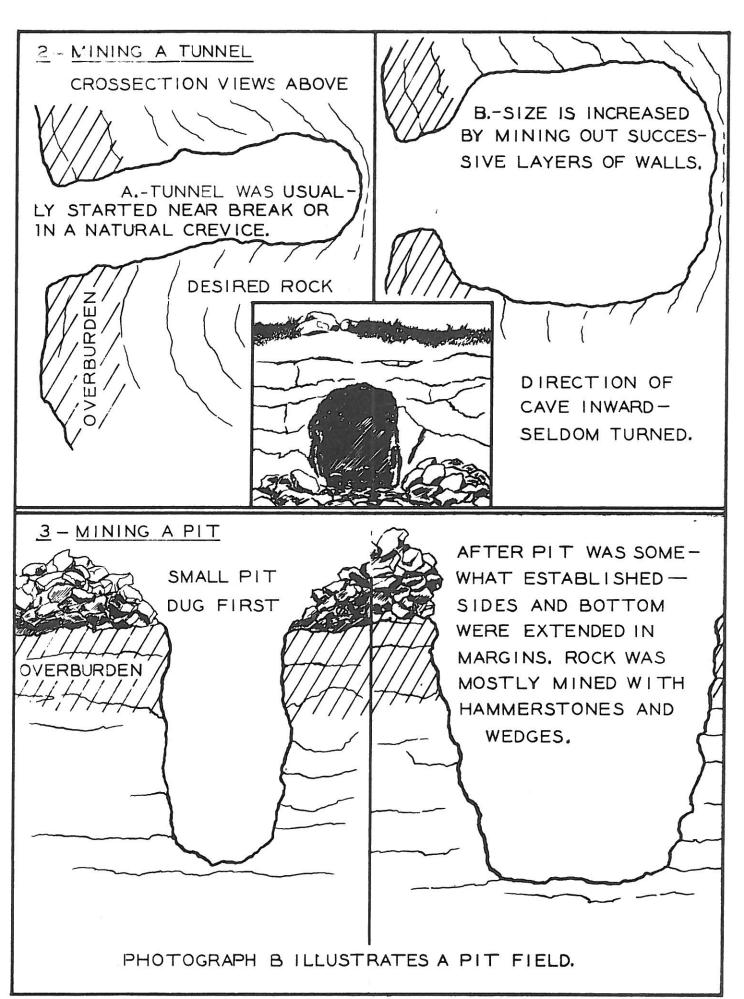


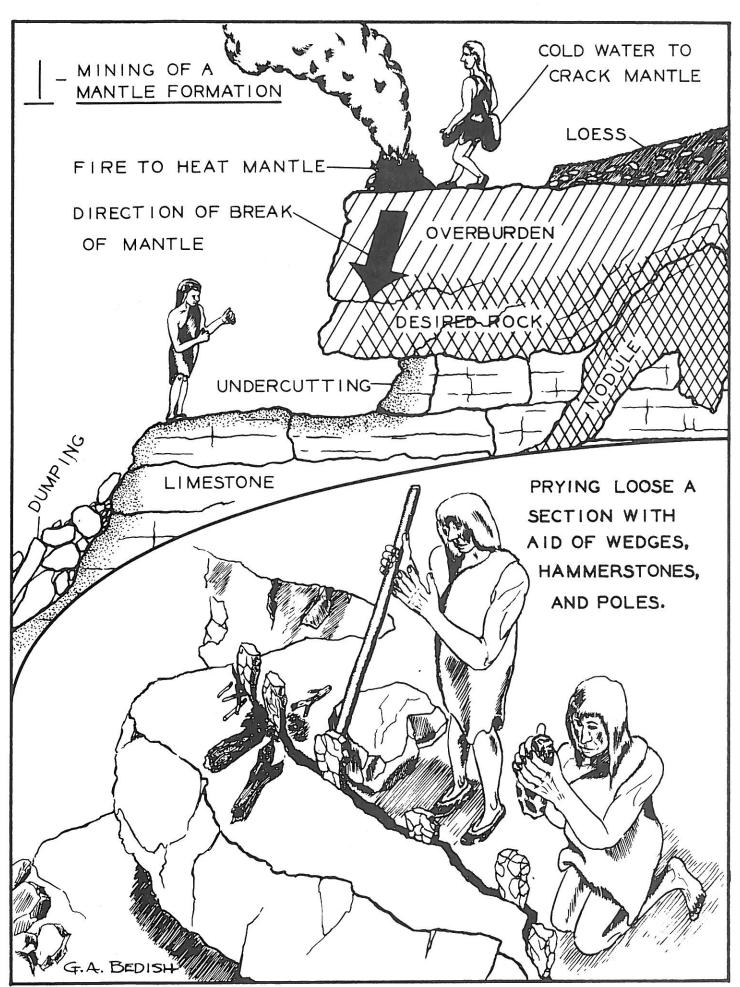




AATCH LINE - A





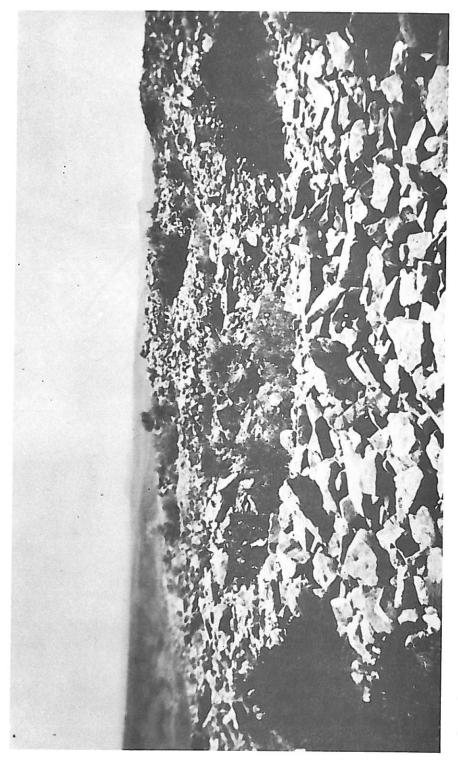




A - Typical terrain and formations of the Riggs Quarry Site, Willow Creek drainage basin upper left. The mantle is mainly calciferous sandstone with chert deposit. (Authors photograph)



<u>B</u> - A disarray left from strip type quarrying activity at the Riggs Quarry. Scars of preponderous work remain though thousands of years pass on. (Authors photograph)



6 - A remnant of pit type quarrying activity at the Earbour Quarry. Millions of cutic yards of hard rock were battered to pieces and moved by human hands alone in the Spanish Diggings.
 (Wyoming Highway Department photograph)