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THE NEWSLETTER OF THE WORLD ATLATL ASSOCIATION, INC. 1191 NUCLA STREET, AURORA, COLORADO 80011, USA

PROFESSOR SEEKS TO PROVE SPEAR COULD KILL MAMMOTH

CASPER, WY (AP) -- A University of Wyoming archaeology professor is working to reveal the truth and falsity of paintings of ancient hunts.

George Frison said the small spears used by Clovis-period hunters could have killed the 15,000 pound mammoths who roamed Wyoming about 11,000 years ago.

His excavations show the short spears and lances probably could be used to kill and skin a mammoth, but the hunters probably went after young, stray mammoths to avoid facing charging herds of the huge creatures.

To prove his theories, Frison went to Africa to test the clovis weapons on the modern descendants of mammoths—the elephant. using dead elephants for his experiment. Frison found that he could pierce the hide of an elephant with a throw of up to 60 feet.

A clovis projectile point that pierced a mammoth's lungs would probably result in death within a few minutes, Frison said. one that pierced the stomach would probably take several hours or a day to kill the beast, he said.

Artists paintings of ancient hunts show a lot of details about mammoth hunting, but Frison said most of it contains misconceptions.

Fanciful paintings, dioramas and even textbook illustrations often show mammoths up to their tusks in bogs and swamps, with hunters around them waving rushing yelling, spears and usually somebody being trampled death." This certainly was not the typical hunting method employed be Clovis cultures, Frison said.

Assuming that mammoths had a social structure similar to african elephants, Frison said, a Clovis-culture mammoth kill would probably proceed very differently.

African elephants have a strong "family structure" in which the lead matriarch acts as the protector of the herd. At the sign of danger, the matriarch will charge, six or more tons of enraged elephant bearing down on the hunter. "You're not going to down a charging matriarch with Clovis weaponry," he said.

the only way Clovis hunter

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could routinely have killed mammoths would be by going after younger animals that had moved off some distance from the herd. Frison theorized that hunters would work in pairs. One would distract the animal without threatening it while the other sneaked up on it from another direction and delivered the fatal wound.

The hunters then would withdraw to cover, so that by the time the protective matriarch discovered the danger, there would be nothing to direct her rage against.

When the animal died and the herd moved off, the Clovis hunters could then skin and butcher the mammoth.

Frison emphasized that no one can really know what techniques the Clovis peoples employed, but he believes that this approach is more likely that the screaming tribal charge often depicted by artists.

While in Zimbabwe, Frison also skinned and butchered an elephant using a Clovis "knife." This, too, was relatively easy and certainly possible with the technology, he said.

"Clovis really represents the development of true hunting weaponry," Frison Although that conclusion controversial amonq archaeologists and have anthropologists who studied early humans in Europe, Africa and Asia, he said. you're really talking about the kind of hunting that one or two hunters bring down a mammoth, it developed in the new world." (ROCKY MOUNTAIN NEWS, Feb 20, 1989)



Dr. George Frison University of Wyo.

THE FAR SIDE



"You recognize this, Mr. Grok? . . . We found it in the bushes near the victim's cave. Isn't this your atlatt, Mr. Grok?"

SUMMER ATLATL CONTESTS!!!

THE ATLATL WORLD OPEN

Wyoming's 1989 World Open Atlatl Contest is scheduled for august 19th at Fort Caspar Museum, in Casper, Wyoming. The event will feature an Arts and Crafts Fair, the contest and an evening speaker. All Flintknappers and other demonstrators are welcome and encouraged to attend. If you are on their mailing list, specific details of the event will be sent in a separate mailing.

If you have questions concerning the contest or know of demonstrators or crafts people interested in attending, please feel free to write or call:

FORT CASPAR MUSEUM 4001 Fort Caspar Road Casper, WY 82604 phone: (307) 235-8462

1989 C. A. S. ATLATL CONTEST

The fourth annual Colorado
Archaeological Society
Encampment is set for July 1st
and 2nd. The event will
feature Native American games,
fireside chats and of course
the ATLATL CONTEST.

Each year this gathering of CAS chapters is held at a different camping site. This year we will meet at the Silver Jack Campground located in southwestern Gunnison County. Details on the event can be obtained from Bill Harris, 1605 Mesa St., Montrose, CO 81401. Phone (303) 249-8055.

? ? EAST COAST CONTEST ? ?

We keep hearing rumors about it, but nothing firm has come to our attention. The man to contact is Gary Fogelman, Rt. 1, Box 240, Turbotville, PA 17772. The last rumor we had was that there would be a contest on or about July 22nd.

MONTANA STATE CHAMPIONSHIP

We hear from Bob and Paul of BPS Engineering that the Montana State Championship will be held June 17th or 24th on the Dave Schwab Ranch near Helena.

Some special events are being planned to celebrate the Summer Solstice theme of the event.

If you know Dave Schwab, give him a call to confirm the date, or contact Bob Perkins at (406) 284-3307.

keep Please informed of atlat1 events set in your part of the world. DATES AND LOCATIONS PLUS ADDRESSES NAMES, AND PHONE NUMBERS CONTACTS \mathbf{OF} NEEDED. Send information THE ATLATL, 8800 State Highway 133, Carbondale, CO 81623.

ARCHAEOLOGY DAY IN AURORA

June 10, 1989 is Archaeology Day in Aurora, Colorado. WAA President Bill Tate is in charge. There will be guest speakers, flintknapping by Keith Abernathy, and atlatl demonstrations.

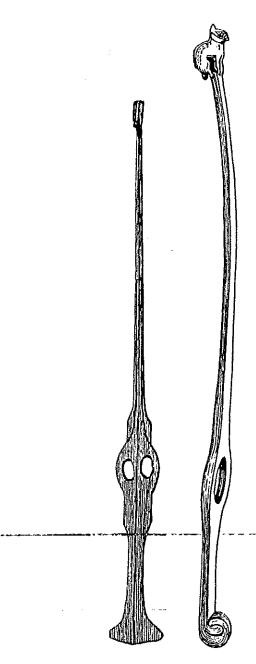
UNUSUAL SPEARTHROWERS FROM KEY MARCO ON THE GULF COAST OF FLORIDA

the rarest Amona spearthrowers known in America, several now in the Pennsylvania University of Museum which were taken in 1896 from the mud and muck of Key Marco on the Gulf Coast of Florida. The finds were the result of joint project а University the between Pennsylvania Museum and Bureau of American Ethnology of Washington under the leadership of Frank Hamilton Cushing. Dr. Cushing died in 1900 without completing a full report on his discoveries, however we upon his preliminary draw for a great deal of report valuable information. Amona the rare wooden objects were spearthrowers several "remarkable and unusual types." Two of the most perfect of the four or five examples found are also the most characteristic, since one had double finger holes, and the other a single No bows were finger hole. discovered in the excavation.

The site is described by Cushing as being uncharactor-istic of the Florida mainland, resembling more that of the inhabitants of the Antilles or even of South America.

Especially unusual interesting were the wooden. objects which can be preserved indefinitely in the airlessness mud: however. οf the wooden material tends to warp and twist sadly ordisintegrate completely on exposure to the air. The expedition enjoyed the services of an excellent artist and photographer who made careful copies of the unique objects, some of which were shining with

bright colors as they were carefully drawn from the mud where they had lain for centuries.



Spearthrowers from Key Marco, Florida as drawn immediately after extraction from the mud.
-more...

A point of confusion is found in Cushing's description double-holed the He states that spearthrower. it measured 16 inches in length in one place, but then goes on to say, "The first was some eighteen inches in length, slightly slender, delicate, curved and originally, quite springy. It was fitted with a short spur at the smaller end and was unequally spread or or the larger flanged at grasping end. The shaft-groove terminated in an ornamental device, whence a slighter crease led quite to the end of the whole handle, and implement was delicately carved and engraved with edge-lines and when first taken from the muck exhibited a high polish and beautiful rosewood color."

The second was even finer. describes it Cushing slightly "somewhat longer, thicker, wider shafted, more curved, and, as I have said before, furnished with only a At the single finger hole. smaller end was a diminutive, but very perfect carving of a rabbit, in the act of thumping, so placed that his erect tail propelling-spur. formed the This instrument was also fitted with a short shaft-groove and was carved and decorated with edge and side lines, and the beautifully was end handle curved down and rounded so as to form a volute or rolled length Its knob... nineteen inched and it was made from fine, springy hard wood-like rosewood in appearance-probably the heart portion of the so-called ironwood of the region."

The carved rabbit at the distal end with its tail forming the spur is strongly reminiscent of the 15,000 year

old spearthrowers from Europe. These more ancient implements made of antler or ivory often used a carved animal as the spur. There can hardly be any historical connection between the two regions, and the tail probably purely is coincidental, but may stem from on hunting similar views "magic."

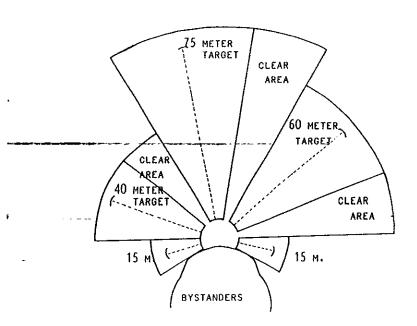
The condition of these two changed much has artifacts Today, they since drying out. warped and badly considerably shrunken from pristine original their condition. The wood of both is and unusually hard, firm, flexible and now of a dark brown color approaching black.

single-holed The spearthrower is of superior decoration. workmanship and for groove broad reception of the spear on the upper side ends some three inches short of the finger hole where it is replaced by a slight ridge, the transition being marked by a transverse groove of chevron shape. both sides the medial groove bifurcates on approaching the finger hole. The two ends of the specimen are of greatest interest. The handle terminus ends in a graceful volute knob like that of a violin which probably prevented the grasp from slipping down too far. the animal "clinging" to the other end of this thrower is admirable and indicates excellent knowledge of anatomy. the spaces between the forelegs and between the fore and hind legs are hollowed out and the legs themselves are perfectly Even the toes are shaped. carefully portrayed. The entire figure is only an inch and a half high, an inch long and half an inch wide.

RAMBLINGS

Bill Tate

Over the past few months, I spoken twice to Bob Perkins of BPS Engineering. We discussed a couple of elements of Atlatl contests which have not surfaced in print before. the element First. is SAFETY. The possibility of a competitor being struck by a flying dart is very real. especially if we continue to hold our contests using the "safari" or (golf course) style Both Bob and I of shooting. feel that we should look into The obvious format. new choice is shooting from one central area at targets in a semi-circle as illustrated in the diagram below. We feel that not only can we add a degree of safety not currently present, but we also place the contestants closer to the fans. Let us know what you think. still, Better let the organizers of the events hear your thoughts.



element of The second discussion concerned the requirement for all natural vs anything goes type of contest. We know there are a lot of "purists" who would challenge the use of aluminum or fiberglass on the atlatl field. "Modern" materials may not improve the may effectiveness of atlatls As far as we know, darts. there has never been a study which proves one way or the other which is superior. difference does it really make Modern materials have anyway. been used with this equipment by aboriginal peoples in the Arctic, Australia, Southeast Asia and Mexico. Unlike Latin, a dead language, the atlatl is not dead, and never has been. Its use is well documented in many parts of the world and continues to this day utilizing ever materials what Ι see real available. no reason for restricting use of the materials from which the atlatls or darts are used to only "natural" stuff. some truly natural materials are excluded -- Gold, silver and all naturally copper are occurring metals which found by aboriginal peoples and made into tools. Since spear slings were used continuously since about 25,000 years ago they have passed through the Bronze Age, the Iron Age, and other periods when so called "modern" materials were So why cut our use available. materials for these contests. Even I draw the line darts, nuclear tipped Let us hear from you however. on this and any subject.

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The old sage says: It is always darkest just before it becomes totally black.

This issue's feature article on the Key Marco spearthrowers was exerpted from THE MUSEUM JOURNAL, Sep. 1928.

WAA ANNUAL MEETING NOTICE

The Annual Meeting of the World Atlatl Association will be held Sunday, July 2nd, 1989, at the Silver Jack Campground in Colorado during the Colorado Archaeological Society Encampment and Atlatl throw. All members are welcome to attend.

Several articles for inclusion in the newsletter were sent to us from T. Moore of Aurora, IL. The most interesting was from unusual atlatl titled "SURVIVE publication ANYWHERE" SAFELY by John Wiseman. The looks rather awkward to say least. Maybe some member of the organization will make one report o n effectiveness.

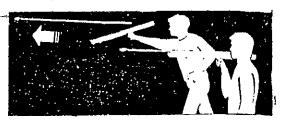
To make a spear more effective add a point of flint, knapped to sharpness, or a flattened cone of tin, set into the end -- or securely bind on a knife. However, if you only have one knife do not risk it, it could too easily be lost or damaged.

Spear thrower

Spear sits in a groove which runs

along most, but not all, of the upper
face of the thrower. The end stop

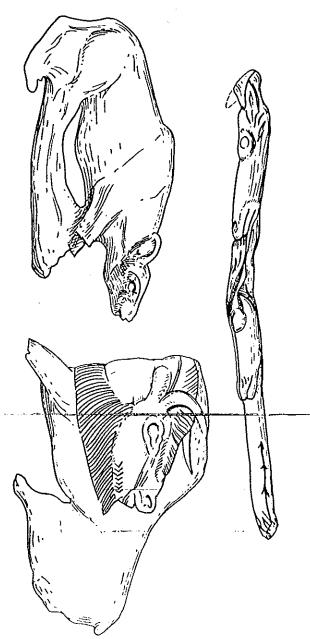
adds thrust to the spear.



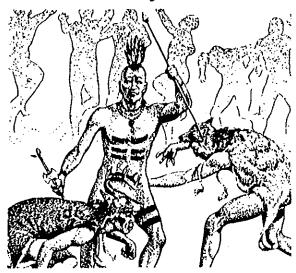
To make the thrower choose a tree limb that is at least twice the width of your spear and with a branch stump which can become the forward sloping handle. Split down the centre using a knife as a wedge. Gouge out a smooth channel for the spear. Make sure it is cleanly cut, leaving a solid portion as a buffer. Experiment to match the thrower length to that of the spear and to suit your own balance.

Held at shoulder level, aim the spear at the target, bringing the holder sharply forwards and then downwards. As you move downwards the butt of the groove adds to the thrust behind the spear.

Another excerpt was from "THE ARCHAEOLOGY OF EARLY MAN" by J. M. Coles and E. S. Higgs, pub. by Frederick A. Praeger. report referenced the brief introduction οf spearthrower during Magdalenian included times and drawings of ancient artifacts. Note the similarity of the use of the carved animal for the hook or spur of the atlatl fragments to that in the Key Marco atlatl elswhere in this issue.



Also submitted was this artistic rendering of a Native American ceremony. Note the weighted atlatl in the hand of the central figure:



From the same publication come the following illustrations of a weighted atlatl:

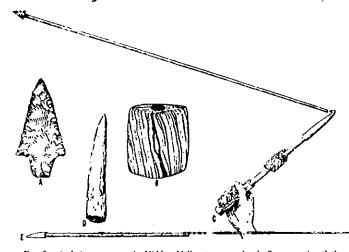


Fig. 8. Archaic weapons: A. Hidden Valley type speathcad; B. pusmatic atlatt weight of polohed red shale; C. throwing a spear with an atlatt; D. socketed author spearhcad; E. short thrusting spear or jacchin. A. B. and D are from Modoc Rock Shelter in Randolph County, Illinois.

From "THE AUSTRALIAN ABO IN COLOR" by D. Baglin and R. Robinson is the following WEAPONS AND IMPLEMENTS

...The spear-thrower and the spear may be likened to the bow and its arrow, or the rifle and its

ammunition. The spear thrower is usually about three feet long. the Roper River one is made of ironwood, flat, smooth, about two inches wide, and tapering at its hooked end. The other end is shaped for the handgrip. The hook, or spur, against which the hollow end of the spear-shaft fits, is fastened on with hardened gum or resin.

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To throw the spear, the spear-thrower and spear-shaft are gripped with one hand. The ten-foot-long spear is sometimes held up with the extended left forearm or wrist. When the spear is hurled, the spear-thrower is retained in the hand. The spear-thrower's three-foot extension to the throwing arm, and the fact that the spear is propelled from the end of its shaft, gives the weapon considerable impetus and range.

The spear-thrower is also used as a weapon to ward off or deflect spears in fighting when a man's spears are expended. In such cases the tribesman may recover spears hurled against him and, with his spear-thrower, hurl them back at his opponents. The sharpened end of the spear-thrower can also be used as a stabbing weapon or for a digging-stick.

At Port Keats in the Northern Territory most of the tribe took part in a contest to demonstrate how far a spear could be hurled. They used light mangrove spears. I did not step out the distance, which ended in mangroves, but it seemed something The heavier and like 300 yards. longer spear would not be thrown this distance. I once asked a Roper River tribesman to demonstrate his accuracy with the spear. Without seeming to take aim, and without undue force, he embedded his iron-blade spear in the thick bark of a gum-tree some fifty yards off.

The spear-thrower of Central Australian tribes is wide, almost an ovai, and concave. It can be used for carrying food, or fire coals. It will be recalled that, in the myth of the wandering ancestor of the Aranda tribe, the old man fed his sone by filling his womerah with his blood and letting his sone eat from it.

Spears used in north-eastern Arnhem Land may be divided into four main types, according to each type of spearhead. They are the stone, the wooden, the sting-ray prong, and the iron.

AGE AND TREACHERY
WILL OVERCOME
YOUTH AND SKILL