

The ATLATL

OCTOBER 1994

"Too long have I hunted mammoth alone!"

Rich McWhorter

VOL. 7 NO. 4

THE NEWSLETTER OF THE WORLD ATLATL ASSOCIATION, INC.
1390 SOUTH PARIS COURT, AURORA, COLORADO 80012, USA
EDITOR: BILL TATE

SPEAR THROWING IN EUROPE



PASCAL CHAUVAUX

Martin Street's translation of the summary of the Doctorate thesis of Ulrich Stodieck of Cologne, Germany was sent to us by PASCAL CHAUVAUX of Mariembourg, Belgium. He states that the publication, listed for 135 DM, approximately \$82.00 US funds. Note that it is written in German. This major work on spearthrowers is available from: **Institute für Ur-und Frühgeschichte der Universität Tübingen, Schlob, 7220-76 Tübingen, Germany.** (Our sincere thanks to Pascal Chauvaux for, not only submitting this material, but for submitting it ready for publication on disc.)

STODIEK, U. (1993)

Zur Technologie der jungpaläolithischen Speerschleuder. Eine Studie auf der Basis archäologischer, ethnologischer und experimenteller Erkenntnisse. (The technology of the Upper Palaeolithic spearthrower. A study based on archaeological, ethnological and experimental data). 276 pages, 118 plates, 135,-DM.

Verlag Archaeologica Venatoria,
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Frühgeschichte der Universität

Tübingen, Schloß, 72076 Tübingen,
Germany; ISBN 3-921618-36-3.

Summary

The fragmentary survival of Upper Palaeolithic spearthrowers and spears means that the goal of this research project, namely reconstruction of these artifacts as complete and functioning weapons, and investigation of their mode of use and level of efficiency, could only be achieved by the incorporation of other sources of information besides the archaeological record. The first part of the thesis (chapters

1 and 2) comprises a worldwide review of both spearthrowers and spears from ethnological contexts and of archaeological material other than that from European Upper Palaeolithic contexts. The main aim here was to establish universally valid parameters for the possible overall lengths of these weapons and to collate details of various methods of construction. Spearthrowers from the circumpolar regions, from the USA, Central, and South America, Australia, Melanesia, and Micronesia demonstrate three methods of holding and launching the spear (by use of a hook, by use of a groove, and by a combination of the two). As is also the case for Upper Palaeolithic specimens spearthrowers with a hook are the most common type. A further similarity is that these are in the rule composite weapons, whose functional ends (hooks) are generally made of very resistant materials (bone, tooth and ivory, antler, stone, mollusc shell, copper, hardwood). It is very common to find that special attention has been paid to the provision of a good grip on the spearthrower; this can take several forms (overall ergonomic shape, fingerholes and also grooves, loops or stops for the fingers, wrapping of the handle). The range in the length of complete, functional spearthrowers apart from which are also known

status, ceremonial and children's spearthrowers - is from 33 cm (Eskimo) to 120 cm (New Guinea). Specimens from the former context also demonstrate the lowest mean lengths (44 cm). In all other contexts the mean length (excluding a small number of exceptional cases) was always over 50 cm. The mean length of all measurements was 61.3 cm.

The dimensions of the projectiles used with the spearthrowers covered a surprisingly large range. The shortest specimens are found in Eskimo contexts (lightweight harpoon: minimum value = 105 cm, mean length = 124 cm) while the longest specimens are from Australia (maximum value = 330-340 cm, mean length = 250 cm).

Comparison of the relative dimensions of spearthrowers and the spears used with them gave mean values ranging from 1:2.14 (Xinguano tribe, Brazil) to 1:3.20 (Australia). The mean proportional value calculated for all available data is 1:2.70. The necessary stabilisation of the projectile during flight is achieved by two constructional measures: 1. The attachment of flights (fletching); 2. Placing of the center of gravity into the forward third of the projectile by using of materials of different density in the construction of the shaft. As a rule, locally available raw materials are used for the spear shafts. Reed and bamboo are always preferred materials when available; the latter material was even traded over several hundred kilometers in Australia. On the Fifth Continent, where by far the largest amount of information is available, roots and shoots were also used, as were the thin stems of various species of trees and shrub. Pieces which were originally too thick, were split longitudinally, and natural bends in the wood were straightened after heating the undesired irregularity in hot ashes.

The spearthrower has been used both as a hunting weapon and as a weapon of war. Animals hunted include marine mammals (Eskimo), fish (Australia, New Guinea), waterfowl (Eskimo, Mexico, New Guinea), flightless birds (Australia), and land mammals (Precolumbian tribes in South America, Australia, New Guinea).

Relevant information on the average

approach distance during hunting is available only from Australia; the distance of the majority of successful throws seems to lie between 10 m and 30 m.

The second theme of the thesis (Chapters 3 and 5) examines, in each case with a different emphasis, the Upper Palaeolithic evidence for spearthrowers and projectiles.

In the case of spearthrowers the evidence is limited to the isolated hooks, which, in the majority of cases are made of reindeer antler. The oldest of the 123 specimens known to the author dates to the Upper Solutrean of Combe Saunière (Dordogne, France), the youngest dates to the Magdalenian V of La Madeleine. The majority of known specimens can be dated to the Magdalenian IV. Among these is a large number of richly engraved specimens, together with hooks sculpted into the form of animal bodies, which are certainly among the most beautiful specimens of artistic expression from this period.

The distribution of Upper Palaeolithic spearthrowers is clearly concentrated in southwestern France (foothills of the Pyrenees and the Dordogne), the few other specimens come from Spain, Switzerland and Germany. These specimens show only two of the three methods of holding and launching a spear. These are the use of a hook and of a groove and hook. Specimens of the former type dominate. The configuration of the base of the spearthrower hooks, which includes single- and double-bevelled faceting and single and multiple perforation, indicates, together with the relatively small length of the Palaeolithic pieces compared to the complete ethnological specimens, that the former were originally also set in a wooden shaft. This also applies to those palaeolithic specimens measuring more than 30 cm, which, in the past have repeatedly been described as complete, functional spearthrowers.

In the case of the projectiles too, only the most durable parts, the points, have survived. With the exception of Upper Solutrean lithic shouldered points and the spectrum of points from the Late Magdalenian, these points are manufactured of antler. Clearly dominant are forms with single- and double-bevelled base.

In both cases, the clearly recognizable method of hafting, which aimed to produce a smooth transition from point to shaft, allows an extrapolation from the dimensions of the base of the projectile point to those of the spear foreshaft.

Some 300 specimens of each type of point were measured = total 600. The most interesting measurement in this context, the "maximum breadth of the base", gave for both types of points almost a symmetrical normal distribution, with mean values of 9.5 mm and 9.9 mm.

The third section of the thesis is concerned with the reconstruction of Upper Palaeolithic spearthrowers (Chapter 4) and projectiles/spears (Chapter 6), and also describes practical experiments carried out with them (Chapters 7-9).

For the reconstructions it was attempted, as a matter of course, to use only those materials which can either be demonstrated, or at least confidently assumed to have been available during the Late Glacial. Using this parameter pine, birch and hazel were selected for the wooden construction elements; binding consisted principally of sinew, and the adhesive used was a mixture of pine resin and beeswax.

In the case of the spearthrowers a wide range of archaeologically evidenced types and forms of reindeer antler hooks was copied and hafted in the appropriate way. The length of the reconstructions, based on the globally established mean, was between 60 cm and 70 cm.

The reconstructions of spears were also restricted to specimens of dimensions corresponding to established mean values. The starting point for the reconstruction was here given by the mean value of the "maximum breadth of the base" of the two types of archaeologically evidenced projectile points (in both cases ca. 10 mm). For both types of point a functional method of hafting was only possible when the dimensions of the foreshaft of the spear were as nearly as possible the same as those of the base of the projectile point.

The ethnological data gave only very

broad guidelines regarding the lengths of the spears. Practical experiments to determine the optimum length were therefore unavoidable. These very soon showed that, in the case of the selected method of projectile reconstruction (antler point and pinewood shaft), adequate stability in flight could only be obtained by the addition of feather flights. The flexibility of the spear, which is determined by both the type of wood used and by the length and diameter of the shaft, was also shown to be a very important factor influencing flight stability. The results were finally achieved with spears having a total length of ca. 2.10 m, which, when aimed at targets, proved very accurate despite an observed in-flight "wobble" due to the bending of the shaft.

After observation of the practical experiments had inspired a number of colleagues to construct their own equipment, the author initiated a series of spearthrowing contests which, apart from their recreational and competition value, also provided data capable of analysis. In addition to information on the maximum thrown distance attainable using the spearthrower (at present 180.9 m), the most interesting aspect here was to establish the degree and consistency of accuracy, for which we have only very vague information from ethnological sources. As was to be expected, in the case of almost all participants, accuracy decreased with increase distance from the target. The clear drop in accuracy between the targets at 20 m and 27 m in principle confirms the observation, based on Australian ethnological information, that the average approach distance in hunting, itself determined by proven rates of success, lies between 10 m and 30 m.

Important information was also provided by the results of competitions using bow and arrow, carried out under exactly the same conditions. Expectedly, the degree of accuracy at all distances was appreciably higher for bow and arrow, whereby the greatest discrepancy in accuracy was observed at distances above 27 m.

It was possible to record further interesting comparisons of the two weapons using high-speed film recording of throwing and shooting at

targets over a distance of 25 m. This showed that an arrow (weight 25 g) fired from a reconstruction of a Mesolithic Holmegaard bow had a velocity between 50% (v_0 arrow = 160 km/h, v_0 spear = 105 km/h) and over 40% (v_{25} arrow = 100 km/h, v_{25} spear = 70 km/h) greater than a spear propelled with a spearthrower. If it is also taken into account that the time required to fire an arrow (0.04 s) is only 1/17 that of the time required to launch a spear with a spearthrower (0.67 s), it can easily be appreciated that a further advantage of bow and arrow over spearthrower and spear is the greatly reduced chance for the prey to escape. This advantage is still further increased by the fact that to launch an arrow from a bow requires a much slighter degree of body movement on the part of the hunter, which will again normally reduce the tendency of the prey to flee. The spearthrower showed only one clear advantage over the Mesolithic bow, its kinetic energy (spear's weight = 90 g) is, dependent on the distance travelled, some 60-70% higher than that of an arrow (25 g).

A final, important stage in the series of practical experiments was to test the efficiency of the spears on animal carcasses. As well as allowing the observation of possible impact damage to the projectile points and skeleton, the main point of interest was to investigate whether, and how the dimensions of the spears and configuration of the projectile points affected the efficiency of penetration.

In the case of an old (20 years) European female bison, spears armed with points of antler alone were able to penetrate only minimally. As might be expected, the heaviest projectiles penetrated deepest, although even the maximum penetration (12 cm) would not have inflicted serious injury. This result is certainly due to the exceptionally thick and almost impenetrable hide. The use of projectile points with a cutting edge appreciably overcame this obstacle. With the exception of types of projectile points made entirely of stone dating to the Upper Solutrean and the final phase of the Magdalenian (M VI), the only possibility here is the use of backed bladelets attached to antler projectile points.

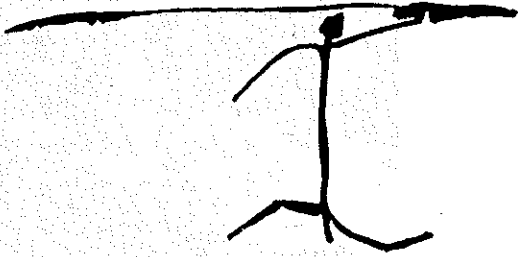
For the second experiment, using a recently killed fallow deer, the projectiles were not, as in the first experiment, propelled using the spearthrower, but were fired from a device constructed on the same principle as a crossbow. The reason for this was to standardize the different shots, and so to ensure that any variation in the depth of penetration of the projectile was due solely to the different type of spear used. Apart from a large number of projectiles armed with points of antler alone, 5 specimens with mounted, backed bladelets and 5 specimens with purely lithic projectile points (shouldered points of Upper Solutrean and Hamburgian type) were used. Asking a sky screen, the firing apparatus was so adjusted that the initial velocity (V_0) of the projectiles corresponded very exactly to the mean value established by high-speed filming for the projectiles propelled manually from a spearthrower.

Evaluation of only those hits which did not make appreciable contact with bone showed that the lithic projectile points penetrated on average some 5 cm deeper than the points of antler alone, which on average penetrated 20 cm. The points with backed-bladelet armatures, which might have been expected to perform similarly to the lithic points, did not provide a uniform result, since only three impacts could be evaluated. Despite this, the results achieved suggest that it would be possible to successfully hunt prey in this size range, which also includes reindeer, without the need for lithic armatures in the form of backed-bladelets.

Bone hits almost invariably resulted in greater or lesser damage to the projectile point; the patterns of breakage and crushing corresponded exactly to those observed on archaeological specimens. Due to the different properties of the materials used, the proportion of damaged antler points which could be reused after secondary modification was appreciably higher than in the case of the lithic points.

The results of the different practical experiments should only be regarded as preliminary reference points and examples. For the recognition of more comprehensive and well-founded

conclusions it would be necessary to extend the experimental series.
(Translation: Martin Street)



**MICHIGAN'S FIRST STATE-WIDE
ATLATL TOURNAMENT**

By Lou Becker

The first michigan Atlatl Tournament was held at the Wilder Creek Conservation Club over the Memorial Day Weekend, May '94. We used the New York system of three throws at 50, 40, 30, 20, and 15 yards for scoring. The list of competitors with their rank position follows:

<u>Standing</u>	<u>Name</u>	<u>score</u>
1st	Lou Becker	79
2nd	Ron Rappaport	67
3rd	Ray Malden	65
4th	Scott Nichols	57
5th	Bob Berg	56
6th	Ed Hines	51
6th	Jim Gilligan	51
8th	Pat Morino	45
9th	Lyle Dohertson	44
10th	Norm Blaker	43
11th	Stan White	39
12th	Frank Sharkozy	35
13th	Ron Corbert	33
14th	Bill Dobbs	32

	<u>K</u>	<u>I</u>	<u>D</u>	<u>S</u>	
1st					James Rappaport 29
2nd					Jami Gilligan 20
2nd					Warren Nichols 20
4th					Lenard White 10

The weather was great and we had well over 50 spectators enjoying our FIRST MICHIGAN STATE-WIDE ATLATL TOURNAMENT. Many thanks to the Wilder Creek people and special thanks to Ron Rappaport for his fine artistic talents in making the two large mastodon targets. Ron also took the photographs below.



JAMI GILLIGAN



WARREN NICHOLS



LOU BECKER (WAA DIRECTOR)



SCOTT NICHOLS

We expect this tournament to grow. Next year we expect twice as many contestants. Plans are already underway for the event to be held in May 1995.

Gary Ellis, Editor of *Primitive Archer Magazine*, P. O. Box 6446, Syracuse, NY 13217-6446, will feature the May 1994 tournament in the Fall 1994 issue. Make sure to get a copy.

EUROPEAN SPEARTHROWING CHAMPIONSHIPS – 1994

By Pascal Chauvaux

Below are the results of the final two contests, and the overall standings for the five European spearthrowing events.

The international German prehistoric Spearthrower Championship was held September 5, 1994 at the "Archaeologisches Freilichtmuseum" in Oerlinghausen, an archaeological park in central Germany. Most contestants arrived the evening before the event, and our hosts welcomed us with a meal taken together in one of the reconstructed neolithic houses on the site. The competition took place entirely within a fir plantation. Three darts were thrown from each of ten distances for a total of 30 throws. Scoring was done as reported in previous newsletters. There were 28 contestants from: France, Germany, Belgium, Great Britain, and USA. Most of the Americans attending were archaeologists or students who are working or living in Germany.

Results:

PLACE	NAME	COUNTRY	SCORE	HITS
1st	Pierre Cattelain	(B)	62	23
2nd	Pascal Chauvaux	(B)	62	21
3rd	Martin Street	(GB)	62	20
4th	Steve Cabaraux	(B)	47	19
5th	Jean Speckens	(B)	39	17

The fifth and last round of the European Spearthrowing Championship was held September 25, at Treignes in Belgium. Thirty-two contestants from the same five countries listed above participated. Following three rainy weeks, the sun arrived as if by appointment with the Musee du Malgre Tout. Again, thirty darts were thrown from the ten distances, with the targets often placed higher or lower than the thrower, resulting in more difficulty.

Results:

PLACE	NAME	COUNTRY	SCORE	HITS
1st	Alain Maxence	(B)	67	22
2nd	Pascal Chauvaux	(B)	58	23
3rd	Steve Cabaraux	(B)	57	21
4th	Jean Speckens	(B)	58	19
5th	Fernand Collin	(B)	46	17

THE OVERALL RESULTS OF THE 1994 EUROPEAN SPEARTHROWING CHAMPIONSHIP:

Fifty-seven contestants are represented.

PLACE	NAME	COUNTRY	AVERAGE	COEFFICIENT
1st	Pascal Chauvaux	(B)	39.012	
2nd	Alain Maxence	(B)	26.311	
3rd	Jean Speckens	(B)	22.282	
4th	Steve Cabaraux	(B)	22.158	
5th	Pierre Cattelain	(B)	20.554	

(Ed. Note: Pascal states that "If you see only Belgians in the results table, it is because the others are not dexterous enough..." What ever the reason, it seems to me that spearthrowing should be the national sport of Belgium. You really put on a great showing for your country.)



Barbara ZSCHOCH (D) - Oerlinghausen
September 4, 1994



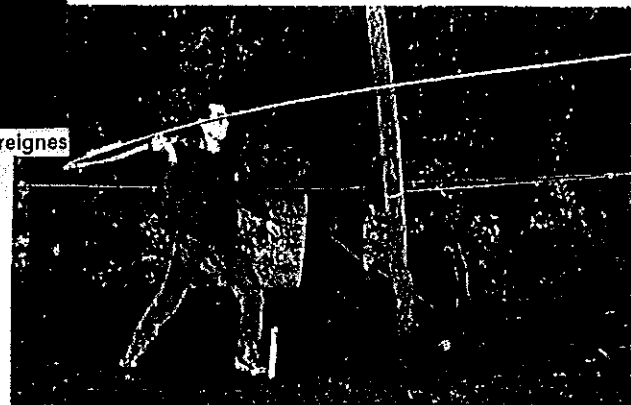
Ulrich STODIEK (D) - Treignes - September 25, 1994



Eric CHAUVAUX (B) - Treignes - September 25, 1994



Jean-Marc BRUYER (B) - Treignes
September 25, 1994



Steve CABARAUX (B) - Oerlinghausen - September 4, 1994

CALENDAR OF ATLATL EVENTS 1995

DATE	EVENT AND LOCATION
Jan.	
Feb.	
Mar.	
Apr.	1 Louisiana State Commemorative Area, Marksville, LA 9 Valley of Fire State Park, Nevada
May.	? Michigan State-wide Tournament
Jun.	17 Fremont Indian State Park, Utah
Jul.	1-2 Colorado Archaeological Society Annual Encampment. Location not yet set.
Aug.	
Sep.	
Oct.	
Nov.	
Dec.	

LETTERS

After taking part in a number of Atlatl tournaments over the past few years, I can really forsee the sport of the atlatl growing by leaps and bounds. However, after taking part in the New York, Eastern Seaboard Tournament, this past July, I was surprised to see that at least 80% of the contestants were using metal and graphite darts. To me, using Easton aluminum darts or graphite shafts defeats the real purpose of the atlatl sport. it's like putting a high powered scope on an Indian self-bow. The atlatl was designed as a primitive weapon. I sincerely hope and pray that the atlatl does not go the same route that the bow and arrow has. In my home state of Michigan, compound "pulley poppers" have become so high tech that they are killing deer with them at 80 yards. Compounds are a "reinvention" of the gun, and have nothing to do with true archery. ***Let's keep our sport pure and simple, the way it was meant to be!***

Most Sincerely, Lou Becker.

DONT CAST ASPERSIONS, CAST DARTS

'Have enjoyed the two newsletters you sent me with my membership. I'd like to have my son and grandsons become members of the Association. I am planning on buying them all atlatls for Christmas or sooner. Hope to get them all lined up to go to Nevada with me next April.

Thanks, Bill Chord

NEW USES FOR OLD BOW WOOD

By Bill Tate

Osage Orange -- This spiny tree, with the strange apple-size mottled pale green fruit is a native to a relatively small South-Central part of the U.S. Sometimes called "Hedge-apple," "Horse-apple," or "Bodark" trees, it was brought out of its Texas, Oklahoma, Arkansas home for use by early farmers for hedges around fields before the introduction of barbed wire. Now it is free-ranging throughout much of the central portions of the country.

It has long been prized as bow wood. Some nice yellow--orange staves of Osage Orange recently sent to me by Virgil Hayes, of Chillicothe, Missouri, will soon be employed as atlatls.

The nicknames used in various parts of the country are more or less obvious: Hedge-apple, since farmers used this fruit bearing tree as hedges; Horse-apple as those same farmers soon found their stock would eat the fruit; Bodark, from the French Bois d' arc, meaning "bow wood."

We received a notice, too late for the July Newsletter, concerning Dickson Mounds Museum in Illinois. They had been closed for a year for renovation, and just held their Fifth Annual Rendezvois at Spoon River, October 1 - 2, and 8 - 9, 1994. Located between Lewistown and Havana, Illinois, this museum's annual event is held in concert with their Autumn scenic drive which attracts thousands of visitors each year. Bob Grady sent a personal note that should any of us come he would schedule an atlatl throw. Knappers were also invited.

ATLATL CONTEST AND CLINIC

By Lloyd Pine

Atlatl competition will be held at the Louisiana State Commemorative Area in Marksville, LA at 1:00 p.m. on April 1, 1995. Competition is open to all who wish to participate.

There will also be a clinic at 9:00 a.m. where newcomers to the sport will be shown how to make and use their very own atlatl and dart. The clinic will be limited to 15 individuals, 10 years of age or older. Participants must provide their own pocket knife or other cutting tool. Register for the clinic by contacting the Marksville COM. For additional information contact:

Ward Zischke	Lloyd Pine
Marksville State Com.	5858 Berkshire
700 Martin Luther	Baton Rough,
King Drive	LA 70806
Marksville, LA 71351	(504) 926-5785
(313) 253-8954	

6th Annual Eastern Seaboard Atlatl Championships Results

By Lou Becker

The sixth Annual ESAC was held on July 17, 1994 at the Waterman Conservation Center at Apalachin, NY. The weather was just fine, contrary to the previous year or so, when we had to fight the elements. Like last year, the day before the atlatl championships was spent on flintknapping demonstrations, dart-making, and atlatl practice. A primitive weekend encampment adding to the variety of activities.

Lou Becker and Bob Berg were on hand from Michigan with their atlatls and darts. There were many new faces this year, however the contingent from central Pennsylvania, which usually makes a strong showing was conspicuously absent. It seems that there was some faulty communication and they were unsure of the

date. (Ed. Note: Another good reason to get dates, locations and other pertinent information to this newsletter early.)

There were eleven competitors in the men's division, four in the women's, and five young men made up the kid's category.

ACCURACY (MAIN EVENT)

CHILDREN:	1st	Aaron Shultz
	2nd	Timmy O'Reilly
	3rd	Warren Wnslow
WOMEN:	1st	Joanne Fogelman
	2nd	Lin Hill
	3rd	Gail O'Reilly
MEN:	1st	Lou Becker 116 pts.
	2nd	Scott Nichols 101
	3rd	Gary Fogelman 96

NOVELTY EVENTS

Closest to the pin	Distance
CHILDREN	

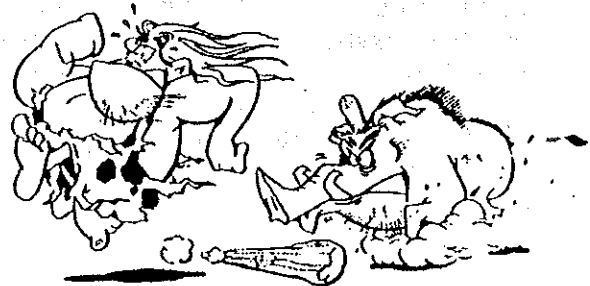
1st	T. O'Reilly	A. Shultz
2nd	John Oswald	J. Oswald
3rd	A. Schultz	W. Wnslow

WOMEN

1st	G. O'Reilly	J. Fogelman
2nd	J. Fogelman	G. O'Reilly
3rd	L. Hill	L. Hill

MEN

1st	Bob Berg	G. Fogelman
2nd	Damon Tinkham	T. Hanaly
3rd	Chris. O'Reilly	Lou Becker



"Saratoga Sun" May 25, 1994

The Kids' World Open Atlatl Contest returned to Saratoga Middle School May 13.

This year's Champion of the World is Obie Perue, who scored a six. The runners-up were Jake McCumber and Hannah Gruber, scoring sevens.

Adult guest shooters who participated in the KWOAC 1994 were Ranel Capron and Tim Nowak, BLM archaeologists from Cheyenne; Dave McKee, USFS archaeologist, and educators: Larry Mowry, Jackson Hilstad, Garry Goergen, Mike Nerland, Mark Jones, Joyce Evans, and Pat Taylor. The best adult shooter was Joyce Evans with an eight, followed by Pat Taylor and Tim Nowak shooting nines.

The winner of the "old Timers" (eighth graders) one shot competition was Bill Arnold who nailed a minus two.

The event was sponsored by the Forest Service, Saratoga Historical and Cultural Association, Cherokee Trail Chapter of the Wyoming Archaeological Society, and by Carbon County School District No. 2.

The event has a rich history which dates back to the 1980-81 school year, the first year of the middle school in Saratoga. The atlatl competition was used as a culminating activity of the primitive technology fair, according to Ron Laird, the event's originator.

The event grew, and kids were coming from all over the district to view and participate in the competition. Eventually the program became quite well-known around the state, and even in various parts of the world.

(Ed. Note: This is the event that started modern atlatl competition in the USA---Glad to see it's still going strong. That's thanks to middle school teacher, Rod Laird)

GIVE A MAN A FISH AND YOU FEED HIM FOR A DAY....

TEACH A MAN TO FISH AND HE GOES OUT EVERY WEEKEND.

"Saratoga Sun" June 1, 1994

Saratoga Middle School teacher Rod Laird has been named as a recipient of the prestigious Marie Wormington Award, given out by the Center for the Study of the First Americans, Corvallis, Oregon.

The advisory board for the center rarely bestows the award, which is given to citizens who have made outstanding contributions to First American Studies.

Rob Bonnichsen, director of the CSFA, said Laird was chosen for the award for his visionary hands-on programs, such as the World Open Atlatl Contest which has brought the Saratoga Public School system credit from around the nation and world.

"We can think of no one who is more deserving of the Marie Wormington Award than Rod Laird, and we salute him for his innovative and creative teaching," Bonnichsen said. "We commend Rod, a truly outstanding teacher whose leadership has fired the imagination of the next generation and whose visionary program has created interest and rapport among students, the public and the professional community."

The atlatl throwing is now routinely included at amateur society and professional meetings. Laird's work has also been featured on national public television.

(Ed. Note: Our heartiest congratulations go to Rod Laird, and our thanks to Ada Bouril Jackson for bringing these items to our attention.)



on target

by LENI CLUBB



We have been receiving inquiries regarding contests in various areas across the U. S. during the year. We often receive information after the contest has been held, but not many notices in advance with dates and places. If an of you know of an atlal contest to be held anywhere in the world in 1995, please let us have the information to put in the January 1995 newsletter. Send notices to Bill Tate, our hardworking editor, or to me. Bill will set up a calendar, and perhaps our members will be able to attend and compete in their state or nearby area, or even plan a little vacation time and throw at several events.

The World Atlal Association is now listed in *The yearbook of International Organizations*, Brussels, Belgium, and also in *The Encyclopedia of Association Series*, Detroit, MI. Both publications requested information

on date founded, aims or objectives, membership dues, publications, organizational structure, number of members, etc. So The WAA is now published in the "Who's Who" of both national and international publications.

A few of you will receive a "DUES ARE DUE" notice with this issue of *The Atlal* indicating your membership expired in July or August, with a notation that this will be your last newsletter until dues are paid. Others may receive such notices as reminder of expiration dates in September. Please check the upper right portion of the mailing label for your expiration date.

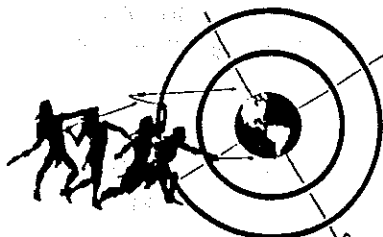
As of this printing, we have members in Europe, Canada, and the U.S. totaling 230.

Talk to you next issue,

LENI

WAA MEMBERSHIP IS STILL JUST \$10.00 PER YEAR... SEND ALL INQUIRIES AND MEMBERSHIP DUES TO THE WORLD ATLATL ASSOCIATION SECRETARY:

**LENI CLUBB
P. O. BOX 56
OCOTILLO, CA 92259 USA**



The WORLD ATLATL ASSOCIATION, Inc.

