

# The ATLATL

“Too long have I hunted mammoth alone!”

Rich McWhorter

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## ISAC Sport and Science

By John Whittaker and Kathryn Kamp

The International Standard Accuracy Contest (ISAC) was developed in 1996 by Lloyd Pine and is the one event that atlatlists all over the world take seriously and use to compare skills. Lloyd heroically maintained the records and produced a yearly list of scores, published on line and in the Atlatl. When we decided it would be interesting to look at trends through time, Lloyd kindly provided us with all the available records from 1996 to 2003.

Although ISAC targets and scoring are standardized, and the rules are followed pretty closely, scorekeepers at events range from precise to sloppy. Lloyd did his best with the sheets submitted to him, but for every tidy one there is one that is full of errors and inconsistencies. Sometimes they are illegible, and there is often missing information, particularly age, sex, and equipment type. With student Ana Nagel we spent literally dozens of hours trying to make all the names and scores correct for each year as we computerized the scores. When we combined all the years, the two of us spent more days proofreading 13,500 entries. Names were the main problem, since if we want to know how many people are involved, we don't want to count the same person six times just because they appear as Bob, Robert, Bobby, Rob, Robert Jr, Robbert, Robby and Xobert. As a result, our counts of numbers of atlatlists undoubtedly have some slight errors.

With the analyses of eight years of ISAC scores that follow we will show 1) some social trends in the atlatl world, 2) the development of the sport, and 3) argue that modern ISAC scores are actually useful in understanding prehistoric atlatls.

The 8 years of ISAC produced 13,500 recorded scores. (We couldn't include all the 2004 scores when we did the analysis, but have some information on top scores at the end of the year.) A total of 2310 different throwers participated (See Table 1). The number of participants in a year now seems to have leveled off at about 750, and the number of events with ISACs at around 100. After the first couple of years, about 1/4 of participants have been women, and about 1/5 youth (under 16 years old). This reflects our attempts to be a friendly, family oriented sport, and to attract new comers (who are often children) at our events. The number of people who participate consistently is lower. Counting only those for whom there are 10 or more scores recorded over the 8 years, we have 250 total "frequent participants," who accounted for 9460 of the 13,500 scores. Of frequent competitors, 51 are women, 155 are men, and 44 are youth (8 girls, 36 boys). Some of these individuals have competed as many as 43 times in a single year. Terry Keefer and Gary Fogelman have the most scores on record (223, 212), with Sharon Keefer at 183.

Table 1: Growth of Competition between 1996 and 2003							
Year	Number of Scores	% Scores by Women	% Scores by Youth	Number of Throwers <sup>2</sup>	% Throwers Female <sup>3</sup>	% Throwers Youth <sup>4</sup>	Number of Events <sup>5</sup>
1996	272	10	2	134	14	2	23
1997 <sup>1</sup>	398	6	4	128	9	5	41
1998	1116	20	11	422	22	11	62
1999	1754	22	16	541	19	19	67
2000	1952	23	13	551	21	17	73
2001	2788	27	15	761	25	22	108
2002	2532	27	14	710	24	20	86
2003	2688	26	12	754	24	18	90
Total	13500	24	13	2310	24	20	483

1 Only results in a proportion of 2 Total number of throwers 3 % of individuals 4 % of individuals 5 Number of Events because dates were scores lower number both women and is number of individuals participating in any participating in any counts multi-day not consistently above 40 of scores and youth as well as who participated in any of year who have been participating in any events as one event. recorded were total the proportion of the 8 years. female ( different youth (453 different 1999 events are probably This recorded competitors scores the proportion of the 8 years. women) youths) undercounted, for 1997. and probably attributable to them.

Fifty-four percent of all scores (7,289) are with primitive equipment, and 42% (5745) with modern, although the recording of equipment is not very consistent (466 cases missing that information, or 4%). The overall average of primitive equipment scores (51.8) is higher than for modern gear (44.2). For frequent participants only, the averages are 60.3 for primitive gear and 53.9 for modern. This is apparently because several of the highest scoring and most often competing individuals use primitive equipment, not because primitive atlats are necessarily better.

When will we break 100? We had hoped to see a rising trend in scores that would allow us to make a prediction. As sporting interest in atlats grows, so does skill. More people are practicing, and over the 8 years of ISAC records, the top scores have risen, and the number of people achieving higher scores has increased dramatically (Table 2). But it also looks like scores have flattened out. Overall scoring average is only creeping up, and the top scorers have reached the upper nineties but there doesn't seem to be a trend that would predict future improvements (Table 3). In 2004, maximum scores and number of high scorers went down from 2003. We think the best atlats have now reached about the level that average people with normal equipment will usually achieve. Someone is bound to shoot 100 in the next few years, but it will be a rare and unpredictable event. If atlating became an Olympic sport with money and effort poured into it, we might develop some super-athletes who could do a bit better, but it seems to us that atlats skills are not likely to develop to the point where the ISAC is too easy to be a challenging competition. This is important for interpreting prehistoric atlats.

Unless you have some skill with a tool, you cannot give it a fair test. Just because a modern archaeologist can't flute a Clovis point or hit a target with a dart does not mean that the technology didn't work. It is impossible now to watch a group of people who grew up depending on an atlats every day to catch dinner, so it is theoretically possible that a Clovis hunter could have scored 10X every time. What we know about ethnographic hunters makes this real unlikely, but with 13,500 ISAC scores over 8 years we now have a pretty good sample of what normal people can do, including some who have worked hard for a long time to become expert. We can look at the learning process a bit too. Women's scores lag behind men. This is not surprising since our society is less likely to encourage girls to participate and excel in throwing sports. But a few women are reaching the level of the top men, which is also not surprising. There is no physical reason why women should not be as accurate with an atlats as men, and in fact, one of the advantages of atlats in prehistory may be that they made it possible for a lot more people of less size and strength to be successful hunters. Our youth scores also average lower than adults. Children have very real physical limits to strength and coordination. At 6-7 they start to hit the target, and there is another big jump around 11-13. By 14-16 the best youths are competing with the adults.

Table 2: Number and Percent of High Scorers by Year 1								
Year	Scoring 70 and Above Females				Scoring 90 and Above Females			
	Males				Males			
	Number	% Total	Number	% Total	Number	% Total	Number	% Total
1996	0	0	15	13	0	0	0	0
19972	2	1.8	36	31	0	0	1	0.9
1998	1	1	49	15	0	0	3	0.9
1999	4	4	63	14	0	0	6	1.4
2000	6	5	73	17	0	0	13	3
2001	9	5	94	17	0	0	15	2.6
2002	14	8	107	20	0	0	16	3
2003	10	5	109	19	1	0.5	22	3.9
20043	6		81		0		15	

1 This is the total number of individuals scoring over the indicated goal. Most are adults, but some are youth.  
2 Only scores over 40 were kept which results in inaccurately high percentages of the total.  
3 Only scores over 50 for women were available for 2004.

In terms of learning, if you look at scores for the 34 men and one woman who have scored 90 or better at some time, there is a very strong tendency for them to reach their peak, or close to it, after one or two years of competition, whether you track average yearly score or maximum (Figure 1). What this all means to us is that you do not have to be born with an atlatl in your hand to become expert. A couple of years of practice can do it. It probably also means that prehistoric atlatl hunters were not the incredible marksmen that our myths would like us to believe. Yes, there are rare individuals who can shoot aspirin tablets out of the air with a bow and arrow, but the ordinary hunter is competent and successful at a much lower level. We may see an atlatl Annie Oakley some day, but for understanding the use of prehistoric atlatls, we think the ISAC competitors are skillful enough.

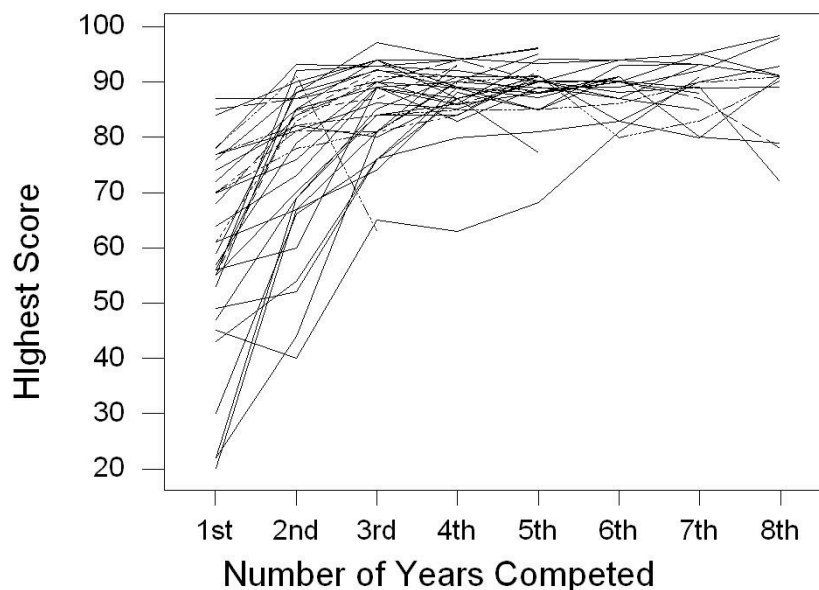


Figure 1. . Learning curve for atlatlists who have scored 90 or above at some time (N = 35), maximum score for each year graphed against number of years

Similarly, attempts to set distance records with the atlatl climbed steadily at first, and may have peaked, although there does not seem to have been a lot of interest in challenging the records in the last few years. David Engvall holds the world record of 848' 6 5/8" (258.64m) for an atlatl throw using modern materials and designs (Engvall 1995; Tate 1995). Using primitive materials Wayne Brian's record is 475' 3" (144.9 m, Clubb 1994). The world record for a modern aerodynamically designed javelin throw is 98.48 m.

These modern standards let us judge some ethnographic accounts. When Edge-Partington (1903) recorded Australians throwing light reed spears 300 yards with a woomera, and heavy wooden spears "accurately to a distance

of 120 yards" by hand, we should wonder if he wasn't exaggerating a bit. Compilations of ethnographic records show that the normal hunting range for bow and arrow or for spear throwers was 10 to 30 m (Cundy 1989; Cattelain 1997). This accords well with the experience of modern sport atlatl use and competitive primitive archery.

The ISAC could be applied to archaeological experimentation as a measure of accuracy in testing atlatl designs, or to calibrate experimenters. Unless an experimenter is proficient with a prehistoric technology, no fair trial can be made. A modern experimenter should perhaps develop enough skill to score in the 70s on an ISAC target, a scoring range that is considered good but not exceptional. Otherwise, there is probably a failure of equipment or skill that would make the experiment suspect. Some of the early experimenters were not up to snuff by modern standards. Peets (1959) was unable to hit a man-sized target at 20-40 yards. Browne (1940) admitted that he could not have hit a bison one shot out of 10 at 30 yards after 6 months of practice, and concluded that “any close degree of accuracy is impossible with the atlatl.” Modern atlatlists can say with confidence that they were doing something wrong. Their experimental results should be regarded with suspicion. The suggestion that atlatls would only be useful for flinging spears at random into massed herds can be dismissed with scorn by the many atlatlists who have taken deer and other game.

Year	Number of Males	Number of Females	Mean Score Males	Mean Score Females	Maximum Score Males	Maximum Score Females
1996	116	18	46.33	23.31	87.0	43.0
19972	117	11	62.12	52.27	93.2	72.0
1998	329	93	47.47	23.80	93.0	67.0
1999	441	101	50.58	29.71	97.2	73.0
2000	437	114	52.53	32.39	94.3	81.2
2001	568	195	53.33	32.35	94.1	85.2
2002	537	174	54.61	35.20	96.2	84.1
2003	568	187	55.22	37.29	98.5	92.1
20043					97.3	87.0

1 Scores with statistical  
X were treated computation; thus,  
as decimals for  $93X=93.2$ .

2 Only scores above 40 were recorded for 1997. This results in inaccurately low numbers of competitors.

3 Only information on high scores was available for 2004.

When we started shooting ISACs in 1996 it did not occur to us that the scores from a standardized competition would interest anyone except our small world of spear-throwing friends. Nevertheless, the ISAC does have some application to understanding prehistoric atlatls. This is even more true for the larger world of modern atlatl sports. Modern atlatl sport provides subjective experience, systematic experimentation, a network of communication, and a body of experienced throwers to anyone who is interested in our favorite prehistoric technology.

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1940 Projectile Points. *American Antiquity* 5 (3): 209-213.

Cattelain, Pierre

1997 Hunting during the Upper Paleolithic: Bow, Spearthrower, or Both? In *Projectile Technology*, H. Knecht ed., pp. 213-240. Plenum, New York.

## Clubb, Leni

1994 Guinness Record Holder... The Atlatl 7(1):8

**Cundy, B. J.**

1989 *Formal Variation in Australian Spear and Spearthrower Technology*. BAR International Series 546, Oxford.

**Edge-Partington, J.**

1903 Notes on the Weapons of the Dalleburra Tribe, Queensland, lately presented to the British Museum by Mr. Robert Christison. *Man* 3(19):37-38.

**Engvall, David P.**

1995 The Dynamics of: The off-Axis-Forward-Nock Spear vs The On-Axis-Aft-Nock Spear as Thrown with an Atlatl Spear Thrower. *The Atlatl* 8(4):4-5

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1959 A Butterfly Bannerstone as an Atlatl Weight. *Ohio Archaeologist* 9(3): 83-87.

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1995 Long Distance Record Shattered. *The Atlatl* 8(3):1-2.

# World Atlatl Association Annual Meeting

## 2005 Lewis and Clark Bicentennial Celebration

Ulm Pishkun State Park, Ulm, Montana

June 24 to July 1, 2005

By Jim Ray

Our 17<sup>th</sup> Annual Montana Mammoth Hunt will be the lead-off event for the **2005 Lewis and Clark Bicentennial Celebration**. The Mammoth Hunt is the longest, continually running atlatl event. The 24<sup>th</sup> of June will be for contest set-up, ISAC, and a WAA Board of Directors meeting. From 25<sup>th</sup> through 27<sup>th</sup> June there will be the atlatl, knife and tomahawk throwing, and bow shooting. The bow and atlatl event will be using the European field round that so many of you are familiar with, plus three types of moving targets. **The WAA Annual meeting will be held June 25<sup>th</sup>**. From 28<sup>th</sup> June through 01<sup>st</sup> July will be the International Traditional Games Society (ITGS) games. These games will include primitive bow and atlatl competition in the expert class on 28<sup>th</sup> and 29<sup>th</sup> June. The Novice Class will be held on 30<sup>th</sup> June and 01<sup>st</sup> July. There will be ISAC competition from 24<sup>th</sup> June through 01<sup>st</sup> July. After each day's event has concluded, there will be an informal social gathering for a meal and a speaker on related topics. Atlatl, Bow, Knife, Tomahawk Competition

### 24 June 05

ISAC and WAA Board of Directors Meeting

### 25 June 05

17<sup>th</sup> Annual Montana Mammoth Hunt Event will include atlatl throwing, bow shooting, and knife and tomahawk throwing, ISAC, WAA Annual membership meeting, dinner

### 26 June 05

Day Two of the Montana Mammoth Hunt Event will include atlatl throwing, bow shooting, knife and tomahawk throwing, ISAC, speaker, dinner.

### 27 June 05

Day Three of the Montana Mammoth Hunt Event will include atlatl throwing, bow shooting, knife and tomahawk throwing, ISAC, speaker, dinner.

### 28 June 05

Day one of the International Traditional Games Society (ITGS) games will include Expert primitive atlatl throwing, ISAC, awards, speaker, dinner.

### 29 June 05

Day Two of the International Traditional Games Society (ITGS) games will include Expert primitive atlatl throwing, ISAC, awards, speaker, dinner.

### 30 June 05

Day Three of the International Traditional Games Society (ITGS) games will include Novice primitive atlatl throwing, ISAC, awards, speaker, dinner.

### 01 July 05

Day Four of the International Traditional Games Society (ITGS) games will include Novice primitive atlatl throwing, ISAC, speaker, dinner.

The contests will be the European Field Round plus other targets. You may use your own equipment or equipment will be provided. On site camping at the park will be provided in the admission fee. On site camping will be for tents and rv's. Reserve motel rooms early!

Contact Jim Ray 406.736.5274 for more info.

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On June 20, 1803 Jefferson charged Meriwether Lewis and William Clark with leading a U.S. Army expedition of 30 men to explore this new land. His instructions to Lewis stated,  
*"The object of your mission is to explore the Missouri river, & such principal stream of it, as, by it's course & communication with the waters of the Pacific Ocean, may offer the most direct & practicable water communication across this continent, for the purposes of commerce."*  
Even with the inconsistent spelling and stilted grammar of the times, the instructions are still very clear

## 2005 Lewis and Clark Bicentennial Celebration, Great Falls, Montana Territory

By Jim Ray.

The travels through and explorations of Montana Territory by Lewis and Clark and the Corps of Discovery was a significant portion of their entire journey spanning 1804-1806. June/July 2005 will be the bicentennial of this historic event. In keeping with the significance of this event, a major National Signature Bicentennial Celebration is scheduled for 29-30 June and 1-3 July 2005 in Great Falls.

A brief listing of some of the scheduled activities would include: a Native American Pow Wow; Native American games on foot, on horseback, in boats; Native Villages set-up; Lewis and Clark Honor Guard re-enactment encampment (these guys are good!); noted speakers; period artwork displays; and atlatl throwing and bow shooting competition.

The atlatl and bow competition will be divided into two classes, expert and novice. The expert class atlatl and bow competition will be on 29 June. The novice class atlatl and bow competition will be on 30 June through 3 July. There will be Men's, Women's, and 2 youth divisions for Expert and Novice class in both atlatl and bow. Nice prizes will be awarded to the top three in each division.

Many bows, arrows, atlatls, and darts will be needed for the Novice class competition. I have already contacted several atlatl and bow makers for donations or reduced cost equipment, with favorable results, but more are needed. If there are primitive atlatl or primitive bow makers I have not contacted that are willing to supply donated equipment or equipment at a reduced cost for this National Signature Event, please contact me. Your help will be appreciated. This event, along with the equipment and equipment makers will receive at least National, possibly International exposure. Does this type of advertising sound attractive to you? Think about it. We also need experienced throwers and shooters to help conduct the Novice Class competition. This is literally a once in a lifetime opportunity to show your skills, National Pride, promote the sport, and promote our WAA organization.

Preceding this event will be our 17<sup>th</sup> Annual Montana Mammoth Hunt atlatl contest on 25 and 26 June 2005. The Montana Mammoth Hunt will be held at the Ulm Pishkun State Park along with our Annual Meeting on the 25<sup>th</sup>. A group meal will probably be held in Great Falls. Pishkun means buffalo jump and the park is located 15 minutes west of Great Falls. On site camping is permitted at the park for the Mammoth Hunt. Clear your calendars, plan your vacation now to spend 25 June through 3 July 2005 in the Great Falls, Montana area. For pre-registration and camping information, contact me, (Jim Ray) at 406.736.5274

### EARLY ISAC RESULTS

By Lloyd Pine

I have results from only a few contests, three at the Fogelmans and the Wintercount at Maricopa, AZ. Both Gary Fogelman and Douglas Bassett have a good start with scores of ninety or better. JoAnne Fogelman had her usual fast start with a 76. The only youth score above 40 is a 50 by 13 year old Neville Bobins at the Wintercount contest.

Men		Women	
91X	Gary Fogelman	76	JoAnne Fogelman
90 3X	Douglass Bassett	70X	Melissa Dildine
81X	Terry Keefer	67	Sharon Keefer
81	Andy Majorsky	64	Lori Majorsky
78	Chris Pappas		
74X	Bob Bronish		
72	Greg Bessette		
70	Bob Kitch		

Life is not easy for any of us. But what of that?  
We must have perseverance and above all confidence in ourselves.  
We must believe that we are gifted for something and that this thing must be attained.

--Marie Curie

## Finger Freezing Atlatl Contest

Jan 9, 2005

By Gary Fogelman

The Finger Freezing contest proved to be that, but it wasn't too bad either. The temperature hovered around freezing, but it was bright and calm. The day before wasn't very nice, however, with freezing rain over the area and north so participation wasn't as high as usual, but eleven of us did gather to have a go at the first ISAC of the season.

We held the contest on a Sunday to accommodate some of us getting to an artifact auction the day before. Terry and Sharon Keefer came up; and brought Don Roberts who was visiting from Ohio. John Capillini braved the roads and arrived on Saturday and later in the evening Doug Bassett arrived. We spent some time knapping Friday evening after a nice supper and I'd make some comments about what a great knapper Don is but only those present know why I refrain from doing so. On Sunday Chris Pappas arrived, as did Tom Goble Sr and Missy LaDue from the Waverly area, and that would be it.

Because the weather is cold this time of year, and participation is generally down anyway, the local contest was held to a minimum and no Grand Champion award was offered, and this will be the case for the first 2 or 3 contests. The local consisted of one chance at the Ultra ISAC. This meant less time outside in the cold and more time in where the warmth, coffee and food was. No one seemed to mind. Award certificates were given to all who participated.

Beyond just getting together and enjoying that very much, we were eager to get started on a new year of ISAC competitions. Here are those results:

Gary F-91, Doug B-88, Terry K-81, Chris P-78, Tom G Sr-59, Sharon K-67, JoAnne F-65, Missy L-33, Chelsea CB- 28

No great scores to be sure and hopefully we'll all improve as the year progresses. It was great to have Terry back in action, his first throwing in 6 months, and well, it's not good for the rest of us! What he's lost from inactivity is minimal and with a little practice I predict he'll be putting up some good scores in the future.

Thanks to every one who came, we'll be doing it again in Feb and Mar..come join us!

## Bundle Up and Throw Contest Report

By Gary Fogelman

Fourteen contestants showed up at eh Fogelman's on this overcast and blustery day to test their skills in a local contest and the ISAC.

Actually it's a nice situation here, where, even on windy days, the lower targets are somewhat protected and one can wait for the lulls and do some serious shooting.

The local was a State Round using an Ultra ISAC target. Contestants got only one try for the day.

Doug Bassett threw a super 49xxxx at 15m to begin his ISAC, and ended with a 90xxx, the best of the day, but a little off Doug's best ever score. No one else did much in the ISAC they wanted to speak of.

We had a great time into the late afternoon. Many impromptu contests and challenges took place and slowly, grudgingly, people

filtered away. But, hey, we're doing it all again March 5. Can't wait!

High ISAC results: 90xxx-Doug Bassett, 83x-Gary Fogelman, 81-Andy Majorsky, 74x-Bob Bronish, 72-Greg Bessett, 70x-Melissa Dildine, 64-Lori Majorsky, 62-JoAnne Fogelman.

Local round winners: Men-Gary Fogelman, Women-Melissa Dildine.

## March Madness Contest Results

March 5, 2005

By Gary Fogelman

Probably the smallest group we've had on hand for a contest, six of us got together on this beautiful, sunny, calm day. For awhile it looked like the bare minimum of three might be it, as Doug Bassett came down Friday evening. Saturday we had friendly wagers going on who would be the first to show, if anyone. We knew quite a few wouldn't be making it, having already let us know, but we hoped a few others would. Doug figured the New Jersey boys would be in around 10:30. I picked them for 10:15. Bob Bronish and Erich Zeh pulled in at about 9:55. Jo had picked Lori Majorsky to be here by 10:45. She arrived at 11:00. And that would be it.

So two flights it was for the ISAC. Doug Bassett remained steady, firing a 90. He had a 90xxx last month. Jo pegged a 76, her high so far and not a bad start. No one else did much to better their previous.

The small group didn't mean the competition's were any less intense, either the ISAC or the other things we did. The main local was Jo's Ultra Two of Three State Round. The idea of scoring was basically Jo's, but fashioned after Margie's Meadow-Loft, wherein you throw three darts but score the best two. Then Doug got involved.

We ended up doing a State Round, distances of 5-10-15-20-25m. Each threw three darts from each distance, counting only the best two. We each got to do this three times. Then, from the three times, we picked the best two scores at each distance. There was a raw score, and then there was a percentage score.

Doug figured it all out for us, and said the results were as follows:

	Raw Score	Percentage Score
Gary	173xx	86.5
Doug	167xx	83.5
Bob	122	61
Jo	114	57
Erich	110	55
Lori	110	55

Then, we played around a little bit with handicapping, to see if it would work to even out the field for team events, and other games. There are possibilities there, much like bowling or golf, something could be worked out were the need to arise.

We made two teams of three and played some games with that. Did I mention it was a beautiful, sunny, nice day? Perfect for what we were doing and we took advantage of it. We can only hope that such conditions prevail on the 27<sup>th</sup> of March when we'll be having an early Spring Fling event, and looking forward to the presence of our friends from Belgium, Pascal, Karin, Thomas and Martin Chavaux.

## SPRINGTIME IN ARIZONA

By Bob Sizemore

Winter Count was Wetter Count this year. Three atlatl competitions, a distance throw and a workshop making dozens of atlatl's and darts made for a great atlatling weekend. The rain stayed away during the day until the last Saturday when we had a steady light rain all day. We were able to keep score sheets and targets dry enough with large plastic bags to complete the days competition. Some observations about distance throwing: the average distances for men were in the middle to high 200 foot range, with the best distance of 335 feet by Terry Kramer. Average for women at about 200 feet, with the best of 247 feet for Jill Holiday. Youth were throwing in the 130 foot range with the best of 146 feet for Hawk Tamez.

The prizes for the best accumulated score for the week went to: Bob Ketch, Lynx Vilden, Neville Robins and Michael Daugherty. They each received a beautiful antler handle obsidian knife hand crafted by Christopher Earls of Lindon, UT. It was a great incentive, and I will probably do it again next year.

Competition results: Saturday Feb. 12th: Men 1st: Nessia; 2nd: Terry Kramer; 3rd Eddie Spicer. Women: 1st: Jill Holiday; 2nd Willow Spicer; 3rd Jo Guill. Youth 1st: Neville Robins; Juniors 1st: Michael Daugherty; 2nd; Kaylee Daugherty.

Wednesday Feb. 16th; Mens 1st: Joe Dabill; 2nd: Bob Ketch; 3rd; Nassia. Women 1st; Bonnie Corey; 2nd; Jo Guill; 3rd; Lynx Vilden. Youth 1st; Neville Robins; 2nd; Sam Kinkade; Junior 1st; Hawk Tamez; 2nd: Andrew Sherer; 3rd. Michael Daugherty. Saturday the 19th: Mens 1st: Bob Ketch; 2nd; Terry Kramer; 3rd; Jerry Spiess; Women: 1st Lynx Vilden; Willow Spicer; 3rd. Jo Guill. Youth: 1st Leo; 2nd: Neville Robins; Juniors: 1st Hawk Tamez; 2nd Michael Daugherty; 3rd: Kaylee Daugherty

## Pueblo Grande Museum, Phoenix, Arizona

By Bob Sizemore

What a contrast to Winter Count; sunny, warm and light breezes. Mens 1st; Mick Robins; 2nd; Terry Beam; 3rd; Jerry Speiss. Women: 1st; Lyda Cota. Youth: Neville Robins; 2nd: Jason Tadano. Juniors: 1st; Aiden Cota; 2nd: Tatum Cota.

In additions to atlatl competitions, the SALT group has participated in promoting the atlatl by demonstrating and teaching at the state archeology expo where we instructed the entire Verde Valley School District 4th grade class (about 350 students). And then we demonstrated for the open house all day on Saturdy. The SALT group also did demo's and instruction at Red Rock State Park in Sedona, AZ for their archeology awarness program. It's been a great spring in Arizona, and there is more to come in the West. Check out the schedule.

2 pics from the Pitts Sports Museum....should read 2004

## Raging Cow

Raging Cow Atlatl Meet at Grinnell College, Grinnell, Iowa. April 30 (Saturday) with ISAC and local events, ISACs Friday evening and Sunday morning.

Contact: John Whittaker, 642-269-3447 office, 236-6775 home, [whittake@Grinnell.edu](mailto:whittake@Grinnell.edu).

## Persied Primitive Arts

Once again, we will have our Persied Primitive Arts weekend at the Blue Heron, 2361 Wait Corners Rd. Sherman, NY. This year it falls on the 12th, 13th, and 14th of August, so it should be a good time for meteorite watching!

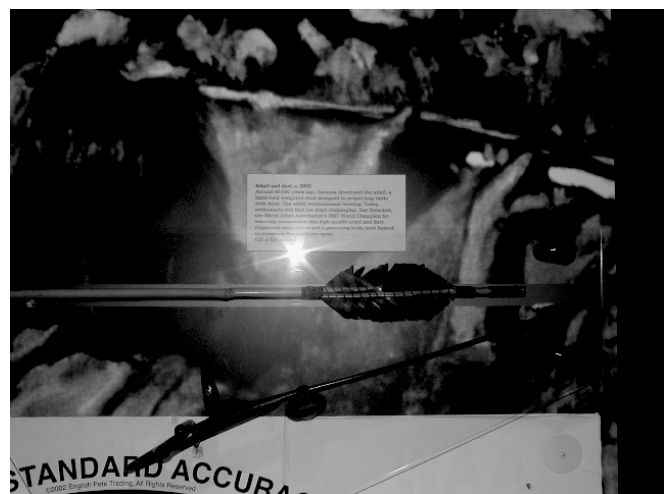
We will have atlatl competitions all three days, our popular stone carving and weaving workshops, primitive spinning, drumming, flint knapping and more!

There is a small camping fee for the weekend (\$10/camping unit) and no fees for vendors. A beach is available (swim at your own risk) and of course our frightening torch-lit ISAC for the daring or anyone who really doesn't care what their score is!

The Blue Heron site is the location of a nice music festival earlier in the summer ([www.greatblueheron.com](http://www.greatblueheron.com)) and there will be a Scandinavian festival the weekend immediately before our Primitive Arts Weekend. There is plenty of space for camping in fields or woods, water and electricity are available, as are showers.

Hope to see you there!

Contact: Ben Brauchler [ben@netsync.net](mailto:ben@netsync.net) (716) 679-7145



### Atlatl and dart, c. 2003

Around 40,000 years ago, humans developed the atlatl, a hand-held weighted stick designed to propel long darts with force. The atlatl revolutionized hunting. Today, enthusiasts still find the atlatl challenging. Ray Striscsek, the World Atlatl Association's 1997 World Champion for accuracy, constructed this high-quality atlatl and dart. Organized competition and a governing body have helped to transform the atlatl into sport. Gift of Ray Striscsek



## Neanderthal life no tougher than that of 'modern' Inuits

COLUMBUS, Ohio - The bands of ancient Neanderthals that struggled throughout Europe during the last Ice Age faced challenges no tougher than those confronted by the modern Inuit, or Eskimos.

That's the conclusion of a new study intended to test a long-standing belief among anthropologists that the life of the Neanderthals was too tough for their line to coexist with Homo sapiens.

And the evidence discounting that theory lies with tiny grooves that mar the teeth of these ancient people. Neanderthals, Homo neanderthalensis, were the dominant hominid inhabiting most of what is now Europe and western Asia. Remains have been found as far south as Iraq and as far north as Great Britain. Fossil skulls reveal the distinctively prominent brows and missing chins that set them apart from later humans.

They thrived from about 200,000 to 30,000 years ago until their lineage failed for as-yet unknown reasons. Most researchers have argued that their life in extremely harsh, Ice Age-like environments, coupled with their limited technological skills, ultimately led to their demise. Homo sapiens arrived in Europe about 40,000 years ago and survived using more advanced technology. But the short lifespans of Neanderthals and evidence of arthritis in their skeletons suggests that their lives were extremely difficult.

That's where Debbie Guatelli-Steinberg's work comes in. An assistant professor of anthropology at Ohio State University, she published a recent study in the Journal of Human Evolution that changes our view of the Neanderthals' unbearable lives.

Guatelli-Steinberg has spent the last decade investigating tiny defects -- linear enamel hypoplasia -- in tooth enamel from primates, modern and early humans. These defects serve as markers of periods during early childhood when food was scarce and nutrition was low.

These tiny horizontal lines and grooves in tooth enamel form when the body faces either a systemic illness or a severely deficient diet. In essence, they are reminders of times when the body's normal process of forming tooth enamel during childhood simply shut down for a period of time.

"Looking at these fossilized teeth, you can easily see these defects that showed Neanderthals periodically struggled nutritionally," she said. "But I wanted to know if that struggle was any harder than that of more modern humans."

To find that answer, she turned to two collections of skeletal remains: One was a collection of Neanderthal skulls at least 40,000 years old from various sites across Europe; the other was a set of remains of Inuit Eskimos from Point Hope, Alaska. The Inuit remains, some 2,500 years old, are maintained by the American Museum of Natural History in New York.

She microscopically examined teeth from the Neanderthal skulls for signs of linear enamel hypoplasia, as well as other normal growth increments in teeth called

perikymata, and compared their prevalence with those from the Inuit skulls.

"The evidence shows that Neanderthals were no worse off than the Inuit who lived in equally harsh environmental conditions," she said, despite the fact that the Inuit use more advanced technology.

"It is somewhat startling that Neanderthals weren't suffering as badly as people had thought, relative to a modern human group (the Inuits)."

Guatelli-Steinberg's examination of perikymata offered snapshots of Neanderthal survival. Smaller than the linear enamel hypoplasia, perikymata are even tinier horizontal lines on the teeth surface. Each one represents about eight days of enamel growth so by counting their number, researchers can gauge the speed of tooth development - more perikymata mean slower growth of the tooth surface.

Guatelli-Steinberg counted perikymata within linear enamel hypoplasias, and was able to gauge how long these episodes of physiological stress lasted. The perikymata showed that periods of up to three months of starvation for both the Neanderthals and the Inuit were not uncommon. In fact, Guatelli-Steinberg found that Inuit teeth showed significantly more perikymata than did the Neanderthals, suggesting that the Inuit experienced stress episodes that lasted slightly longer than did those of the Neanderthals.

She is looking ahead to do a similar comparison of tooth defects among the European Cro-Magnon who thrived after the Neanderthals disappeared. Coupled with the results of this project, and that of earlier work with non-human primates, she hopes to improve researchers' understanding of just what information these tooth defects might reveal.

###

Along with Guatelli-Steinberg, Clark Spencer Larsen, professor and chair of anthropology at Ohio State, and Dale Hutchinson, associate professor of anthropology at the University of North Carolina, worked on this project. Support for the research came from the L.S. B. Leakey Foundation. Contact: Debbie Guatelli-Steinberg, (740) 366-9370; [guatelli-steinbe.1@osu.edu](mailto:guatelli-steinbe.1@osu.edu).

Written by Earle Holland, (614) 292-8384;

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740-366-9370

[Ohio State University](http://Ohio State University)

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## Human Fossils Dated to 195,000 Years

By MALCOLM RITTER, AP Science Writer

NEW YORK - A new analysis of bones unearthed nearly 40 years ago in Ethiopia has pushed the fossil record of modern humans back to nearly 200,000 years ago — perhaps close to the dawn of the species.

Researchers determined that the specimens are around 195,000 years old. Previously, the oldest known fossils of Homo sapiens were Ethiopian skulls dated to about 160,000 years ago.

Genetic studies estimate that *Homo sapiens* arose about 200,000 years ago, so the new research brings the fossil record more in line with that, said John Fleagle of Stony Brook University in New York, an author of the study. The fossils were found in 1967 near the Omo River in southwestern Ethiopia. One location yielded Omo I, which includes part of a skull plus skeletal bones. Another site produced Omo II, which has more of a skull but no skeletal bones. Neither specimen has a complete face.

Although Omo II shows more primitive characteristics than Omo I, scientists called both specimens *Homo sapiens* and assigned a tentative age of 130,000 years.

Now, after visiting the discovery sites, analyzing their geology and testing rock samples with more modern dating techniques, Fleagle and colleagues report in Thursday's issue of the journal *Nature* that both specimens are 195,000 years old, give or take 5,000 years.

Fleagle said the more primitive traits of Omo II may mean the two specimens came from different but overlapping *Homo sapiens* populations, or that they just represent natural variation within a single population.

To find the age of the skulls, the researchers determined that volcanic rock lying just below the sediment that contained the fossils was about 196,000 years old. They then found evidence that the fossil-bearing sediment was deposited soon after that time.

Paul Renne, director of the Berkeley Geochronology Center, which specializes in dating rocks, said the researchers made "a reasonably good argument" to support their dating of the fossils.

"It's more likely than not," he said, calling the work "very exciting and important."

Rick Potts, director of the Human Origins Program at the Smithsonian Institution's National Museum of Natural History, said he considered the case for the new fossil ages "very strong." The work suggests that "we're right on the cusp of where the genetic evidence says the origin of modern humans ... should be," he said.

G. Philip Rightmire, a paleoanthropologist at Binghamton University in New York, said he believes the Omo fossils show *Homo sapiens* plus a more primitive ancestor. The find appears to represent the aftermath of the birth of *Homo sapiens*, when it was still living alongside its ancestral species, he said.

"This study suggests Cro-Magnon were not superior in getting food from the landscape," said lead author Donald Grayson, a University of Washington professor of archaeology. "We could detect no difference in diet, the animals they were hunting and the way they were hunting across this period of time, aside from those caused by climate change.

"So the takeover by Cro-Magnon does not seem to be related to hunting capability. There is no significant difference in large mammal use from Neanderthals to Cro-Magnon in this part of the world. The idea that Neanderthals were big, dumb brutes is hard for some people to drop. Cro-Magnon created the first cave art, but late Neanderthals made body ornaments, so the depth of cognitive difference between the two just is not clear."

The study also resurrects a nearly 50-year-old theory first proposed by Finnish paleontologist Björn Kurtén that modern humans played a role in the extinction of giant cave bears in Europe. Cro-Magnon may have been the original "apartment hunters" and displaced the bears by competing with them for the same caves the animals used for winter den sites.

Grayson and his colleague, Françoise Delpech, a French paleontologist at the Institut de Préhistoire et de Géologie du Quaternaire at the University of Bordeaux, examined the fossil record left in Grotte XVI, a cave above the Ceou River, near its confluence with the Dordogne River. The cave has a rich, dated archaeological sequence that extends from about 65,000 to about 12,000 years ago, spanning the time when Neanderthals flourished and died off and when Cro-Magnon moved into the region. Neanderthals disappeared from southwestern France around 35,000 years ago, although they survived longer in southern Spain and central Europe.

The researchers were most interested in the transition from the Middle to Upper Paleolithic, or Middle to Late Stone Age. Neanderthals occupied Grotte XVI as far back as 65,000 years ago, perhaps longer. Between 40,000 and 35,000 years ago, people began making stone tools in France, including at Grotte XVI, that were more like those later fashioned by Cro-Magnon. However, human remains found with these tools at several sites, were Neanderthal, not Cro-Magnon. Similar tools but no human remains from this time period were found in Grotte XVI and people assumed to be Cro-Magnon did not occupy the cave until about 30,000 years ago.

The researchers examined more than 7,200 bones and teeth from large hoofed mammals that had been recovered from the cave. The animals – ungulates such as reindeer, red deer, roe deer, horses and chamois were the most common prey – were the mainstay of humans in this part of the world, according to Grayson.

He and Delpech found a remarkable dietary similarity over time. Throughout the 50,000-year record, each bone and tooth assemblage, regardless of the time period or the size of the sample involved, contained eight or nine species of ungulates, indicating that Neanderthals and Cro-Magnon both hunted a wide variety of game.

The only difference the researchers found was in the relative abundance of species, particularly reindeer, uncovered at the various levels in Grotte XVI. At the oldest dated level in the cave, reindeer remains accounted for 26 percent of the total. Red deer were the most common prey at this time, accounting for nearly 34 percent of the bones and teeth. However, as

### **Bones from French Cave Show Neanderthals, Cro-Magnon Hunted Same Prey**

A 50,000-year record of mammals consumed by early humans in southwestern France indicates there was no major difference in the prey hunted by Neanderthal and Cro-Magnon, according to a new study.

The paper, published in the online *Journal of Archaeological Science*, counters the idea proposed by some scientists that Cro-Magnon, who were physically similar to modern man, supplanted Neanderthals because they were more skilled hunters as a result of some evolutionary physical or mental advantage.

summer temperatures began to drop in Southwestern France, the reindeer numbers increased and became the prey of choice. By around 30,000 years ago, when Cro-Magnon moved into the region, reindeer accounted for 52 percent of the bones and teeth. And by around 12,500 years ago, during the last ice age, reindeer remains accounted for 94 percent of bones and teeth found in Grotte XVI. Grayson and Delpech also looked at the cut marks left on bones to analyze how humans were butchering their food. They found little difference except, surprisingly, at the uppermost level, which corresponds to the last ice age. "It is possible that because it was so cold, people were hard up for food," Grayson said. "The bones were very heavily butchered, which might be a sign of food stress. However, if this had occurred earlier during Neanderthal times, people would have said this is a sure sign that Neanderthals did not have the fine hand-eye coordination to do fine butchering." In examining the Grotte XVI record, the researchers also found a sharp drop in the number of cave bears from Neanderthal to Cro-Magnon times. "Cave bears and humans may have been competing for the same living space and this may have led to their extinction," Grayson said. He added that it is not clear if the decline and eventual extinction of the bears was driven by an increase in the number of humans or increased human residence times in caves, or both. "If we can understand the extinction of any animal from the past, such as the cave bear, it gives us a piece of evidence showing the importance of habitat to animals. The cave bear is one of the icons of the late Pleistocene Epoch, similar to the saber tooth cats and mammoths in North America. If further study supports Kurtén's argument, we finally may be in a position to confirm a human role in the extinction of a large Pleistocene mammal on a Northern Hemisphere continent."

Public release date: 22-Sep-2003

Contact: Joel Schwarz [joels@u.washington.edu](mailto:joels@u.washington.edu) 206-543-2580 [University of Washington](http://www.u.washington.edu)

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## Hunting with Atlatls in Pennsylvania – An Update

Dear Fellow Atlatlists:

The quest for getting the atlatl and dart legalized as a hunting weapon in Pennsylvania is making great progress, thanks in large part to George Miller. George spoke with Pennsylvania Game Commission Deputy Director Mike Schmidt (not the Phillies former third baseman) and has set up a meeting/ demonstration with the PGC's Board of Directors.

It seems that we will be going to Harrisburg for the June 27 & 28<sup>th</sup> meeting. A public talk is tentatively scheduled to take place at 8:30 a.m. on June 27<sup>th</sup> with a throwing demonstration possibly held after lunch.

**What we hope to accomplish:** We want to be able to use atlatls to hunt all game animals in the Commonwealth of Pennsylvania. Ideally we would like to use the atlatl during the regular archery season for whitetail deer. We believe that we will ask for consideration of this sort and - if necessary – bargain down. We will include the possibility of hunting other game animals like coyotes, fox, woodchuck – and other big game like turkey, elk and bear – but recognize the fact that there are no guarantees.

Our first step is to familiarize the PGC with the atlatl. In order to be taken seriously, the board will need to know the history, power and modern hunting use of the atlatl and dart.

**We are asking for your help:** I am currently writing up a booklet to be presented to the board (and to any public at the meeting) that will include:

- A general history of atlatls.
- Laws concerning atlatls and darts on the books in other states and Canada.
- Modern uses as a hunting, fishing and sporting device.
- The mechanics/ physics behind the atlatl and dart.
- Information that is available on the Internet, on DVD, in books or other.
- Letters from individuals of the atlatl community that are topic oriented.
- Miscellaneous facts about money, numbers of hunters, hunting skills necessary to hunt with an atlatl as opposed to other types of weapons.
- Types of equipment.

I need information about history, mechanics and facts. I would like to have letters with a focus on hunting, science, money and any other topic you think might help. You do not have to be a hunter to help out with this endeavor. Many atlatlists are not hunters, but any support and information they provide will be appreciated by those of us who are.

Jack is compiling a list of laws for hunting and fishing from other states and Canada.

If you have any questions, contact Jack Rowe at [fieldwalker@stny.rr.com](mailto:fieldwalker@stny.rr.com) or (570) 888-8258. You may also contact me at [dennis.lantz@CQServices.com](mailto:dennis.lantz@CQServices.com) or (570) 358-3000.

Pennsylvania Game Commission  
2001 Elmerton Avenue  
Harrisburg, PA 17110-9797  
(717) 787-4250  
<http://www.pgc.state.pa.us/>

## **Survival By Hunting: Prehistoric Human Predators and Animal Prey.**

By George C. Frison. University of California Press, Berkeley, 2004. Hardcover, 266 pp., index, references, and illustrations. ISBN 0-520-23190-2, \$34.95.

**Reviewed by John C. Whittaker**

George Frison, a major figure in Plains archaeology since the 1960s, has produced a new book that many atlatlists will enjoy. *Survival by Hunting* is a well-written and readable combination of summaries of information from some of the

important sites Frison has worked on with his personal hunting and ranching experience. Frison's main theme is that the archaeological record of prehistoric hunting strategies can best be understood "by those familiar with animals and their behavior in response to modern hunting strategies."

Frison starts with some environmental and historical background on the Plains, and a chapter on his own development as a rancher, hunter and guide, and eventually archaeologist. A series of chapters then covers all the major game animals of the Plains, starting with the extinct fauna hunted by the Paleoindian populations. In each case, Frison discusses archaeological sites and the evidence for prehistoric (and in sometimes historic) hunting strategies, relevant technologies and changes through time, and insights gained from modern studies of animal behavior. The chapter on bison for instance includes amusing and revealing stories from bison breeders about the behavior of a contrary beast, sometimes docile but capable of running right through strong fences, bulky but fast on its feet, strong but surprisingly susceptible to injuries. Bison are the most glamorous Plains animal, but Frison also deals with mammoth, pronghorn, mountain sheep, elk, deer, and other game.

Throughout *Survival by Hunting* there are discussions of butchering, problems with carnivores and scavengers, animal populations and environmental change, and weapons technology, often from Frison's own personal experience or experiments. Frison dwells on trap, drive, and impoundment strategies, which are less well-known, and where he has an unusual amount of experience recognizing and interpreting the vanishing remnants of corrals, bison jumps, hunting stands, and drive lines from the past. He deals with atlatl and bow in several places. In his earlier work on Paleoindian hunting, he seemed to emphasize the use of thrusting spears, but he now seems to regard most of the early projectile points as likely to have been used on atlatl darts. This may be partly fall-out from his famous experiments using atlatls and Clovis points on culled African elephants, which he describes again here.

All in all, *Survival by Hunting* is a highly recommended distilling of the career of one of America's most interesting archaeologists. To those of us who hope to see atlatl hunting revived, there is a lot of practical advice here, and for the archaeologist dealing with atlatls or primitive hunting, some sound principles for interpreting the past, in an enjoyable package.

## WAA'S STAND ON HUNTING WITH THE ATLATL

### How do You Feel Regarding this Issue?

Please provide us your thoughts regarding the appropriate role of the WAA as members work to legalize hunting (and fishing) with an atlatl in their states. This will be a discussion item at our 2005 Annual Meeting and the Board would like to hear from as many members as possible

regarding their views. This is especially important for those of you who will not be able to make it to Montana.

Over the last number of years, WAA members in a number of states have been working for the legalization of the atlatl for hunting and fishing. The last formal vote regarding the position of WAA on hunting was taken at the 1997 Annual Meeting in response to a request from a member that the WAA support his efforts for a scientific hunt to take elk in Colorado. After considerable discussion, it was moved and passed that "The World Atlatl Association take a neutral position on the subject of hunting, but acknowledge that the atlatl is, historically, a hunting tool capable of taking large game up to and including the mammoth. However, WAA may support, on a case by case basis, the taking of game animals with an atlatl and dart for scientific research." (Minutes, Annual Meeting, April 18, 1997, Valley of Fire State Park, Overton, NV.)

At the 2004 Annual Meeting the topic of hunting came up and there was considerable support for atlatl hunting among members attending. Some members expressed the view that the WAA should do more to support efforts to legalize hunting.

What are your thoughts on this issue? Should the WAA maintain a neutral position as indicated above, or should it play a more supportive role as members work to legalize hunting in their states? (Note: the WAA does include articles on hunting in the ATLATL.) If you feel it should maintain a neutral position, indicate your reason for your views. If you feel WAA should play a more active role, explain what specific steps you feel it should take as an organization.

Please send your thoughts to me at:

[devoemertz@sbcglobal.net](mailto:devoemertz@sbcglobal.net) or at: 165 Bon Chateau Drive, Town & Country, MO 63141.

I will compile responses for the meeting. In addition, you are encouraged to express your views to WAA Board members. They are listed on our web site ([www.worldatlatl.org](http://www.worldatlatl.org)).

Thanks for sharing your thoughts.

Ron Mertz, WAA President

2 Pics  
from



**12. The atlatl before it was sport**  
Early civilizations developed the atlatl for hunting, a technological advancement over hand-held spears.  
*Courtesy of Mercyhurst College, painting by Burt Silverman*

**13. The 2003 World Atlatl Association competition at Meadowcroft**  
Cynthia Tindongan prepares to launch her atlatl. *Courtesy Frank and Margie Takoch*

Sports  
Museum  
look for  
more!



Here is a letter and pictures the Bergs very kindly shared with the WAA:

Robert & Cheryl Berg,

Received the Atlatl kit about a week ago and have been working on it since. Finished the atlatl and one dart so far. First test was distance; got about 60 yards out of it, will keep practicing. Then moved to the sand pile, missed and hit a bag of mortar, oh well. The Soldiers wonder what I will come up with next, but have enjoyed trying out the atlatl. I wonder if an atlatl has ever been used in Iraq? I bet not in quite a long time.

Attached are the first pictures of the atlatl in use in Iraq, I hope you enjoy them as much as we are enjoying it.

Thanks for all your support,  
Mike



(1<sup>st</sup> Sgt. Mike Mosier of the "Fuel Hogs")



## NOMINATIONS for WAA Board

### ***John Whittaker running for VP***

Archaeologists have the best toys! I started with an interest in atlatl research for archaeological purposes, but joined WAA because atlatling takes me to great events with friends from all over. I use atlatls to teach about prehistoric technology, but raising a college team also means an excuse to share a great sport with my students. The World Atlatl Association has been a crucial catalyst in generating public interest and involving a wide range of folk in atlatling, spreading information, promoting anthropological interest, and creating a network of atlatlists world-wide. We need to build on these strengths to recruit and keep more members, and increase the visibility of atlatling.

### ***Courtney Birkett as Secretary:***

I've always been interested in primitive technology. I remember trying, as a child, to make an atlatl out of a cut-off tree branch. My real introduction to the atlatl came at the beginning of my junior year at Grinnell College, when my professor, John Whittaker, brought his atlatl to the first day of class and announced he wanted to start a team. I quickly found throwing darts to be addictive. I've continued to attend atlatl events after graduation, both for the fun of throwing and because atlatlists are a great bunch of people whom I enjoy spending time with. Now I have the chance to serve as secretary of the WAA, and I'd welcome the opportunity to contribute to the continued success of the Association.

### ***Trena Pikyavit for BOD***

Trena has agreed to stand for nomination to the board of the WAA. Trena has quite a lot of experience in setting up throws, training young throwers & newcomers, award ceremonies, and a good understanding of what the WAA represents. She has met the European throwers that traveled here a few years back, and most members who attend throws in the western U.S. I would like to say that I have known about the Atlatl all my life especially since I'm married to a Native American. But I only learned how to use it from Pete Weimer when I started volunteering for the Fremont Museum in 1997. Since Pete retired, I now put on the atlatl events

### ***Daryl Hrdlicka for BOD***

I've been working with the atlatl for about 7 years now, mostly teaching it at the Jeffers Petroglyphs Historic Site in Minnesota. I guess I just fell in love with it -- the simplicity, the effectiveness, the design, and the history of it. Since then, I've set up atlatl programs at two other locations and have my website up to help others learn about it as well. I have also served on other Boards and feel qualified to serve the WAA.

### ***Jean Jacques Durancet as the European contact for BOD***

You know my interest in the World Atlatl Association. I believe that this activity is a link between the past of humanity and the present. For a senior to shoot with an atlatl is perhaps a means of studying the ancient weapons and practicing sport at the same time.

I have the conviction that for a child, atlatl practice is a great way to discover all the facets of himself or herself. I believe this, because to shoot with an atlatl interest the brain and the body and this awakens the spirit and the ancient reflexes which assured human life during many thousands years. This is all the more vital at a time where video games are devouring all children's activities. The atlatl practice is an open door to arouse the curiosity about the prehistoric and ethnological life.

For the WAA development in Europe, currently we have a real opportunity in Spain. Last year we developed the links with our Spanish friends. In northern Spain, some groups practice atlatl, but almost no one knows ISAC. I plan to expend the knowledge WAA on the occasion of the European

contest that we will organize jointly soon with the Spanish group of the cultural park "Rio Vero" in the "Sierra de Guara" region. On the site a very original prehistoric civilization lived in a lot of caves and this place is very famous in Europe.

If we succeed in to establishing a WAA center on the "Rio Vero" I believe that it will be possible to spread out to other prehistoric sites in Spain.

### ***Bill Tate as the CO Official Agent for WAA BOD***

I want to see growth in the organization. I want to see a continuation of interest from educators and other informed professionals--people like John Whittaker. I believe we have established an organization that is not only fun, but also educational. We have had the attention of museums and scientists around the world almost from the beginning. Years ago, it was WAA that was contacted by Guinness World Records to confirm record throws. We were the group that attracted the attention of the children's TV show *Where in the World is Carmen Sandiego*. Later Hollywood was attracted to WAA member, Russell Richard for atlatl assistance with the movie *The Thirteenth Warrior*, and more recently, the Tom Mills early man show brought us more satisfaction. Additionally, I remember half a dozen or more requests for atlatl information or confirmation from professional archaeologists and museum curators. It is this sort of acknowledgment that sets us apart as an organization. I want WAA to continue to serve more than it members. It is a repository for atlatl information and study.

As your first President, Editor of *The Atlatl* for 15 years, recipient of the President's Award in 2002, Fellow of WAA, and holder of the corporate address of the organization, I have more than a passing interest in the success of this group.

### ***Margie Takoch as BOD:***

As current Editor of *The Atlatl*, I have an avid interest in all things atlatl. I am especially interested in the WAA. I would like to see the WAA grow into a cohesive organization, where all members are willing to set aside their differences and put their energies into the expansion of the WAA.

.....

Above all, challenge yourself. You may well surprise yourself at what strengths you have, what you can accomplish.--Cecile M. Springer

## THE 2005 WAA ANNUAL MEETING

The following bylaw amendments will be presented to the Board of Directors for consideration at the 2005 annual meeting and if endorsed will be presented to the general membership for their approval.

### VOTING

Due to the wide spread nature of our membership, the following amendment is proposed for adoption under Article 2, Section 5.

Voting for the Association's Board of Directors and any proposed amendment or revision of the by-laws can be by mail or in person at the WAA annual meeting. The administrative procedure governing the election shall be set by the Board of Directors.

### NOMINATIONS

The following amendment is proposed for adoption under Article 7, Section 2, and will supplant line three.

Additional nominations may be made during the year, by any member, with the consent of the nominee, by written submission to the Executive Secretary. The Executive Secretary shall forward all nominations to the Nominating Committee. Nominations will be accepted until March 1 of the year in which the election will be held. After the nominations are received the Nominating Committee shall form a slate of candidates to be published in the April Newsletter.

### TRANSFER OF DUTIES

The following amendment is proposed for adoption under Article 5, Section 4, and Section 5.

The duties of maintaining the membership list shall be transferred from the Executive Secretary to the Executive treasurer.

### TERM OF OFFICE

The following amendment is proposed for adoption under Article 6, Section 3.

The Executive Secretary and Executive Treasurer shall each serve a term of three (3) years.

### MEETINGS

The following amendment is proposed for adoption under Article 8, Section 7.

The specific publication to be used for reference on all procedural matters shall be "Webster's New World – Robert's Rules (Simplified and Applied)".

Remember: The World Atlatl Association's community site is: <http://communityzero.com/atlatlworld>

## AMENDMENTS

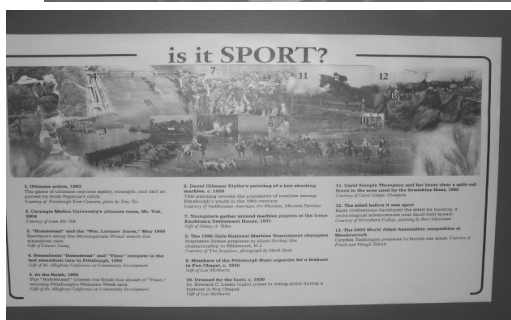
The following amendment is proposed to supplant the existing Article 10.

Amendments to the Association bylaws shall require previous notification, be approved by a majority of the Board of Directors, and ratified by a two-thirds vote of approval by the general membership.

## SPECIAL MEETINGS

The following amendment is proposed for adoption under Article 7, Section 3.

Special meetings may be held by e-mail. The procedures to be followed during e-mail meetings shall be set by the Board of Directors.



Pictures in Sports Museum in Pittsburgh, PA Look for more throughout this issue.

# USA Atlatl Competition Events for 2005

THE WORLD ATLATL ASSOCIATION SANCTIONS NO CONTESTS,  
BUT ENCOURAGES MEMBERS TO ATTEND LOCAL CONTESTS

April 1,2,3	Valley of Fire State Park, Overton, <b>Nevada</b> Fri.afternoon ISAC, Sat.Field Round & ISAC, Sun. Morn. ISAC Jennifer(Park Ranger) (702) 397-2088 or Bob Sizemore (520) 466-6104 <a href="mailto:bobandcarolathome@yahoo.com">bobandcarolathome@yahoo.com</a>
April 2,3	Michigan Flintkanppers Spring Knap-in at the Chelsea Rod and Gun Club Chelsea, <b>Michigan</b> -Sat European contest & ISAC/Sun 3-D Shoot & ISAC Jim Gilligan (810) 599-6881 <a href="mailto:primative1@chartermi.net">primative1@chartermi.net</a>
April 16 <b>CANCELLED</b>	Cave Creek Regional Park, Phoenix , Arizona <b>CANCELLED</b> Bob Sizemore (520) 466-6104 <a href="mailto:bobandcarolathome@yahoo.com">bobandcarolathome@yahoo.com</a>
April 19	Indoor Atlatl League Wilderness Archery, Ann Arbor, <b>Michigan</b> Jim Gilligan (810) 599-6881 <a href="mailto:primative1@chartermi.net">primative1@chartermi.net</a>
April 22, 23 24	Earthday Gathering at EMC Club – Waverly, <b>New York</b> ISAC's all 3 days starting Friday at 1:00 pm Jack Rowe (570) 888-8258 <a href="mailto:fieldwalker@stny.rr.com">fieldwalker@stny.rr.com</a> Dennis Lantz (570) 358-3000 <a href="mailto:dennis.lantz@cqservices.com">dennis.lantz@cqservices.com</a>
April 29 – May 1	Raging Cow Atlatl Meet at Grinnell College, Grinnell, <b>Iowa</b> Saturday with ISAC and local events, ISACs Friday evening and Sunday morning. John Whittaker (642) 269-3447 office, 236-6775 home, <a href="mailto:whittake@Grinnell.edu">whittake@Grinnell.edu</a> .
April 30	Blackwater Draw Atlatl Throw 6 mi. N of Portales, <b>New Mexico</b> SR 467 Registration @ 9AM Target Round starts @ 10 ISAC in the afternoon David Batten (505) 562-2750 <a href="mailto:david.batten@enmu.edu">david.batten@enmu.edu</a>
April 30, May 1	Demonstrations, Local Contests & ISACs at Horicon Marsh Horicon, <b>Wisconsin</b> Len Riemersma - Ph. (920) 528-7454 <a href="mailto:lenmaryr@dotnet.com">lenmaryr@dotnet.com</a>
May 1	Cinco de Mayo - Klimowicz Residence Fenton, <b>Michigan</b> ISACs start @ 2PM Jim Gilligan (810) 599-6881 <a href="mailto:primative1@chartermi.net">primative1@chartermi.net</a>
May 6 - 7	Annual Idaho State Open Atlatl Competition Saturday ISAC both days at Celebration Park, Melba, <b>Idaho</b> Tom Bicak - Phone (208) 495-2745
May 6,7,8	Old Stone Fort State Archaeological Park Knap-in and Atlatl Contests in Manchester, <b>Tennessee</b> ISACs each day Keith Wimberley Park Ranger II <a href="mailto:Keith.Wimberley@state.tn.us">Keith.Wimberley@state.tn.us</a>
May 7	Atlatl Competitions and ISAC @ Wausau Forest School Wausau, <b>Wisconsin</b> Len Riemersma - Ph. (920) 528-7454 <a href="mailto:lenmaryr@dotnet.com">lenmaryr@dotnet.com</a>
May 17	Indoor Atlatl League Wilderness Archery, Ann Arbor, <b>Michigan</b> Jim Gilligan (810) 599-6881 <a href="mailto:primative1@chartermi.net">primative1@chartermi.net</a>
May 18 - 22	Osage Knap-in and Atlatl throw @ Boonville, <b>Missouri</b> New Location – Hwy 70 East of Boonville Exit 111 Distance throw, action target, and bunny hunt <b>**ISACs on FRI. SAT. &amp; SUN. only**</b> George Bigelow (913) 299-4179 <a href="mailto:geobigelow@webtv.net">geobigelow@webtv.net</a>
May 27,28,29	Environmental Shootout West Almond Vigil @ West Almond, <b>New York</b> ISAC's, Great Mammont Hunt, Field Course Bill Brudage (585) 593-4216 <a href="mailto:webrundage@infoblvd.net">webrundage@infoblvd.net</a> , or Karen Finnemore <a href="mailto:kaf3@alfred.edu">kaf3@alfred.edu</a>
June 4, 5 ***New Date***	Primitive Archery Rendezvous Wilder Creek C.C. Marshall, <b>Michigan</b> ISACs starting @ noon both days



	Jim Gilligan (810) 599-6881 <a href="mailto:primitive1@chartermi.net">primitive1@chartermi.net</a>
June 3, 4 and 5	Atlatl-in-Action at EMC Club – Waverly, <b>New York</b> ISAC's all 3 days starting Friday at 1:00 pm Jack Rowe (570) 888-8258 <a href="mailto:fieldwalker@stny.rr.com">fieldwalker@stny.rr.com</a> Dennis Lantz (570) 358-3000 <a href="mailto:dennis.lantz@cqservices.com">dennis.lantz@cqservices.com</a>
June 10, 11, 12	Genesee Valley Living History Weekend @ Island Park in Wellsville, <b>New York</b> 3-9 p.m. on Friday all day Saturday and 9-3 p.m. on Sunday ISAC's and locals all three days Karen Finnemore (607) 478-8523 <a href="mailto:kaf3@alfred.edu">kaf3@alfred.edu</a> .
June 12	2 Local Competitions + ISAC at Hershel's Artifact Museum Elkart Lake, <b>Wisconsin</b> Len Riemersma - Ph. (920) 528-7454 <a href="mailto:lenmaryr@dotnet.com">lenmaryr@dotnet.com</a>
June 17, 18	Sun Circle Days at The Falls of the Ohio State Park, Clarksville, <b>Indiana</b> ISAC and Indiana State Championship contests each day Richard B. Lyons (812) 246-9987 <a href="mailto:atlatlin@theremc.com">atlatlin@theremc.com</a>
June 17, 18	13 th Annual Atlatl Competition at Fremont Indian State Park W. Clear Creek Canyon Rd. near Sevier, <b>Utah</b> ISACs both days David Wagner <a href="mailto:davidwagner@utah.gov">davidwagner@utah.gov</a>
June 18,19	Meadowcroft Rock Shelter Avella, <b>Pennsylvania</b> Ohio Standard Accuracy Contests & ISAC's Demonstrations, Etc. Margie and Frank Takoch (740) 264-1755 <a href="mailto:theatlatl@1st.net">theatlatl@1st.net</a>
June 21	Indoor Atlatl League Wilderness Archery, Ann Arbor, <b>Michigan</b> Jim Gilligan (810) 599-6881 <a href="mailto:primitive1@chartermi.net">primitive1@chartermi.net</a>
June 24 -27	17 <sup>th</sup> Annual Montana Mammoth Hunt @ Ulm Pishkun Buffalo Jump State Park, in Ulm, <b>Montana</b> (includes events with the atlatl, bow, knife, and tomahawk) ISACs every day. Euro-Field rounds Jim Ray (406) 736-5274
June 25	<b>World Atlatl Association Annual Membership Meeting</b> at Ulm Pishkun Buffalo Jump State Park in Ulm, <b>Montana</b> ***** <b>Board Meeting on the 24<sup>th</sup></b> ***** Jim Ray (406) 736-5274
June 28 – July 1	International Traditional Games Society (ITGS) @ Ulm Pishkun Buffalo Jump State Park in Ulm, <b>Montana</b> Includes Primitive Bow and Atlatl games in expert and novice classes ISACs every day Jim Ray (406) 736-5274
July 16-17	Alder Acres Atlatl Tournament, Lorraine, <b>New York</b> Locals and ISACs both days Rodger Klindt (315) 639-6293 <a href="mailto:mammut@juno.com">mammut@juno.com</a>
July 16-17	Hunters Round & ISACs at Smokey Hollow Muzzleloaders Rendezvous, Cascade, <b>Wisconsin</b> Len Riemersma - Ph. (920) 528-7454 <a href="mailto:lenmaryr@dotnet.com">lenmaryr@dotnet.com</a>
July 19	Indoor Atlatl League Wilderness Archery, Ann Arbor, <b>Michigan</b> Jim Gilligan (810) 599-6881 <a href="mailto:primitive1@chartermi.net">primitive1@chartermi.net</a>
July 23,24	Saegertown Artifact Show @ Saegertown Amer. Legion Saegertown, <b>Pennsylvania</b> Local Contests & ISACs Gary Fogelman - Ph. (570) 437-3698 <a href="mailto:iam@chilitech.net">iam@chilitech.net</a>
July 24	Mossylake State Park Campbellsport, <b>Wisconsin</b> Mammoth Tic Tac Toe & Mammoth Hunt Also ISAC Len Riemersma - Ph. (920) 528-7454 <a href="mailto:lenmaryr@dotnet.com">lenmaryr@dotnet.com</a>
August 11,12,13,14	GLP Summer Gathering - Gilligan's Place, Bois Blanc Island, <b>Michigan</b> ISACs all 4 days Jim Gilligan (810) 599-6881 <a href="mailto:primitive1@chartermi.net">primitive1@chartermi.net</a>
August 12, 13, 14	Persied Primitive Arts Weekend @ The Blue Heron 2361 Wait Corners Rd. Sherman, <b>New York</b> Activities include: stone carving, weaving, primitive spinning, drumming, flintknapping, and atlatl contests. Torchlight ISAC on Friday evening ISACs all three days. Ben Brauchler (716) 679-7145 <a href="mailto:ben@netsync.net">ben@netsync.net</a>

August 16	Indoor Atlatl League Wilderness Archery, Ann Arbor, <b>Michigan</b> Jim Gilligan (810) 599-6881 <a href="mailto:primative1@chartermi.net">primative1@chartermi.net</a>
August 19	That Dam ISAC at Steve's Pond near Albany, <b>Ohio</b> Steve Barnett (740) 698-6553 <a href="mailto:barnz@juno.com">barnz@juno.com</a>
August 20,21	6 <sup>th</sup> Annual Ohio State Accuracy Contest & ISACs @ the Albany Riding Club, Albany, <b>Ohio</b> Steve Barnett (740) 698-6553 <a href="mailto:barnz@juno.com">barnz@juno.com</a> Ray Strischek (740) 592-3465
August 26,27,28	2005 Stone Tool Technology Show & Atlatl Contests at Letchworth State Park, <b>New York</b> ISACs all 3 days Lou Hillman (585) 442-1342 <a href="mailto:lhillman@brockport.edu">lhillman@brockport.edu</a> , Dana Klein <a href="mailto:danakchert@aol.com">danakchert@aol.com</a>
Sept 9, 10, 11	Tyoga Shoot off at EMC Club – Waverly, <b>New York</b> ISAC's all 3 days starting Friday at 1:00 pm Jack Rowe (570) 888-8258 <a href="mailto:fieldwalker@stny.rr.com">fieldwalker@stny.rr.com</a> Dennis Lantz (570) 358-3000 <a href="mailto:dennis.lantz@cqservices.com">dennis.lantz@cqservices.com</a>
Sept. 9, 10, 11	3rd Annual Wahkpa-chu'gn Buffalo Jump Atlatl Contest @ Havre, <b>Montana</b> Euro-Field round on 10 <sup>th</sup> and 11 <sup>th</sup> ISACs every day Jim Ray (406) 736-5274
Sept. 16,17,18	Chimney Point State Historic Site, Addison, <b>Vermont</b> Friday 12-5 PM Atlatl Workshop with Bob Berg. Learn to make and use your own atlatl and 3 field darts <b>Pre-registration required.</b> Saturday 10 <sup>th</sup> Annual Northeastern Open Atlatl Championship & ISAC 10:30AM – 3:30 PM Sunday ISAC @10:00 AM Casey Carmolli (802) 759-2412 <a href="mailto:ChimneyPoint@historicvermont.org">ChimneyPoint@historicvermont.org</a>
Sept 16, 17, 18	5 <sup>th</sup> Annual Ulm Pishkun Buffalo Jump State Park Atlatl Contest at Ulm, <b>Montana</b> Euro-Field Round on 17 <sup>th</sup> & 18 <sup>th</sup> ISACs every day Jim Ray (406) 736-5274
Sept. 17	Great NY Shootout West Almond Vigil @ West Almond, <b>New York</b> ISAC's, Poker Shoot, Distance for Accuracy Bill Brundage <a href="mailto:webrundage@infoblvd.net">webrundage@infoblvd.net</a> , or Karen Finnemore <a href="mailto:kaf3@alfred.edu">kaf3@alfred.edu</a>
Sept 17, 18	7 <sup>th</sup> Annual Ohio Pawpaw Festival at Lake Snowden in Albany, <b>Ohio</b> . Ohio State contests and ISACs both days. Steve Barnett 740-698-6553 <a href="mailto:barnz@juno.com">barnz@juno.com</a> or Ray Strischek 740-592-3465 <a href="mailto:ohioatlatl@hotmail.com">ohioatlatl@hotmail.com</a>
Sept. 17, 18	Mounds State Park, Anderson, <b>Indiana</b> ISAC and Indiana State Championship contests both days. Richard B. Lyons (812) 246-9987 <a href="mailto:atlatlin@theremc.com">atlatlin@theremc.com</a>
Sept. 20	Indoor Atlatl League Wilderness Archery, Ann Arbor, <b>Michigan</b> Jim Gilligan (810) 599-6881 <a href="mailto:primative1@chartermi.net">primative1@chartermi.net</a>
Sept 23 - 25	5 <sup>th</sup> Annual Burnt Hollow Fall Hunt Atlatl contest @ Deerlodge, <b>Montana</b> Euro-Field Round 24 <sup>th</sup> & 25 <sup>th</sup> ISACs every day Lem Oehrtman (406) 846-1004
Sept. 23 - 25	Old Stone Fort State Archaeological Park Knap-in and atlatl Contests in Manchester, <b>Tennessee</b> ISACs each day Keith Wimberley Park Ranger II <a href="mailto:Keith.Wimberley@state.tn.us">Keith.Wimberley@state.tn.us</a>
Sept. 23 - 25	Cahokia 2005 Cahokia Mounds World Heritage Site, Collinsville, <b>Illinois</b> Friday evening- ISAC Sat. & Sun. – ISAC, European & other competitions Ron Mertz (314) 628-9376 <a href="mailto:devoemertz@sbcglobal.net">devoemertz@sbcglobal.net</a>
Sept 24,25	3rd Annual Massachusetts Atlatl Field Day and I.S.A.C. @ Rebecca Nurse Homestead 149 Pine Street Danvers, <b>Massachusetts</b> Glenn Mairo (978) 580-9437 <a href="mailto:gmairo@hotmail.com">gmairo@hotmail.com</a>
Sept 24 - 25	Hunters Round & ISACs at Smokey Hollow Muzzleloaders Rendezvous, Cascade, <b>Wisconsin</b> Len Riemersma - Ph. (920) 528-7454 <a href="mailto:lenmaryr@dotnet.com">lenmaryr@dotnet.com</a>

Sept. 25	Michigan State Atlatl Championships Chelsea Ron & Gun Club Chelsea, <b>Michigan</b> ISACs starting @ 12 noon Jim Gilligan (810) 599-6881 <a href="mailto:primative1@chartermi.net">primative1@chartermi.net</a>
October 18	Indoor Atlatl League Wilderness Archery, Ann Arbor, <b>Michigan</b> Jim Gilligan (810) 599-6881 <a href="mailto:primative1@chartermi.net">primative1@chartermi.net</a>
October 29	Annual ROAR Days, Zaleski St. Forest/Lake Hope St. Park , Zaleski, <b>Ohio</b> Steve Barnett (740) 698-6553 <a href="mailto:barnz@juno.com">barnz@juno.com</a> Ray Strischek (740) 592-3465
November 15	Indoor Atlatl League Wilderness Archery, Ann Arbor, <b>Michigan</b> With ISAC's Jim Gilligan (810) 599-6881 <a href="mailto:primative1@chartermi.net">primative1@chartermi.net</a>
November 25	Turkey Toss Lake Erie Metropark Brownstown Township, near Flat Rock, <b>Michigan</b> Jim Gilligan (810) 599-6881 <a href="mailto:primative1@chartermi.net">primative1@chartermi.net</a>

## EUROPEAN CONTESTS (with ISAC)

The contact for all European Atlatl Competition Events is:  
Christian Lepers (unless noted)  
rue Devant Sauveniere, 3B-5580 Rochefort, Belgium  
Phone: (32) 84 22 16 46 [christian.lepers@swde.be](mailto:christian.lepers@swde.be)

	dates	site	departement	pays
1	26-27 mars	<b>Les Bastides (Tarbes)</b>	Hautes Pyrenees	France
2	16-17 avril	<b>Crepy en Valois</b>	Oise-Picardie	France
3	23-24 avril	<b>Ramioul</b>	Liege	Belgique
4	30 avril 1 er mai	<b>Sergeac (Castel Merle)</b>	Perigord	France
5	07 -08 mai	<b>Tautavel</b>	Pyrenees orient	France
6	21-22 mai	<b>T eyjat</b>	Perigord	France
7	04-05 juin	<b>Benassay</b>	Vienne	France
8	11-12juin	<b>Nemours</b>	Seine et Marne	France
9	25-26 juin	<b>Tongeren</b>	Limburg	Belgique
10	02-03 juillet	<b>Asnapio</b>	Nord	France
11	09-10 juillet	<b>Monteneuf</b>	Morbihan	France
12	16-17 juillet	<b>Errentaria</b>	Guipozkoa	Espana
13	16-17 juillet	<b>Ronneburg</b>	Hesse	Deutschland
14	06-07 aoOt	<b>Le Mas d'Azil</b>	Ariege	France
15	13-14 aoOt	<b>Boario</b>		Italia
16	20-21 aoOt	<b>Hoz de Anero</b>	Cantabria	Espana
17	20-21 aoOt	<b>Neuied</b>	Rhenanie	Deutschland
18	03-04 septembre	<b>Biel-Bienne</b>		Conf. Helvetique
19	10-11 septembre	<b>Pescheray (Ie Breuil s Merise)</b>	Orne	France
20	17 -18 septembre	<b>Zonhoven</b>	Limburg	Belgique
21	17-18 septembre	<b>Hundersingen</b>		Deutschland
22	01-02 octobre	<b>Eguzon</b>	Indre	France
23	08-09 octobre	<b>Bougon</b>	Indre	France
24	15-16 octobre		Serinya	Espana
25	29-30 octobre	<b>Berek s Mer</b>	Pas de Calais	France



Pictures taken in the NEW Western Pennsylvania SPORTS MUSEUM at the Senator John Heinz Pittsburgh Regional History Center, Pittsburgh, PA.

An activity might have evolved into sport because of technological or social change, shifting cultural attitudes, or some quirky circumstance. What may be sport today may not have been in the past, and may not be in the future.

The atlatl appeared first as a hunting weapon. Humans no longer supplement their food supply by propelling spears at game, but they still find the thrill of hitting the mark exhilarating. As atlatl throwers organized competitions, the adaptive re-use of the atlatl became sport. Steamboat racing, on the other hand, emerged during the 1800s, only to fade when internal

combustion engines replaced steam power.

Sports are subject to society's whims. Playing marbles was a youthful pastime until the 1920s when adults realized that it could instill sportsmanship, determination, and perseverance. Now the challenge to "knuckle down" can be heard at marble tournaments that have all the characteristics defining sport.

Whether watching an ultimate frisbee match where competitors play by the "spirit of the game" or participating in a friendly game of horseshoes, you may ask yourself, "is it sport?" What's the answer?

This display is titled "Is It Sport?"

See more photos throughout this issue!

### Bull's-eye target, 2003

Since 1997, Meadowcroft Museum in Avella, Pa. has hosted competitions of the World Atlatl Association including the 2003 World Championship where winner Mark Bracken, left his marks on this target.



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[www.worldatlatl.org](http://www.worldatlatl.org)