



**“If I would study any old, lost art, let us say, I must make myself the artisan of it...”**

-Franklin Hamilton Cushing 1895

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## **Peruvian Atlatls I: Golden Atlatls of the Lady of Cao**

John C. Whittaker and Kathryn Kamp

Peruvian atlatls are not well-known to American atlatl enthusiasts, but now that the “Moche Toss” is becoming a popular game, they may get more of the attention they deserve. There are several distinctive types of atlatls (*estólica*) known from South America, a topic I’ll discuss another time. I refer to the type shown on our Moche Toss t-shirts and Moche pottery (Figure 1, 2) as the Peruvian type. These have a simple rod shaft, to which is attached a hook at one end, and a handle piece at the other. The handle piece is the most distinctive part of Peruvian atlatls. Always set at an angle to the hook, their function is not clear. Peruvian atlatls could have been gripped in several ways, depending on how the handle piece was used. You can grip



**Figure 1. Atlatl use on Moche pottery, our “Moche Toss.” For the Moche, this was an important ritual invoking supernatural entities, not just a game. From Donnan and McClelland (1999).**

replica of a specimen in the University of Pennsylvania Museum. The original probably came from a burial in the Nazca area near Lima. The Nazca were one of many pre-Inca cultures in Peru. This one had a handle piece made of some large sea-mammal’s bone, carved and inlaid to represent a condor. The hook was a simple attached wooden peg, and the shaft was stout and a bit shorter than I would prefer in my atlatls.

The Moche were another of the pre-Inca cultures of Peru. Between AD 100 and 800, the Moche civilization occupied a series of river valleys along the desert coast of northern Peru. Farming and fishing supported large populations, and each valley had a political and ceremonial center with orderly cities around huge mud-brick pyramid complexes. In the last couple of decades, archaeological excavations in some of the ‘huacas’ or pyramids have saved from

The passing of our  
Founding Mother,  
Leni Clubb: page 12

them with a hammer grip above the handle piece, or with fingers split around the handle piece, possibly pinning the dart against it with a finger. Another topic for experiment and argument! The handle piece is often elaborately decorated, and the hook may also be decorated, cast copper or carved bone. The darts shown on the Moche pottery were unfletched, probably made of cane, and some were tipped with barbed copper points.

The example shown (Figure 3) is fairly typical of the Peruvian type, my close



**Figure 2. A bird warrior carrying mace in one hand, and shield with a pair of darts and atlatl in the other. The atlatl hook is at the top, and a bird decorates the handle piece below the shield. Moche pot in Museo Larco, Lima.**

looters a number of fabulous elite burials. These rulers and priests were buried with ornaments of precious metal, cloth, and feathers, and some of the costumes are recognizable as those worn by gods or priests in ceremonies that are repeatedly shown on the painted Moche pottery.



Figure 3. My replica of a Nazca atlatl in the U. of Pennsylvania University Museum.

Through the kindness of Jeffrey Quilter, Director of the Harvard Peabody Museum, Régulo Franco Jordán, Director of the El Brujo Archaeological Program, and Arabel Fernandez, Curator of the museum on

site, my wife Kathy Kamp and I were given the opportunity to examine and record a set of extraordinary Moche atlatls from one such burial this past summer.

The El Brujo Archaeological Complex in the Rio Chicama valley north of Trujillo is focused around a pair of large Moche pyramids, their ceremonial complexes, and associated settlements. There are also earlier and later sites, including a Spanish Colonial mission and village of the late 1500s. Although it is somewhat off the usual tourist path, there is a very fine new museum on site to interpret some of the finds. The most spectacular come from Huaca Cao, a towering mound of mudbrick (Figure 4). Excavations have revealed that in the days of Moche glory, this pyramid was covered with plaster and decorated with painted friezes depicting Moche deities, warriors, and ceremonies. As was typical of these structures, it was renewed from time to time, often after burying some important person, then covering the whole pyramid with new layers of adobe and decoration. Most of the background information here and following comes from a fine book (Barreda et al. 2007), and good interpretive signs on site and in the museum.

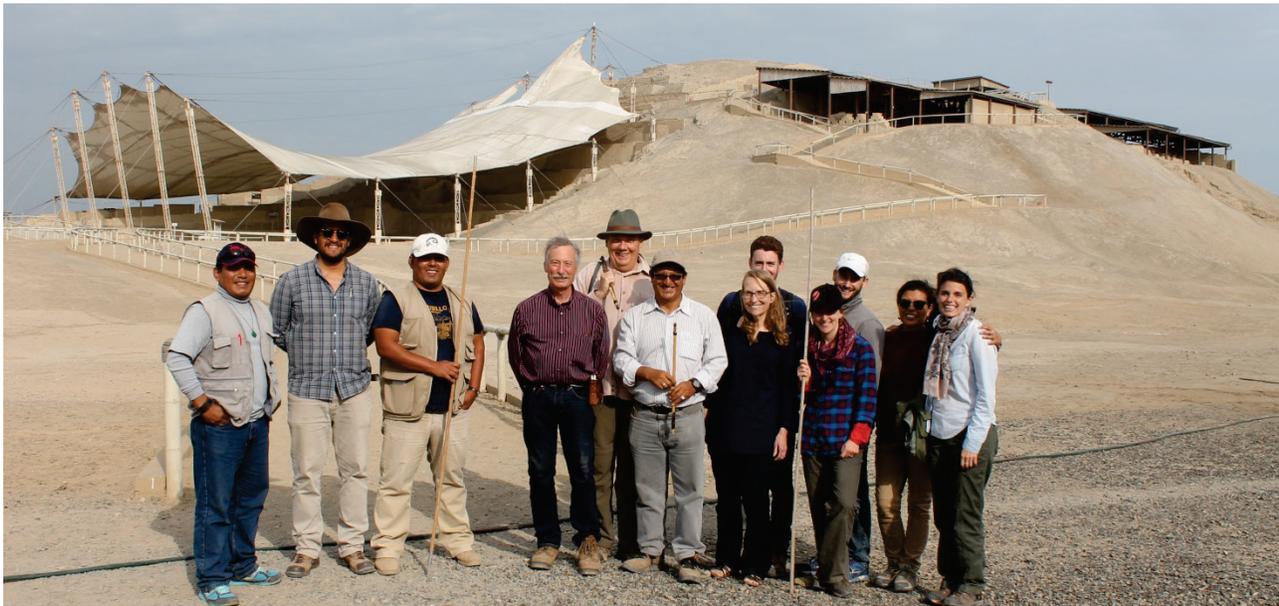


Figure 4. Huaca Cao with protected excavations and some of the professional team in front. Center is John Whittaker, Jeffrey Quilter, Regulo Franco, and Kathryn Kamp.

The most important burial found so far at El Brujo is “La Señora de Cao”. This great lady was buried in a shaft cut into a decorated courtyard (Figure 5). Analyses of her well-preserved mummy show that she was only in her late twenties when she was buried with as much pomp as her people could muster. Three sacrificed retainers went into shafts near her. The lady herself was wrapped in a many-layered bundle of cloth and mats, in all 120 kg of stuff, that took the archaeologists over 6 months of careful work to disassemble. Her bundle was surrounded by 11 pots and another human sacrifice. It included two large wooden war clubs, dresses, gilded sheet copper headdresses, necklaces of crystal and hollow gold beads, golden ear spools, 44 amazing gold and silver nose ornaments, spindle whorls and needles, and a bundle of 23 atlatls at her feet. The objects can be interpreted as personal ornaments, things she used or owned, symbols of her rank, or offerings showing who she was. Her outfits of woven cloth and golden head-gear identify her as one of the important personages or deities who appear as actors in the pottery paintings of ritual and myth.



**Figure 6. Burial site of the Lady of Cao today. The shaft is filled in but the covering logs are original, giving some idea of the preservation in such dry conditions.**

The atlatls included with the Señora are extraordinary (Figures 6-11). They are all very similar in construction, made of hard wood covered with gilded sheet copper. Three of the handle pieces show birds, probably a condor, a hawk, and a humming bird. Birds are commonly shown as the handle pieces of atlatls on Moche pottery (see my previous article Whittaker 2006), and the association of birds and projectiles is not surprising. Moche pots often show humming birds around battle scenes, probably representing fast, violent action. Hawks are fast predators, and condors are associated with death and sacrifice. The other atlatls have human faces with headdresses, but there are no distinctive details to connect them to specific Moche deities or actors in the pottery paintings. The atlatls are all very striking, but on close examination, these are not functional weapons, nor are they very well made compared to the astounding skill and attention to detail shown on some of the other spearthrowers. The impression the Señora's atlatls made on us was that they were "theatrical".

The atlatls are much longer than normal Peruvian atlatls, 100 to 78 cm (40-31"). A functional atlatl would be closer to 50-60 cm long. In all cases, a round wooden shaft has been wrapped in sheets of gilded copper, held on with tiny copper nails. The handle pieces are separate but made the same way, with a supporting shape carved and then covered with sheet metal assembled from several pieces. Moche metal skills were amazing. The copper sheet is quite uniform, about 1/3 mm thick. Some of the atlatls are wrapped in a single long sheet, others in several sections of different colors. The Moche were capable of

controlling the alloy composition of the gilding to get gold that was yellow, reddish, or more silvery. In some other metalwork, like the Señora's nose ornaments, they used lost-wax casting, soldering, and embossing of tiny details. The few decorative details on the atlatls' metal are simple and crudely done. The hooks too seem non-functional. They are just a thin copper peg driven into a hole through the sheet metal covering, and into the wood. The peg was then wrapped in turn with gilded sheet copper. Also in the bundle were a few needle-pointed spikes of solid gold, about 25 cm (10") long and less than 5 mm in diameter (1/5"), representing dart points. Apparently there were no darts in the bundle, and these points again are not really functional, especially compared to the wicked barbed copper ones from some other sites.

One can imagine these atlatls held up in front of the distant crowd at a ceremony, their polished golden surfaces flashing in the sun. But

they were not for warlike use, not because they are too valuable, but because they are too large and poorly made. They could have been for ritual display, or made only to include in the burial, to show, like the clubs, that in some way the Señora was a warrior, a lord, or priestess of a fierce deity.



**Figure 5. Two atlatls in their museum boxes to show size.**

Atlatls are still useful for symbolism and diplomacy. I had made a pair of simple Peruvian atlatls, with bird-headed handle pieces, but soft woods and not a replica of anything in particular. I gave one to each of the directors at El Brujo, and was asked for a demonstration. I hadn't been able to bring darts, but a worker was sent for a piece of local cane, used in construction. It was a bit stiff and crooked, but while I scraped it clean and wrapped the splitting ends with duct tape, I explained how spearthrowers work, ably translated into Spanish by Ari Carimánica, one of Dr. Quilter's graduate students. I asked for a large nail, which made a good point to balance the unfledged dart, and it threw pretty well. After I made one throw, the rest of the team took over and happily threw the dart all over until it went on the museum roof. With luck, these archaeologists now have a 'hook' to understand and pay attention to an important artifact that needs more consideration in Peruvian archaeology.

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Figure 7. Condor handle piece.



Figure 8. Hawk handle piece.

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Figure 10. Human head with headdress on handle piece. Construction details and rudimentary decoration are plainly visible.



Figure 9. A second human headed handle piece.

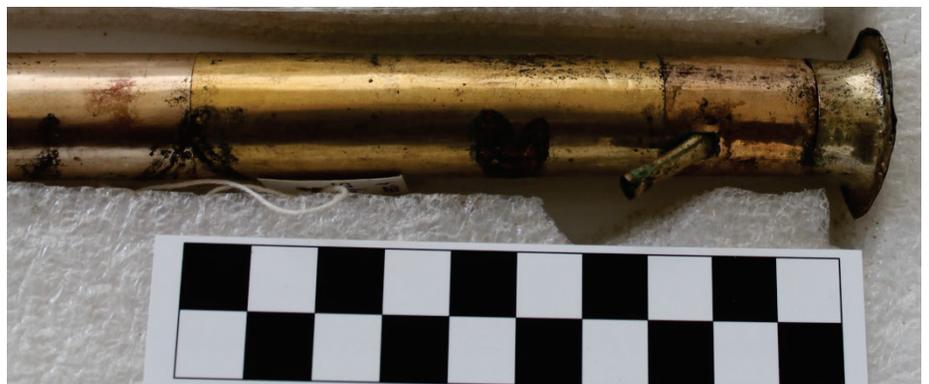


Figure 11. One of the hook ends. Note the different colored sheets of gilded copper wrapping.

## **Bowser Road Mastodon Site, Orange Co., New York: Freshly Butchered Remains VS. Curated Remains**

Richard Michael Gramly

During 2013, in the course of digging a drainage ditch along the edge of a formerly shallow lake, now peat-filled, north of Middletown, Orange County, New York, a farmer exposed a partial skeleton of a mastodon (*Mammuth americanum*). Shortly after the discovery was made it was visited by curators of the New York State Museum who helped the property owner collect bones that had been thrown out by a trackhoe. In 2014 parts of the skeleton above-ground and the rights to excavate the remainder were offered at public auction. They were purchased by amateur scientists, who, in turn, asked me to carry out fieldwork and to analyze the palaeontological remains.

According to the written and oral history of proboscidean discoveries in Orange County (Devine 2011; G. Keeton personal communication), which begins with General George Washington's legendary inspection of a find upon the Annan Farm during the Revolutionary War, no set of proboscidean remains has been shown to be associated with ancient artifacts and butchering activity. It came as a complete surprise then, when a 66th set of remains from Orange County - the skeleton from a residence at 190 Bowser Road that I am discussing today - was found to have abundant stone, bone and ivory artifacts with it and had been repeatedly chopped with an (stone) axe.

A series of radiocarbon dates obtained by three different laboratories using collagen extracted from one of the mastodon's tusks gave a group mean of 11,031 +/-54 radiocarbon years\*, and after calibration, an age of approximately 13,000 calendar years before the present. Such an age falls squarely within the time of the Clovis archaeological culture, which is on record across most of North America and northern South America. It is believed that Clovis economy varied widely, and doubtless it included many animals that are either extinct or regionally extirpated.

Obtaining meat was not the only reason for a Clovis group to have visited a mastodon carcass. The brains would have been invaluable for preserving hide; the thick, strong limb bones could have been cut into lengths for making curious bone rods that are reported from several Clovis sites (e.g., Gramly 1992); the tusk ivory could have been used for toggles, points, wood-working wedges and other tools and ornaments; the backstrap sinews would have been used as bindings and for braided cords; the neural spines of the thoracic vertebrae would have served for tool handles, like those reported from the Hiscock site in western New York State (Tomenchuk 2003); large, wide bones such as the pelvis and scapula might have been used to construct houses

similar to ones made of mammoth bone at the Upper Palaeolithic Mezhirich site (Soffer 1985:397), and so forth. Even the mastodon's tail may have been collected for its hair (?) or to be used as a sled whip (?); we may envision Clovis people using dogs to haul their sleds.

Systematic study of the Bowser Road mastodon anatomy reveals all major bone groups present at the site have evidence of butchering. In most cases damage is severe and easily recognized. None of the bones have marks of Pleistocene scavengers, or even rodents, upon them (John Harris personal communication). Blows with a sharp axe, having a bit width of 75 mm (about three inches), are evident upon several bones. In addition, there are many with smaller, shallower cuts that might have resulted from glancing blows of an axe or were created by a lighter-duty instrument. At least 78 bones, intact and fragmentary, are either cleaved, chopped or cut. Iron mineralization overlies much of this damage, constituting direct proof of its antiquity.

Several major parts of the mastodon are missing, and closely-spaced probing in all directions from the main concentration of bones failed to reveal them. The missing parts are: 1) the entire pelvis; 2) the entire right hind leg (femur, patella, tibia, fibula) except the foot, which has been chopped with an axe; 3) the cervical vertebrae except for the atlas (C1), which was repeatedly struck with an axe and shattered; 4) the sacrum and the two lumbar vertebrae nearest the pelvis; 5) the right scapula; and 6) the lower half of the tail (caudal vertebrae 13-24).

Inspection of the skeleton in the laboratory also revealed that neural spines of the thoracic vertebrae were in short supply even though the centra were well represented—clear indicators that neural spines had been taken by Clovis butchers. Also, when all fragments of the tusks were weighed, a shortfall of 15-16 kg was revealed. In comparison to an estimated weight of 94.3 kg for both tusks together, the missing mass constitutes approximately 17% of total tusk weight. This amount, it should be noted, is close to the weight for wall ivory of a pulp cavity.

Given the fact that only one tusk alveolus of the mastodon had been chopped with an axe, we conclude that a single tusk was removed by Clovis visitors, who then harvested just the ivory of its pulp cavity. It is reasonable to ask why so much ivory was left behind since it was a raw material with many uses to a band of hunter-gatherers? Undoubtedly transportation was a limiting factor, and the rate of attrition of ivory tools and ornaments may have been slow. The Clovis group took only what they needed for the foreseeable future, expecting to encounter mastodons and mammoths with good tusks everywhere. After all, they did not expect these animals to become extinct!

Seen in this light, proboscidean tusk and bone were not scarce goods, nor perhaps were they important in trade or hand-to-hand exchange. Well-

crafted tools and ornaments made of these raw materials, on the other hand, may have been desirable property, and might have moved widely among neighboring groups.

#### *Artifacts That Were Left Behind*

Exact descriptions of the 221 stone (N = 23), bone (N = 49), and tusk ivory (N = 149) artifacts that were deposited at the Bowser Road site by its Clovis inhabitants will appear in an archaeological report to be published this year. Here we offer only some general facts and observations about the artifact assemblage.

The stone artifacts are derived from both a precinct of mastodon remains within a shallow lake and a sandy beach a few meters away. Seven artifacts are cobble hammerstones or spalls derived from them, one is a heavy anvilstone, two are choppers, and the remainder are flake tools of various sizes and perhaps function. All are fashioned of regionally available raw materials (quartzite, greenstone and chert).

No fluted projectile points, bifacial knives, celts, or endscrapers of select, siliceous rocks were recovered by us. Fragmentary and exhausted examples of such finely-finished implements are commonly encountered upon Clovis habitation sites and encampments. Although it is likely that such implements were brought to the Bowser Road site, none came to rest there. Massive cut-marks upon several mastodon bones are evidence of the former presence of a hafted celt (axe) having a wide, long blade that was convex in cross-section. Such a tool may have resembled the one that was unearthed within the Richey Clovis Cache, Washington State (Gramly, *ibid.*).

Bone artifacts, all likely made from mastodon elements, include two neural spine "handles" and various articles of rib-bone. One of the artifacts of rib is a stemmed lance with an anciently damaged tip. This impressive weapon may have been 25 cm in length when freshly made. Tips of lances of this size and shape are on record for the Hiscock fluted point site, western New York State (Richard Laub personal communication). One of the neural spine handles, like the lance, is damaged from use. Both neural spine handles from Bowser Road exhibit polish resulting from prolonged handling.

Artifacts made of tusk, as a class, are numerous at our site. All these objects may have been deposited near the mastodon's head and mandible. However, track-hoe trenching and farming activities appear to have displaced many from their original location. A wedge for woodsplitting, a backed knife, a heavy-duty scraper (known as a *robot*), and several small unifaces are the most shapely artifacts of tusk ivory. These tools have counterparts flaked from stone at Clovis sites across North America. Since the Bowser Road examples are extremely worn and polished by use, it is doubtful that they were made, or even used, at this site. Likely, they were

introduced by the Clovis band who butchered the mastodon, and had been crafted of another proboscidean's tusk.

The idea that tusk ivory artifacts, and perhaps ones made of bone, as well, were abandoned at Bowser Road in favor of fresh replacements is supported by our discovery of over 140 tusk ivory "blanks." These roughed-out pieces were shaped by snapping, flaking, and grinding. All are smooth and polished from prolonged handling or rubbing against one another during transport within bags, satchels, or other containers. There are several sizes of blanks. The largest ones may have been destined for making tools; smaller blanks could have been carved into toggles and buttons and other small articles that modern cultures of the High Arctic find indispensable in daily life. Ivory for carving does not improve with age; the best raw material should be unweathered and carefully kept.

In order to test the idea that two populations of tusk ivory and bone are represented at the Bowser Road site - the butchered mastodon itself and artifacts that appear to have been introduced from elsewhere - a series of samples was analyzed for strontium. Two laboratories contributed their expertise. One lot of samples was processed by the Instrumentation Laboratory, Dental School, State University of New York at Buffalo using a scanning electron microscope beam and x-ray fluorescence; while, another lot was measured with inductively-coupled plasma mass-spectrometry at ACTLABS, Ancaster, Ontario.

Studies of the many isotopes of strontium, and particularly the ratio between two of them (Sr-87 and Sr-86), indicate that mastodons ranged widely among different geological provinces as compared to mammoth and other species (Hoppe and Koch 2006). On a more basic level, gross abundance of strontium is a useful discriminator of environment because it substitutes for calcium. These elements are close in atomic size and belong to the same atomic group. Therefore, environments with calc-rich or calc-poor rocks (and sediments derived from both) should be reflected by strontium values within tissues of mastodons who drank from their chemically different waters

Altogether 17 bone and tusk ivory specimens were submitted for measurement; in eight cases destructive sampling was required. The results, in parts per million, are presented in the accompanying table.

There is a clear difference in levels of strontium between the tusk ivory of the Bowser Road mastodon and the ivory artifacts, lending support to our hypothesis that the artifacts were made of another mastodon's tusks. This other animal certainly lived in a different geochemical, and perhaps geographical, province than Middletown, Orange County, New York.

Even if we allow for possible strontium differences between deeply buried tusk ivory of the

Bowser Road mastodon (samples 9, 10, 11) versus tusk ivory in contact with the overlying zone of peat (samples 7 & 8), there remains a significant chemical separation between the artifacts and the mastodon skeleton itself.

Interestingly, the mastodon bone samples (12-16) had a different mean strontium value than tusks of that animal. Apart from possible contamination by minute roots or soil particles within bone cells, I am at a loss to account for the variance.

Finally, I wish to note that our strontium analysis of the sole tested mastodon bone artifact, which was destructively sampled (number 17 in the table), gave a reading of 474 ppm. It is, therefore, within one standard deviation of the mean value for imported ivory "blanks," suggesting that it, too, was introduced from another geochemical province.

#### *Wider Implications*

Eurasian archaeologists working with proboscidean remains and artifacts from carefully documented and well-dated Upper Palaeolithic sites hypothesize that mammoths may have been

harvested at intervals of 7-10 years (Pitulko et al. 2015:38). Ivory and bone were needed to manufacture a wide array of impressive weaponry, tools and ornaments. In a sense, Old World proboscideans were quarried for raw materials that were indispensable to prehistoric technologies; consumption of mammoths was likely incidental and unimportant in the diet of ancient human groups.

The Eurasian model of proboscideans' role in Upper Palaeolithic economy, it seems to me, may be generally applicable to the Clovis archaeological culture. Surely the wear we observe on tusk ivory and bone articles that were abandoned at the Bowser Road mastodon carcass indicates that considerable time had elapsed before Clovis hunter-gatherers again were able to replenish their supply of useful raw material. During this interval between opportunities for butchering mastodons, Clovis groups may have ranged over long distances and among diverse geographical regions. Despite a cultural record with many gaps, archaeologists have long hypothesized that Clovis lifestyle was peripatetic and in many ways unique compared to later human behavior. With the Bowser Road site we again find evidence in support of this idea.

**The editor:** *Gramly wishes for feedback from experienced atlatlists on these ideas.* The feedback will be added to the site archive. Analysis of the remains from the Browser Road site is ongoing. In our last email correspondence about this site, Gramly updated me with the following:

"At this time I will note simply that we have possibly as many as 16 atlatls. At least four of them have a Vee-notch at the distal end. Two of the Vees are wide and open and could have been spanned by a cord that engaged a nock at the end of a dart; while, the other two Vees are narrow and would only have accommodated a peg. We do have actual pegs that may have belonged to atlatls, and my artist is illustrating them for the monograph. Some of the atlatls are grooved or channeled for a dart; others have no channel at all. Two atlatls have a roughened patch along their center-line for attaching a weight; the others do not. The form of handle is highly variable -- there are at least four (4) handle varieties. The atlatls I have completed all appear to be 24-25 inches long.

Strontium analysis indicates clearly and unequivocally that the 16 atlatls were made of rib from a mastodon who lived in a chemically different region than did the Bowser Road mastodon. Obviously these (deliberately broken) atlatls were made from ribs that were harvested from another, earlier kill. Our mastodon from Bowser Road is short quite a few ribs, which may have been taken away in order to make a fresh set of atlatls for the Clovis band."

#### Acknowledgements

Contributions by Dennis Vesper (KY), Steve Vaughn (FL), Gerald Botdorf (PA), Malcolm LeCompte (NC), and 40 other volunteers in the field made this work possible. Dennis Vesper, who was the 2015 dig Field Director, made my job much easier. We are grateful to staff of the Museum of Comparative Zoology (MCZ), Harvard University for their cooperation and effort to find a permanent home for the Bowser Road mastodon, artifacts and archive.

Also, I wish to thank Drs. Richard Laub and Charles McNutt for their constructive editing of an earlier draft of this paper.

\*The three radiocarbon dates on portions of the same tusk sample were:

Beta-391565, 10,950+/-40 RCYBP  
UGAMS-20742, 10,946+/-35 RCYBP  
AA105131, 11,187+/-88 RCYBP

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Table. Determinations of Strontium in Mastodon Tusk Ivory and Bone at the Bowser Road Site, Orange County, New York.

<b>SAMPLE IDENTITY</b>	<b>LAB</b>	<b>RESULTS (ppm)</b>
1. Ivory "blank" (BR-1)	UB	510+/-14
2. Ivory "blank" (BR-2)	UB	476 +/- 13
3. Ivory "blank" (BR-3)	UB	450 +/- 12
4. Ivory "blank" (BR-4)	UB	481 +/- 14
5. Ivory "blank" (BR-230)	Actlabs	554
6. Ivory "blank" fragments, assembled from several units	Actlabs	447
<b>Mean (1-6) = 486 +/- 14 ppm</b>		
7. Cementin from Bowser Rd. tusk (Lot 28)	UB	402 +/- 10
8. Dentin from Bowser Rd. tusk (Lot 28)	UB	377 +/- 10
9. Dentin from Bowser Rd. tusk (Lot 114), same as C-14 sample	Actlabs	398
10. Cementin from Bowser Rd. tusk (Lot 114 ), not C-14 sample	UB	332 +/- 11
11. Dentin from Bowser Rd. tusk (Lot 114 ), not C-14 sample	UB	288 +/- 9
<b>Mean (7-11) = 365 +/- 10 ppm</b>		
12. Bowser Rd. mastodon, "cortical bone" (Lot 46)	UB	404 +/- 11
13. Same	Actlabs	385
14. Bowser Rd. mastodon, metacarpal (BR-254)	Actlabs	446
15. Bowser Rd. mastodon, scapula (BR-60)	Actlabs	515
16. Bowser Rd. mastodon, skull (Lot 102)	Actlabs	436
<b>Mean (12-16) = 437 ppm</b>		
17. Mastodon vertebral neural spine artifact (BR -64)	Actlabs	474

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Figure 1. *Upper*, excavation underway of axial fragment of mastodon left scapula, Bowser Road site, June, 2015. The bone rests at the interface of a peat (humus) and marl (calcareous clay). *Lower*, detail of left scapula *in situ*. Arrows point to a massive quadrilateral chop-mark and a cut (75 mm wide) that severed and removed the proximal acromion process. Photos by Kirk Spurr and Wendy Zebehazy.

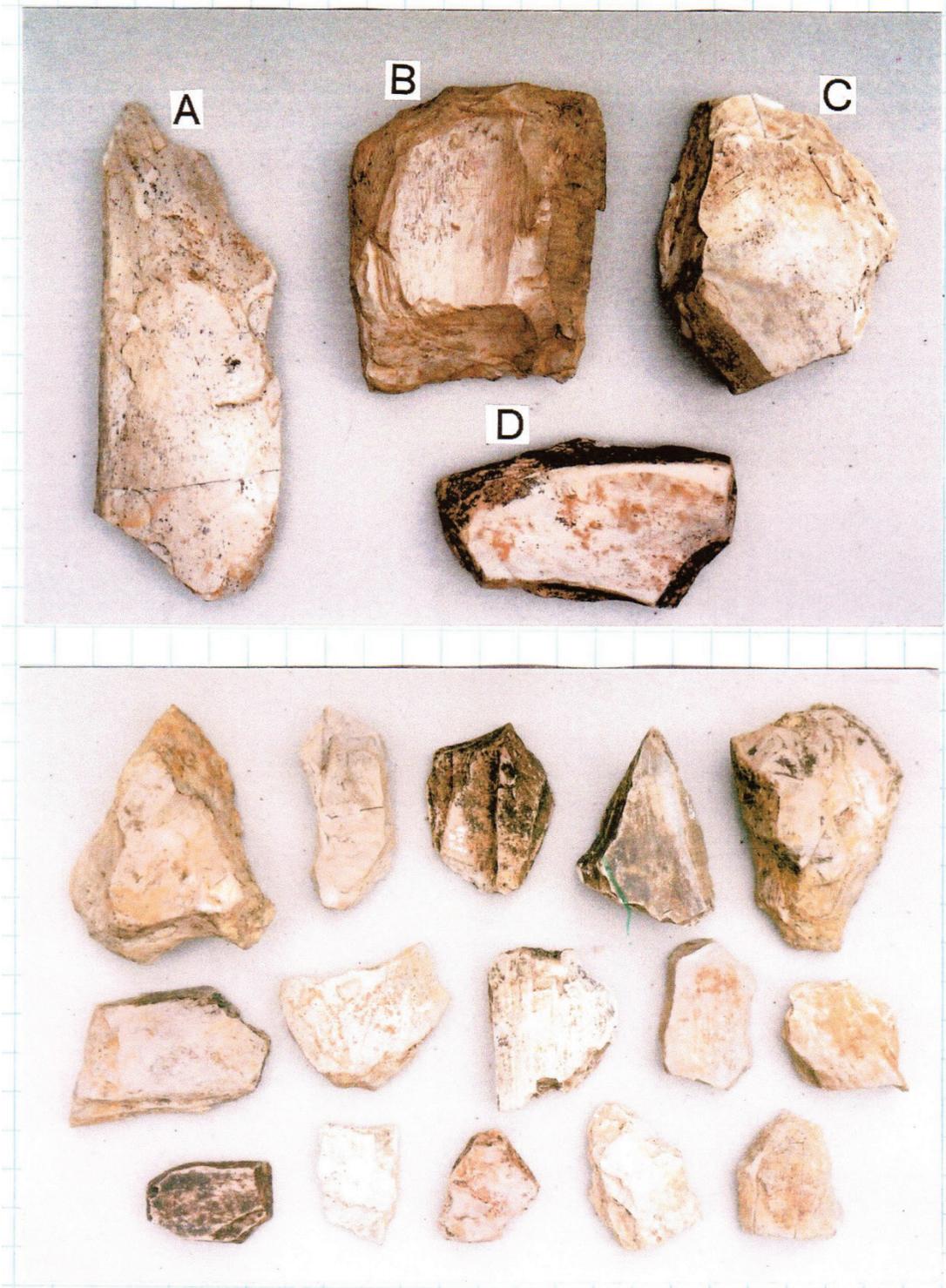
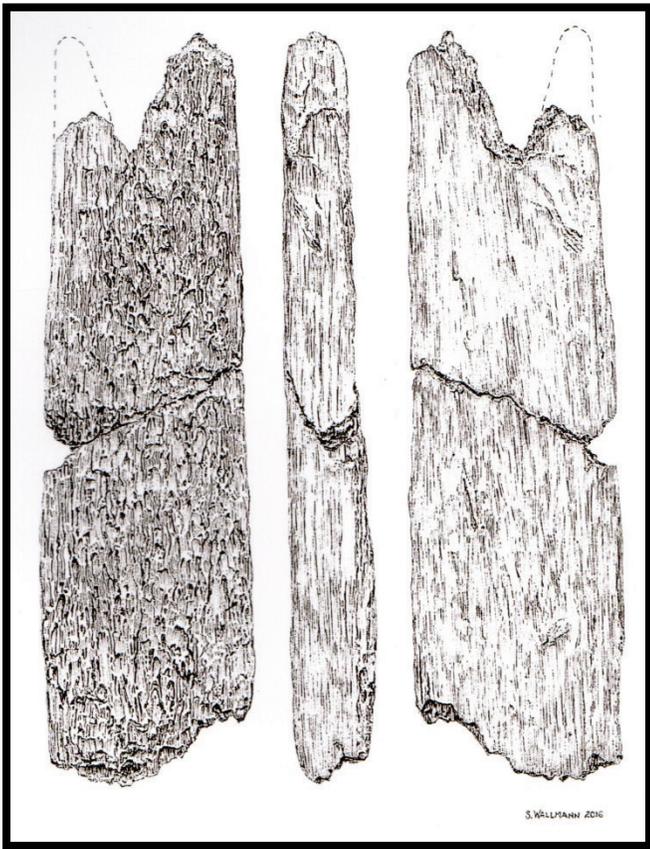
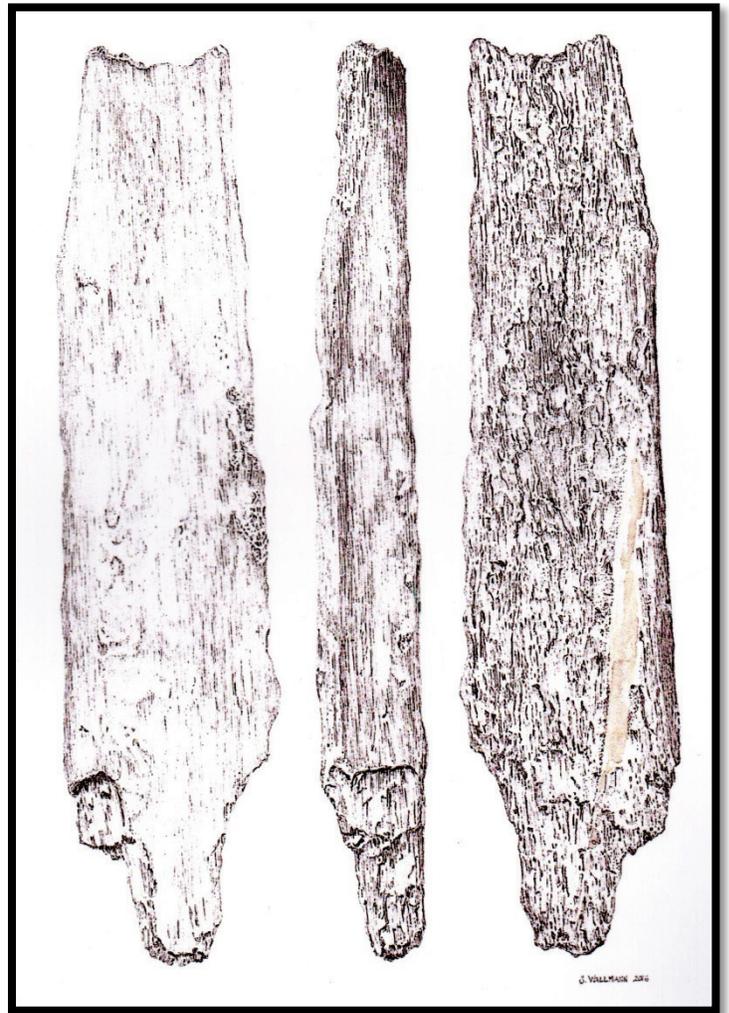


Figure 2. *Upper*, four artifacts of mastodon tusk ivory that were introduced to the Bowser Road site in the tool-bags of Clovis hunters. **A**, backed flake knife; **B**, heavily curated wedge for splitting wood; **C**, heavy-duty scraper (*rabot*); **D**, tusk ivory “blank” showing grinding and a polish caused by handling or rubbing. Length of **D** = 80 mm. *Lower*, a selection from among 141 “blanks” of tusk ivory. All exhibit polish and cursory shaping. Length of longest specimen = 83 mm.



Atlatl fragment: Heavy polish upon convex (cortical) side; inside of notch is polished, too; nicely made. Compliments Richard Michael Gramly.



Stemmed lance head: edges are polished; tan-colored facet is ground; good flaking on stem; when complete was likely 9.5"-10" long. Compliments Richard Michael Gramly.



The author holding a pair of possible atlatls, Browser Rd. site, Orange Co., NY. Reconstructed from fragments.



Arrows indicate green-bone fractures. Length of each specimen is 56.5 cm.

## Lenore B. "Leni" Clubb Obituary

Leni was born in Elkhart, IN, to Bernard English & Ethel Giffin. Brother: David English, Grandfather: famed diagnostician James Plasters English. Married Roland Chesbrough 1940 D: 1974, one daughter, Elizabeth (Chesbrough) English, of Boulder, CO. Married Roy D. Clubb 1947, D: 1976. Three grandchildren, Ari, Nicholas & Christopher Anastasiadis of NY, four great-grandchildren, Sophia, Dimitri, Angelina & Jasmine. Leni was a child star in the silent film era, with Charlie Chaplin, Buster Keaton & Tom Mix, "Our Gang" comedies, a cameo role in "Lorna Doone", and her own matinee series, "Strongheart". Her partner of 50 years, Hallie Cash, died in 2007. Leni was a published poet, archaeologist, pine-needle basket weaver, sculptor & watercolorist, atlatl expert & founder of the World Atlatl Assoc., Girl Scout leader in Fairbanks, Alaska, & was the only female ever inducted into the prestigious Order of the Arrow, at Philmont Scout Ranch, NM, for her work with the Boy Scouts of America, and was a life-long world traveler. She passed away in Boulder, CO, April 17, 2016, "raging at the dying of the light", at the age of 101+, with her daughter at her side. A memorial service date to be announced. ~Published in The Daily Camera on Apr. 20, 201

### Leni gets the last word...

By Bill Tate

Leni Clubb's passing shouldn't come as much of a surprise, after all, she was over 101 years old. But it did. Leni was a "fixture" within the World Atlatl Association. Because of her enthusiasm for the sport and her desire for it to be a family oriented organization the association has lasted, grown and prospered. She was a small woman but carried herself with command and authority which showed up in so many ways. All of us who knew her have tales to tell...

At Valley of Fire State Park in Nevada or Fremont Indian State Park in Utah, Leni often stationed herself in the parking lot or at our throwing range, instructing visitors how to throw and then immediately signing them up as WAA members.

By the time Leni moved from Colorado to the small desert town of Ocotillo, California the organization was well established. She still traveled back to Colorado and Wyoming where WAA had its roots, but Leni and her traveling mate, Hallie Cash, maintained an atlatl presence for many years in Ocotillo. We often joked about her organizing a local militia armed with atlatls and darts protecting our southern borders. She even signed up one member who was legally blind.

I first met Leni and Hallie through the Colorado Archaeological Society, CAS, when they attended our four day bus tour of archaeological sites in Colorado, New Mexico and Texas. We called it "On the Trail of Early Man." They were the life of the party—easy to know and easy to love. The 44 passengers were no match for Leni and her wit.

Early WAA President, Tim Boucher also of CAS, taught classes in weaving pine needle baskets. Leni became expert. Later when she and Hallie took a trip to Fiji, Leni taught some of the admiring Fiji islanders how to make them. I suspect those baskets have probably become a traditional tourist trade item by now. One of the Fiji men begged her to stay on and marry him. She had that way about her. Nearly every man who met her wanted to keep her. That was Leni.

Eighteen years ago--June 1st, 1998, I received the following email from Lenore Clubb...

**Bill ... When we get to atlatl heaven we will be together and in good company. You and Lee Lacy and I can practice forever and ever and never get tired. Then we can talk archaeology with Joe Ben Wheat and Colorado Archaeological Society and the Ken Caryl dig with Ivol Hagar.**

**Until then.....Love,  
Leni**



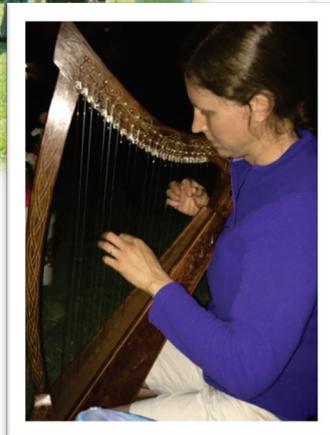
## Meadowcroft 2016/WAA Annual Meeting



What a great event we had! There were folks from 10 states participating. Cicadas were not too bad...though enough for frying and tasting!

Thursday was a bit damp, but we were able to get ISAC's and US Open competition done between raindrops. Friday was a beautiful hot sunny day. There were ISAC's, US Open and practice for Saturday's contests and THE ZOMBIE THROW! High score won the medal that claimed "I saved the USA from the Zombies". 1st was Marlin Bassett, 2nd was Ben Struzynski, 3rd was Jon Wood. After the executive board meeting, 4 teams played best out of 3 games of atlatl pool w the winners then playing winners for 1st n 2nd place! Great fun! Then we got to listen to Courtney play on her harp! So relaxing. And then Lenny played guitar w Gordy on the bongos. Such a wonderful time!

Saturday was another beautiful Sunny Hot day! Opening the event w a Moche Toss by Jerry Nevins and a Dart salute in Memory of Leni Clubb by Bob Berg, we went on the ISAC's, US Open, and local contests for the Meadowcroft award. There were 3 contests that were combined for the local contests, The Meadowloft, throwing at 5 circles w a -5 groundhog in the bullseye spot, The Hunter's round, throwing at a cardboard deer target, and the Bear and Turkey 3-D targets.....The stuffing was literally knocked out of the turkey! Awards for the top men were: Douglas Bassett 1st, Randy Whaley 2nd, Andy Majorsky 3rd. The women: Nisa Holbrook 1st, Lori Majorsky 2nd, Sue Mercer 3rd. Youth Marlin Bassett 1st. Saturday evening, after dinner, we had a very nice program from Kurt Carr, co-writer of the book, *First Pennsylvanians*.



## Summary of the World Atlatl Day – 2016

By Douglas Bassett

From the first Saturday of June, June 4<sup>th</sup> this year, 55 people summited scores from 6 venues representing 8 states and making 78 entries as 26 teams with the results as follows:

### Records are in Red

#### Top Five States

Ohio	253-2X		Missouri	234-2X
New York	245-5X		Wisconsin	224-2X

WV/OH 207-2X

Because there were two different distances and various combinations of team members there are 58 possible combinations of team composition with the top teams as follows (Note that in three person teams of combined division and, or distance - the first noted combination means that there were two people in that particular division or distance):

#### Team Rank

#### State Rank

#### Single Division and Single Distance Teams (255-3X (OH) – 88-X Ray Strischek, 87-X Mike Glenn, 80-X Mamerto Tindongan (2015))

1	Men 25 meters	253-2X	1	OH/WV – Mamerto Tindongan (89-2X), Randy Whaley (87), Ray Strischek (77)
4		224-2X	4	WI – Ben Struzynski (88-X), Jerry Prahel (62), Len Riemersma (74-X)

#### Combination Teams

2	M/W/Y 25	245-5X	2	NY – Douglas Bassett (86-3X), Marlin Bassett (82-X), Sue Mercer (77-X)
8	M/W 25	215		MO – Jerry Nevins (86), Sean Matney (65), Dawn Wagner (64)
10		207-2X	5	WV/OH – Ray Strischek (80-X), Randy Whaley (66-X), Nisa Holbrook (61)
(36)		202-2X	7	OH – Ray Strischek (89-X), Mamerto Tindongan (77-X), Debbie Andrews
3	M 25/15	234-2X	3	MO – Jon Wood (92-X), John Blankenship (86), Jerry Nevins (56-X)
5		219-4X		MO – John Blankenship (80-X), Sean Matney (78-2X), Brian Wagner (61-X)
6		219-X		MO – John Blankenship (81-X), Dave Patterson (79), Brian Wagner (59)
7		216		WI – Ben Struzynski (81), Joe Struzynski (69), Glen Oechsner (66)
	M/W/Y 25/15	198-X	8	PA – Jack Rowe (86-X), Melissa Dildine (60), Abigail Goudreau (52)
9	M 15/25	214-2X		WI – Jerry Prahel (75-2X), Gordy Behrendt (70), Ryan Prahel (61)
	M/W 15/25	205	6	PA/NY – Gizzy Rowe (80), Timmy Beavers (64), Richie Beavers (61)
	M/W/Y 15/25	155-X		WI – Ben Struzynski (90-X), Patsy Newman (37-X), Conner Dobsen (28)
	M/W 15	132	10	CT – Lee Karash (59), Justin Nolf (47), Isabella Karash (26)
		117		CT – Tyson Nolf (67), Rich Brookfidel (31), Rachel Cooke (19)
	M/Y 15	167-X	9	IA – Roger Granneman (43), Kevin Verhulst (68), Lucas Yates-14 (56)
	M/W/Y 15	158		NY – Chris Lawson (59), Liz Reynolds (57), Elijah Reynolds (42)
	M/W/Y 15	143		WI – Ryan Prahel (78), Patsy Newman (35), Conner Dobsen (30)
	Y/W 15	132-X		NY – Michael Tracy (73-x), Peggy Tracy (59), Tom Tracy (0)

### Top Individual Scores

#### 25 meters

Men - Top 10 (97-3X Douglas Bassett (2014))

92-X	Jon Wood (MO)
90-X	Ben Struzynski (WI)
89-2X	Mamerto Tindongan (OH)
89-X	Ray Strischek (OH)
87	Randy Whaley (WV)
86-3X	Douglas Bassett (NY)
86-X	Jack Rowe (PA)
86	Jerry Nevins (MO)

#### 15 meters

Men - Top 10 (86-X Mike Hoelscher (2015))

86	John Blankenship (MO)
78	Ryan Prahel (WI)
75-2X	Jerry Prahel (WI)
69	Joe Struzynski (WI)
68	Kevin Verhulst (IA)
67	Tyson Nolf (CT)
64	Timmy Beavers (NY)
59	Lee Karash (CT)

79 Dave Patterson (MO)  
 78-2X Sean Matney (MO)  
Women - Top 3 (82 Carey McCormack (2013))  
 77-X Sue Mercer (NY)  
 64 Dawn Wagner (MO)  
 61 Nisa Holbrook (WV)  
Youth - Top 3 (86-2X Ben Struzynski-15 (2013))  
 82-X Marlin Bassett-13 (NY)  
 No others

59 Chris Lawson (NY)  
 47 Justin Nolf (CT)  
Women - Top 3 (83 Deanne Weidman (2013))  
 80 Gizzy Rowe (PA)  
 59 Peggy Tracy (NY)  
 57 Liz Reynolds (NY)  
Youth - Top 3 (92-X Matt Ciarapica -14 (2014))  
 73-X Michael Tracy - 14 (NY)  
 56 Lucas Yates - 14 (IA)  
 52 Abigail Goudreau - 13 (PA)

Many people participated in several teams and Ben Struzynski (WI) was the most active as member of four teams. Also 21 people made 29 entries with scores of 70 or more with their combined average scores for each distance as follows (Note that an X was tallied as 10.1):

5M - 58 attempts 10M - 72 attempts 15M - 72 attempts 20M - 44 attempts 25M - 44 attempts  
 9.64 (13 X's) 8.77 (12 X's, 1 miss) 8.02 (6 X's, 2 misses) 7.75 (2X's, 2 misses) 5.30 (1X, 13 misses)

In other words, if you intend to hunt, hunt close for the kill shot.

### US Open Atlatl Championships

**Meadowcroft Rockshelter - Avella, PA - 16-18 June 2016**

by Douglas Bassett

The US Open Atlatl Championships is conducted under the same rules as the ISAC but the target is the standard 122cm long range colored archery target. The other difference is that the youth shoot at 10M and 15M. The idea is that the competition would move around the country to be conducted at one of the larger event venues and for now it coincides with the annual meeting of the World Atlatl Association. A small entrance fee is gathered to cover the cost of trophies and targets. So thinking ahead, plans are underway for Husum, Washington in 2017.

This year, the top five qualifying scores from Thursday thru Saturday met for a sudden death throw-off on Saturday afternoon with trophies being awarded to the top three in each division. Twenty-four people (15 men, 8 women & 1 youth) from 11 states made 51 entries on 10 flights; the final results (each individual's qualifying score and home state in parentheses) are below. The record for each division is also noted from The New York Atlatl Association's inaugural year of statistics for this event which began in 2010.

**Youth record is 85X Marlin Bassett Jim's Pro Shop - Shortsville, NY 1 Mar 14**

1 Marlin Bassett (84, age 13, NY) 84

**Women record is 75 Bonnie Sortore Small Game Derby - Letchworth S P, NY 16 Sept 12**

1 Lori Majorsky (65, PA) 61  
 2 Nisa Holbrook (45, WV) 40  
 3 Debbie Andrews (48, OH) 36-X  
 4 Anita Lukes (65, IN) 36  
 5 Courtney Birkett (34, VA) 35

**Men record is 93-2X Douglas Bassett Spearfishing - Letchworth S P, NY 25 May 14**

1 Jon Wood (80, MO) 82  
 2 Ben Struzynski (79-X, WI) 78  
 3 Douglas Bassett (82, NY) 77  
 4 Tim Whaley (76, NC) 58  
 5 Mamerto Tindongan (70, OH) 49

For a more complete history of the US Open go to the "Modern Atlatl Sport" section of the WAA website.

I will be starting school again this August and must hand over the reins as editor of the newsletter. I can say it has been work, but enjoyable and rewarding work nonetheless! I may be too busy to edit the letter, but I hope to continue to see many of you at events, and I plan to continue to submit tales of ancient atlatls and modern experiments that peak my (and hopefully some of your) interests.

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**Testing Atlatl Weights, more Machine than Man: A Response to Cain and Sobel (2016)**

Devin B. Pettigrew

Cain's (2011) thesis work involved an experiment to test the effects of adding weight to an atlatl, and aimed to settle the debate once and for all by removing the complicated, and uncontrollable human element. This work was later published in a shorter, more concise article (Cain and Sobel 2015). The experiment tested a single atlatl and dart combination with and without an added weight. The atlatl and dart was attached to a throwing machine composed of a clay pigeon launcher for shotgun trap shooting. The launcher was modified with an additional lever arm and pivoting wrist to replicate the human arm. Data involved plotting the landing points of the dart when launched with and without the added weight. The results suggested that adding weight can increase control (accuracy) but decrease power.

There is a major flaw with this experiment. Cain and Sobel (2015:115) state that:

*Human throwers introduce uncontrolled mechanical variation, precluding experimental control over all relevant variables. Consequently, previous experimental studies cannot objectively distinguish effects of the atlatl weight from human biomechanical effects on atlatl performance. This lack of control over mechanical variables is the major obstacle to the objective, replicable experimentation needed to resolve the atlatl weight effect controversy.*

The atlatl is a lever mechanism, which can only be properly described as such when it is attached to the human body (Cundy 1989). We know that the atlatl is a lever addition to the human body, and the full body, not just the arm, is involved in a typical throw (Whittaker 2010). Though human throwers may not produce the most controlled data set, when the atlatl is attached to a non-human thrower, I would argue that its role has changed, and it can no longer be truly called an atlatl. The authors did not test the effects of adding weight to an atlatl attached to a human, and thus removed the most relevant variables. The atlatl was designed and modified over the centuries to assist human throwers rather than artificial mechanisms. The most relevant variable in a system designed to assist a human's throw is the human.

Those who use an atlatl regularly know that comfort is a key factor. This is expressed not only in the weight and balance of the system, but principally in the point where it contacts its human launching mechanism, the grip. Atlatlists prefer different grips, and can have trouble switching between grips because changing the grip changes our throw. It changes how the muscles in our arms and the rest of our bodies are specifically engaged (Pettigrew 2012). Future experiments with weighted atlatls should consider the effects of various combinations of an atlatl's mass, the system's many other features, and the way it is gripped and thrown.

Experienced atlatlists are also fully aware that variations in the total mass, balance, length and flexibility of the dart affect our throw. This becomes painfully obvious when a favorite dart breaks during competition. Our darts are made to work for us and our atlatls. These systems are designed together; however, the authors tested only one atlatl and dart combination. In summary, the experiment tested the effects of adding weight to a particular atlatl and dart system attached to an artificial throwing mechanism, which did not fully model the human body. Their results therefore fall short of being applicable to interpreting atlatl weights.

In truth these authors are not solely responsible for pursuing this debate in the manner that they did. The fault lies in a common perspective in past atlatl studies. Often the way we've thought about atlatls and their ancient owners is probably not very analogous to how those people perceived themselves and their weaponry. Many authors (being Westerners) have thought about external weights and other atlatl features in terms of linear technological advancement. They have also over-simplified the atlatl, when in reality there are innumerable variations in atlatl and dart form. As atlatlists today can attest, some prefer attached external weights and others do not. Some find that adding more mass to a particular atlatl makes it perform better for them, others not. The preferences ancient people had in atlatl features resulted from their own cultural perspective (their histories) and their individual experience. The atlatl must cater to the mind, the body, and its intended function in a specific environmental niche.

I do think this was a worthy experiment, and the results could be useful, if corroborated with more data taken from actual human throwers using a variety of equipment.

**Cain, David Isaac**

2011 Sticks with Stones: Controlled Experimentation in the Use of the Weighted Atlatl. Unpublished Master's thesis, Department of Sociology and Anthropology, University of Missouri.

**Cain, David I., and Elizabeth A. Sobel**

2015 Sticks with Stones: An Experimental Test of the Effects of the Atlatl Weight on Atlatl Mechanics. *Ethnoarchaeology* 7(2): 114–140.

**Cundy, B. J.**

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

**Pettigrew, Devin**

2012 Atlatl Weights: A function of preference for specific gripping and throwing techniques. Electronic document, [http://basketmakeratlatl.com/?page\\_id=418](http://basketmakeratlatl.com/?page_id=418), accessed July 18, 2016.

**Whittaker, John C.**

2010 Weapon Trials: The Atlatl and Experiments in Hunting Technology. In *Designing Experimental Research in Archaeology: Examining Technology through Production and Use*, edited by Jeffrey R. Ferguson. University Press of Colorado, Boulder.

**The World Atlatl Association, Inc.**

International Standard Accuracy Contest (ISAC)

**5-Jul-16**

2016 ISAC Results for Men (70 and above)

Place	* Tie Placement	Score	Name	Home	St	Date	Contest
1		96xx	Douglas Bassett	Warsaw	NY	5/27/2016	Spearfishing, Letchworth SP, NY
2		95x	Jon Wood	Madison	MO	1/2/2016	Columbia, MO
3	*	94x	Doug Leeth	Lawndale	NC	4/22/2016	North Georgia Knap-in, GA
4	*	94x	Ben Struzynski	Ogdensburg	WI	6/18/2016	Meadowcroft, Avella, PA
5		93xxx	Mike Glenn	Lucasville	OH	4/30/2016	Leo Petroglyphs Park, OH
6	*	92xx	Jack Rowe	Sayre	PA	4/24/2016	Earth Day, Elmira, NY
7	*	92x	Kevin Ashley	Estill Springs	TN	5/7/2016	Old Stone Fort, Manchester, TN
8		91xxx	Mamerto Tindongan	Albany	OH	6/19/2016	Meadowcroft, Avella, PA
9	*	90	Ray Strisczek	Athens	OH	6/10/2016	Fort Firelands RV Park, OH
10	*	90	Steven Spencer	Trenton	MO	6/3/2016	Granneman Field, Ottumwa, IA
11	*	90	Ansgar Lukas	München	GERMANY	5/29/2016	Domat/Ems, SWITZERLAND
12		89xxx	Jordan Ashley	Estill Springs	TN	5/6/2016	Old Stone Fort, Manchester, TN
13		89xx	Bob Kitch	Husum	WA	6/4/2016	Between the Rivers, Valley, WA
14		89x	Randy Whaley	Leon	WV	6/18/2016	Meadowcroft, Avella, PA
15	*	89	Mark Bracken	Saegerstown	PA	2/19/2016	Silver Springs, FL
16	*	89	Scott Sharp	Trenton	MO	6/19/2016	Trenton Gooseberry Festival, MO
17		88xx	Ryan Grohsmeyer	Rolla	MO	5/21/2016	Osage Knap-in, MO
18		88x	Chad Winkler	Bayfield	CO	2/15/2015	Wintercount, Maricopa, AZ
19	*	88	Neville Robins	Battleground	WA	2/15/2015	Wintercount, Maricopa, AZ
20	*	88	James Turner	Durango	CO	2/19/2015	Wintercount, Maricopa, AZ
21	*	88	Sean Matney	Boonville	MO	4/9/2016	Columbia, MO
22	*	88	Kevin DeChant	Jefferson City	MO	5/8/2016	Pomme de Terre, MO
23	*	86x	Tim Whaley	Leon	WV	5/21/2016	Kanawha State Forest, WV
24	*	86x	Jim Gnapp	Abbotsford	BC	6/3/2016	Between the Rivers, Valley, WA
25		86	Nathan Rorebeck	Trenton	MO	6/19/2016	Trenton Gooseberry Festival, MO
26		85xx	Scott Van Arsdale	Otego	NY	5/6/2016	Genesee Valley Knap-in, Letchworth SP, NY
27		85x	Lawrence Ariel	Huntland	TN	5/7/2016	Old Stone Fort, Manchester, TN
28	*	85	Flavien Beauquel	Chalons	FRANCE	5/15/2016	Saint Hubert, Belgium
29	*	85	Gary Fogelman	Turbotville	PA	5/14/2016	Bunn Valley, Milford, NJ
30	*	85	Scott Rorebeck	Trenton	MO	6/19/2016	Trenton Gooseberry Festival, MO
31		84x	Jim Fisher	Grand Island	NY	3/5/2016	Jim's Pro Shop, Shortsville, NY
32		84x	Jerry Nevins	Jefferson City	MO	5/20/2016	Osage Knap-in, MO
33	*	84	Andy Majorsky	Derry	PA	6/18/2016	Meadowcroft, Avella, PA
34	*	84	Erich Zeh	Phillipsburg	NJ	6/19/2016	Meadowcroft, Avella, PA
35		83x	Bob Berg	Candor	NY	2/27/2016	Sopchoppy, FL
36		83x	Jean Claude Gamon	Unknown	FRANCE	4/23/2016	Charavines, FRANCE
37	*	83	Dave Patterson	Ashland	MO	4/9/2016	Columbia, MO
38	*	83	Juan Jose Guirado Garcia	Benahadux	SPAIN	4/23/2016	Benahadux, SPAIN
39	*	83	Israel Yahemdi	Unknown	FRANCE	4/24/2016	Charavines, FRANCE
40		82xx	John Whittaker	Grinnell	IA	4/31/2016	Raging Cow, Grinnell, IA
41		82x	Mike Goot	Chewelah	WA	6/4/2016	Between the Rivers, Valley, WA
42		82	Steve Barnett	Pomeroy	OH	4/30/2016	Leo Petroglyphs Park, OH
43		81x	Doug Majorsky	El Cajon	CA	3/19/2016	Valley of Fire, NV
44	*	81	C.J. DeChant	Jefferson City	MO	3/26/2016	Dave's Outback, Ashland, MO
45	*	81	Teddy Eyster	Davis	CA	4/30/2016	Sugarloaf, Walnut Creek, CA

46	*	80x	Roger	Granneman	Ottumwa	IA	6/3/2016	Granneman Field, Ottumwa, IA
47	*	80x	Fritz	Mischler	Tauffelen	SWITZ	5/29/2016	Domat/Ems, SWITZERLAND
48	*	80x	Kurt	Mischler	Brügg	SWITZ	5/29/2016	Domat/Ems, SWITZERLAND
49		80	Don	Safford	Hot Springs	MT	5/31/2016	Between the Rivers, Valley, WA
50		79x	Christophe	Jamon	Unknown	FRANCE	4/24/2016	Charavines, FRANCE
51	*	79	Jerome	Galetti	Clamart	FRANCE	5/15/2016	Saint Hubert, Belgium
52		79	Lenny	Riemersma	Cascade	WI	6/19/2016	Meadowcroft, Avella, PA
53		78xx	Greg	Maurer	Vergennes	VT	2/28/2015	Sopchoppy, FL
54		78x	Michael	Hermann	San Clemente	CA	3/20/2016	Valley of Fire, NV
55	*	78	Randy	Black	Grange	GA	4/24/2016	North Georgia Knap-in, GA
56	*	78	Albert	Kressig	Seewis	SWITZ	5/29/2016	Domat/Ems, SWITZERLAND
57	*	77	Austin	Fisher	Grand Island	NY	1/16/2016	Jim's Pro Shop, Shortsville, NY
58	*	77	Juan Luis	Navarro	Unknown	SPAIN	4/23/2016	Benahadux, SPAIN
59	*	77	Pascal	Chauvaux	Cerfontaine	BELGIUM	5/15/2016	Saint Hubert, Belgium
60		76x	Martin	Schaffhausen	Schaffhausen	SWITZ	5/29/2016	Domat/Ems, SWITZERLAND
61	*	76	Jesse	Martin	San Marcos	CA	3/20/2016	Valley of Fire, NV
62	*	76	Chris	Henry	Vancouver	WA	3/17/2016	Valley of Fire, NV
63	*	76	Glenn	Fretwell	Jordan Valley	OR	3/17/2016	Valley of Fire, NV
64	*	76	Miguel Luis	Sices	Unknown	SPAIN	4/23/2016	Benahadux, SPAIN
65	*	76	Frank	Lukes	W Lafayette	IN	4/29/2016	Raging Cow, Grinnell, IA
66	*	76	Devin	Pettigrew	Fayetteville	AR	5/22/2016	Osage Knap-in, MO
67		75x	Bob	Hanselman	Forest City	NC	4/24/2016	North Georgia Knap-in, GA
68	*	75	Glenn	Purpura	Moab	UT	2/13/2016	Wintercount, Maricopa, AZ
69	*	75	Johannes	Schoroth	Koln	GERMANY	5/15/2016	Saint Hubert, Belgium
70	*	74	Allan	Turner	Scottsbluff	NE	2/16/2015	Wintercount, Maricopa, AZ
71	*	74	Derek	Brockway	Las Vegas	NV	3/16/2016	Valley of Fire, NV
72	*	74	A.J.	Bagg	Charnina Village	MO	3/16/2016	Valley of Fire, NV
73		73	Reinhold	Schnücker	Marburg	GERMANY	5/29/2016	Domat/Ems, SWITZERLAND
74		72xx	Russell	Richard	Cheyenne	WY	1/1/2016	Trail's End, Cheyenne, WY
75		72x	Eric	Botte	Druelle	FRANCE	4/24/2016	Charavines, FRANCE
76	*	72	Eric	Todd	Cheyenne	WY	1/1/2016	Trail's End, Cheyenne, WY
77	*	72	Antonio	Muñoz Rodriguez	Unknown	SPAIN	4/23/2016	Benahadux, SPAIN
78	*	72	David	Lohr	Thayer	MO	5/8/2016	Pomme de Terre, MO
79	*	71	Jose Bernabe	Coll	Unknown	SPAIN	4/23/2016	Benahadux, SPAIN
80	*	71	Patrick-Laurent	Calpena	Grenoble	FRANCE	4/23/2016	Charavines, FRANCE
81	*	71	Christian	Casseyas	Flemalle	BELGIUM	5/15/2016	Saint Hubert, Belgium
82		70x	Glenn	Oechsner	Campbellsport	WI	6/18/2016	Meadowcroft, Avella, PA
83		70	Bernard	Bouffier	Unknown	FRANCE	4/23/2016	Charavines, FRANCE

### 2015 ISAC Results for Women (50 and above)

Place	* Tie Placement	Score	Name	Home	St	Date	Contest
1		84	Melissa	Dildine	Sayre	PA	4/23/2016 Earth Day, Elmira, NY
2		83xxx	Dawn	Wagner	Truxton	MO	4/10/2016 Columbia, MO
3		82xx	Ursula	Räss	Nidau	SWITZ	5/29/2016 Domat/Ems, SWITZERLAND
4		77	Debbie	Andrews	Albany	OH	6/4/2016 Athens Library, Athens, OH
5		75	Lori	Majorsky	Derry	PA	6/10/2016 Fort Firelands RV Park, OH
6		73	Sue	Mercer	Attica	NY	5/8/2016 Genesee Valley Knap-in, Letchworth SP, NY
7		73	Courtney	Birkett	Williamsburg	VA	6/18/2016 Meadowcroft, Avella, PA
8		71	Carey	McCormack	Vancouver	WA	3/17/2016 Valley of Fire, NV
9		68	Margie	Takoch	Wintersville	OH	6/17/2016 Meadowcroft, Avella, PA
10		67x	Conny	Heinzelmann	Schaffhausen	SWITZ	5/29/2016 Domat/Ems, SWITZERLAND
11		64	Gina	Lunn	San Clemente	CA	3/17/2016 Valley of Fire, NV
12		64	Nisa	Holbrook	Charleston	WV	5/22/2016 Kanawha State Forest, WV
13		64	Anita	Lukes	West Lafayette	IN	6/17/2016 Meadowcroft, Avella, PA
14		59	Heather	Phillips	North Powder	OR	6/2/2016 Between the Rivers, Valley, WA
15		57	Mary	Riemersma	Cascade	WI	6/17/2016 Meadowcroft, Avella, PA
16		56	Mariah	Sheppard	Cheyenne	WY	1/1/2016 Trail's End, Cheyenne, WY
17		56	Kerry	Opel	York	PA	6/19/2016 Meadowcroft, Avella, PA
18		55	Joanne	Fogelman	Turbotville	PA	5/14/2016 Bunn Valley, Milford, NJ
19		54	Amandine	Devie	Unknown	FRANCE	4/24/2016 Charavines, FRANCE
20		52	Gizzy	Rowe	Sayre	PA	6/3/2016 Atlatis-n-action, Elmira, NY

### 2015 ISAC Results for Youth (40 and above)

Place	* Tie Placement	Score	Name	Home	St	Date	Contest	AGE
1		94xx	Marlin	Bassett	Warsaw	NY	6/5/2016 Atlatis-n-action, Elmira, NY	13
2		85x	Will	Klumpenhower	Durango	CO	2/16/2015 Wintercount, Maricopa, AZ	15
3		83	Carter	Ashley	Estill Springs	TN	5/7/2016 Old Stone Fort, Manchester, TN	13
4		77x	Peter	Oles	Durango	CO	2/18/2015 Wintercount, Maricopa, AZ	15
5		65	Lucas	Yates	Ottumwa	IA	6/3/2016 Granneman Field, Ottumwa, IA	14
6		59	Quin	Crist	Durango	CO	2/19/2015 Wintercount, Maricopa, AZ	14
7		57	August	Gates	Durango	CO	2/16/2015 Wintercount, Maricopa, AZ	12
8		47	Michael	Tracy	Waverly	NY	6/4/2016 Atlatis-n-action, Elmira, NY	14
9		43x	Makenna	Coleman	Durango	CO	2/18/2015 Wintercount, Maricopa, AZ	14
10		43	PJ	Rude	Durango	CO	2/17/2015 Wintercount, Maricopa, AZ	14

\*indicates ties which have been placed in their proper order, using the tie breaker rule

## North American Atlatl Competition Events for 2016

July 22-24	Summer Atlatl Rendezvous, N9430 Cty Rd. E, Ogdensburg <b>WI</b> ISAC (in evenings only) 24 July- ISAC (A.M. ONLY)~Contact: Joe Struzyński (920) 538-3895
July 23-24	Kanawha State Forest, Charleston, <b>West Virginia</b> . From 10am to 4pm - ISAC, WV and WV Deer Target contests will be held. Free instruction to the public. Please call Randy Whaley at (304) 812-0599 or e-mail <a href="mailto:nisaholbrook@aim.com">nisaholbrook@aim.com</a> for additional information.
July 24	ISAC and fun throws at Dave's Outback near Ashland, <b>MO</b> . Warm ups and practice start around 9 AM. BYO lunch and refreshments. There will also be some primitive archery later in the day, so bring your bows and arrows (no broadheads) if interested. For more information and/or directions, contact Jerry Nevins at <a href="mailto:wdhd@aol.com">wdhd@aol.com</a> or 573-353-5313.
July 28-31	Atlatl Rattle at Green Flats – Hancock, <b>New York</b> ISAC, locals and NYAA events (Individuals, Hunters & European). A New York Atlatl Association, Inc. sponsored and insured event. Final Team Championships held on the grounds of Ray Turner's Casa de Fumo. For more information contact Douglas Bassett (585) 493-3625; <a href="mailto:Douglas.Bassett@parks.ny.gov">Douglas.Bassett@parks.ny.gov</a>
July 31	Durango Atlatl Club sponsored ISAC Event in Durango, <b>CO</b> . To be held at Columbine Christian School, 2:00. Please contact James Turner (970) 946-2096 <a href="mailto:el_lobo_solo@hotmail.com">el_lobo_solo@hotmail.com</a> for more information.
Aug 12-14	Summer break ISAC throw at Trenton, <b>MO</b> the home of Steve Spencer 3840 Oklahoma Ave beginning at <b>6:30 p.m.</b> Contact person Steve Spencer 660-359-3635, 660-654-3904 or email <a href="mailto:barbspencer@cebridge.net">barbspencer@cebridge.net</a> . Camping available at Crowder State Park.
Aug. 12	Steve Barnett's House near Albany, <b>OH</b> That Dam ISAC - ISAC and Ohio locals. 5:00 pm - dark (or thereabouts). Contact Ray Strischek ( <a href="mailto:ohioatlatl@hotmail.com">ohioatlatl@hotmail.com</a> ) 740-331-4351 or Steve Barnett ( <a href="mailto:barnz@juno.com">barnz@juno.com</a> ) 740-698-6553 more information.
Aug. 13-14	Albany Fairgrounds, Albany, <b>OH</b> 45710 OAA will provide instruction and conduct atlatl accuracy contests. ISAC, and Ohio locals. Saturday morning to Sunday afternoon. Contact Ray Strischek for more information, ( <a href="mailto:ohioatlatl@hotmail.com">ohioatlatl@hotmail.com</a> ) 740-331-4351 or Steve Barnett ( <a href="mailto:barnz@juno.com">barnz@juno.com</a> ) 740-698-6553.
Aug. 13-14	Atlatl throw & ISAC. Cheyenne, <b>Wyoming</b> . Open to all, equipment and instruction cheerfully provided. Sponsored by the Wyoming Atlatl and Social Club. Contact: Russell Richard <a href="mailto:coyoteclow@aol.com">coyoteclow@aol.com</a> (307-772-0550) for location and time.
Aug. 16	Durango Atlatl Club sponsored ISAC Event in Durango, <b>CO</b> . To be held at Four Corners Earth Skills Gathering, 3-5:00. Please contact James Turner (970) 946-2096 <a href="mailto:el_lobo_solo@hotmail.com">el_lobo_solo@hotmail.com</a> for more information.
Aug 17	Durango Atlatl Club sponsored ISAC Event in Durango, <b>CO</b> . To be held at Four Corners Earth Skills Gathering, 3-5:00. Please contact James Turner (970) 946-2096 <a href="mailto:el_lobo_solo@hotmail.com">el_lobo_solo@hotmail.com</a> for more information.
Aug. 20-21	Columbia, <b>MO</b> . 1425 E. Boone Industrial Dr. ISAC only. Contact: RSVP to Jon Wood (573) 881-6622 (call or text) or <a href="mailto:rjswood429@gmail.com">rjswood429@gmail.com</a> .
Aug. 25-28	Stone Tool Craftsman Show (Aug. 28, 29, 30 10:00am to 5:00pm) Highbanks Recreation Area, north end of Letchworth State Park – Mt. Morris, <b>New York</b> 27th Annual Eastern Seaboard Atlatl Competition (State Round, Closest-to-Pin, Distance). August 27, 28 & 29. ISAC, Hoop Toss, New York Atlatl Association Contests (National & International), Throw Over the Gorge Qualifiers & wooded Animal Round all four days. Handicapped Mammoth Hunt (Saturday); Long Distance Accuracy and Atlatl Battle (Sunday). New York Atlatl Association, Inc. insured event. Stone Tool Show contact: Dana & Kay Klein 585-968-1577. Atlatl Competition contact: Douglas Bassett 585-493-3625; <a href="mailto:Douglas.Bassett@parks.ny.gov">Douglas.Bassett@parks.ny.gov</a>
Aug. 27 - 28	Kanawha State Forest, Charleston, <b>West Virginia</b> . From 10am to 4pm - ISAC, WV and WV Deer Target contests will be held. Free instruction to the public. Please call Randy Whaley at (304) 812-0599 or e-mail <a href="mailto:nisaholbrook@aim.com">nisaholbrook@aim.com</a> for additional information.
Sept 1	Durango Atlatl Club sponsored ISAC Event in Durango, <b>CO</b> . To be held at Columbine Christian School, 3:30. Please contact James Turner (970) 946-2096 <a href="mailto:el_lobo_solo@hotmail.com">el_lobo_solo@hotmail.com</a> for more information.
Sept. 2-4	Flint Ridge State Park, Brownsville, <b>OH</b> Flint Ridge Lithic Society Knap-In. - OAA will provide instruction and conduct atlatl accuracy contests. ISAC, and Ohio locals. Lots of booths, flintknapping, crafts, etc. Friday afternoon through Sunday afternoon. Contact Ray Strischek for more information, ( <a href="mailto:ohioatlatl@hotmail.com">ohioatlatl@hotmail.com</a> ) 740-331-4351 or Steve Barnett ( <a href="mailto:barnz@juno.com">barnz@juno.com</a> ) 740-698-6553.
Sept 2-5	Mattoon Rendezvous. Mattoon, <b>WI</b> - Various competitions, ISAC. Sept 5 ISAC (A.M. ONLY) Contact: Gordy Behrendt (262) 334-5099
Sept 3-4	Red Clay State Historic Park, 1140 Red Clay Park Road SW, Cleveland, <b>TN</b> 37311-8386. 11:00 am. Primitive camping available. Contact Logan Cammarata, Ranger I for more information at <a href="mailto:logan.cammarata@tn.gov">logan.cammarata@tn.gov</a> , <a href="http://tnstateparks.com/redclay">tnstateparks.com/redclay</a> , or call at 423-478-0339.
Sept 3-4	Atlatl throw & ISAC. Cheyenne, <b>Wyoming</b> . Open to all, equipment and instruction cheerfully provided. Sponsored by the Wyoming Atlatl and Social Club. Contact: Russell Richard <a href="mailto:coyoteclow@aol.com">coyoteclow@aol.com</a> (307-772-0550) for location and time.
Sept. 4	ISAC Atlatl Event. Brookville, <b>PA</b> . Antique Firearms and Indian Artifact Show. Event starts at 9:00 a.m.

	and ends at 4:00 p.m. Take the PA Interstate 80 and exit 81. Go 1/4 mile North of the exit Jefferson County Fair Grounds. We will provide atlats and dart for any beginners use.
Sept 9-11	Tyoga Shoot-off 389 Simkin Rd. Elmira, <b>New York</b> ISAC, Mastodon Open and local Animal Round. A New York Atlatl Association, Inc. sponsored and insured event. Contact: Jack <a href="mailto:570-888-8258_rjrowe93@gmail.com">570-888-8258_rjrowe93@gmail.com</a> or Justin Covey; <a href="tel:570-423-0318">570-423-0318</a> .
Sept 10	Wyoming Archaeology Fair Atlatl throw & ISAC. Laramie, <b>Wyoming</b> . Open to all, equipment and instruction cheerfully provided. Sponsored by the Wyoming Atlatl and Social Club. Contact: <a href="mailto:Russell.Richard@coyotecdown@aol.com">Russell Richard coyotecdown@aol.com</a> ( <a href="tel:307-772-0550">307-772-0550</a> ) for location and time.
Sept. 10	Graham Cave State Park near Danville, <b>MO</b> . Archaeology Day. We will teach and demonstrate from 10:30 AM until 2:30 PM. Equipment available. ISAC will begin at around 2:30PM For more info and/or directions contact: Jerry Nevins @ <a href="tel:573-353-5313">573-353-5313</a> ; <a href="mailto:wdhd@aol.com">wdhd@aol.com</a> or Ron Mertz @ <a href="tel:314-680-3596">314-680-3596</a> ; <a href="mailto:devoemertz@sbcglobal.net">devoemertz@sbcglobal.net</a>
Sept. 10-17	Rabbitstick Primitive Skills Gathering, Rexburg, <b>ID</b> . ISAC each morning. For more information contact Bob Kitch <a href="tel:541-806-4771">541-806-4771</a> .
Sept. 16-18	Lake Snowden, Rt. 32, Albany, <b>OH</b> 45710 Seventeenth annual PawPaw Festival. OAA will provide instruction and conduct atlatl accuracy contests. ISAC, and Ohio locals. Lots of booths, crafts, pawpaw food and information. Friday evening (4:00) for atlatl, through Sunday afternoon. Admission fee per car. Contact Ray Strischek for more information, ( <a href="mailto:ohioatlatl@hotmail.com">ohioatlatl@hotmail.com</a> ) <a href="tel:740-331-4351">740-331-4351</a> or Steve Barnett ( <a href="mailto:barnz@juno.com">barnz@juno.com</a> ) <a href="tel:740-698-6553">740-698-6553</a> . For information regarding the PawPaw Festival, <a href="http://ohiopawpawfest.com">ohiopawpawfest.com</a>
Sept. 16-18	Cahokia Mounds World Heritage Site, Collinsville, <b>IL</b> ISAC Friday afternoon. Saturday 9:00 am - 4:00 pm: European Round, Hunters' Challenge, ISAC and fun throws including Moche Toss. ISAC Sunday AM. On Saturday evening, starting around 5:00 PM: Pizza, awards, and a speaker in the Visitor Center. Registration will be \$5.00 per person for non-MAA members; free for MAA members with paid-up dues. Pizza for Saturday evening will be \$5.00 per person. For more info contact: Jerry Nevins, <a href="tel:573-353-5313">573-353-5313</a> , <a href="mailto:wdhd@aol.com">wdhd@aol.com</a> or Ron Mertz, <a href="tel:314-680-3596">314-680-3596</a> , <a href="mailto:devoemertz@sbcglobal.net">devoemertz@sbcglobal.net</a>
Sept. 16-18	Letchworth State Park – Castile, <b>New York</b> Trailside Lodge area. ISAC (Fri. 4pm and Sun. 4pm) and local events except during Heritage Day noted below. NYAA fully insured event. "Native American Heritage Day " 10:00am - 4pm) on Sat, Sept 19, with Native American Dance, Crafts and Food. Nearby camping, cabins and lodging available. For information contact Douglas Bassett <a href="tel:585-493-3625">585-493-3625</a> ; <a href="mailto:Douglas.Bassett@parks.ny.gov">Douglas.Bassett@parks.ny.gov</a>
Sept. 23-25	<b>Chimney Point State Historic Site</b> , 8149 VT Route 17W, Addison, <b>VT</b> 05491 <b>September 23:</b> Atlatl Workshop - Atlatl experts Bob and Cheryl Berg of Thunderbird Atlatl teach traditional and modern techniques of atlatl and dart construction, flint knapping, hafting stone points, and cordage making. Enjoy atlatl lore and coaching on the use of your new atlatl. \$70 includes instruction and materials. Pre-registration required. Vermont Archaeology Month program. Noon – 5:00 PM <b>September 24:</b> 21st Annual Northeastern Open Atlatl Championship - Participate in or watch this annual atlatl championship testing skills in accuracy and distance. The sport of using the atlatl to throw darts is based on the ancient hunting technique. Newcomers to experts welcome. Children's activities. Workshops and demonstrations on flint knapping, Woodland pottery, and other crafts and skills. Call for details. Vermont Archaeology Month program. 10:30 AM – 4:30 PM \$5.00 for competitors <b>September 25:</b> Second Morning ISAC Competition - Contestants can sign up for a second morning of ISAC competition. Starts at 10:00 AM. \$5.00 for competitors <b>September 25:</b> Splint Basswood Basket Workshop Barry Keegan offers this basket workshop, teaching you to weave with splints of basswood with the outer bark still attached. Finished basket approximately 10" tall. Keegan also demonstrates how baskets were made with stone tools. Pre-registration required. Limit 15 students. \$60, includes materials. Bring lunch and snacks. 9:30 AM – 5:30 PM
Sept. 24-25	Atlatl throw & ISAC. Cheyenne, <b>Wyoming</b> . Open to all, equipment and instruction cheerfully provided. Sponsored by the Wyoming Atlatl and Social Club. Contact: Russell Richard <a href="mailto:coyotecdown@aol.com">coyotecdown@aol.com</a> ( <a href="tel:307-772-0550">307-772-0550</a> ) for location and time.
Sept 25	Durango Atlatl Club sponsored ISAC Event in Durango, <b>CO</b> . To be held at Columbine Christian School, 2:00. Please contact James Turner (970) 946-2096 <a href="mailto:el_lobo_solo@hotmail.com">el_lobo_solo@hotmail.com</a> for more information.
Sept 30 - Oct. 2	Hoka Hey Farm event at Leon, <b>West Virginia</b> . ISAC, WV, Running Deer Target, 18-hole ATLATL golf course, extreme obstacle course, etc. Contact Randy Whaley at ( <a href="tel:304-812-0599">304</a> ) <a href="tel:812-0599">812-0599</a> or <a href="mailto:nisaholbrook@aim.com">nisaholbrook@aim.com</a> for additional information.
Sept 30 - Oct 2	New England Atlatl Day and Native American Festival <b>Note change in Location</b> Guilford Fair Grounds, 111 Lovers Lane Guilford <b>Ct</b> Co-Sponsored by the Friends Of Hammonasset and the Ct State Museum of Natural History/Ct Archaeology Center. ISAC Fri. Sat. and Sun. Woolly Mammouth Hunt and Local Events Sat. 10:00-3:00 Contact Gary Nolf <a href="tel:860-575-4263">860-575-4263</a> <a href="mailto:gnolf@comcast.net">gnolf@comcast.net</a>
Oct. 7-9	Indian Mounds Festival, Connett Rd., The Plains, <b>OH</b> Indian Mounds Festival, across the street from The Plains Elementary School. OAA will provide instruction and conduct atlatl accuracy contests. ISAC and Ohio

	locals. Friday afternoon to Sunday afternoon. Contact Ray Strischek ( <a href="mailto:ohioatlatl@hotmail.com">ohioatlatl@hotmail.com</a> ) 740-331-4351, or Steve Barnett( <a href="mailto:barnz@juno.com">barnz@juno.com</a> ) 740-698-6553 for more information.
Oct. 7-9	Old Stone Fort State Archaeological Park, <b>Tennessee</b> ISACs during the Fall Knap-In: on October the 7th at 3:00 p.m. , 8th at 3:00 p.m. , and the 9th time T.B.A. Atlatl challenge time T.B.A. For any further questions please contact Ranger Jamie Hambrock at <a href="mailto:jamie.hambrock@tn.gov">jamie.hambrock@tn.gov</a> or call park office at (931) 723-5073: Old Stone Fort State Archaeological Park, 732 Stone Fort Drive, Manchester TN 37355
Oct. 8-9	Candor Fall Festival, October 8, Side Hill Acres Goat Farm, State Route 96, Candor, <b>New York</b> . Atlatl contests, events, flea market, baked goods, crafts and more. ISACs set for Saturday October 8 throughout the day and Sunday October 9 at 10:00 a.m. For further information contact Robert and Cheryll Berg at <a href="mailto:contact@thunderbirdatlatl.com">contact@thunderbirdatlatl.com</a> or 800-836-4520.
Oct. 8-9	Horicon Marsh, Horicon, <b>WI</b> - Demos and ISAC. - Contact Glen Oechsner (920)533-5039
Oct. 8-9	Atlatl throw & ISAC. Cheyenne, <b>Wyoming</b> . Open to all, equipment and instruction cheerfully provided. Sponsored by the Wyoming Atlatl and Social Club. Contact: Russell Richard <a href="mailto:coyotecdown@aol.com">coyotecdown@aol.com</a> (307-772-0550) for location and time.
Oct. 13	Durango Atlatl Club sponsored ISAC Event in Durango, <b>CO</b> . To be held at Columbine Christian School, 3:30. Please contact James Turner (970) 946-2096 <a href="mailto:el_lobo_solo@hotmail.com">el_lobo_solo@hotmail.com</a> for more information.
Oct 14-15	Muskrat City Rendevous E4879 First Road, Kewaunee, <b>WI</b> . ISAC (Friday and Saturday evening only) - Contact Lenny (920)917-0335
Oct 14-16	<b>Missouri Days Atlatl Throw</b> at Trenton Missouri High School Softball field. ISAC and Semi- 3-D featuring Targets of extinct animals-Mammoth, Saber-Tooth, Dire-Wolf etc. Throws on Friday Evening starting at 7:00 p.m. and Saturday and Sunday starting around 10:00 a.m. each day. Thousands attend Trenton's Missouri Days Festival which includes a 50 school band competition , Arts, Crafts, Flea market, Food venders and now , an Atlatl competition. Come join the fun. For added information contact Scott Rorebeck660-654-1741 <a href="mailto:srorebeck@yahoo.com">srorebeck@yahoo.com</a> or Steve Spencer 660-654-3904 <a href="mailto:barbspencer@cebridge.net">barbspencer@cebridge.net</a>
Oct. 22	Dundee Sportsman's Club, Dundee, <b>WI</b> - ISAC, EUROPEAN 3-D Targets. - Contact: Lenny (920) 917-0335
Oct. 22-23	Columbia, <b>MO</b> 1425 E. Boone Industrial Dr. ISAC only. Contact: RSVP to Jon Wood (573) 881-6622 (call or text) or <a href="mailto:jswood429@gmail.com">jswood429@gmail.com</a> .
Oct. 28-29	Zaleski State Forest, Lake Hope St. Park, Zaleski, <b>OH</b> Ohio ROAR Days - OAA will provide instruction and conduct atl atl accuracy contests. ISAC and Ohio locals. Friday evening (4:00) for atl atl, all day Saturday. Camping available. Contact Ray Strischek for more information, ( <a href="mailto:ohioatlatl@hotmail.com">ohioatlatl@hotmail.com</a> ) 740-331-4351 or Steve Barnett ( <a href="mailto:barnz@juno.com">barnz@juno.com</a> )740-698-6553.
Nov. 3	Durango Atlatl Club sponsored ISAC Event in Durango, <b>CO</b> . To be held at Columbine Christian School, 3:30. Please contact James Turner (970) 946-2096 <a href="mailto:el_lobo_solo@hotmail.com">el_lobo_solo@hotmail.com</a> for more information.

**Devin Pettigrew**

7700 N Hills Blvd # 201

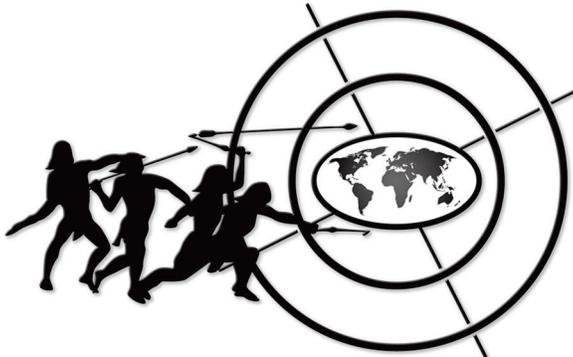
North Little Rock, AR 72116

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World Atlatl Association Web Site:

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