

Spring, 1997  
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1st Anniversary Issue

# INSTINCTIVE ARCHER

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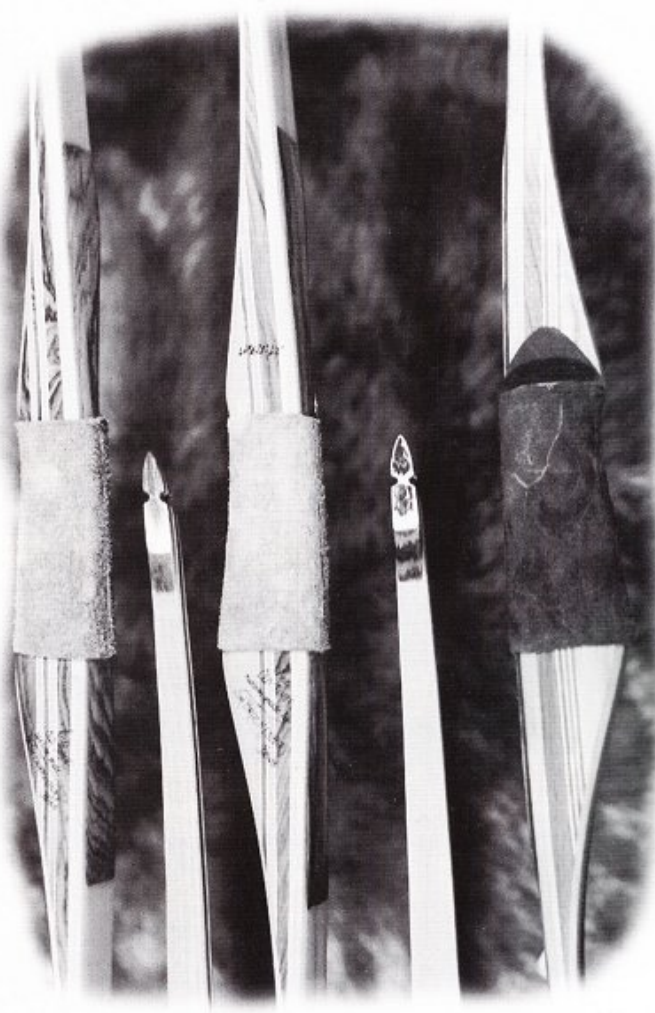
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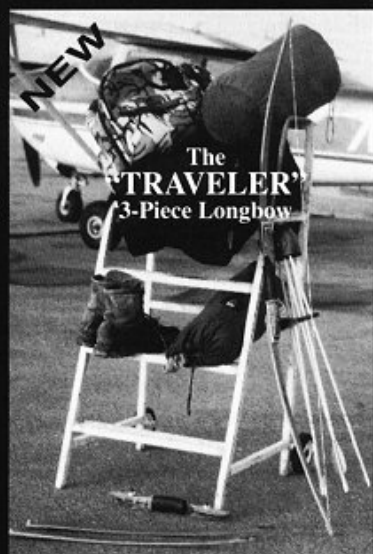
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# INSTINCTIVE ARCHER™

Spring, 1997

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**REMEMBER:** We offer all traditional archery organizations 100 FREE words to advertise their events, benefits, fund-raisers, etc, in each issue of Instinctive Archer™ Magazine.



# INSTINCTIVE ARCHER™ MAGAZINE

Editor  
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Rik Hinton, Editor

## *From the old oak desk of the Editor*

**Looking Back** on the first year of *Instinctive Archer™ Magazine* is as satisfying to me as it is humbling. Historians and archers-of-note from the four corners of the globe have graced our pages with their knowledge and wit. Through the work of these writers, we have chronicled both the wisdom of ancient archers and the shooting prowess of modern champions; we have reported on the passing of friends, and have introduced you to new ones; but most of all, we

have enjoyed the beginning of what looks to be a long journey down archery's many paths, both present and past. Although we have travelled far back in time and across many continents over this last year, I can assure you, we have barely scratched the surface of what is yet to come.

Before you immerse yourself in the pages of our *First Anniversary Issue*, please allow me to publicly thank British Editor Hugh Soar, Assistant Editor/Chief Illustrator Robert Martin, and my long-suffering wife Tracy for their invaluable assistance and guidance over this last year. The depth and quality of each and every issue are due in large part to their talents. When you see Hugh, Bob, or Tracy on the ranges this summer, walk up and say hi, let them know how you feel about their work, and even more importantly, get them out on the range with you to shoot some arrows!

Spring is just around the corner, which means that archery tournaments, rendezvous, and stump shooting are not far behind! In this issue, we celebrate the skill of the archer, and the challenge of the target. Chief AJ's awe-inspiring flying target World Record will make you wonder how in the world anyone can shoot that well. But I can assure you, he can (I've seen the video, and I wouldn't want to be a flock of ducks flying over *his* duck blind). We also have two new flight shooting World Records (recurve and longbow!), thanks to Mr. Giancarlo Marchesini, a member of the Italian Longbow Association. In honor of the deeds of Chief AJ and Mr. Giancarlo, I would like to close with a quote that hangs in a wooden frame on my office wall. It was given to me by my good friend and hunting partner, Dr. Michael Cummings:

*"It's not the critic who counts, not the man who points out how the strong man stumbled, or where those doing deeds could have done them better. The credit belongs to the man who is actually in the arena, whose face is marred by dirt and sweat and blood, who strives valiantly, who errs and comes short again and again, who knows the great enthusiasms, who knows the great devotions, who spends himself in worthy cause, who, at the best, knows in the end the triumph of high achievement, and at the worst, if he fails, at least fails while daring greatly, so that his place shall never be with those timid souls who know neither victory, nor defeat."*

*Theodore Roosevelt*





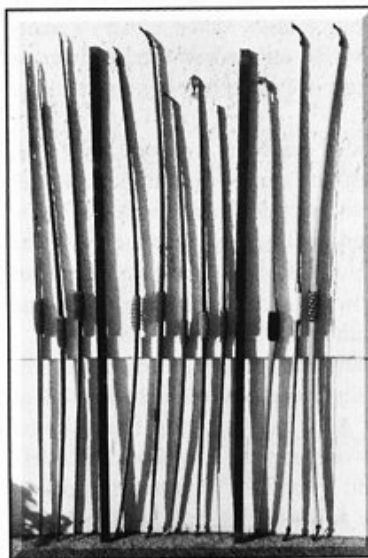


## Letters to the Editor:

### "PERRY REFLEX: PRINCES REFLEX?"

Dear Editor:

Dan Perry's recent article on reflex bows in the *Instinctive Archer* begs a response, as to the origin of the "new design." Certainly its nothing new and has been used for centuries across Europe and no doubt elsewhere. A brief root through my motley collection of longbows, both intact and broken, brought ten examples together of 18th, 19th, & 20th century "Perry reflex" bows, that were worth photographing. These examples clearly show the "tillered in reflex," but alas my prowess as a photographer leaves much to be desired and the ensuing photograph with shadows isn't worthy of publication. Though I'll talk of the larger number of examples (from left to right, with black straight-edges shown to illustrate reflex) to better supplement the point of view.



Firstly it must be understood that when the examples of broken or repaired bows is used, the amount of reflex given is a calculated measurement of where the reflex should be were the bows complete. Some back a few inches off the tips and others have been poorly repaired.

(1) A bow by Fergie, Bowmaker to the Royal Company of Archers (R.C.A.) made about 1900, composed of Hickory, Purpleheart, and Lancewood, shows 1-1/4" of reflex.

(2) Bow by Fergie senior, R.C.A. made about 1880, of Hickory-backed Ruby, with 1-1/2" of reflex.

(3) Bow by LAW, R.C.A. bowyer, made about 1920, of Hickory-backed Pheasant shows 1-3/4" reflex.

(4) My most-reflexed example, a bow again by LAW of backed Beefwood, with a full 3" of reflex. This bow is very similar to the design of the heavy-reflexed Belgian bows, also in Beefwood, which seems to be a favorite wood with them. It's quite common for these Continental bows to take apart in the handle, in a huge metal tube and always severely reflexed in a design that dates back to the last century at least.

(5) Bow by Ainsworth of Walton Preston, my local bowyer who worked just 16 miles away from me, but 170 years ago! This gent's bow in Hickory, Fustic, & Yew shows a characteristic of the period in its 2-1/4" reflex. It seems that the more usual bow, during the great British revival of archery in the late 18th century, was a backed and reflex bow of 68" to 70" to draw a 27" arrow. This design was popular into Victorian times, when apparently men grew longer arms and 28" became the standard arrow length and bows a little longer!

(6) Another Ainsworth bow in a ladies design of Hickory, Fustic, and Lancewood still with 2-1/4" of reflex. I was given these two Ainsworth bows as a pair and perhaps they were man and wife's bows all those years ago!

(7) A bow by Purie of London of mid-19th century in Hickory-backed Wenge. This at a time when just about every tropical hardwood was tried as a belly timber. A fact even mentioned by Roberts in his "English Bowmen" in 1801, when he says that these backed and reflexed bows were preferred and superior to Yew! This Purie example still holds 1-1/4" of reflex.

(8) An ancient Scottish bow by one of the Muir family from the late 18th century. Alas this bow that once was a very fine and expensive example of the bowyers art is now in a sad state. It is of backed Snakewood with a fine red velvet and silver-brade grip. It had a 2" reflex when complete.

(9) I also list a longbow of my own construction in 1964, of Maple-backed Degame that holds 2" of reflex in this string-following wood.

(10) Again one of my bows, a triple-laminated hardwood, that only followed the string 1/2" from its original shape when glued up!

(11) Lastly a bit of a failure, though one of the most beautiful bows I've made. This bow in Tonkinbane backed Yew was given 2" of reflex on being glued up and yet has 2" of follow. Though it tends to stack a bit at 70 lbs, it has shot well over 300 yards in flight!

Worthy of note is that all bows mentioned are reflexed, in that the limbs "curve backwards." I have other such examples and likewise similar old bows that are now "set back" in the handle (the limbs are straight, but point back rather than curve back from the center). I believe that these hard-used old heroes were once reflexed bows that have had the shape pulled out of them! Worthy of further note is that all of the above bows are of the accepted "English Longbow" design, where the cross-section is both narrow and thick.

And, in closing, surely those wonderful bows produced in the United States in the 1930/1940s, in all manner of timber and experimentation, used the basic reflex principle, so that when plastics & fiberglass came along these "former" glued bows held their designed shape, giving us the modern recurve bows that will send an arrow over 1300 yards!!!!

Very sorry for the scrawl, but its unique! And the points raised are worthy of note in archery's golden history.

P.S. Perhaps the finest representation of a longbow is that painted by John Russell, ARA (1744-1806), in his portrait of The Prince of Wales, later to become King George IV. The portrait hangs in Buckingham Palace and is finely reproduced as the frontispiece to E. G. Heath's *The Grey Goose Wing*, 1971. In this illustration the bow is almost 9" long and is obviously painstakingly reproduced by the artist, to be an exact detailed copy of an actual weapon. The bow is "backed" and guess what? It shows a full 2" Perry Reflex. Maybe

COVER PHOTO: North American Chapter of the British Longbow Society, taken by Jonathan Hanson.

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we should now call this old design the Prince's Reflex! After all, he did give us our target colours of gold, red, blue, black, and white, which are known as "The Prince's Colours." With this he also gave us the scoring values of 9, 7, 5, 3, 1, which are known as "The Prince's Reckoning."

Roy King, Bowyer to the Mary Rose Trust

Dear Editor,

I have read each issue of IA throughout, and it has given me much pleasure. Well done! However, the features on bowhunting have given me much sadness. Why? Because I live in England where bowhunting is a most simple affair—there isn't any. After at least 5,000 years of bowhunting here, the practice was outlawed in 1981. Why? Because bowhunters had no one representing them in the English Parliament. Bowhunters of the "free world," be warned!...

I personally have never hunted with a bow and arrow, but I enjoy a steak and wear leather shoes. So I have to keep my arrows quivered in the bowhunting debate. Nevertheless, I think legislating against a natural way of life is appalling. Let's face it, an activity taking place over such an immense period of time invariably means the activity has been programmed into the human genes. Thus bowhunting can be classified as a natural way of life; almost like breathing, eating, and reproducing. Besides, mankind was designed to hunt; else we would only need one eye and one ear.

Using transport as an analogy, the design of homo sapiens is as the modern racing car—it can be used to deliver the morning newspapers, but will soon seize up in the doing. With all best wishes to IA and its readers, Yours sincerely

John Durnford, U.K.

Dear Sirs:

I enjoy your magazine and look forward to receiving each issue. I especially like the hunting articles by "regular people," articles on medieval archery, and Gary Sentman's feature "The Competitive Edge." I would be interested in articles on Native America bows and hunting. Keep producing a quality magazine.

Dennis Hardwick, Simsonville, SC

Dear Sir,

We somehow got the first copy of your magazine and loved it. I am ordering a subscription for my husband (Herb) and myself as well as one for two of our friends as Christmas gifts. I really enjoyed your article on Howard Hill. I won a Howard Hill Big Five longbow at the PBS Banquet a few years ago. I have given up the compound and now I hunt with a recurve (an Old Lord Mercury) and I compete at shoots with that or my Howard Hill. I love it all! My husband just shot his first deer with a perfect bow and bare fingers. I watched from my tree stand. It was just perfect. The deer walked less than 30 yards and died within 30 seconds. I'm enclosing a picture.

Linda Henderson, Ingleside, IL

Howdy Rik,

Great magazine, nice to see all the articles on primitive bows and arrow making! Bravo to George D. Stout for capturing the essence of "roving" in his article *There's a Lot More To It*, page 35 of your winter issue. I've often wondered if other archers experience the level of excitement and fascination we find here on those week-end roving adventures.

I live on the high plains of Wyoming where there are many desolate places to stalk the elusive sage turkey, Juniper bear, and the wily prairie python! Yes, we occasionally bring home a cottontail or two, but like you said George, there's more to it.

My "primitive companion" is also an expert at bird identification, so we too are frequently guided by our feathered friends. Our Townsend's Solitaire has an equally mysterious song as the

Wood Thrush, and prefers the solitude of high juniper ridges or thick lodge-pole forests. Not long ago I was fortunate enough to come face-to-face with a fine Saw-whet Owl; we held each other's gaze at ten yards for what seemed an eternity, then he vanished without a sound. I didn't bring home any rabbits this day, but the memory of the Saw-whet is etched in my mind forever.

Occasionally we also make those amazing shots George, and an equal number of blunders that you alluded to. At those time my companion uses one of Saxton's quotes: "a bit off in form," and we move on to the next redeeming mark. There's little if any competition or frustration involved in these excursions, it's the simple pleasure of archery in its raw form.

George, drop me a line if you ever want to chase prairie pythons!

Bud Byrd, 4361 Valley Rd., Casper, WY 82604

Good job on the magazine, very pleased I subscribed. This past July I signed up while at the Eastern Traditional Archery Rendezvous at Denton Hills, PA. I had planned to just leaf through an issue setting at your table, you however were willing to give me a few minutes of your time and I appreciate that. I explained what I felt was missing from other archery magazines and how I often felt they were not directed at me. You seemed to understand what I meant and asked to give yours a try, keep up the good work. I hope you enjoyed your visit East and plan on returning, it would be nice to visit again.

The last day of the Rendezvous most people leave by noon, my shooting buddy Mark and I were still loading the truck at three, just hating to call it quits. I noticed while packing that you walked by with your longbow and another shooter; that made me smile, that after working your table all weekend you still needed to shoot. Just don't forget about the guys like me. Between job, kids, home fix-up, and whatever else, our time and money is often little and precious. I'm not complaining, just explaining because that's life and I'm well blessed. Please keep us in mind as this grows. **I figure a bow to shoot, a caring family, and good health are what really matters, the rest are just things to deal with in life.** Good Luck,

Nick Sernik, Greenville, PA

Dear Nick,

*I couldn't agree with you more, and I'll bet most of our readers agree whole-heartedly with your last statement about a good bow, family and health! I'm pleased that you enjoy the unique format of Instinctive Archer™. We created it to fill a growing void in the archery world, because average archers like you and me, and the things that are important to us as archers and people, were being ignored by the publishing industry, pushed aside by an apparent lack of interest in the non-hunting aspects of our sport. But as George Stout so eloquently stated in our last issue, and as Mr. Byrd referenced in the previous letter, "There's a lot more to it." And we plan on bringing "a lot more" to you in each and every issue. Stay Tuned!*

*P.S. Don't worry about us forgetting about the guys like you: Hugh, Bob, and I are just plain old folks who love to shoot bows and talk archery. We're more interested in having fun than building our egos up. Besides, with three llamas, four farm cats, a beagle, a fox terrier, and a strong-willed, red-haired wife, I won't have much of a chance to grow a big head.*

*—Looking forward to seeing you again at Denton Hills this year! This time maybe we can shoot a round or two.*

Rik

Rik:

I picked up the premier issue of your magazine at Northwest Archery when we were in Seattle on vacation. I really enjoyed it and immediately subscribed. This is an excellent magazine with a great flavor for the world of archery, which is an aspect not found in other traditional publications. The history of archery is a subject that deserves a great deal of attention to help fellow archers understand the true roots of our great sport.

Thank you very much. Keep up the GREAT work.

Gregg Coffey, Fenton, MI



# Chief AJ Sets New World Record!

By  
Jim Dickson

"One moccasin in the  
past—and one in the  
present. . ."

On September 25, 1996 a heavily-muscled Menominee Indian Chief began drawing the bow and shooting standard 12-inch aerial targets out of the air. Sage smudge sticks burned as Songanhoya (Spotted Eagle) the Tribal Medicine Man beat "The Heart Beat of the People" on the Great White Buffalo Drum. For four days the Chief would fire relentlessly at the flying discs in a feat that is as much an athletic record as a marksmanship record. Over four days the cumulative drawing of the bow reached 155,580 pounds or 80 tons of lifting. The Chief's arms grew one inch, while his waist shrank 2 inches under this ordeal. Shooting through the wall of pain that stops lesser men, the Chief labored on through wind and rain in temperatures that never got above 65 degrees. **A total of 5,186 arrows were launched, hitting 5,086 flying targets.** A 98.1% hit rate with 1,784 bullseyes for a 35% bullseye hit rate. The total shooting time was 21 hours of continuous firing averaging one arrow every 15 seconds, or four arrows a minute. The first shooting day lasted six hours and saw the Chief hit 1,554 out of 1,602 targets with 436 bullseyes. That's a 97.1% hit rate and a 27.2% bullseye rate.

Day number two dawned cold, windy, and rainy. The Chief shot for 5 1/2 hours hitting 1,194 out of 1,202 targets with 489 bullseyes for a 99% hit rate and a 33% bullseye rate shooting under the worst conditions possible.

It got even worse on the third day, with the wind and the rain turning the targets off course in the air. Anyone else would have waited for fair weather, but the Chief kept shooting, hitting 1,219 targets out of 1,237 for a 98.5% hit rate in five hours of shooting, with 496 bullseyes for a 40.6% bullseye rate.



Chief AJ's training for the world record began long before the actual event. This photo shows him practicing three months before he shot his first arrow at the record book. His world-famous skills as a rifle marksman served him well in establishing the archery record (he hit 40,060 flying targets [small wooden blocks] with a .22 rifle in 1987, without a single miss!)

The weather improved somewhat on the fourth day, being partly sunny and windy. In 4 1/2 hours of shooting, Chief AJ hit 1,065 targets out of 1,085 targets for a 98.1% hit rate with 377 bullseyes for a 35.3 bullseye rate.



Medicine Man Songanhoya (left) and Chief AJ pose for a photo during "The Big Shoot." Songanhoya's bear-hide headdress and the bear claws on his choker are from a black bear the Chief took on Alaska's Prince of Whales Island.

To fully appreciate the Chief's accomplishments, one must realize that the flight time of the aerial archery targets is 9/10ths of one second. Chief AJ had less than a second to see the target, draw the bow, track the flying target, release the arrow, and hit the target. His fastest hit was 18/100ths of a second, and the average speed of the hits was 46/100ths of a second. That is less than half a second per shot for 5,186 shots!

There were five identical bows used for this feat. These were 30-pound, 60-inch take down PSE Heritage Series recurves, with the Chief AJ logo in the



bow. The handles were laminated wood, mostly walnut, and the limbs were laminated wood and fiberglass. The strung bows weigh only two pounds one ounce, which is important in all-day shooting. The 55-inch bow strings last well. During the four-day shoot the Chief wore the serving off two strings. These were later repaired and remain in use. Although the bows had provisions for a sight, stabilizers, bow quiver etc., the Chief shot them bare bow, by instinct. Chief AJ says *"These recurve bows have so much life in them. I can push the limit into what I want to do. I find this so forgiving when I shoot 46/100ths of a second at moving targets."*

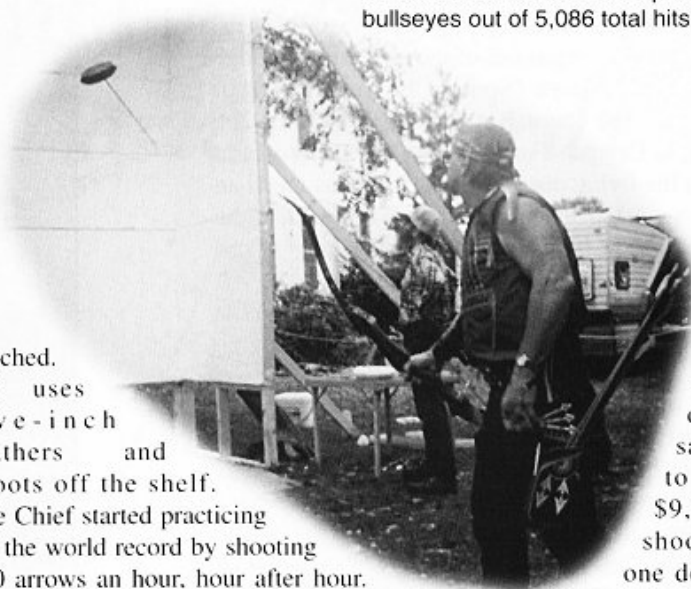
The arrows were Easton Superflight XX75, 2013s. The Chief found he got more bullseyes with right wing, helical fletched arrows than with straight

fletched. He uses five-inch feathers and shoots off the shelf. The Chief started practicing for the world record by shooting 350 arrows an hour, hour after hour. Some of the arrows lasted for hundreds of shots, going through four or five nocks.

Shooting aerial targets is rough on arrows. The Chief started the first day of the World Record shoot with 121 arrows, and was down to eight arrows on day two when 25 more arrived, followed by 200 at the end of the day. By the end of the fourth day 235 arrows had bitten the dust by breaking or bending when they came down stuck in the target. The points were a true-pointed field point for small game. These stuck well, did not bounce out, and could be easily removed.

Targets were Rainbow Archery standard aerial archery disks of 2 1/4 inch thick foam with tapered edges for aerodynamic flight. The 3 3/4 inch center bullseye knock out-area was modified to take a souvenir bullseye replacement disk. These were

Just one of the chief's phenomenal 1,784 bullseyes out of 5,086 total hits in four days.



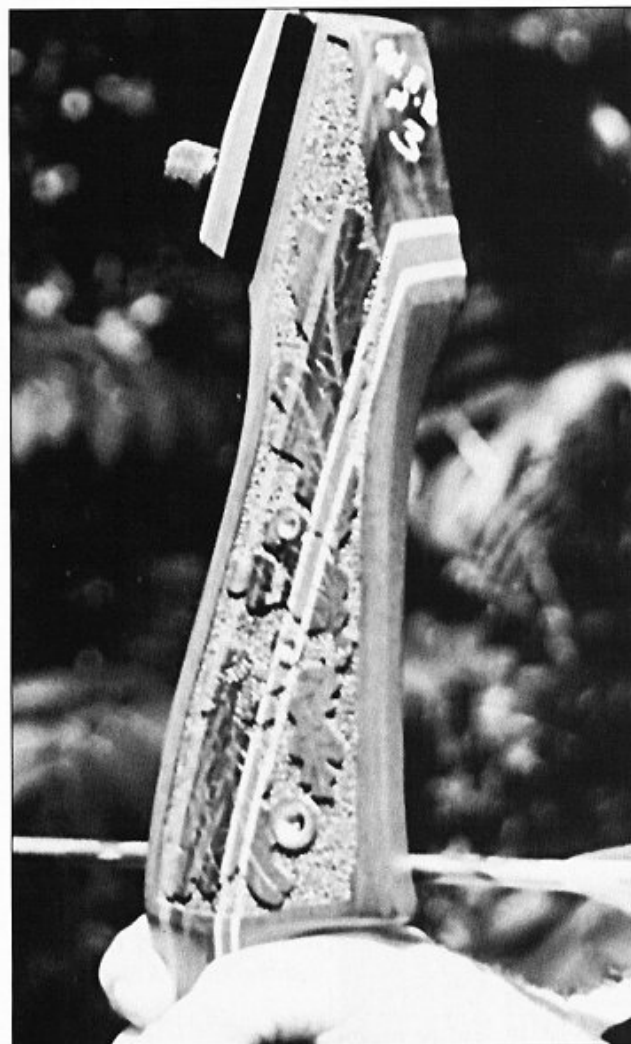
removed after each bullseye and the bullseye disks set aside for sale as souvenirs to help cover the \$9,000 cost of the shoot. A disk cost one dollar and a self-

addressed, stamped envelope (SASE). \$2 and a SASE gets you an autographed Chief AJ World Record Shoot Bullseye. These are available from Kirt Feller at Rainbow Archery, N 8997 York Center Road, Blanchardville, WI 53516 (Phone 608-523-4014).

The Chief's quiver was a 30-year-old Fred Bear leather belt quiver that was hand painted and decorated by the Menominee Tribal Medicine Man, Songanhoya, with Indian symbols for the Christian Trinity, Ever Watching Eye of God, and the stylized name of Chief AJ.

A safe backstop from which the arrows could be recovered was a must. After three months of R&D, a portable backstop was devised of 12-inch wafer-board covered with two-inch glued-on styrofoam insulation which held the arrows, regardless of the angle that they struck. These sections were made up into two-by-eight-foot panels and two-by-four panels and bolted to a two-by-four frame to form an "L" shape, with the long arm eight-feet long and the short arm four-feet long. The height was 14 feet with a four-by-eight roof of the same material. It took four days to build, fits in the back of a covered pickup, and takes one day to assemble. This is important, as the Chief "Runs the record up" at other shoot sites.

Once the safe containment was erected the Chief fired for the record at a point 20 feet away from the backstop. The hand-thrown 12-inch targets flew



Close-up of "World-Record Bow #3, showing the engraved oak-leaf pattern on Chief AJ's left-handed "Signature Bow." All bows used for the shoot were **PSE Heritage Series** recurves with laminated walnut risers.

between 12 and 14 feet high and the distance from Chief AJ to the flying target was About 22 feet. The 28-inch arrow velocity was 135 feet per second.

After firing, the arrows had to be recovered from a ceiling 14 feet high and walls from 10 feet up. The jaws of a 20-foot tree pruner were altered and padded to grip the arrows without damaging the shafts. Often the arrow nailed the target to the wall or ceiling and the puller had to pull them both down.

Chief AJ was sponsored in this Herculean endeavor by P.S.E. Bows (Precision Shooting Equipment) and Easton Arrows.

So much for the history and technical details of a shoot that broke the previous world record after the first 500 shots! For a more personal look at the man and his record, I submit an interview the Tribe had with the Chief afterward.

## THE FOLLOWING INTERVIEW WAS THE RESULT OF A JOINT TRIBAL EFFORT.

**Chief AJ, "What style do you shoot?"**

The way my uncle taught me by example 50 years ago.

**Please explain!**

I separated the string and the bow, drawing with both hands at the same time. In moving target archery, the bow hand is tracking the target in the draw motion.

**Why do you hold the bow and arrow up towards the sky? Most archers hold the bow down and cross draw.**

Here in the aerial shoot I hold where the target is going to appear. If I were after rabbits, I would hold the bow down.

**Chief, I have timed you from a nocked arrow to hitting the flying target 22 feet away in 18/100ths of a second. How do you get this speed along with hits in the bullseye?**

I do not "HOLD." Getting ready for this moving target record, I made it a rule never to hold at anchor. As soon as my string hand hits anchor I release, with the bow hand tracking the target. You hit a moving target with a moving bow.

**But, Chief AJ, you are only using a 30# bow for this shoot. Can you shoot that way with a hunting bow?**

Yes. My hunting bow is a Heritage Series PSE, Chief Aj, #55; a 69" longbow. I shoot it the "Indian Way."

**Why are you not using the longbow for this shoot?**

Because my longbow puts an arrow clear through the flying target and the 1/2" board backstop. These PSE recurves have so much "life" in them I can make the recurve sing.

**What do you mean you can make a recurve sing?**

I like the stiffness of a longbow and precise way they



Corinne (AJ's granddaughter) selecting a souvenir arrow at the shoot site.

cast an arrow, but a recurve responds so quickly that I can push a bow for maximum speed. I can put an arrow into a fleeting target before a cam on a compound bow can turn over. I do get to hunt in Alaska a lot, and there I prefer the rugged, surefire longbow for big game.

**Chief, in 4 days you fired 5,186 arrows. How did you hold up physically?**

I had ups and downs on the right side of my body. I super-tense my right bow arm while shooting and over compensate. My left arm will draw off my bow arm if I do not have exact control, and this overtension makes for a sore, aching deltoid. But I have trained and competed in two Mr. America contests. After the 4 days of shooting both of my arms gained an inch, and my waist went down 2 1/2 inches. My body weight stayed the same.

**Tell me more about instinctive shooting. How mystic do you want me to go?**

**All the way.**

Back in 1987 I set a Rifle Instinctive Shooting record of 40,060 aerial sure hits in 8 days of shooting.



Even the television news crew got into the act. The Chief watches as NBC anchor-person Jennifer Mitchell tries out a 60-year old tribal bow.



***What does that have to do with archery?***

Plenty. The morning of the 4th day, 10 years ago, I hit a "wall of pain." I laid on the ground at the shoot site deep in the Ozark Hills at Lost Valley Lake and just hurt all over. The shoot sponsors tried to get me up and shooting, but I was filled with pain, self-pity, boredom, fatigue, and dizziness. Finally Nancy, the PR lady for the resort, looked down at me and asked if I hurt like when she had her 3 sons. I got up and shot through the "wall of pain."

***What happened then?***

In 20 minutes the pain was gone. I was hitting wooden-block flying targets out of the air plumb center, floating in and out of my body. I could actually hover over myself and watch my shooting form. Then is when my third eye opened to the light.

***Ut-au, Chief AJ. What is this third eye stuff?***

You asked for it all the way — Indian Mystic, IM archery.

***Could you explain shooting with the third eye.***

After 10 years, 2,500,000 rifle instinct shots, and now 5,186 arrows in 4 days, I will try. Sit down, shut your eyes, calm down, breathe deep, push the air down into your gut, hold, and then force out several times, and let your breathing just take care of itself. Now you can see and feel an extra dark spot floating in your head, kind of high between your closed eyes. We all have a dark spot, but since that experience of shooting through the "wall of pain," mine has been replaced with light. This third eye is called other terms by different races of people.

***Name some.***

Cat vision, spiritual awareness, back part of the brain, or primitive brain function.

***What does this "third eye" do for your shooting?***

For the past 10 years I have conducted a rifle training camp and taught hundreds of clients to hit clay-trap birds with a single rifle ball. I shoot along with the people. Many times I have been able to zoom in on flying targets like the zoom

lens of a video camcorder. The little standard clay at 50 yards, flying 55 mph away, appears in my head as a basketball, and I break it with a single rifle shot.

***Did this happen to you during the 4-day archery shoot?***

In a different way.

***Come on, Chief. How?***

The flying archery target was timed by a stop watch to be airborne only 9/10 of a second. In other words, in less than one second the targets were back to the ground. Before the shoot I was shooting moving targets, sometimes 350 arrows and targets an hour. Two days before the shoot the back or primitive part of the brain opened and light came in making the targets fly in extended time to me.

***Hey Chief, you are way out now!***

I Suggest that you shoot at 5,000 targets in 4 days with a bow and arrow, and I guarantee you will not be the same. Things will happen.

***What happened to you after the 5,186 archery shots?***

I sure have a lot of confidence every time I just touch a bow now. The balance between my left and right arms has evened out, and my smooth coordination has improved.

***Hey Chief AJ. What's next?***

I have been asked to run the score up on several Indian reservations. So I hope to take my big flying target backstop and go on the road.

***How do you feel about your accomplishment of all those targets?***

I did lose myself in this Moving Target event, I was into just pure archery the way it has been shot for thousands of years, bare bow and willing the arrow into the target. Dr. Lowell Thill of the Christian Bowhunters of America was there at my side helping me keep my bow arm straight. Songanhoya was keeping me in touch with my Ancestral Archers by beating out the "HEART-BEAT of the PEOPLE" on the skin drum. I did connect beyond just shooting arrow after arrow for I had one moccasin in the past and one moccasin in the present each time I drew the bow. Now I suggest that when you approach a bow, think on this: archery is not just a sport, a hobby or a pastime. Archery is of the people and for the people, and you join the people when you bend the bow.



Crossing the Wolf River as his uncles taught him to do 50 years ago. "Shoot the precious arrows across and swim to them."



**T**hose of you who have known me, o'er these many moons, instinctively know that when I say "misses" I am talking about the bow and arrow and not the feminine gender. We constantly read stories about the bowhunter getting the nice buck, or bear, or wild pig, etc., but you really don't hear a whole lot about misses! Why? Well, because "there ain't no money in it!" And, unfortunately, that's what most hunting articles are about these days—big bucks and big dollars! Fortunately, for me, I usually come completely apart when I get within spittin' distance of big bucks (or even little bucks). So the actual thought of me hunting for money would be out of the question anyway.

Hero (?) stories are a dime a dozen anymore. That's not good! It's not good because when there is pressure to constantly perform, there's a lot of pressure to take short cuts. I don't have to mention any names, we all basically know the ones I refer to here. And the reading public has come to expect these kinds of articles for one reason or another. This was not always the case with bowhunting—the magazines of the early 1960s and before put more emphasis on quality of the hunt rather than quantity of the game. So, with me being a "sort of" expert on close misses, I thought it would be significant to write an article about such. . . if only to show how much goes into one.

You see, missing is much more complicated and difficult than it would appear at the outset. I truly believe that missing takes a lot of talent. Think about it! You have this animal, say around 150 pounds, standing thirty feet from you

in an open woods. His head is turned the other way, there is nothing between you and the animal except time. You have a vital area that you can normally hit at forty yards consistently on the practice range. So what is the outcome? You miss by nearly a foot! After that comes the profuse sweating, the knocking knees, total collapse of the neuro-nervous system, denial, then finally acceptance. Then comes the fun part—searching your memory banks for the most believable excuse you can come up with! Here are some of my best excuses (not necessarily in order):

- A. *He jumped the string!* (Yeah, Right!!)
- B. *I caught the tip of my longbow on a branch.*
- C. *I hit a twig!* (This one works better than most)
- D. *I didn't have a real good position!* (Yeah, standing solid on both feet sometimes throws-off the best bowhunter!)
- E. *The string hit the bill of my cap as I was drawing!*
- F. *There was a slight pause in my synapse at the moment of shot, possibly brought on by the solar/lunar coalescence with quasi-galactical inert matter!* (Often times they will buy that one!)

And my favorite. . .



G. *I really didn't want him anyway—you see, I knew this bigger buck was following and I didn't want to mess up my chances, and so I was a little tentative with the shot process and subsequently my subconscious said "No, Don't Shoot Him!" This, in turn, made my bow arm lunge at the moment of release and I overshot!*

These, of course, are only a few of the myriad excuses one may draw from when the moment of truth occurs. You really need to build your own mental data-base for future reference.

Now, I don't want to show-off and pretend to be an expert at missing. No, there are many out there who are just as good, or better, than I. I just want to let you know that if you work at it, you can make your misses quite memorable and enjoy them for a lifetime.

Misses are like lies! You can remember each and every one of them to the finest detail. I will take a moment or two to share with you my first three or four misses. These occurred in the first two weeks of my first year of bowhunting so they can be filed under "learning process!" We do this because when you are just new to bowhunting, you haven't built up an "excuse bank" yet for later referral. So, the learning process is given to build up that data base. This usually takes from one to four years, depending on the amount of time hunted and the amount of game missed.

My first miss, and I won't bore you with all of the details, occurred on my first "real live" whitetail bowhunt. I was perched in an apple tree, in an orchard with a billion other apple trees, and fallen apples were lying everywhere. My hosts for that first hunt led me to the tree, showed me where to sit, told me there would probably be a deer standing right about "there!" Yep, that's just how it went. "There," happened to be just about twelve steps from my stand. A spike buck came down and stood "there!" And I promptly shot over his back by nearly a foot and a half.

My first miss was accomplished, as well as the beginning of my "missing" data storage. As I recall, after the shot there seemed to be about twice as many apples laying under my tree as

when I climbed into it! Guess that was just my imagination.

My second miss occurred on Buffalo Mountain on a sunny morning in October, 1965. I had climbed to the point of the ridge by about eight in the morning and was standing beside a huge limestone rock. I heard footsteps coming from the other side, so I peeked around the boulder and came eyeball to eyeball with a four point buck. He was as surprised as I was and simply came running across, right beside me, and down over the hill about twenty yards and stopped—broad-side.

With all the cool and calm of someone being chased by a large herd of wildebeest, I pulled the arrow to cheek, picked a spot, closed my eyes and released. The arrow hit with a "TWHACK" and the buck took off. After my heartbeat calmed to 191 B.P.M., I took up the trail, mentally congratulating myself on a great shot. As I approached where the buck had stood, instead of blood on the leaves I found an arrow in the oak tree—a big oak tree! I hit a twig (refer to miss C)! Just why I didn't see that twelve-inch diameter oak "twig" is still a mystery to me. Must have happened while my eyes were closed.

My third great miss occurred about two weeks later when my father-in-law, Buck, walked-out a patch of woods near the same point of the ridge, in an effort to drive some deer to me. I positioned myself in a patch of scrub oak and grapevines and settled in for the wait. Not being one of extreme patience at that point in my life, I found my mind wandering to some former events, not necessarily related to deer or bowhunting. In my mental stupor I didn't notice the movement of the scrub oaks in front of me until what was making them move stood about twenty yards away, looking at me. It was one of the prettiest 5 x 5 whitetail deer that I had ever seen. Of course, I had never seen another 5 x 5 in the woods. Anyway, it was one of those "what do I do now" things. The buck made up my mind for me! He made a jump to the right, snorted, and ran away laughing! At least that's what his snorts sounded like. The fact that I took a running shot that only managed to land in the same acre didn't bother me as much

as the laughing. . . I'll never forgive that buck!

I must sincerely say, though, that my misses have brought me nearly as much pleasure as the hits. No, actually more! You see, because I missed, I got to hunt that much more, and that led to my becoming a better hunter. Can you imagine getting a buck on your first shot, every year? Sorry, I can't! It would certainly become a boring, blase' sport at that point. Memories are about experiences; they're about misses. They're caused by the unexpected surprises that we encounter in the woods. Memories are what we take to our grave—not deer antlers.

Memories are an integral part of the bowhunting process and I sincerely hope that mine will be overflowing when the time comes that I cannot hunt anymore. And, if you count the three misses I had just last year, those chances are good indeed!



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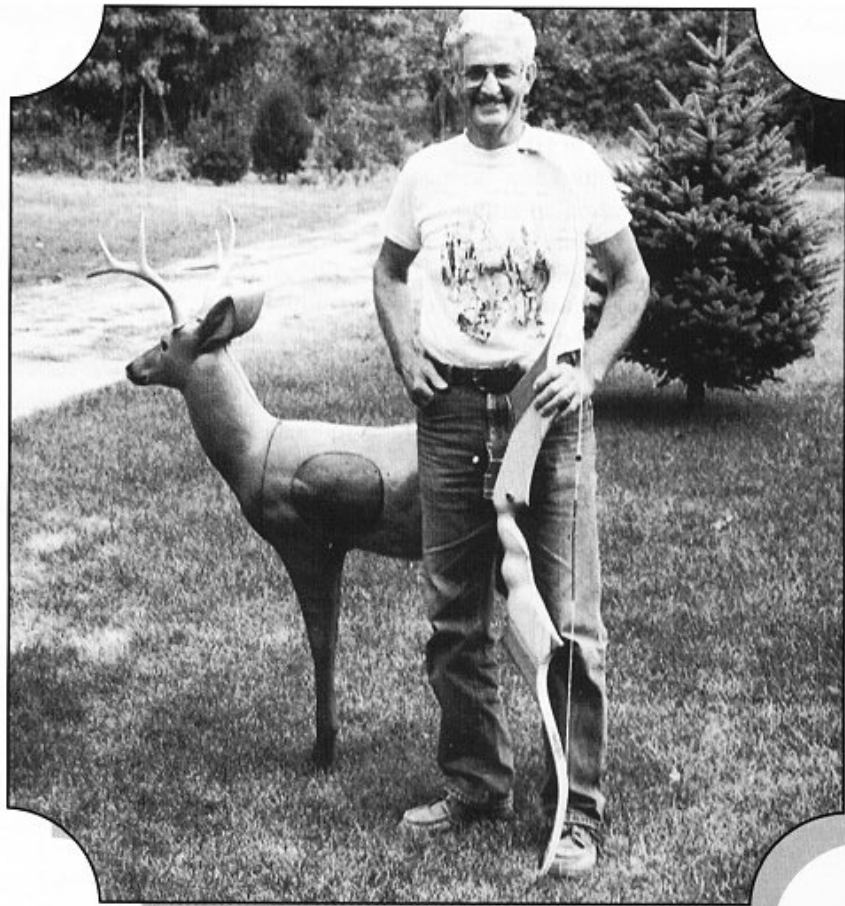
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## Dickie Roberts and the “Dickie Fireball”

by Gary Altstaetter

Some people look at a tree and see just a tree. The artist looks at the same tree and not only sees the tree, but also all the little details that make up the tree—a different shade of color; the shape of the limbs; or maybe, the texture of the bark. Then, with a talent that is given by God and polished by time, he takes brush in hand and transfers that image in his mind to canvas for all to enjoy.

Most of us shoot a bow and to us it's just a bow. We say we like the way that it shoots, but we have no idea of all the little details in the bow's design that make the shooting experience a pleasurable event. In many ways, Dickie Roberts was an artist. He spent a number of years on the tournament trail as a professional archer, and that gave him the opportunity to see and shoot a variety of bows. Because of his eye for detail, he was able to pick the best points of each bow and store them in his mind. Then, like the artist, he took all those details that were stored in his mind and painted his picture. Only his picture was not on canvas, but rather in wood and fiberglass, and it was called the Dickie “Fireball.”

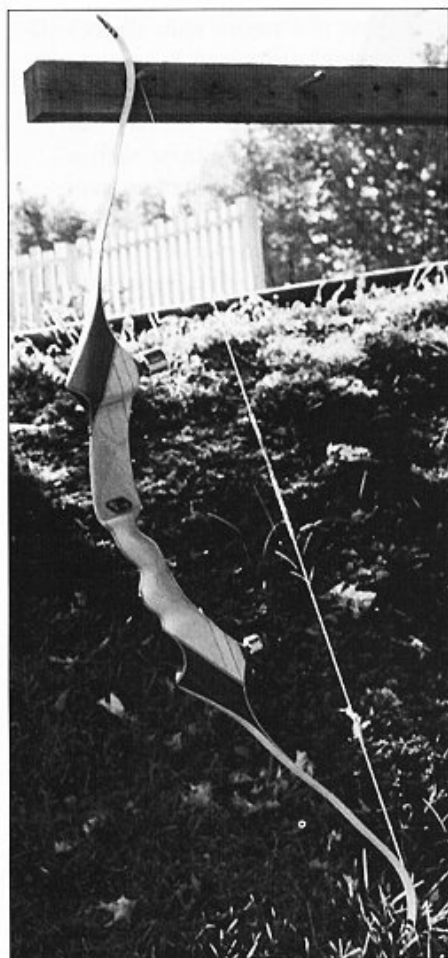
Like most of us who were brought up in the 1940s and early 1950s, Dickie started his archery career with a lemonwood bow. Until 1959, archery was just something to help fulfill his desire to hunt. Then, in 1959, the local archery club purchased a building and he now had the luxury of shoot-

ing year 'round. He shot in every tournament that he could make, and his scores just kept getting better. Because of his positive thinking and determination his scores improved to the point that he broke most of the Michigan field archery records. At one time or another he held the Michigan Field, the Indoor Flint, and Indoor PAA titles. In 1964 he finished fourth at the NFAA at Watkins Glen, New York. The following year he returned to Watkins Glen and won the NFAA; and in doing so, he set several records. In 1966, he came in second to Jugger Gervais, even though he finished in second place, he set (or should we say reset) a record in the animal round. 1967 was another banner year. He won the Flint, the Michigan Indoor Open, and the Cory, Pennsylvania Archery Festival.

With so much success in such a short period of time, you would think that his career was nothing but smooth sailing. It was not. In 1962 he was hit with a tidal wave that would have sunk his ship had it not been made of some very sturdy timber.

So far I have used two words to describe this man: “champion” and “artist.” I would like to add a third word—tenacious. In 1962, he was in a devastating accident that almost cost him his life. On that fateful night he was hauling a load of steel when his truck got a flat tire.





A Dickie Fireball.

As he was changing the tire at the side of the road, he was struck by another truck. The hospital gave his family only a 50-50 chance that he would make it. His pelvis was crushed so bad that if he did survive the doctors gave very little hope that he would ever walk again. He was sent home from the hospital after two months, still not completely healed. As Dickie described it to me, "*I was bedridden for months and my weight went down to 98 pounds.*" He probably never would have shot again had it not been for his cousin Buck Roberts (a pretty fair archer in his own right). Buck set up bales in the living room and got him started back to recovery with a 12-pound bow. Finally, he was able to go in a wheelchair. His buddies would pack him, his chair, and his gear in the car and tote him to the archery events. The kindness and generosity of his friends gave him the shove he needed, and his determination took him to the top, one arrow at a time. . .

I knew that Dickie was the 1965 NEAA Champion because I shot HIT bows and he won that title with a HIT "Black Ace." His picture graces the cover of HIT's 1966 catalog. However, I did not know he made bows until I discovered an article by Joe Higgins in the 1969 July issue of *Bow & Arrow*. There was a picture of the Dickie fireball leaning against a target. The bow really caught my eye and I made up my mind to find one for my collection. It took 2 years of looking before I located one at the Great Lakes Longbow Tournament in Britton, Michigan. It was a takedown with 2 sets of limbs—a 25-pound set and a 31-pound set. The 25-pound limbs were way too light, but to make the price of the bow a little more attractive, I told myself that I could take those limbs, make a shorter handle for them and I would have a nice little hunting bow for my grandson. He was only 4-years old at the time, but we grandpas like to plan ahead.

I shot that bow a number of times and I really liked the smooth draw and was very pleased with the speed. But it lacked weight, so it was relegated to the bow rack in my basement. I never came across another Fireball until the Great Lakes Longbow Tournament in Michigan last year. It was a gorgeous piece—all bubinga. It had only one drawback, it was a lefty. I thanked the young man for

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Old advertisement for a Black Hunter (made by Dickie Archery).

letting me take some pictures and told him I would pass because the shelf was on the wrong side.

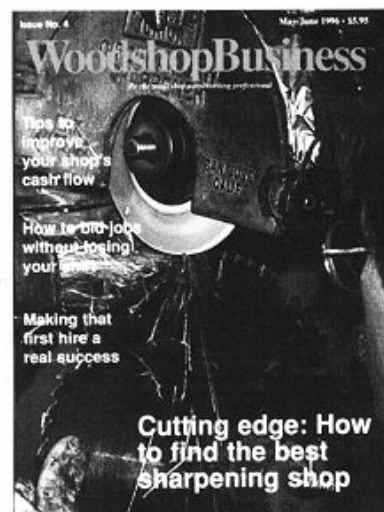
On my way home, I decided to detour a little out of my way and stop in Three Rivers, Michigan to see if Dickie Roberts still lived there. Much to my surprise he was listed in the phone book, but he was not at home. I scribbled his number on the back of a gas credit card receipt and headed home. It took several

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tries, but I finally made contact. When I told Dickie that I wanted to write an article about the Dickie Fireball, his reply was *"That was years ago, why would anyone be interested in that?"* I told him about the renewed interest in traditional archery and about all the interest in the old archery equipment. He was amazed that some old bows were bringing two to three times their original price. He agreed to an interview, so I told my better half to pack her bags, we were going to spend a weekend exploring the wine country along the shores of Lake Michigan. *"Oh yes, did I mention honey that we were going to make a slight detour through Three Rivers, Michigan?"*

Dickie and his wife Barb live in a secluded area about 5 miles north of Three Rivers. As the front door opened, I was not sure I had the right place. Every picture I had seen in the old archery magazines had him sporting a flat top and, quite frankly, I did not expect him to look as young as he did. Before I could inquire if I had the right place, he shook my hand, introduced himself, and invited me in. After we talked for a few minutes, I asked him if he would like to look at some HIT "Black Aces" that I had brought along. His eyes studied every inch of those bows. I felt that, in his mind, he was carried back thirty years to that day in Watkins Glen when he won the championship. The last bow I showed him was my Dickie takedown. I pointed out that this bow was sporting a dual power recurve, just like the HIT bows. *"You're right Gary"* was his reply. *"If you take a bow with a regular recurve and scale it for speed against the dual power recurve, it's no contest. The dual power will win every time."* He went on to explain that the Fireball was actually designed by taking the best features of five different bows that he had shot while competing.

The original fireball was made in five different models: the Fireball, the Thor, the Venus, the Apollo, and the Hunter. The only difference in the first three is length and mass weight. The Apollo is a scaled down youth model and the hunter speaks for itself.



Dickie Roberts shooting a 66" Dual Power Black Ace in 1965 (the year he set the National Field record).

His serial-numbering system is identical to HIT archery. Look at this serial number: FI-223-68, as an example. The "FI" stands for Fireball; the 223 is the sequence in which the bow was made, and the 68 stands for 1968.

Dickie archery actually had two distinct phases. In the first phase Dickie Roberts was pretty much a one-man shop, producing five to eight bows a week. Phase two started around 1970, when Dickie erected a building and started into full production with twenty-one employees. In phase two he was not only making the Fireball line of bows, he was also making bows for Anderson Archery and Robin Hood Archery. If you should happen to find a Robin Hood archery ad from the early 1970s featuring either a rover or a black hunter, these bows were produced by Dickie Archery. Dickie could not remember what

Anderson Archery called their models and I have not been able to find one of their ads showing these bows.

One thing that has impressed me on all the Fireballs that I have seen is the craftsmanship. I have seen the fourth bow that he made and I have seen one that was made about 3 years later. Both bows are identical. I asked Dickie who taught him to make bows. He said *"I never had any training from anyone. I have always had the ability to conceive an idea, put it on paper, and then make it."* The consistency from bow to bow makes them look more like they were machine made than hand-made.

The fireball was designed and built for one purpose and one purpose only—competition. The bow is very stable in the hand and it lives up to its name. The stability comes first from the grip. It is set ahead of the main plane of the limbs, and the grip is small, making it difficult to torque the bow. The mass-weight above and below the grip stabilizes the bow in a vertical plane upon release. About half the length of the bow is handle. This means that the limbs are short. Combine short limbs with a dual power recurve and it translates into speed.

Dickie made a Fireball Hunter. I have a brochure showing the hunter model, but the picture is not reproducible. The bow is 60-inches long and is basically just like the target model except the handle is a little heavier. The limb-to-handle ratio is the same as the target model, so I can only assume that it is equally as fast and stable.

Dickie Archery made a compound bow for a short period of time in the 1970s. It was a 42-inch bracketed limb model called the "Cyclone." This bow was replaced with the "Cyclone II" which was a split-limb model. They also made limbs for Proline and Dickie helped design the limbs on the early PSE compounds.

Dickie sold his archery company in 1975 to Proline and had a self-imposed exile from archery for 20 years. Last year he started to shoot again.





# A TRILOGY OF VERSE ON THE BOW, THE ARROW, AND THE ARCHER

By John Durnford

*The literary form of the verse is based upon the style of the poet Khalil Gibran, and as published in his book of verse called "The Prophet." This trilogy is an emulation (most humble) in dedication to Khalil Gibran. From his writings, I suspect that he may have shot in a bow.*

## THE PROPHET AND THE BOWYER

Then a bowyer stepped forth from the crowd and placed a newborn bow on the steps of the Temple. The bowyer looked up and said unto the Prophet, "*Speak to me of the bow which I have placed before you.*"

And the Prophet, picking up the bow, answered:

*To my shame, the Earth has girdled the Sun many times since my hands have touched the sacred bow; for every bow is sacred.*

*Yet even now, this touch returns to me the life of my youth.*

*Aye! It is the instrument which gave shield and sustenance to mankind, and from them the blessed birth of harp, paint stick, and quill. For without shield and sustenance, all of these would be but a dream. The bow is the supreme blessing; the mother of our spiritual riches.*

*But with every blessing, there is a curse.*

*Yet even now, this bow returns to me the death of my youth.*

*Aye! It is the instrument which also took shield and sustenance from mankind. The blood of ten thousand battlefields came from its speech; whole nations have been sent into the infinite by its kick.*

*So you have placed before me a blessing and a curse.*

*But truly, such are not of the bow itself; it is of you and me.*

*When you exchange this bow for your daily bread, you can but ask the Great Spirit that your bread was born of flour and water, not of flour and blood.*

*And when your eye sees your next creation in the tree, ask the Great Spirit that your axe will bite for the soul of mankind, not for its body.*

*For this bow is not of your body, it is of your soul.*

## THE PROPHET AND THE FLETCHER

Then a fletcher stepped forth from the crowd and laid a newborn arrow on the steps of the Temple. The fletcher looked up and said unto the Prophet, "*Speak to me of the arrow which I have laid before you.*"

And the Prophet, picking up the arrow, answered:

*Never will the hand of mankind fashion something which speaks more of all life.*

*Aye! It is a living thing. Fletch for air, wood for earth, and tip for fire. Yet more than these, is its flight; for that speaks of freedom.*

*A freedom that the archer can only behold and envy in the arrow's flight.*

*For all living things are slaves; it is the way of things. Even as the quivered arrow is a slave unto the archer.*

*Yet in its flight, its shadow is in distance from itself; its path is the wont of its feathers not of the archer; it partners the wind in joy, for the freedom of the wind is almighty.*

*Know then that when the mark is pricked, or the arrow is lost, it is the choosing of the arrow, not of the archer.*

*Know too that the arrow flies in anger or in peace as it also chooses.*

*Aye! Indeed your hand has made a living thing; a thing that has fed and starved children; a thing that has fed and starved nations.*

*Verily, it has ordered the destinies of nations.*

*Take this arrow to your home, place it with its sisters, and pause to think on what your hand has created.*

*And beg that they shall never wing towards you.*

*For the joy of the loosing archer is but the terror of the waiting mark; it is the arrow which orders that too.*

## THE PROPHET AND THE ARCHER

Then an archer stepped forth from the crowd and said unto the Prophet: "*Speak to me of my bow and my arrows.*"

And the Prophet answered:

*Your bow does not belong to you, neither do your arrows. For they too found great comfort in the sweetness of Mother Earth's waters; as you do now. For they too found great joy in the warmth of Mother Earth's spring; as you do now.*

*For they too have a soul; as you do now.*

*And their souls belong only to them as your soul belongs only to you.*

*Remember that when you bend the bow, it bends you also; and when you loose, it is you who follows the arrow, not the arrow who follows you.*

*Aye! The axe destroyed not their soul; the loving hand of bowyer and fletcher destroyed not their soul either, but served to strengthen it. For all things strengthen when loved.*

*The beauty of the drawn bow speaks of strength, as the beauty of the arrow's flight speaks of purpose; then strength and purpose are born from love.*

*Verily, your bow and arrows are not yours; and you are not theirs.*

*But they do not seek to possess you as you seek to possess them.*

*They ask for naught except to be with you when your path leads through field and forest, moor and mountain.*

*For they too find solace in the freshness of the scurrying wind, in the cry of the wheeling eagle, in the fragrance of the peeping flower, and in the thought of your welcoming home in the valley beyond; and like you, they too find solace in a dry bed when you return there to sleep.*

*I see not you, the bow, or the arrows. I see but one.*



# WINTER ESCAPE

by *Ted Fry*

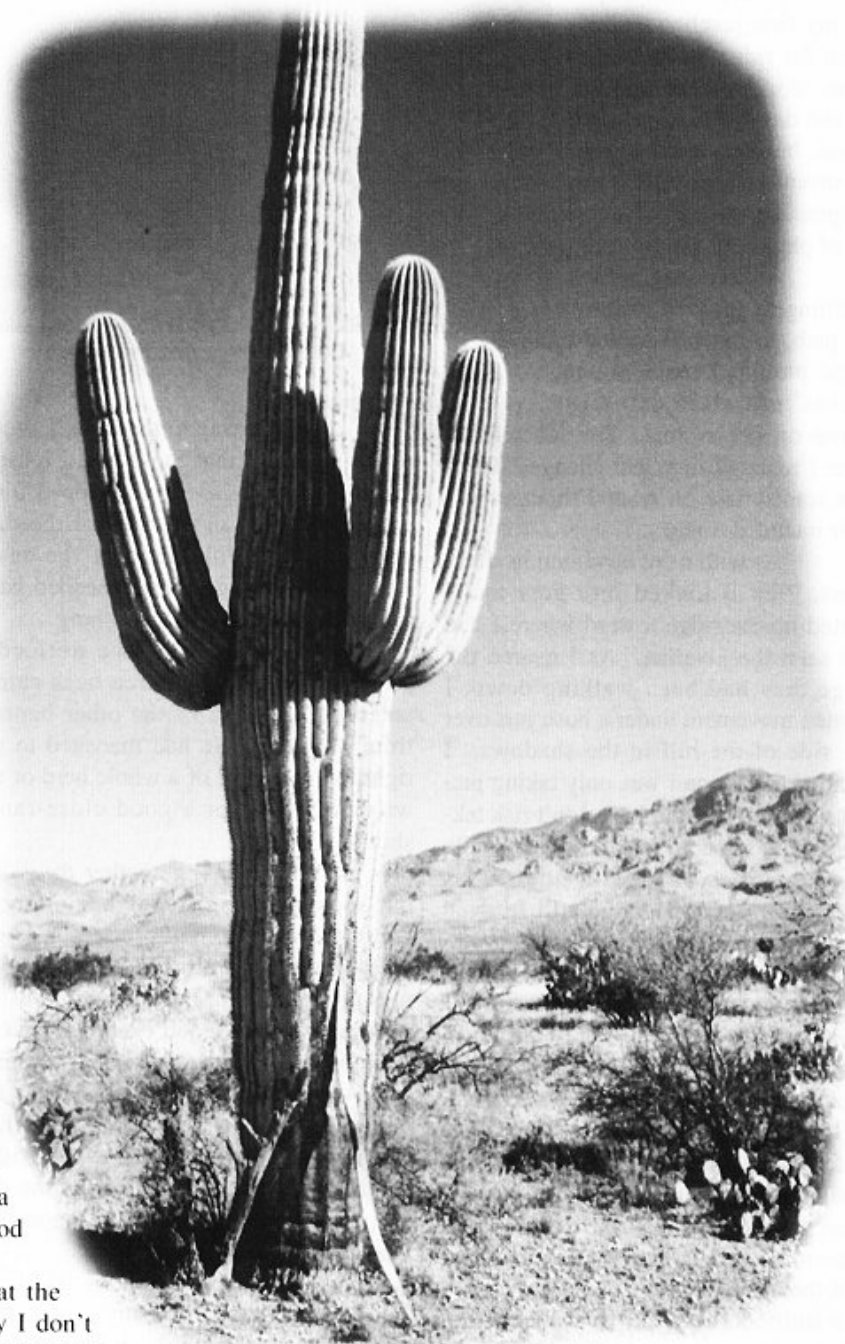
Leaving the cold and wet of the great "96 flood" in Oregon, I couldn't wait 'till touchdown in Tucson, Arizona: dry warm air, sand, rock, cactus, and glorious sun. This past winter, we've been hit by just about all that Mother Nature could throw our way: record rain, record cold, lots of snow, ice, and then major flooding. I don't know if I can take any more adverse weather conditions for one year.

Suddenly, I felt the plane change course and the excitement start to build. Just a quick detour to the car rental desk and I was on my way. My plan was to drive about one hour from Tucson to meet with some old friends in an area I had hunted in years past for javelina. Although the excuse I used to escape was javelina hunting, the truth was that I needed to walk through the desert again, to feel the intense sun on my face, to smell the dry desert air, to see another desert sunrise and sunset, and to share more good times with old friends. Isn't that what all this is about? It's hard to beat a campfire in the wild outdoors shared with good friends.

The plan was to meet my friends at the location they had marked on a map. Usually I don't like to do this, but what the heck. It's good to expand your limits once in a while. The only drawback was that they would not be arriving until late the following day and I could only get a flight in two days before the season opened. Thus, I planned to do a little acclimating before opening day.

It seemed as though I had just crawled into my sleeping bag when the sun started peeking over the hills to the east. A new day and the sound of waking birds as the sun crested the mountains illuminating secrets, mysteries, and new places to explore. Out here in the desert, there are lots of things to explore.

After enjoying a great cup of coffee and filling my water bottles (it's very important to remember plenty of water even during winter in the desert), I began my day of enjoying the desert environment.



As I left camp, I received a quick, unfriendly reminder that you don't just push the foliage aside here as you do when walking through the woods in the Pacific Northwest. Everything here has spines and barbs. After picking the offending cactus spines out of my daypack and arm, I continued on my way up one of the ridges leading toward the cliffs above camp.

I have found that the best way to locate javelina is to do a lot of glassing, a little walking and lots more glassing. I usually find them feeding down a ridge, working their way down to one of the shady draws to spend the day, but occasionally one surprises you and he's not where he's supposed to be. Thus, the extensive use of binoculars.



Sure enough, I spotted my first javelina walking down the ridge toward me. I know, don't get all excited, it's the day before the season opens, but hey, what a great opportunity for a little stalking practice and maybe a couple of photos, eh?

After doing a little shuffling to get downwind of the path, I crouched behind a large patch of prickly pear cactus and waited for the arrival of the javelina. Several minutes later, I realized they had changed direction somewhere on what I thought was their intended route.

As with most bowhunting situations, Plan B kicked into gear and I started up the ridge toward where I had last seen the javelina. As I neared the ridge they had been walking down, I spotted movement under a bush just over the side of the hill in the shadows. I decided that since I was only taking pictures and not hunting I wouldn't risk taking off my boots to make the final stalk. The memories of digging the cactus spines from my arm were still fresh in my mind.

Suddenly, the javelina all stood up and started moving in my direction. They passed within ten yards of me in single file, all fifteen of them. I was so excited that I forgot to take any photos, so I ran down the hill behind the parade to shoot a few parting photos as they raced through the cactus.

I arrived back at camp just in time to see my friends driving in and told them all about the day's excitement and helped them set up camp. That night, we were serenaded to sleep by the songs of the local coyote family. But as usual on the night before opening day, I slept restlessly.

Waking at the first sign of dawn, eager to go, we planned the day's hunt and headed out, each one of us taking separate ridge lines so that we didn't cover the same area with four hunters. After much glassing without seeing any javelina, I decided to hike to an area I had hunted several years ago near a large cave lined with pictographs. One of the other hunters wanted to see the cave, so he tagged along.



Car camping, Arizona style.

On the way to the cave, I shot a cottontail rabbit that Steve and I roasted for lunch in the cave, then napped for a couple of hours in the heat of the day, enjoying the cool shade of the cave. After our relaxing nap, we headed back toward camp, still finding nothing.

Upon arriving, we noticed a javelina hanging in a tree near camp, taken by Roy, one of the other hunters from Montana. He had managed to get right in the middle of a whole herd of the wily creatures for a good close-range shot.

After hunting another day without seeing a thing, I was beginning to question the wisdom of pre-season scouting. Maybe I had already had my opportunity for this trip, but if nothing else, I was getting some good exercise. We had planned to leave the following morning, but I wanted one more chance at the desert pigs. I rose early and hiked through the desert, back to the ridge where I had found the javelina the day before the season opened. I hoped for one last chance at getting a shot.

While cresting one of the ridges, I spooked one of the many range cows which sent it running down into the next draw. Suddenly, I heard the sound of many small hooves racing across the rocky ground. Eleven javelina were sprinting up and over the next ridge. Keeping the javelina in sight, I moved up the ridge keeping the wind in my face and moving in as close as I could until they settled back down. Javelina usually calm back down fairly rapidly and resume consuming large quantities of spiny delicacies and roots.

Putting myself in front of their route, I watched them feed up the draw in

my direction. I suddenly felt the wind blowing on the back of my neck and again had to watch the explosion of bristling fur racing down the draw below me, but to my surprise, they immediately settled back down and resumed feeding a mere hundred yards away.

I waited and watched with hunter's eyes, giving them time to relax before I started carefully side-hilling toward their new position, hoping to defeat the shifting winds.

I moved to within fifty yards with relative ease. Then I removed my boots and closed the yardage to the patch of small mesquite trees the javelina were holed up in. Then I saw movement just below me on the other side of a small clump of cholla cactus. I couldn't believe my eyes. Here was a javelina not more than twenty five yards away with a mouthful of cactus, chewing away.

I waited until the perfect shot presented itself. After a short period, the javelina turned broadside, now's my chance. I drew my bow, picked a spot behind the shoulder, released the string and watched my arrow sail harmlessly over his back. The javelina turned inside out and he and his buddies went berserk. They ran in every direction possible leaving me standing alone in the desert.

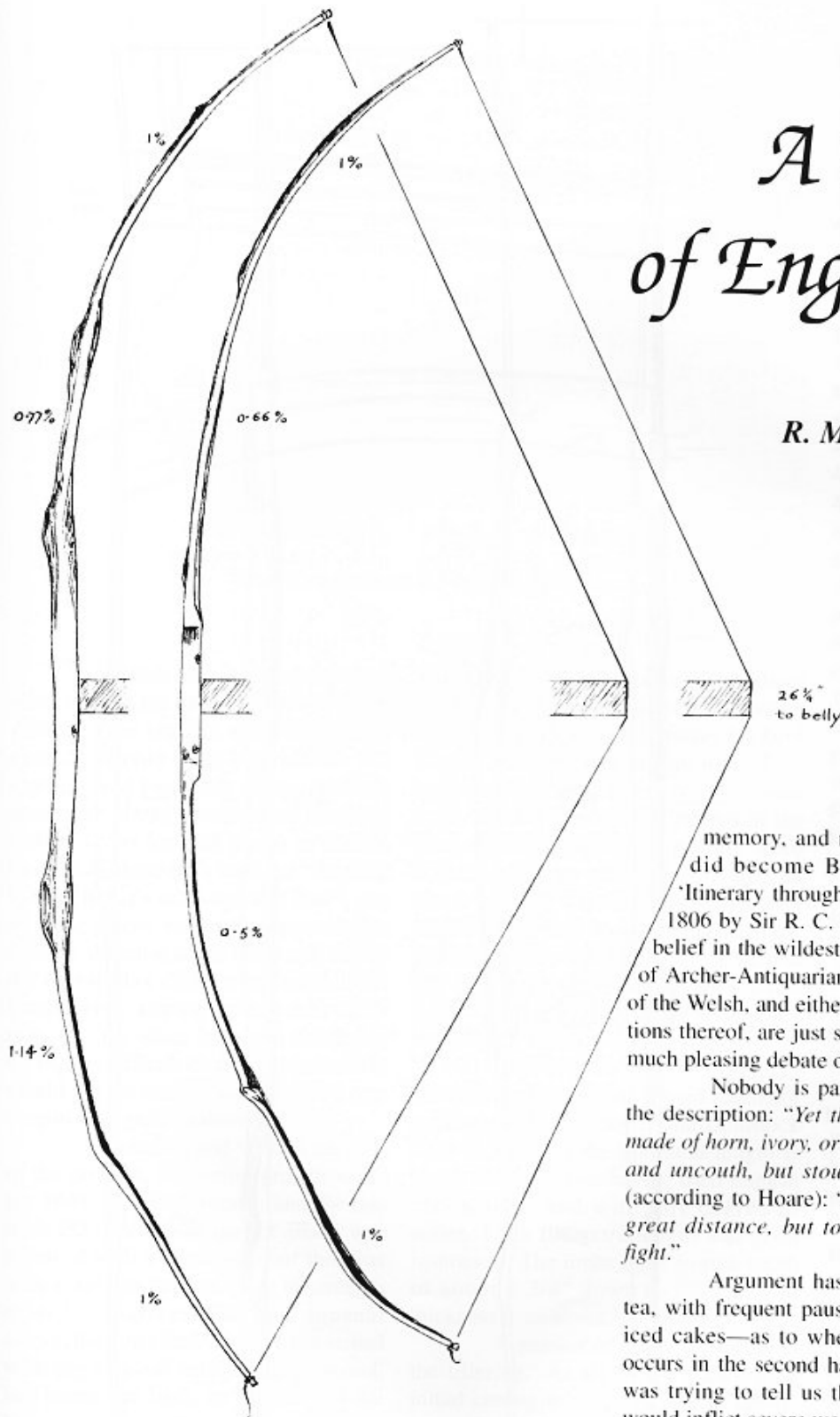
I spotted two of them crossing a ridge off to the left and commenced pursuit. As I crested the ridge, I spotted a couple more going over one of the other ridges. I turned to see if I could locate the rest of the herd only to spot my pickup ride below and I knew it was time to leave.

As I was walking back down the draw, I realized I had a pretty successful trip, I saw javelina, had fun stalking them, and even got a shot. Then I smiled to myself thinking that I had gotten to do all the fun things there are in hunting without any of the work. Plus I had a good reason to plan another escape.



# A Bow of English Elm

by  
R. Middleton



Archer-Antiquarians are amiably argumentative souls, and for many years now have been getting good value out of Giraldus Cambrensis, a handsome, opinionated, entertaining Welsh monk of the late twelfth century. Giraldus, the son of a princess, aspired to be Bishop of St. Davids and wrote several diverting books in Latin to further this end. He failed completely, but the books have ensured his immortal

memory, and nobody now cares or remembers who did become Bishop of St. Davids in 1186. His 'Itinerary through Wales' was translated into English in 1806 by Sir R. C. Hoare, and gives an image of innocent belief in the wildest medieval superstitions. To the delight of Archer-Antiquarians, at one point he describes the bows of the Welsh, and either his description, or the various translations thereof, are just sufficiently ambiguous to have afforded much pleasing debate over the years.

Nobody is particularly exercised by the first part of the description: "Yet the bows used by these people are not made of horn, ivory, or yew, but of wild elm; unpolished, rude, and uncouth, but stout;" but Giraldus then goes on to say (according to Hoare): "not calculated to shoot an arrow to a great distance, but to inflict very severe wounds in close fight."

Argument has raged—politely raged, over cups of tea, with frequent pauses for cucumber sandwiches and tiny iced cakes—as to whether the phrase "not only, but also" occurs in the second half of the sentence—whether Giraldus was trying to tell us that the bows, which everyone agrees would inflict severe wounds in a close fight, would, or wouldn't, also shoot their arrows to a great distance.

The offer of a rare, small elm tree reminded me of this description, and having experience, largely by default, in making bows "unpolished, rude, and uncouth, but stout," led

Illustration: Elm bows, 1/8 actual size, percentage strains on crown back.

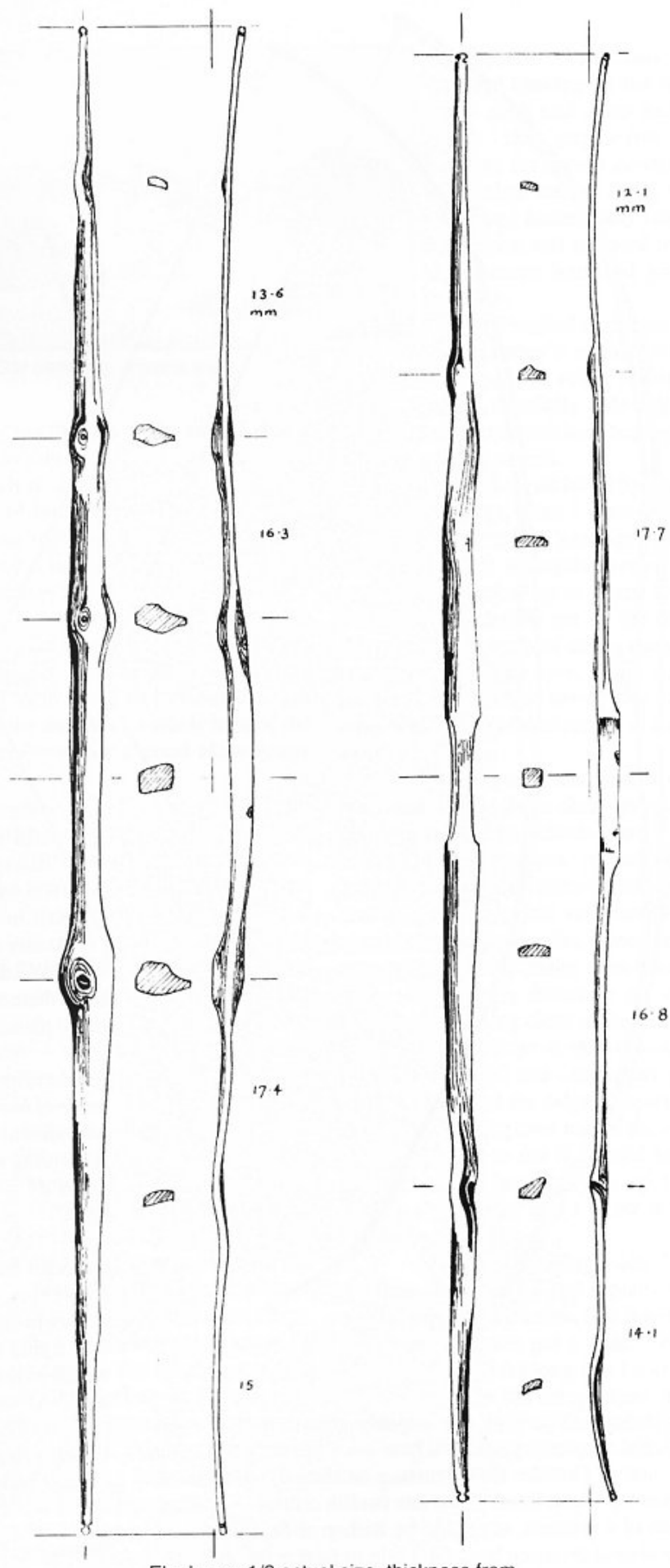


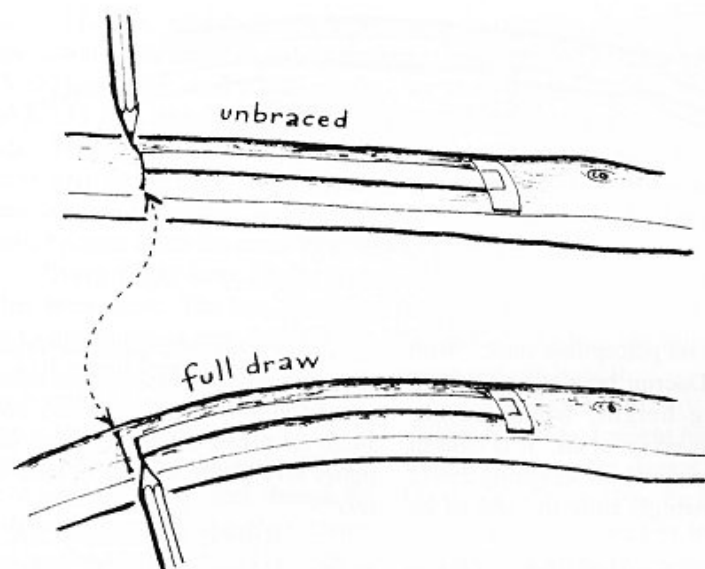
inevitably to thinking about a bow of English (unfortunately not Welsh) elm.

England, to the visitor, is a tiny country. Compact. Its total width is about the same as Pennsylvania, from Norfolk in the East, to Giraldu's tiny city of St. Davids on the western coastal tip of Wales, is about as far as Philadelphia to Pittsburgh. Our commonest tree used to be the elm—an estimated 23 million of them, and when Dutch elm disease (it doesn't come from Holland, but the scientists who first researched it, did) first hit England in the 1940s, it was little thought that it would have any more significant effect than the host of other diseases which afflict elm. But by the middle 1980s, 17 million had died, a colossal environmental tragedy. Almost all the mature elms are now gone.

What we didn't know, however, was that many of the roots survived the disease and sent up suckers. Elms always were likely to send up suckers, and were widely planted as hedgerow trees as a consequence. The young shoots seem to be protected from the disease, but unfortunately a recurrence of the attack occurs after a couple of decades: a very large number of healthy saplings are observed in urban Hertfordshire round the outskirts of London, but those that have reached a diameter of about eight inches are sadly once again dying of the disease.

When the saplings appear as clusters they grow tall and straight and without too many branches—ideal bow material. With very few large areas of woodland left in the U.K. we normally hesitate to cut any tree, but in these circumstances it is foolish to wait for them to die, and from the thinnings of a cluster of saplings, a straight-trunked example of slightly flattened section was chosen, about three inches wide and two inches thick, and cut on the 12th of August last year. It was carefully debarked there and then with a penknife to create what would become a bow-back, and some candle wax melted onto each end of the seven-foot log with a blowtorch. One side had faced an opening onto a field, and two small branches and one large had sprouted out towards the light from the trunk, but the other side a little undulating in its surface.





Measuring strain on the back of a bow.

English elm is noted by older woodworkers for its rapid rate of drying. Although the log was sawn lengthwise exactly twenty-four hours after the sapling had been cut down, enough water had already evaporated from the surface layers for both pieces to take an immediate three-inch backset. Inspired by Tim Baker's stone-age elm bow\*, one of these pieces was cut to approximate flatbow dimensions at once and left to dry over the hot summer we had in 1995. I was happy sawing, rather than splitting, the log, since seasoned elm being by repute difficult to split I reasoned it would not be unduly weakened by any longitudinal grain violations.

Unusually, and perhaps because of the drought, the spring growth wood for 1995 was black-brown, and for one limb the outermost layer of wood was removed with a drawknife but this was such a struggle that assuming its strength must be unaffected by the unusual colour, the other limb was left untouched with the original surface of the wood, just below the bark, as the back of the bow.

Formerly used by rural craftsmen for wheel-naves and chair seats and water pipes and weatherboarding and cattle-cribs and ship keels and coffins, elm is a pleasant wood to work, very hard in texture, and it takes on a good finish with sandpaper. I, of course,

availed myself of the excuse of wishing to make my bow "unpolished" to abstain from sandpaper, and it bears its tool marks with cheerful equanimity. It is quite unlike the big American elm boards from which I have made flatbows in the past, but the English importers were unable to tell me what sort of American elm it was they were selling. In fact, they helpfully did their utmost to persuade me that elm wasn't the right wood at all, and that longbows were made of yew—a fact with which, I assured them patiently, I was already familiar.

The bow is 71 3/4" long; 71" between nocks; and has a rigid handle of approximately 6." Baker and Comstock have shown that the optimum length is about 67", but never having tried English elm before, and with this degree of reflex, I felt the extra length was good insurance. The limbs taper from a width of about 1 3/4" down to 1/2", and in thickness from about 5/8" down to 3/8".

A number of difficulties arose in the tillering. As all bowyers know, the initial cutting to shape of a bow, laborious as it may be, is as nothing compared with the importance of tillering. The newly roughed-out bow is placed on a tiller—mine is bolted to the workshop wall—and the string is fitted loosely at first and given a short pull. With three inches of reflex, the bow was fairly determined not to bend, but to flip over so that the back would take the tension. This

problem was solved by attaching square "sides" to the tiller to jam the handle of the bow and stop it rotating. Once the bow bends a little, it can be seen if there are any stiff spots in the bow limb, and also if one limb is markedly stiffer than the other. Tillering is nothing more than scraping the thickness off wherever the limb is stiff.

Being of small diameter stock, I had to accept a large degree of what Comstock appropriately calls "propeller twist," and I also had to accept that the side profile of the bow was not straight. Baker suggests drawing parallel lines on the side of a bow, and tillering the lines to a desired curve. I have long abandoned my dial bendmeter because it is almost impossible to place the outer two datum pins on exactly the same place of a particular section of limb, and very slight differences in aligning the bendmeter along the limb mean that the central moving pin can be displaced not by the bending of the limb, but rather by the camber of the limb back. Drawing parallel lines on the side of a bow is never easy, and especially difficult if the sides are themselves uneven, but it is worth persevering for it allows the use of an extremely simple device to replace the bendmeter. This is a short piece of straight softwood with a 6mm hole drilled through it. A quarter-inch dowel will jam tightly in this hole, but can be tapped in or out to give a set protrusion. The ends of the softwood stick are put alongside the straight lines, and the tip of the dowel made to extend as far as the "straight" ruled lines, when the bow is bent. This makes it comparatively simple to identify which parts of limb are the stiffest, and they can progressively be scraped down.

However, the "propeller twist" to the limbs tends to disguise the fact that one edge of a limb (the edge with the parallel lines ruled on it) might be bending perfectly, whereas the other edge of the same part of limb may be either too stiff or too bendy.

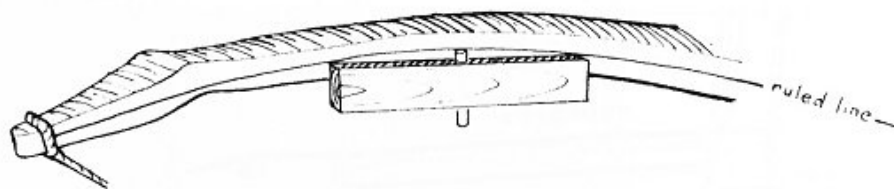
It is easy to get a crude idea of the strain of any section of a bow limb. (Stress is what you do to a bow by bend-

\**The Traditional Bowyer's Bible*, vol 1 1992, vol 2 1993, vol 3 1994, edited by Jim Hamm. The three volumes cost about as much as a wooden bow, but it's still a bargain.

ing it, strain is what the bow suffers. There's a subtle difference.) If you tape one end of a length of paper to the back of the bow before tillering starts, a mark can be made across the bow back at the free end of the stretched length of paper. Brace the finished bow, pull it to full draw, and ask some brave soul to smooth out the piece of paper along the length of the bow limb and mark again the free end. You can then measure the distance between the two marks, and compare it with the length of the taped strip of paper. I use a strip cut from an A4 sheet of paper, 297 millimeters long. If the gap between the two marks is about 3 millimeters (2.97 millimeters, to be accurate, but I can't measure that accurately) then the wood is strained by 1%. A strong wood like elm will happily accept a strain of 1%. Yew, of course, will accept higher strains than this. I have a yew bow which bends to give a 1.5% strain, the gap between the marks being 4.5 mm.

With this bow, I found that the strains of the bow-back at full draw did not match the even curvature of the ruled parallel lines. If this turns out to be a common problem in bows with twisted limbs, it suggests that the reason they have earned a bad reputation for breaking is not because a bow limb must not twist during the draw, but rather because it is exceedingly difficult to ensure that the strains of bending are evenly distributed along the limb's length. Over time, the bend of a bow-limb will be fed into any weak spot by the surrounding stiffer wood, compounding the problem. The failure of such a limb, particularly if the bow is a flatbow where chrysalis happen in a diamond pattern on the belly and do not distribute themselves along the length of the bow, as happens in a traditional, D-bellied English longbow, is only a matter of time.

Slightly whip-ended with many bends and wriggles in the grain, the curve is by no means even, and it will be interesting to see how long it survives. Two inches of reflex were lost in the tillering and a further inch during subsequent shooting, but it has quite a pleas-



A primitive bendmeter.

ant draw with no perceptible stack. With a 220-grain Dacron bowstring and a 5 3/4" bracing height, when freshly unstrung it has no set at all. It is light in density, the finished bow weighing 23 1/2 ounces, surprisingly little in view of its length.

The Society of Archer Antiquaries meets twice a year by kind permission in the half-timbered pavilion of the Royal Toxophilite Society, a few miles from Windsor Castle, and an attractive feature of the meetings for those able to attend them is the opportunity to examine, shoot, and obtain informed comment on a variety of obscure weapons, often modern reproductions, but occasionally treasured veterans.

These discussions are sometimes accompanied by graphic demonstrations by the other learned members. At one meeting I was proudly showing off an ash flatbow 68" long with a 44 pound draw weight, and an erudite, burly, and well-known officer of the Society accompanied the advice to wear some kind of protective hat with a sharp karate-chop to my forehead, he believing me to be unacquainted with what he imagined it felt like when a wooden bow broke at full draw, and kindly wishing to remedy this deficiency in my knowledge. This elm bow is far less dependable than my ash bow, and despite its historical interest, perhaps I might not exhibit it there...

The wood is horribly contorted, and the bow is exceptionally ugly, so it does call to mind the twelfth century description of the bows of Abet-gavenny. Robert Hardy provides Giraldus' Latin as: *"non formosus, non politos, immo rudes prorsus et informes, rigidos tamen et tortes... non tantum ad minus missilia mittenda, sed etiam ad graves cominus ictus percutiendo tolerandos"* and translates it: *"Yet the bows these Welshmen use are not made of horn, or ivory, or yew, but of wild elm, and not beautifully*

*formed or polished, quite the opposite; they are rough and lumpy, but stout and strong nonetheless, not only able to shoot an arrow a long way, but also to inflict very severe wounds at close quarters\*."*

Robert E. Kaiser, MA, disagrees. He quotes John E. Morris' *The Welsh Wars of Edward I*, 1901, which includes the translation Kaiser believes is incorrect: *"bows made of wild elm, unpolished, rude and uncouth, not only calculated to shoot an arrow to a great distance, but also to inflict very severe wounds in a close fight\*\*."*

At a first glance, this argument seems a little pointless as it is obvious that a bow which can inflict severe wounds at close range, will shoot an arrow further than a bow which can't.

The physics, however, are a good deal more interesting than this. Flight shooters trying "to shoot an arrow to a great distance" find that a lightweight arrow flies the farthest. We are now all familiar with the force-draw curve, which, by measuring the draw weight at every inch of draw, tells us exactly how much energy we put into pulling the string back. Taking a lightweight flight arrow we can measure its velocity with a chronograph, and knowing that the energy of the arrow is equal to half its mass multiplied by the square of the velocity, we can work out the difference between the energy used in drawing a bow, and the energy returned in the speed of the arrow. Good bows deliver somewhere around 75% of the drawing energy to the arrow, and we are familiar with saying they are 75% efficient.

As one would expect, shooting a heavier arrow, on the whole, results in a lower velocity. But, oddly enough and almost without exception, it is the heavier arrow which is more efficient. This particular elm bow shot a 295-grain

\*Robert Hardy, *Longbow* 1976 (1986) page 36.

\*\**Journal of the Society of Archer-Antiquaries*, vol 23, 1980, page 26.



arrow at 170 fps, which is 19 foot-pounds; a 400-grain arrow at 151 fps, or 20.25 foot-pounds; and a 617-grain arrow at 133 fps, which is 24.24 foot-pounds. Which shot the furthest? The lightest arrow. Which would give "severe wounds in a close fight?" The heaviest, because it has the most energy.

Every flight bow I have ever seen has been short. The late, great Dr. Elmer taught us that a bow limb half as long, will recoil back into place four times as quickly. The late, great Dr. Klopsteg taught us that Turkish bows shorter than four feet have double the range of longbows of six feet, though the English longbowman under King Henry V drew to the attention of the French at Agincourt that a certain degree of caution is judicious, even if the range of the English war arrow is a mere two or three hundred yards, and the French cavalry were all wearing plate armour.

Gad Rausing in his classic book on ancient bows, offers the additional interpretation, disputed by Hardy\*: *"The description by Giraldus Cambrensis is unambiguous—the famous Welsh bow was a flat-bow, and could not conceivably develop into a high-stacked longbow."*

The pioneering work of Paul Comstock and the confirmation of his ideas by Tim Baker have taught us that the highest velocity for a 500-grain arrow shot from a straight bow drawn 28" is likely to occur if the bow is 66 to 68" long, and at this length, elm functions well only as a flatbow. Lengthening the bow allows it to be made more narrow without straining the wood beyond its elastic limit. Alternatively, lengthening it allows a higher draw weight. Both of these preclude a faster arrow, but the second option might allow a heavy arrow to be shot at the same velocity. This, however, would result in the arrow possessing more kinetic energy, and though it would have no more range (which requires a higher velocity) it would have the ability to *"inflict very severe wounds in close fight,"* that is, at short range (which requires heavy arrows).

If, then, the Welsh elm bow was to shoot a great distance, it would have to be short, and if it was to be short, it would also have to be flat.

If, on the other hand, the Welsh elm bow was unable to shoot a long distance but able to shoot a heavy arrow with great energy, it may well have been long. We know that there is a limit to how far you can bend a piece of wood before it breaks, and that the thinner it is, the more you can bend it.

If I wanted my bow much thicker than it is, I would have to make it longer to reduce the danger of it exceeding its safe strain. This English elm bow is already almost six feet long, and it is quite thin, tapering from about 5/8" at the handle down to about 3/8" thick at the nocks. It has a perfectly-flat belly. Since the strength of a beam is proportional to the cube of the thickness, I could in theory double the stiffness by leaving the limbs about 1/8" thicker. The strain would then be around 1.26%. Yew will take that sort of strain—will elm? And, of course, I'm still left with a limb 1 3/4" wide at the handle—scarcely the formula for a narrow D-sectioned English longbow. . .

But what happened to the other half of the log, the half with the three branches. Well, bowery is rather addictive, and. . . er. . . a seven-foot length of reflexed elm is very tempting. . . even if quite a lot of wood might need to be left around the branches. . . It came out a little longer than the first because of the knots, 73 3/4" between the nocks, with the entire 20" centre section between the middle two knots left narrow but stiff, hideous to behold because of a monstrous swelling round the largest of the knots, no doubt adding to its mass, which stands at 32 ounces. It weighs 52 pounds at 28", and it too lost its reflex during tillering. With a low brace height of 4 1/4" and a light, if untraditional, Fastflight string weighing 115 grains, it shot the heavy, 617-grain arrow at 148 fps giving 30 foot-pounds. The lighter 400-grain arrow was a bit faster at 162 fps, giving however once again a reduction in efficiency, down to 23.3 foot-pounds. Curiously the lightest arrow, 295 grains, was actually slightly slower—158 fps, just 16.4 foot-pounds, which shows that it is not always true that a lighter arrow will fly fastest.

The experience of making but a couple of bows, however delightful, can certainly demonstrate what is possible, but it cannot eliminate the possibility that other designs using the same materials exist. It confirms that the elm available in this island is capable of use in making a six-foot bow, were that confirmation necessary, and that an effective weapon, if crude and lumpy, can be made from small diameter elm saplings.



#### Author's Note:

The "museum" drawings are based on careful measurements of the bows. Each bow was put on a short tittering stick and the outline marked on a large sheet of newsprint to show the bows almost at full draw. Wooden bows can take a marked set if held at full draw for long periods. The percentage strains, however, were those measured at a draw of 28 inches from the back of the handle of each bow. The twist of the limbs is exaggerated as they bend. This observation may be of value because museum specimens cannot be illustrated at full draw, and it may indicate the sorts of things we should expect of irregular museum specimens.



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\*The Bow, some notes on its origin and development, page 133.

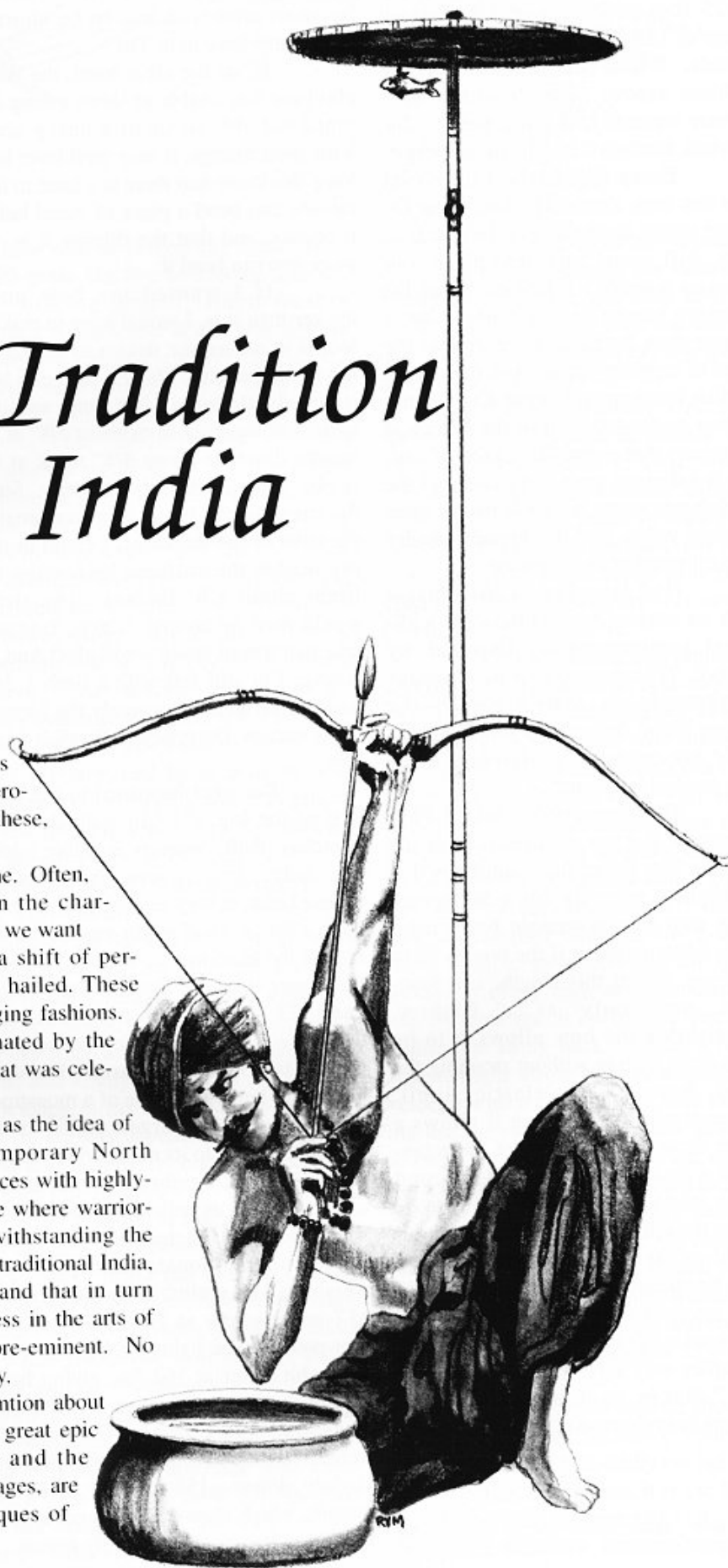
# The End of an *Archery Tradition in South India*

by K. I. Koppedrayar

**L**ike most living things, archery has many personalities. Soft and gentle, ferocious, ruthless, beautiful, ugly, cruel—these, and many other terms, can find a place in the stories of bows and arrows whispered over time. Often, the ways the stories are told depend upon the characters involved, and more importantly, on how we want to see them. Savage becomes noble with a shift of perspective; "primitive," once scorned, is now hailed. These shifts mark our changing times and our changing fashions. Today it may be the individual uncontaminated by the corruptions of civilization, but what was it that was celebrated in the past?

Warrior is one such theme, and just as the idea of warrior is highly romanticized in contemporary North America, so it was in the past, at least in places with highly-developed warrior traditions. One such place where warriorship was highly celebrated was India, notwithstanding the ideas and images we hold of India today. In traditional India, warriorship was associated with kingship, and that in turn went hand-in-hand with demonstrated prowess in the arts of warfare. Of all of these arts, archery was pre-eminent. No matter what else, a king was trained in archery.

One of the richest sources of information about archery as a royal tradition comes from the great epic tales of India. Both the *Mahabharata* and the *Ramayana*, two massive sagas of royal lineages, are filled with passages describing the techniques of



archery, and the attitudes and customs surrounding its practice. Both texts make it very clear that archery was a King's domain. Public demonstration of skill in archery was demanded of anyone who claimed the title of Raja, or King, and there were many ways in which this skill was measured.

One of the most celebrated sections of the *Mahabharata* describes how success in an archery competition secured a marriage, and through that, an alliance between two kingdoms. Set in a long and complex tale of a struggle over sovereignty, this passage highlights the characteristics necessary in a royal figure: strength, discipline, fortitude, composure, dignity, cunning, and skill as an archer. Put another way, it suggests that all the traits that make a good archer also make a good King.

Arjuna, one of the heroes of the *Mahabharata*, proves himself to be all of these and more in the competition. Disguised as a mendicant priest and mocked by the other princes in attendance because he appeared to be such an unworthy candidate, Arjuna first succeeded in stringing the bow.

This act alone brought murmurs through the crowd, as no one else could string that bow. The bow in question in this epic may well have been a composite bow, because of the emphasis placed on the difficulty of stringing it.

Then, after Arjuna strung the bow, he took aim and hit the target. No small feat here either, as the target was the eye of a glittering fish revolving on a wheel fixed on a post reaching high up into the sky. The dictates of the competition required the archer to take aim by looking at the reflection of the fish in a bowl of oil set on the ground. In one shot, Arjuna hit bull's eye (or the fish's eye in this case) and was garlanded by the daughter of the King who convened the competition. That gesture marked her acceptance of him as her husband, and her father's alliance with his royal household.

The saga doesn't end here, but goes on and on, to end in a great battle where the abilities of Arjuna and his kinsmen dominate. This story is matched by many others with the same message equating kingship and archery. And the histories of royal dynasties

whether of Hindu or Muslim families, are full of images of archery. Even much of the Hindu temple art sponsored by royal dynasties features gods and goddesses restoring righteousness to the world through the use of a bow.

Archery continued to be practiced in the Indian palaces up through the end of the nineteenth century. Portraits of Indian Kings often show them wearing a thumb ring on their right hand, in an emblematic display of their status as an archer. Hunting was likewise a royal pastime and there are records of public demonstrations and royal competitions like those described in the *Mahabharata*.

Sadly though, by the middle of this century times had changed and today this custom of archery has virtually died. There are, however, some individuals still alive who received the traditional and highly-ritualistic training in archery. In January 1995 I had an opportunity to speak with one such person, His Highness Thulajendra Raja P. Bhonsle Chatrapathy, the senior member of the royal line of Maratha Kings who once ruled in Tanjavur, in Tamilnadu, India.

With the help of Professor R. Vivekanandagopal, a scholar attached to the Tainil University of Tanjavur, I spoke with the Raja for several hours in his palace. Even at 78 he was quite a lively figure who attributed his robust health to his earlier martial discipline. Our discussion had a certain poignancy about the skill he acquired in archery some sixty years earlier, for he was the last of his line to have received traditional training. By the time he was fifteen or so, a fascination with European customs helped foster an indifference to traditional Indian sports. As the Raja put it, they cast their bows aside for tennis rackets.

#### TANJAVUR BOWS

The raja described the bows he trained with as short, recurved bows, made out of metal. He recalled a tradi-



Illustration showing the "pinch-pull" draw.

tion that the bow should be as tall as the archer, but he remembered his bows as shorter, maybe 36" when braced. A few examples of these short, metal, recurve bows are on display in the Government Museum of Madras. Both steel and brass bows were used by members of royal families in competition during the eighteenth and nineteenth centuries.

Steel bows have a long history in India, as very early texts make mention of steel bows. By the time of the Mughal period (beginning mid-1500s), steel bows that were highly decorated, sometimes with gold and silver inlay, were fixtures in royal households. Though there is evidence that steel bows were earlier used in warfare, by the end of the seventeenth century or so, they may have become weapons for royal display. Several sources maintain that the range of a steel bow was limited in comparison with the composite bows of India. However, Robert P. Elmer, in his classic work *Target Archery*, notes an advantage of a steel bow. Being of metal, it "never needed to be unstrung and so it could be kept at hand in the house as a weapon for instant defense."

The Tanjavur Raja stated he trained with a bow made out of brass, a metal that many archery aficionados whom I have since spoken with have questioned. But the King was emphatic: his bow was brass. He may have meant





Contemporary wall hanging showing Arjuna at the archery competition.  
Note that he is using a thumb ring in this depiction.

bronze, as in India, the two terms are used interchangeably.

The King described his bow as short, rounded, both in the grip and along its body, and decorated with a floral motif etched in the back. The ears of the bow were highly articulated, curling towards the back of the bow. He also drew a picture of what he called the *kalasam*, a tear-drop shaped plate projecting out from the back of the bow above the grip that served to fix the aiming point when shooting. He recalled the strength drawing the bow required of him, noting that the extent to which a bow was drawn depended upon an individual's ability. He remembered the bow string being made out of animal-(perhaps cow) gut.

The Raja said he has no idea what happened to the bows he remembers in the palace. "Simply lost" is how he put it. He did remember one bow that represented the royal line when his father held public audiences, or *darbar* as it is known in India. He had an idea that the bow might be found in a local goddess temple where it was routinely kept, as a number of royal rituals centered around the power derived from and associated with the goddess tradition.

Sivaji, the seventeenth century Marathi military leader who founded the Tanjavur royal line, is said to have received his sword from the goddess Bhavani, his line's tutelary deity. According to one account, he kept the sword on the goddess's altar when not in use; likewise the present Raja thought the bow that represented his line was kept in, and might still be found in the

goddess temple. He also noted that the Dasara celebration is still undertaken in Tanjavur, though the victory now invoked is conquest of evil rather than military success.

In addition to the consecration of royal weapons on the day of Vijayadasami, the Maratha Kings of Tanjavur demonstrated their archery skills in a pavilion in front of the goddess temple. That pavilion is called the *seemollanghan chavadi*, a name that translated to mean the site representing the imperial power, or ability to cross borders (*seema* = border; *ullanghan* = to cross; *chavadi* = building).

There in an event that echoes the scene in the *Mahabharata* that I have described above, the King would take aim and shoot at a specified object to symbolize his prowess as well as his ability to overcome any adversary, whether human or in the form of a malevolent force. The demonstration was a statement of the King's sovereignty and the extension of his protection over his domain. Likewise, because of its auspiciousness, the day of Vijayadasami was when princes were introduced to martial arts, including archery. The day marked the beginning of their formal training under an eminent guru.

#### INITIATION RITE

The present raja was initiated into archery at the age of 13, the age of puberty, with a formal ceremony. In this initiation, he was ritually bound, both to his teacher and to his bow, before he was allowed to draw it. The rite was undertaken at the proper astrological moment,

the *avittam nakshatra*, an asterism identified with Mahisa, a form of the goddess, that occurs during the Tamil month of Avani. The initiation ceremony was performed in accordance with South Indian ritual procedure; the young Prince was tied to his guru with a yellow thread fastened around his wrist as a priest chanted mantras that fortified the bond. The preceptor then handed the prince the bow he was to use during his training, whereupon he was instructed in the ritual process that followed. First he was to place flowers on the bow and arrows—in effect to invoke and honour the force of the goddess present in the weapon—and to recognize the divine presence in that bow by consecrating it with *Kumkum*, a red powder used on temple images. After anointing the bow with *Kumkum*, the Prince then worshiped that presence in the bow by drawing an oil lamp before it. This action, known as *arati*, follows the ritual practices undertaken throughout South India in both domestic and temple worship.

The effect of this act here is to consecrate the relationship between the youth and the bow, by directing attention not just to the weapon but to what is understood to be the divine force behind it. When preceded by this initiation ritual and undertaken with the proper attitude of respect and acknowledgement, the shooting of the bow is thus not only a discipline, but also an act of veneration, highly focussed and disciplined humility.

A second and equally-important effect of the initiation ritual is to acknowledge the tie between the student and the preceptor. In this rite, the acolyte is bound to his preceptor through life and death. Further, the survival of the tradition rests in this tie, for by instilling the practice of archery in his students, the preceptor keeps it alive; the cord that ties the student to the preceptor is the life-line of the tradition. Overall, the initiation rite reminds one of the complex of relationships (bow, student, teacher, training, practice, discipline, tradition, and attitude) that make up archery.

The Raja's teacher was a member of the vastad community, a community made up of "100 families" skilled in various martial arts. The relationship



between the vastad community and the royal line was hereditary; the teacher who trained the raja also trained his uncle. The hereditary relationship was marked with lands endowed by the royal household to the vastad community and was annually renewed in ceremonial presentations of gold, silver, jewels, and other ornaments. The Raja said his father was very generous and that these presentations, especially to his archery teacher, were lavish affairs. When I asked the Raja what has happened to members of the vastad community now that this traditional relationship has been abandoned, he wryly responded that they have gone off to find work in the civil service.

Every morning the archery instructors came to the palace. The Raja said he trained with his uncle's son. The palace also sponsored a school of martial arts in which about ten to fifteen students trained in archery, all of whom were in one way or another members of the royal family. I asked him if women had also received training in archery, and he said that in the past they had, but he was not sure if they had in his time. In response to that question, he showed me a painting he had done several years ago of one of his ancestors, Sujanbai Rani, a queen who ruled for one year (1736-37). In this painting the raja had depicted Sujanbai Rani seated in a palanquin holding a short, golden recurve in her left hand.

The Raja also noted that when he took up the bow, his teacher positioned him quite close to the target, perhaps six feet away. As his shooting got more proficient, his teacher kept increasing his distance from the target. When aiming, his concentration was fixed on a coin placed on a board. The raja remembered his training: establish his position, fix his aim on the coin, draw his string to the upper side of his cheek while maintaining his concentration on the target, and then release. One-pointed concentration was what he emphasized when he spoke about his training, and that he was taught to fix his aim before drawing the bow, even in shots that required him to shoot from unusual positions.

#### TECHNIQUE

The Raja spoke about a thumb ring, but said that he had not yet used one. He was taught to draw the bow by holding the arrow between the thumb and fingers and pressing down on the arrow with the thumb. He then released the arrow by lifting up his thumb. I suspect that had he continued training he would have eventually graduated to a thumb ring. He shot off the right side of his left hand, in contrast to Western-style archery which shoots off the other side of the bow. The iron arrow heads were, in his words, small and sharp. Finally, he indicated that archery exhibitions, held in the royal gardens, were highly competitive.

His Highness Thulajendra Raja P. Bhonsle Chatrapathy was the last of

his royal line to have received traditional training in archery. As we spoke, he drew upon the memory of his youth to recall what he knew of archery. Though the time of which he spoke was some sixty years earlier, there was something in the Raja's fingertips which seemed able to recall the presence of his bow. When I asked him to demonstrate his release, his movement was immediate and automatic. Perhaps archery is a dying art in India; nonetheless it is still very much alive in the memories of those who once practiced it.



#### Author's Note:

On the question of brass or bronze bows, the author's husband, Jaap Koppedrayar of YUMI Archery, is collaborating with a metalworker in Maryland to come up with a copper alloy that can sustain the stresses and compression required in a working bow.

(Illustration: Arjuna, as depicted in another episode of the *Mahabharata*.)

# How to Make an Archer's Thumb Ring Using Simple Tools

by  
Thomas Duvernay

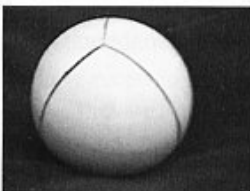
Anyone who is wishing to shoot a style of archery that uses the so-called "Mongolian Draw" needs to have a thumb ring. While most traditional thumb rings are made of horn, others are made from metal, stone, or plastic. We will work on the plastic type in this article.

The procedures in this article are somewhat simplified, so there are two basic assumptions: you have at least a basic knowledge of how to use the below-mentioned tools and you are able to extrapolate from the information given.

First, as the title states, you will need a few simple tools. These include a hack saw (or band saw), flat file, half-round file, round file, electric drill (with appropriately sized bit, depending on your thumb size), and 100-200 grit sandpaper.

Next, you need a source of plastic. We will use a billiard ball.

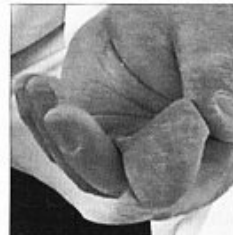
1. Mark the billiard ball into thirds (each ball is enough material for three thumb rings).
2. Find a way to support the ball while cutting (assuming you are using a hack saw). A vise would be a secure way, but in our demonstration the man making the thumb ring, Mr. Shim Jin Bo, just balanced it on top of a kerosene container (the top had an indentation).
3. Alternately, cut into the lines you have drawn, a little bit at a time, until you have the thirds separated.



Mark the billiard ball into thirds prior to cutting.



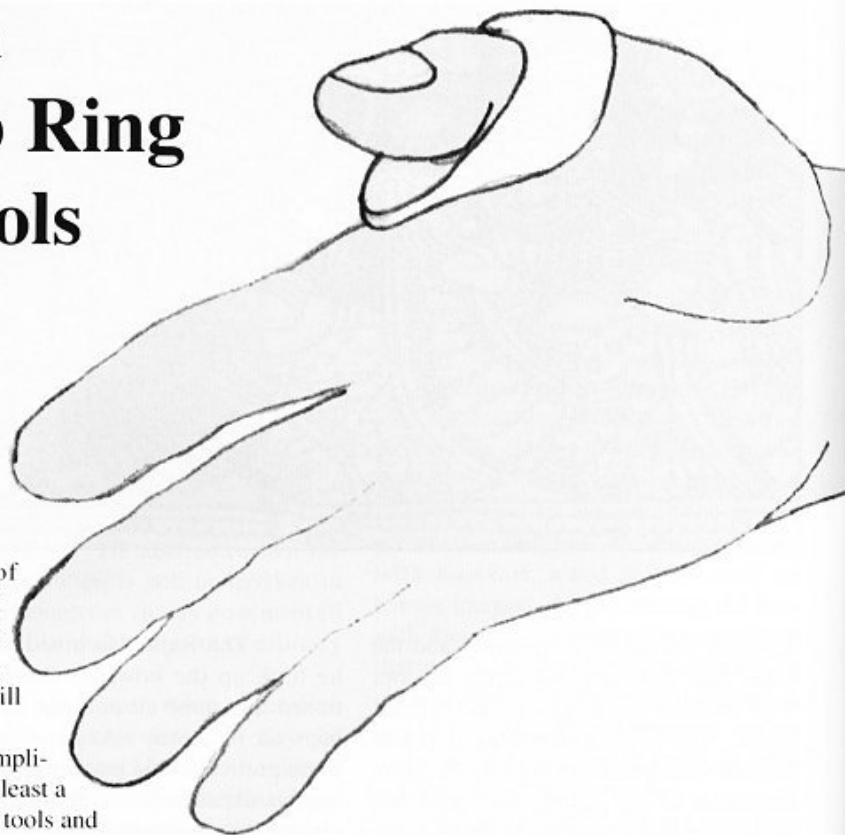
Working down the outer sides with a flat file.



Example showing finger-hole ridge.



The finished thumb ring.



Now we will start shaping our thumb ring. The filing is not necessarily done one procedure at a time; you can alternate.

4. Take a flat file and start taking down the outer sides (the same as the outer side of the ball).
5. With a file, start rounding the inside.
6. Locate where your thumb hole will be and drill the hole.
7. Using the round file, start rounding out the inside of the hole.
8. Start filing the inside tip.

*(continues on next page)*



9. Optionally, you can add finger hole ridges.

**NOTE:** At the apex of the ring, a small dip should be filed, with a shallow groove and a crosscutting ridge. The reason for this is that the string needs to rest next to your thumb, otherwise the string might slip.

File away, until you have reached the desired size and shape. Upon completion of that, take the sandpaper and water and sand the thumb ring smooth. Mr. Shim was able to do the entire procedure in about two hours. It took me about two hours to fashion my first ring (without polishing) using Mr. Shim Jin-Bo's procedure. Then I made one using power tools. I used a band saw to cut the billiard ball, a disk sander to grind out the thumb-ring shape, a drill for the thumb hole, and an 8" round file. This method took me less than one hour.



#### SIDE NOTES:

In my video *The Way of the Bow: The Korean Horn Bow*, there was one procedure that was inadvertently left out. It was on the steaming and bending of the siyahs. The photo (lower right) illustrates the following procedure:

1. Boiling the siyahs for six or seven hours.
2. Holding the siyah in the desired bent position.

I have another video available, *The Way of the Bow: The Korean Bamboo Arrow*. At the end of the video I have added the procedure for making thumb rings. You can obtain both videos by sending a check or money order (drawn on a US bank in U.S. funds) for the following amounts: Videos are VHS (NTSC).

**The Korean Horn Bow**  
\$40, US and Canada (two-video set)

**The Korean Bamboo Arrow**  
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# RIBTEK BROADHEADS



1996 bull elk taken by Tracy Hinton with a 47-Pound longbow and a Ribtek Broadhead.

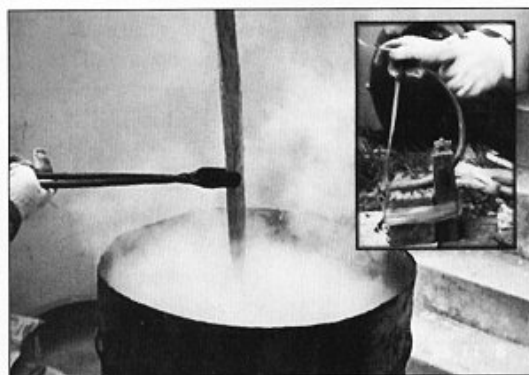
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Large photo illustrates the boiling procedure for siyahs. Inset shows bowyer holding the boiled limbs to the desired position in a small jig.

# READERS' SPOTLIGHT Successful Hunters Afield: 1996



Mel Topponce in Zambia with a Puku Antelope, a Del Allen longbow, Kelly Peterson Arrows, and Magnus II broadheads.



Herb Henderson's first Whitetail Buck taken with a longbow. (We'd be grinning too!)



Jose Gomez of Laredo Texas with a long-tusked javelina boar taken in Mexico with a Sentman longbow.



Randall Kirby stalked this 1,600 pound Bull Steppie Bison after it put two men in the hospital on an East-Texas ranch. He used a Elburg Falcon longbow and a Bear Razorhead.



6 x 6 bull elk taken at 5 1/2 yards by yours truly (the Editor) with a Juniper Mountain longbow.



Bob German's non-typical mule deer (7 points on the right and 11 on the left). He shot the deer with his "trusty Browning recurve and a Bear Razorhead."



Neil Russell's outstanding Nevada mule deer, taken with his Wilderness longbow and a Modoc broadhead.

Jose Gomez with a beautiful whitetail buck taken in Mexico.



Have you taken any great archery-related photos in the last few years? If you have, send us your favorite and we'll feature it in the Summer "Readers' Spotlight: Favorite Photos" section.

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## The Competitive Edge:

# Pay Attention to Detail

by  
Gary Sentman



**D**etail applies to every aspect of life, including sports, and archery is no exception. (To be successful in the hunt or in competitive archery one must pay attention to detail.) Paying attention to what would seem to be the smallest little details have probably saved many from embarrassment or danger. As was the case with my good friend Merle Kenniston and I when we hunted in Central America.

The year was 1974 when Merle and I planned our adventurous hunting trip. I had agreed to meet Merle at the airport in San Salvador, Central America. My former wife, who was Salvadoran, accompanied me as far as her parent's home in El Salvador.

I was driving a very nice 1971 four wheel drive pickup truck with a canopy which was packed with some of the best camera equipment, camping equipment, and bowhunting equipment that money could buy. Traveling across the country I continually inquired of the native people where the best hunting would be. The answer was always basically the same, "recto, recto el montañas!" Which meant, straight ahead to the mountains. While traveling south through Nicaragua, I came upon a native leading a small burro that was packed with firewood. I asked him where the best hunting was in Nicaragua. With a laughing gesture he exclaimed "You gringos killed all the game!" However, after explaining our intentions of hunting with the bow and arrow, (arco de flecha) he told us of an area that had many deer and pig. We had intended to hunt the jaguar, but if deer and pig were available, they would also make an enjoyable hunt. It

seemed this time we had a good lead. The directions the native had given us led out through the jungle on a donkey trail (one couldn't call it a road). The sound of insects, not the biting kind fortunately, along with hundreds of very vocal birds were extremely loud. After hours of driving and stopping to move rocks and limbs out of the way, we finally came to one of the most beautiful places I have ever had the pleasure of seeing. I saw lush green vegetation which included many tropical fruit trees, as well as a crystal clear blue-green stream. The weather was mild and comfortable although a little on the warm side.

We hadn't seen a human being since leaving the main road. However, after breaking out of the jungle near the stream we found an area inhabited by natives who were very colorfully dressed wearing bandannas and other bright attire. They appeared to be friendly because the man nodded their heads at us, although they made no attempt at conversation. Merle and I looked at each other and smiled, both of us thinking this to be a paradise where we would enjoy some fine bowhunting. I drove the pickup to a fairly level spot near the crystal clear blue stream. The gently moving water looked so inviting we decided to take a swim. Looking more closely at the stream, we saw deep dark pools. Approaching the water we noticed several young and older women, most of whom were naked from the waist up, washing clothes and playing in the water. Thinking this only added to the paradise we continued to walk into the water. Soon some of the older women began to loudly scold us, waving their arms and pointing up



stream. At this time I decided to use what little Spanish I knew and talk to one of the native men. He seemed to understand our ignorance and explained that this spot was for women only.

With my broken Spanish I finally related to one of the natives that we were here to hunt with the bow and arrow. He explained to me that there were many deer and pig in the area. However, our best chance for a successful hunt would be at night with flashlights. Neither Merle nor I were very excited about hunting at night with flashlights. Inasmuch as the jungle was so thick it seemed this was our only option. The native promised to return that night and guide us to the hunting area. Merle and I were like kids at Christmas, "jumping with joy." The native showed up at dusk as he had promised. At this time, Merle,



was such a beautiful place and I wasn't about to respond without further explanation. In my John Wayne world of law and order I couldn't imagine what could be wrong. I asked Merle rather sternly, "What is your problem?" Merle explained that he and the native had been

gone but a short time when he could hear that they were being followed. When the native observed Merle's recognition of the situation he tried to distract him by pointing straight ahead and urging Merle to proceed.

At this point Merle began to feel very uneasy. They soon came to a heavily-vined area on the trail, the only way to get past it was to crawl on one's hands and knees. The native motioned for Merle to crawl under, cautiously Merle bent down to crawl under the tangled mass when he noticed the native began to slowly lift

## ***Paying attention to detail on this archery hunt in Central America literally kept us alive.***

his machete. Certain the native was preparing to put the "coup de grace" to him Merle stepped back, motioning for the native to go first. He declined and with that Merle turned and quickly came back to camp leaving the man behind in the dark.

the long straw gets to go hunting. Merle got the "lucky" draw so it was he who got to go on the guided hunt and I was to stay and guard the pickup. Let me say here that if Merle had overlooked this detail as I did, I probably would not be writing this article! I believe we would have both been killed and forgotten. Merle returned to the truck after about 45 minutes with his bow and flashlight in hand. The native was not with him. Merle came close to me and whispered harshly, "Pack up, we have got to get out of here right away!" This

Beginning to understand but still not completely convinced I questioned Merle, "Are you sure?" Again, I feel, missing a little detail. That detail being Merle is a very courageous individual. Over the years we had experienced many life-threatening situations in Alaska and South America. He isn't very tall but he had been a weight lifter since his military days and consequently was quite stocky and strong. He wasn't a man who would feel threatened over nothing. At this time Merle harshly



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shouted, "Turn on the car lights!" Still not totally convinced I reluctantly obeyed. As the bright lights flooded the area I could see native men all around us. Back in the jungle, squatting on their haunches, many with machetes, observing our camp.

You're probably asking yourself at this point, why they didn't rush us with their machetes and "do us in." The explanation is, they though we were armed. I had spent many months in that country and noticed that men of the working class or any wealth are always armed with a handgun of some kind. They will not go to a restaurant or leave their home without a weapon. The pistol is usually poked inside the belt or

trouser waistband with the 45 ACP being the handgun of highest status.

Those natives expected us to be armed with semi-automatic handguns. They planned on waylaying Merle on the hunt and probably me that night as I slept, taking all that we had.

Needless to say, after seeing the natives squatting on their haunches in the jungle with their machetes I slipped into high gear and Merle and I high-tailed it out of there for good.

Paying attention to detail on this archery hunt in Central America literally kept us alive. Let's now return to a more controlled environment and get on with paying attention to detail.

Throughout the years, I have noticed certain things being overlooked, such as the archer who is 6'2" tall and shoots a 60" bow drawing 29". This archer will have excessive finger-pinch and find poor accuracy because he has a bow that is too short for a 30" draw. The archer who isn't consistent in performance, such as coming to the exact same anchor spot with the same pressure every time, isn't paying attention to detail. The archer who fails to grip the bow within 1/4 inch of the same place every time isn't paying attention to detail for top shooting.

The archer who fails to check the string and nocking point on the bow before an important event isn't paying attention to detail. The archer who hasn't waterproofed the feathers of his arrows before an important event when foul weather is a possibility, isn't paying attention to detail. Paying attention to detail in the hunting arrow is perhaps more important than any other aspect of your equipment.

While en-route to your hunting ground have you stopped to play a game of pool in a smoke-filled bar or sit too close to the campfire in your hunting clothes where bacon is frying? Try to keep your hunting clothes in a plastic bag with sage or some other natural scent.

Remember that all natural scents may not be natural in the area you are hunting.

I recommend pre-scouting your hunting area if possible, not only to discover animal movement but also to learn their language. Turkey hunters have told me that different flocks of turkeys know their individual calls, especially the toms. The archer who isn't paying attention to detail here will only flush all the turkeys without getting close enough for a shot. Likewise, if a hunter goes into an area and bugles like the royal elk of the woods, this may run all of the lesser bulls off.

When you think about it, life is full of details. Unless you pay attention to detail, whether great or seemingly small you could possibly fail at life as well as at becoming a successful archer. So fellow archers, when you return home from the hunt or archery shoot, pay attention to detail, be sure to notice and tell your significant others how much they are appreciated and how good it is to be home.

Good shooting.



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# Overheard, on the 3-d Range...

By Bob Krout

*Darn! these targets must all be seconds! The scoring rings are all in the wrong position!*

*Did you see that branch? I didn't see that branch!*

*That target is a lot further than it looks. (He shot under.) That target is a lot closer than it looks. (He shot over.)*

*Said to the next shooter: That target is exactly 27 3/4 yards. (He finally hit one.)*

*Are you sure these scoring rings are in the right place?*

*I usually shoot a recurve but I thought I'd try my longbow this week. Guess I'm not used to it.*

*I usually shoot my longbow but I thought I'd try my recurve this week. Guess I'm not used to it.*

*Just when you pull up to shoot the sun glares off of this bright fletch and crown dip and blinds you!*

*There is too much shadow on the target. Just when you pull up to shoot this dark fletch blends into a blob and you can't distinguish anything!*

*Darn this new tab! That one rolled off of my fingers before I was ready!*

*Darn this old glove! The string didn't want to roll off of my fingers properly.*

*Just as I shot, that young girl in the short shorts bent over to pick up her arrow! Must have caused a sun flare!*

*I can't believe they misplaced the rings on every one of these targets! What is the matter with those target people?*

*Don't worry, it's just an old war wound I got defending our country. I'll work through the pain. After all, what's a few 3-d points compared to our freedom?*

*(Same thought) Yeah, I pulled that one. it's just a flare-up of that thing I got in 'Nam.*

*Hey! These old arrows are bent! No wonder I can't hit anything.*

*It must be these new arrows. I'm just not used to them yet!*

*You'd think those people would know where the vital zone was on a turkey!*

*My limb tip must have hit something!*

*I was afraid my limb tip was going to hit something!*

*I just do this for fun! Scores mean nothing to me.*

*I pity those compounders with their near-perfect scores, they are missing all the fun of looking for arrows!*

*If I actually ran all 30 targets it would take away the challenge!*

*I think this new string stretched on me! Does this brace-height look right to you?*

*I thought a deer's heart was a little bit further back than that.*

*Aren't these bugs distracting? I always shoot better in cooler weather.*

*Isn't that cold wind distracting? I always shoot better in warmer weather.*

*I cannot believe I missed the whole elk!*

*The string hit my sleeve.*

*These targets are too close. I can't pick a spot!*

*These targets are too far! That last one would be a hard shot for a rifle!*

*These distances are just about right for a realistic hunting situation. (He finally hit another one!)*

*I'm not competitive! I just like to get out for the practice!*

*Did you see that deer jump just as I shot?*

*How do you shoot that thing without sights?*

*Yeah, that's a nice recurve. Did you ever think about using a string peep and a pin sight?*

*I was just trying to explain this shot to the boy. Guess I wasn't concentrating.*

*Young girl, another sun flare! 'nuff said. (How much can this old heart take?)*

*I'm not too good on these phony targets, but just let the real thing get in front of me! I can't miss on a real deer.*

*It's this old bow! It just doesn't have the "zip" anymore!*

*It's this new bow! Sure doesn't feel like the old one!*

*Are you sure a deer's lungs aren't a little further forward?*

## *I just love 3-D!*

Illustration: Giraffe target at the 1996 North American longbow Safari.



# Real Archery

by  
E.T. Williams

I finally found enough time last week to read a few pages of my newly-acquired publication, *Modern Archery*, written by Mr. Arthur W. Lambert Jr. You say you've never heard of him? Mr. Lambert was the Midwest Archery Champion in 1927. Well, before you say that you never heard of him, how about Homer Taylor, the 1882-1911 Archery Champion. From what I can detect, Mr. Lambert and Mr. Taylor were not traditional archers, as a matter of fact, I have yet to find the words "Traditional Archery" in the book. Mr. Lambert was also the inventor of the then-famous Lambert Bow Sight (very untraditional). It seems that bow sights were more common in those days than arrow shelves. Mr. Lambert, as well as many other archers then, shot bows that were equipped with bow sights but did not have arrow shelf cut-outs. They were knuckle shooters with sights. At the same time that Mr. Lambert was shooting his longbow with sights, Howard Hill was setting flight-shooting records in Miami, Florida. Now I know that you have heard of Howard Hill. He was the man that sometimes shot aluminum arrows off of his long bow, (something sometimes considered non-traditional) by today's standards.

So What! Where am I going with this? You be the judge. When I was a kid, if I told someone I was an archer, their reply always seemed to be: "What?" It was much easier to tell someone that I shot a bow and arrow. After thinking about it for several years, I am beginning to realize that "Traditional Archery" may very well be the newest area of our sport, even newer than compounds. The way I see it, we had "Archery" for a few thousand years, then "Bow-n-Arrow" for a short period of time, then the "wheel-bow era" and eventually "Traditional Archery."



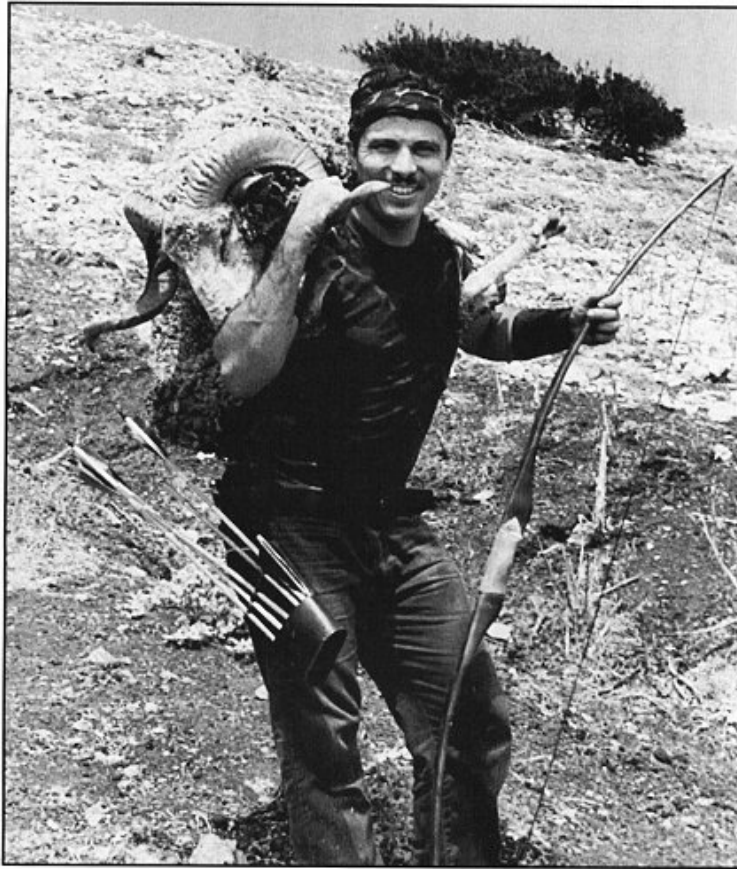
In past years I have found it difficult to accept that my three-fingers-under-the-arrow style of shooting was not allowed at some of the New Traditional Archery events. I guess that they were right. I have only been shooting that way all of my life. Maybe I am more of a Bow-n-Arrow archer, than a Traditional Archer.

These days it seems that most of the traditional archery clubs now allow this style of shooting. I guess that traditional archery is beginning to evolve, it appears that other club rules are beginning to change. Will traditional archery come full circle and evolve to the point to where we put sights back on our bows? (I hope not). Is traditional archery the final phase of our sport? What is "Primitive Archery?" Is it just a form of regressed traditional archery? Who controls the destiny of our sport?

We all do by our input as a group. The book, *Modern Archery* by Mr. Lambert, is an excellent source of information and certainly outlines some of the basics of our sport "Traditional Archery." It seems like some of the concepts for traditional archery may not be based entirely on tradition alone. It may in fact be what we or someone else perceive it to be.

Never-the-less, I am certainly glad to be a part of it. So when you see your friend shooting that old compound bow, welcome to the new era of archery: "Traditional Archery." Chances are, that he'll like it!





# SANTA CRUZ

## Bowhunters' Oasis

By  
Archer Bowman

As the liquid California sun dripped from my nose, I sank to the ground, chest heaving. I was totally winded from the steep climb. As I sat trying desperately to regain my breath, a movement at the top of the next hill I was to climb, caught my eye. A sudden excitement crept over my body as I watched two beautiful rams feeding on scrub oak as they slowly inched over the crest on my side. Completely forgetting my exhaustion, I fumbled for my 7x35s and brought them into focus. *"I can't believe it,"* I whispered aloud. *"You can't believe what?,"* she gasped as she collapsed to her knees next to me. She had been behind me coming up the hill I had just peaked and was so out of breath she could hardly speak.

*"Take a look at this,"* I said pushing the binoculars toward her. She couldn't even move, she was so winded. So I began glassing the two rams again and wondered if I had a chance at trying to stalk them. My friend and guide soon appeared from where my wife and I had just laboriously climbed. He was not the least bit winded as he slid his pack frame from his shoulders. Seeing what held my interest, he reached for his compacts and hurriedly glassed the two rams, who by now had my total attention. *"Not bad,"* he murmured softly. As he lowered his binoculars, I quickly questioned, *"Should I give them a try?"* Knowing I was still beat from the noon day climb, Jaret said, *"Well, if you feel up to it."* *"But,"* he interjected, *"they are a good 150 Yards from us, there is little cover, and they are watching us"*. Yes, he was right, they were definitely keeping an eye on us.

Just then my sister and brother-in-law appeared on the scene, and they too were trying to regain normal breathing. I pointed out the rams to them and they agreed those rams were beautiful. I deduced that the rams had hopes of coming down the slope past the spot where we were crouching, and into the canyon below to quench their thirsts at the cool spring. At this point they were keeping a close eye on us in hopes that we would continue on our way. As I contemplated the situation, I thought it possible to slip over the ridge on our left and use it as cover to slowly climb the summit. Easing over the top, I could turn right and in keeping with the hillside could sneak along until I reached a large clump of oak positioning the rams below. Then it was just a matter of popping over and slowly advancing from above.

I explained my strategy to Jaret, also stating that sheep can't count and they would never miss me as they closely eyed our little hunting party. Jaret thought it over and said, *"Go for it."* I plunged over the ridge and made my way up the slope. Stopping at each clump of scrub oak, I peaked through the foliage trying to locate the rams with no luck. Still using the ridge for cover, I reached the last bit of scrub oak and took a final look before topping the hill. Seeing no sign of either ram, my heart sank. I had been too slow in reaching the summit and the rams had fed over the ridge losing me. A slight gust of wind hit me, filling my nostrils with the pungent odor of sheep. They were still there.

With renewed spirit, I tackled the toughest chore a bowhunter can face. I had to move at a fast pace and not be

heard. I crested the summit and using it for cover I followed a sheep trail that ran parallel. Soon the familiar clump of scrub oak that I had picked as my indicator loomed ahead. I stopped and slowly resumed normal breathing, regaining my composure. The sheep should be just over the rise and 60 yards down. I gently eased myself around the bush and peaked through the leaves.

My heart picked up 10 beats per minute because they had only moved about 20 yards since I began my stalk. Down past the sheep, about 150 yards, sat my little audience all looking in my direction. The rams were broadside to me, feeding side by side. The minutes seemed like hours. The only cover between us was a lonely weed about 18 inches high. When their heads were down, the top of this weed just covered their eyes, blocking me from their sight. They raised their full curl heads every few seconds to glance down the slope, checking to see if my companions had moved.

As the long tense minutes rolled by, my quickened pulse surged. Each time the rams lowered their heads I advanced one step at a time, carefully placing each foot with calculated precision. Satisfied nothing had moved, they resumed feeding peacefully, unaware of my slowly-advancing presence. It seemed forever as I closed the gap to 35 yards.

Shaking uncontrollably, I checked my arrow on the string. Ever so slowly, I raised my 67# homemade longbow and took several deep breaths. As I steadied on a small spot just behind the foreleg of the ram closest to me, I pulled my 600-grain Howard-Hill-tipped cedar shaft to full draw.

The shaft leapt from my bow and I became quickly disillusioned. It went a foot to the left and ricocheted off a small limb of the oak the rams were nib-

bling, and then glancing down the hillside to the rocks below. I froze. My heart raced out of control. I breathed a little prayer that the rams would not bolt. Both rams jerked their alert heads down the hill toward my amigos who were watching the whole show with baited breath.

Those two rams glanced at each other for a second and dipped their heads to feed again, shrugging off the incident. They still had no idea I was there. I couldn't believe my eyes. I tried to calm myself while standing 35 yards from two trophies, after blowing my first shot. This was quite an experience to say the least.

Again I drew an arrow from my hip quiver, checked the broadhead and carefully nocked it. I drew a couple of deep breaths, holding in the last. Instinctively, I raised the bow, aiming for the heart-lung area of the closest ram, prayed and released. "Chuck" was the sound of my arrow as it pierced hide and flesh. I had made a perfect heart shot with only inches of the shaft still protruding.

Both rams wheeled and fled from the oak they were nibbling. They bolted 40 yards and then stopped. They stared in disbelief at my motionless form and then at the quiet group below. My ram took several wobbly steps and

laid down. Within seconds he slowly began to roll down the rocky hillside. At the sight of his fallen comrade, the other ram

made a hasty retreat and disappeared over the hill top. Amidst cheers from the small crowd below, I did an Indian-style war dance and ran down the hill to claim my beautiful ram.

My ram measured 31 1/2 inches. This was my first sheep hunt as well as my first visit to Santa Cruz Island. This was my latest adventure in an ongoing love affair with bowhunting that has spanned 25 years. The excitement generated on this hunt was as fresh and as real as my very first bow kill many years back. I am only counting the days when I can go back to this island paradise and try my luck at a trophy boar. Perhaps hunting the same area Howard Hill hunted 50 years ago.



#### EDITOR'S NOTE:

If you would like more information about hunting on Santa Cruz Island, contact the author at the address listed below:

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# *A Morning by Field*

by *Dale Yessak*

**D**ucks scattered and noisily took wing as my arrow splashed harmlessly short and disappeared into the green water of the river. I clamored down the bank and tried to spot the fletching bobbing on the surface, but no luck; either the arrow had buried itself in the muck at the bottom or had floated out of sight before I could get out into the shallows to retrieve it.

Well, that was typical of the way my luck was going. I didn't know if I was ever going to get the hang of this wooden bow stuff. I'd broken my first three pathetic attempts at making a primitive weapon. Number four was a horrible looking — a rough, propeller-twisted piece of hickory — but at least it had survived. It held a little bit of its original setback, was smooth at full draw, and had a sweet release; trouble was, I couldn't hit the broad side of a barn with the darned thing. An hour of practice every day after work, all summer long, had produced nothing but a set of good callouses on my string fingers and a lot of frustration.

I'd tried gap sighting, split vision, you name it. All the stuff the old books talk about. I must've read every publication and bought every video on how to shoot traditional. I could keep my arrows in the kill zone on targets, but whenever a real animal showed himself my accuracy fell apart. Arrows went all over the place. Firsthand coaching was no help, all of the guys I'd met out at the range were compound shooters. No matter what, I just couldn't seem to get the hang of shooting the darned thing.

Still, I'd lent my old Bear compound to a friend as a spare for his Montana trip-of-a-lifetime, so there was no going

back now, even though the season was wasting away without a single piece of meat in the freezer. I'd slung arrows all over the landscape every time a deer came within twenty yards. Never even came close on most of them. As autumn sped by I tried my hand at rabbits and only depleted my supply of arrows for my pains. This morning had been the topper; a big old eight point had showed me his tail as he bounded away after a ten yard flub. I was so mad I could have chewed my own lips off. Maybe if I'd have run out and clubbed him with my gnarly hickory stick I'd have had better luck.

Nevertheless, there was something about that ugly piece of wood that kept me at it. I wasn't gonna let it get the better of me. I was determined to overcome the thing come hell or high water, but the end of bow season loomed and I'd yet to master it.

After my spectacular miss earlier today I'd decided to spend some time down by the river. Duck season overlapped deer season this year and I had a migratory fowl permit. Maybe I could change my luck and skewer a mallard if I could catch one on the shallows and he sat still enough for me. But my first shot had only resulted in another lost arrow and the expected miss. At this rate I'd have to run into a duck with suicidal tendencies and invite him to impale himself on my arrow.

I climbed back up onto the bank and took stock of the situation. The day was young. Maybe I'd move upriver a ways and see what I could see. If nothing else, I'd launch a few shafts at stumps, maybe try something new with my grip. Or . . . perhaps the problem lay with my follow through? Heck, I didn't know, maybe this traditional stuff wasn't for me after

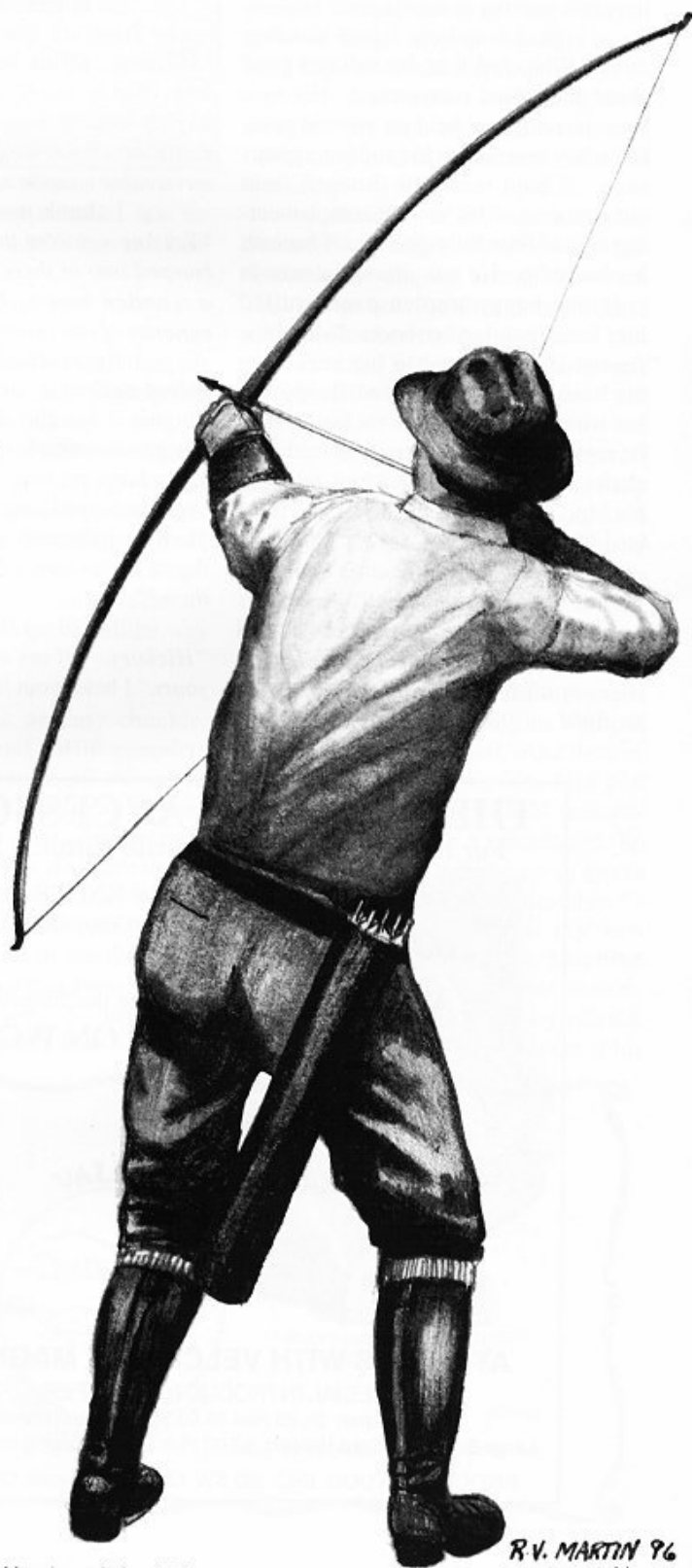
## and Flood ...

all. Maybe I'd just better head on back to the truck and call 'er quits.

The pathway wound its way along the river bank. The trees had long since lost most of their foliage, yet a few spots of stubborn gold clung to the lower branches and dropped now and then with a soft patter to the ground which was carpeted with the rich tones of late autumn. The air held the crisp promise of winter, though the morning was warming as the sun grew higher in the sky. I stopped at a bend in the trail and looked out over the river. Its green currents carried flotsam from upstream and brokenly reflected the bare branches and rare touch of ocher from the opposite bank.

I looked down at the bow in my hand. It felt long, heavy, and clumsy. It was useless to me. Might as well be a walking stick or a club. I looked out at the river and wondered how far I could throw the cursed thing and how big a splash it'd make.

Then the woods became hushed, the breeze stopped entirely, even the birds fell silent. *"Too nice a day for such gloomy thoughts, I should think,"* said a voice from behind me.



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I jumped about a foot in the air and whirled around. There in the path, not ten feet away, stood another hunter. He burst into laughter at my obvious surprise.

"My most sincere apologies, sir," he drawled. "I assure you, my intention was not to startle you."

He cut quite a figure standing there. Whipcord thin, he radiated good cheer and robust competence. His eyes were piercing, yet held an amused twinkle at my reaction to his sudden appearance. A bold mustache drooped from either corner of his mouth, complementing an odd little billy-goat beard beneath his lower lip. He was dressed almost in costume; baggy woolen pants stuffed into knee-high leather boots, faded blue flannel shirt buttoned to the neck. On his head was a tattered and floppy old hat which he tipped back on his head as he regarded me. A dozen or so feathered shafts were in a worn leather quiver at his hip. In his right hand was the most beautiful bow I'd ever seen.

"Hi. . . uh, I didn't hear you coming up the path, I guess."

He nodded at the woods behind us and grinned. "One must be silent as a cat in all of his movements whenever in field or flood." His accent was a

refined southern drawl. It sounded somewhat formal and stilted to my Yankee ears.

"Oh . . . yeah, I guess that's true. Say, that sure is a beautiful bow you have there," I said, indicating his weapon.

He balanced the horn tip of the lower limb on the toe of one boot. "Mulberry. Of my own hand, I must confess. Not as nicely done as those I've seen of English make — and none of our native woods are as good as yew — but a serviceable weapon nonetheless."

I shook my head in disbelief. "You know, you're the first guy I've ever bumped into in these woods hunting with a wooden bow. I'm pretty much a minority of one around here."

He nodded sadly. "I would indeed believe it, sir. But what sport is flinging a handful of pellets at a bird? The gun has nearly exterminated game in many large regions. The longbow, however, is a sporting weapon," he said. Then he indicated my own bow with a thrust of his jaw. "And what have you there?"

I held up the twisted old stick. "Hickory. Of my own hand, too, like yours." I held it out for his inspection.

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He ran his fingers down the flat belly of the bow, then peered closely at its self notched tips. His experienced eyes took in the narrowed handle wrapped with buckskin lace. "A bow like that of our red brethren, I believe. As for myself, I became introduced to the longbow while I was still in my teens, so I know of little else. But tell me, how does the bow of the noble savage shoot?" I shook my head ruefully. "It probably shoots great in the right hands, but I haven't had a lotta luck with it."

"No? And why not, pray tell."

"I don't know — I just can't seem to hit anything with it. I do okay on targets, but when an animal shows up I keep missing."

"Some of the finest shots you will ever make will be misses, and some of the poorest will be center hits. Such is luck."

I didn't know if I agreed with that philosophy. But then a thought occurred to me. "Say, you've obviously been doing this a while ... maybe you might be able to spot what I'm doing wrong. Would you mind?"

He tipped his hat in an oddly antiquated, formal manner. "Why, not at all. I would be honored, sir. But what to shoot at?" He turned and spied a log some distance off, plucked a shaft from his quiver, and quicker than it takes to tell came to full draw, hesitated but a fraction of a second, and then the arrow

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was off to slam into the log. Dead center.

*"Your mark, sir."*

*"The log? That's pretty far off. I don't know."*

He waved a hand, dismissing my protest. *"Disregard the log. Shoot for my arrow."*

I looked again. The fletching looked impossibly small at this range. *"You gotta be kidding!"* He merely smiled.

I shrugged. *"Okay. Here goes."* I mentally estimated the range, came to full draw, tried to place the arrow tip on line with the log, and managed a clean release. The arrow wobbled on out and skidded to a halt five feet in front of the log, tossing up a spray of loam and leaves. I looked sheepishly at my tutor.

*"Another, if you please."* This one hit even shorter than the first.

*"Draw to the head of your arrow every time you draw. Put the same power into each shot."*

The next arrow actually sailed over the log.

He was gazing toward my target. *"The requisite to good archery hardest to acquire is utter concentration of thought and sight upon the object to be shot at — this more particularly at the precise point of letting go the arrow."* He looked at me and winked. *"Try again."*

This time I stared at the fletching of his embedded shaft. Only at the fletching. I disregarded the log entirely. A vagrant breeze stirred the feathers minutely. I looked even harder.

Suddenly all else but the white fletching became dim and imperceptible. Without conscious thought I came to full

draw, felt steel on my knuckle, saw the arrow's flight in my mind's eye as it bore into the mark.

*"Blindly direct your arrow . . . let go the string."*

I released. With a dull thud my arrow slammed into the log—right beside his shaft.

*"Well done, sir! You shall make a bowman yet!"*

I ran to the log and looked at the arrows. Not two inches separated the two, their feathers were almost touching.

*"A fine shot."* He'd come up behind me in that noiseless catlike way again.

*"I can't believe it!"*

He laughed, an easy chuckle. *"Believe it, my friend. With complete concentration of purpose, all things are possible. 'No child to his parent, nor any servant to his master, is as obedient as is every part of the body to do whatever the eye wishes.' A wiser man than I once wrote that in Merry Olde England."*

Back we went to the riverbank. From varied distances and from various positions he had me shoot for his fletching. Sometimes my arrow flew wide, but

time after time it slammed into the log beside his, once rattling his shaft it hit so close.

Finally we pulled our arrows from the rotten log and walked back to the path. We stood looking out over the river. The water had never looked greener, the sky never so blue. The air never so crisp. My bow felt light in my hand and like an old friend.

*"Yes, too nice a day for gloomy thoughts"* he said, taking in the river. I could only nod in agreement. Far too nice a day.

Suddenly there was a distinctive whirring sound. From upriver two ducks came winging across the water. Their wings beat the air and they banked to follow the bend of the river.

*"You take the lead bird,"* my new friend whispered urgently. *"I'll take the other."*

As one we came to full draw. I felt the head of my arrow graze my knuckle. His arrow streaked out like a lightning bolt, knocking the trail bird from the air in a puff of feathers. The other duck flared out, then climbed right, away from his downed companion, my gaze was riveted to a tiny spot at the butt of his wing. I could see the arrow and the bird meet in my mind. Without deciding to, I had released. And then, as if watching in slow motion, bird and arrow climbed together and miraculously merged. With a spectacular flip he cartwheeled through the air to splash down less than six feet from the other.

I stood stunned as my new friend leapt down the bank, laughing gleefully, and splashed out into the river. He waded strongly into the icy current, water up to his thighs, then almost at his



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waist as he neared the ducks. He held up both, each strung halfway down our arrows, and gave out a piercing rebel yell.

We were both laughing as he finally made his way up the slippery bank. I lay the ducks on the path and carefully pulled the arrows as he sat to tug off his high leather boots and dump the water from them. I spread the wings to admire the beautiful plumage, feeling a curious mixture of sadness and an unbelievable thrill down to my bones. I saw again in my mind the impossibly slow flight of the arrow and the spectacular impact of bird and shaft. It was as if time had stood still.

I knelt over the ducks and ran my fingers along the bright feathers. The woods still held that curious hush I'd half-noticed earlier, not even the pattering of falling leaves disturbing the almost perfect silence.

"A prettier pair of shots I've never seen, nor a prettier pair of fowl," my friend drawled in his curious, cultured manner.

I couldn't begin to articulate what I was feeling, so I could only nod and say, "Me neither."

low whistle. I looked to see another hunter. His outfit was a near copy of that of my new friend, the only difference being his shirt of green flannel and a floppy hat of different hue. His longbow gleamed in the morning sun. He was a younger version of the man beside me, right down to the droopy mustache and billy-goat chin beard. We stood up. "What ho, brother?" called my friend.

"We've dallied long enough. We must get back." That same accent, almost the same voice.

My friend turned to me. "My younger brother," he stage whispered conspiratorially. "The very picture of impatience and a restless young scamp to boot. It would appear we are tardy."

We shook hands. "Fare you well, my friend. I must take my leave." He hesitated a moment longer. "We had ourselves a fine time this morning, and a pretty catch. I am in your debt."

"No! I should thank you! For the lesson, I mean. Uh, maybe I'll see you out here again."

He smiled. "Perhaps. All things are possible, my friend." He turned and sauntered up the trail to his brother.

He waved, almost a salute. "Keep it, sir, with my compliments." He came abreast of his brother and clapped him on the shoulder affectionately. "Brother Will, you lack the forbearance that good breeding should have bestowed upon you. Patience is a virtue."

The younger one reciprocated. "And I declare, Maurice, that you shall never be accused of punctuality. Caesar is havin' a conniption. He'll burn the bacon for certain."

They both laughed, old companions comfortable with each other's foibles, and moved on up the trail. Suddenly they simply faded from sight, as if they'd strolled into a mist, though the day was clear and bright. The hush that had hung over the woods seemed to lift. The last of autumn colors shivered once again to the forest floor, and a woodpecker flitted across the trail to land on the log which had been our target. I felt the hair rise on the back of my neck.

"Blindly direct your arrow . . . let go the string. All things are possible, my friend."

I looked down. Two ducks lay on the packed loam of the trail, iridescent colors brilliant in the morning sun.



by  
**Mark Siedschlag**

**O**ne in a thousand. The first time I heard of that theory was five years ago as I discussed the bears with Captain Morgan over a drink in the musty-smelling bar at the Caribou Hotel. We were finalizing our arrangement for the hunt. *"Most grizzlies act like they're suppose to,"* Morgan said. *"You use your head, and you ain't got nothing to worry about—unless you run into that one-in-a-thousand bear."* His voice lowered and he had a discernably serious tone while his dark eyes grew larger as he peered deep into me. Those eyes never left mine as he continued. *"This bear has no fear of man. To this bear, man is just a two-legged caribou. He'll attack the first man he sees just for the fresh meat."* Morgan then quickly reassured me and my partner Dan that we had lit-

tle to worry about when it came to the bears. *"I ain't never had a client that got into trouble with the bears. Just use some good common sense,"* he said.

It was my first meeting with Captain Morgan and my first trip to the far north. We were to hunt caribou and Morgan was going to fly us into a remote lake camp. My concern with the bears, reported to be so abundant in the area, would be slight if I carried a large caliber rifle, but I was a bowhunter. While a well-placed arrow is deadly, it's not known to stop animals in their tracks. For that reason, Dan and I both carried .44 magnums strapped to our sides that first year. We saw grizzlies that year too, big ones and small ones. They added an element of excitement to the hunt. The tension



we felt whenever a grizzly was near turned out to be unwarranted. They always fled at the first hint of man. We did enjoy watching the bears through the spotting scope. Out across the open tundra they seemed unreal; almost like cows as they grazed on the sedges. Nothing to worry about.

I enjoy wild places and have what some people call a thirst for adventure. I started my bowhunting career in the alpine meadows of the Rocky Mountains, but I always dreamed of the untouched wilderness of the north. A truly wild place where I could be tested, relying on my woodsmanship to survive. I felt that if I could find such a place and conquer it, then I would find a deep satisfaction. I guess I read too many books. The arctic offered such a place. To me, it really was the last frontier. Its romance captivated me and it wasn't long before I progressed in that direction. A change took place inside of me the first time I actually looked down from a plane at the countless unnamed lakes, glittering like jewels against the flaming colors of the fall tundra. In the distance, snow capped peaks encircled the whole unreal scene. A hook was sunk deep into my soul and I acquired an addiction for the arctic as strong as any narcotic. Each year I had to return. When Dan, my usual companion on these adventures, could no longer come two years ago; I came alone. This raised a few objections from Captain Morgan, but he was never known to let better judgment get in the way of making a buck. This was my second year alone.

I now sat on a large rock not more than fifty feet from what remained of my camp. The wind was stiff and a steady drizzle was smacking my raincoat. Shreds of green nylon that a few hours ago had been my tent and shelter, now flapped wildly in the wind. Everything was destroyed. There was no doubt by the tracks in the mud just who the culprit was. Grizzly sign littered the area. I'm sure it was the same bear that paid me a visit late last night, knocking down and smashing my only lantern. My yells finally made him retreat into the bush somewhere, but I never went back to sleep the rest of the night. It was the first time ever that a bear was not afraid of me. I tried light-

ing a fire after the encounter to calm my nerves, but the wet weather made it impossible. I spent the rest of the night sitting up in my tent with my bow across my lap. A lit flashlight was my only defense against the unknown. My heart raced with every sound and I faced the east, searching for the daylight and the relief it would bring.

The new day was gray and windy, but it made no difference. I was just relieved to see it finally arrive. As the darkness melted away, so did my fear of the bear, but like the gray clouds that hung overhead, my thoughts of that bear never totally lifted. I went out to hunt like I had the two mornings before. By late morning it was apparent that the weather wasn't going to improve. It was useless to try and spot caribou when the visibility was just a few hundred yards. Weather like this is common here this time of the year. Nothing to do but return to camp and wait it out. The knowledge that the weather may last a week or more, trapping me in my camp until it breaks, brought the memory of last night's bear back fresh. I was still thinking of the bear as I walked up on the destruction of camp. First seeing the damage left me cold as if ice water was rushing over my head down to my feet. I was paralyzed, completely in shock, and feeling totally vulnerable. My mind went over the Captain's instructions about the bears, remembering his words about the one-in-a-thousand bear.

I shivered now as I sat on the rock, more from fear and shock than cold. I wondered if I ran the bear off as I approached the camp. Was he still there watching me from the bushes? I cursed my lack of caution in not bringing a gun. I had never had any problems with bears before, in fact, the last two years I had never even seen a bear. I stopped bringing it last year because it just got in the way. It seemed unnecessary and I could use the extra weight for other things that seemed more important—like that bottle of brandy I use to help me sleep nights. How stupid I could be sometimes.

I didn't know what to do. I just stared in shock wondering if the grizzly was about to charge out of the willows at me at any moment. The rain was turning to ice and I first began to feel the sting on my face. I walked numbly through the

camp looking for what I could salvage. The tent was gone, the sleeping bag, also gone. The bag that held my extra clothes was torn with its contents scattered about in the wet mud. I picked up my wet clothes and threw them on a pile. The lantern laid smashed where the bear knocked it down from its pole last night. As I picked up what I could, an anger was building inside of me. It was very similar to the way I felt some years ago when I returned home to find my house had been broken into and robbed. This was that same kind of helpless anger mixed with fear.

The location of my camp had been ideal. It was on the top of a knoll and offered me a place where I could glass the tundra for caribou. I had used this camp site on each of my arctic hunts. Now it seemed vulnerable. The stunted spruce trees and thick willows allowed any would-be attacker the luxury of a close approach. I decided to move what was left of camp down the knoll, closer to the lake. At least there some of the trees were tall enough to allow me a sanctuary should the bear return. The ground tarp and rain fly were in good enough shape that I could, with some rope, make a lean-to to keep the rain off. I used some of the tent poles and tied the center to a tree limb. Each time a big gust of wind came, it would flop around wildly and often I had to reset sides that had flopped loose. To get off the mud, I laid spruce boughs under the ground tarp to make a floor. It was late afternoon by the time I was finished and had collected enough firewood to get me through the night. As the gray of the day turned to black, the sleet switched to snow and the landscape whitened. I wrapped myself in my parka and huddled close to the fire for warmth as well as comfort. The swirling wind repeatedly blew the smoke into my eyes as my world shrunk around me to that which the fire could illuminate. It was in this position, still armed with my bow, that I readied myself to face what the night may bring. I had but one plan. If the bear did show, I would climb the large spruce tree next to my lean-to. I had left a rope dangling for a quick ascension. I had even practiced climbing it several times during the day.

I don't remember falling asleep, but I was awake in an instant. The sound from within the darkness to my right was unmistakable.

The bear had returned. He was out there, probably in the line of trees about 40 yards away. He was popping his teeth at me, something bears do as a warning. I once heard a black bear give this warning to a smaller bear while salmon fishing down by the river. This warning was not directed at another bear. It was aimed at me. I don't remember getting to my feet, but I found myself already standing at the base of my climbing tree. If he charged from that distance, he might be on me before I could climb out of his reach. I slowly pulled myself up into the tree with my eyes never leaving the darkness that I suspected the bear would charge from. Snow fell from the branches as I climbed, some of it landing on my head and dropping down my back.

When I was high enough, I sat on a limb wrapping my legs and arms around the icy trunk. The wind had died and I could clearly hear the bear still making his warning. I wondered what time it was. I had no idea how long I was asleep, but the fire had died to barely a glow. It was too dark to read my watch. I hoped morning was just around the corner.

The bear circled the camp several times giving his warning but never came close. Even when I could no longer hear him, I continued to wait in the tree until morning. It was the worst night of my life. I shivered so hard at times that the entire tree shook.

Morning broke clear and I had a difficult time getting my muscles to work as I descended the tree. I stirred the fire back to life adding wood. It took most of the morning before I finally felt warm again. The tracks in the melting snow told the story of last night. He left the same way he came, following the lake. The sunshine felt good and it gave me encouragement that Captain Morgan might show today. He usually checks up on me about every three to four days to make sure I'm all right. Today's clear

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skies meant he would be back in the air. The thought of his plane landing on the lake lifted my spirits and I even considered going out and hunting again.

Down by the lake was a tall spruce tree that I used to cache my food and cooking supplies in, well out of a bear's reach. I stretched a tarp between two trees there and it served as my cook

*"If the bear returned tonight, he was going to be in for a fight,"*

shelter. This kept any food smells away from my camp. The sunshine and the thought that the Captain's plane would appear on the horizon at any moment gave me enough courage to go down to my cache and get some nourishment. Nothing ever seems as bad during daylight.

As I ate my first meal in more than 24 hours I began to consider my situation. All my life I dreamed of pitting myself against the hardships of nature in a life or death struggle—my own Jack London story. I've had my share of inconveniences at the hands of Mother Nature; freezing cold nights on a mountain, breaking through ice on a river miles from camp, and even once struggling back to my car after breaking a bone in my leg. To my friends these were real adventures to be envied by some and considered fool-hardy by others. I wanted more. I wanted to know inside what I would do if confronted with a real life or

death hardship, the type of situation I was now in. Maybe it wasn't the weight and inconvenience that made me leave the gun behind. Maybe I was hoping for this all along. Now, after shaking in a tree most of the night, I realized what was inside of me and I didn't like it. There's a difference between surviving a situation and conquering it. I felt like a ball player who waits all his life for a crack at the big leagues. When he finally makes it, he takes himself

out of the game for fear.

I passed the time waiting for the Captain by watching an eagle fish on the lake. The afternoon was slowly passing and it was becoming clear that the good Captain would not be making it today. The bad weather must have put him behind schedule. As I walked back to camp I tried to build up a determination inside of me, like an athlete psyching himself up for an event. I was not going to spend another night in that tree. The anger that I first felt when the bear destroyed my camp was slowly working its way to the surface. *"If the bear returned tonight, he was going to be in for a fight,"* I thought, trying to build courage. I collected plenty of wood for the fire and like a prize fighter preparing for battle, I took some practice shots with my bow in preparation. As I was collecting the wood, I wondered about what might lay ahead. I had read books on bear maulings and remember the descriptions by the victims. They described the putrid breath reeking of carrion and the sound the teeth made as they crunched on bone. These thoughts occupied my mind as the afternoon was turning into evening. I was piling up another arm load of wood when I noticed a dark figure moving down by the lake.

My heart jumped into my throat at the sight of the bear. He was becoming bolder, showing up during daylight. As a predator, he surely sensed my fear and after testing me, saw me as no threat. With hibernation just around the corner in a land lacking in protein, his

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intent was clear. Convinced that I could be easy prey, he no longer felt the need to wait for the advantage of darkness. I felt like a cornered rabbit staring into the face of a fox.

I stepped to the side to clear myself of any obstacles as an arrow found its way on the string. It was walking parallel to the lake shore until it turned at a right angle, straight up the path to my camp. My body quivered from adrenaline as he approached head on. His body swayed from side to side as he walked with his head held high. At about 60 yards he stopped, pointing his nose into the air, he tested the breeze for my scent. I remember reading such detailed descriptions of approaching bears in the books. They described how their coats looked, how their eyes glowed, and how they had this look of rage on their face as they charged. I didn't notice any details about this bear as my heart raced and I tried to muster some courage. He was just a dark form of approaching danger.

There was still time to climb the tree and I backed up close to it still not sure what I was going to do. I glanced down at my bow to make sure everything was ready. It looked frail and inadequate and I felt as though I was totally unarmed. My bow was on the light side for grizzlies. It could drive a heavy fir shaft completely through a bull caribou, but how would it do against the tough hide, muscle, and bone of an adult grizzly? A wounded bear could make a bad situation worse. I was confident in the result of a well-placed arrow, but even with a perfect hit, it would still take several seconds for death to come. More

than enough time for the bear to do a lot of damage. The difference between a fool and a hero often is only a matter of the outcome of his actions.

There was no conscious thought of what I did next. Still debating my next move, the bear turned to the left into some willows. Not being

able to see the bear caused a panic inside as I searched the brush for any sign of movement. I expected a charge to come at any moment and a frontal shot on a charging bear was no shot for a bowhunter. I pressed my back up against the tree. I wanted to just throw my bow and scramble up it. When the bear reappeared crossing a small opening my instincts took over. The arrow was on its way and I never remembered shooting it. It was just automatic out of fear, like swinging your arms wildly in defense at an attacker. It sailed high over the bear's back clattering on the brush and rocks beyond. The bear vanished. Seconds melted into minutes and still no movement in the bush. The only sound was my rapidly beating heart pounding in my head. Every nerve was stretched tight when he suddenly appeared 30 yards away. Rising up on his hind legs he stood tall above the willows peering straight at me. This time I managed to get control of my panic and stood firm,

taking some steps forward to close the distance while talking myself through the shot. "Anchor; pick a spot; clean release;" and the arrow was on its way in seemingly slow motion. A calmness suddenly came over me the moment I released the arrow. I had faced the bear. At the moment I released the bear dropped down and crashed off through the brush back towards the lake. I got one more glimpse of him as he topped the ridge a quarter mile away, still running. Inside I knew he wouldn't be back. My fear was gone and the bear sensed it also.

I stood rigid and frozen for several seconds and then began to shake so much that I had to sit down. I replayed the shot over in my head. Apparently the bear was able to duck the arrow.

Tomorrow, when it was light enough, I would check for blood to make sure, but it looked like a clean miss. My mouth was dry and I sat by the fire drinking from my canteen.

Surprisingly, I could feel a new confidence inside of me as all traces of fear vanished. It wasn't the bear that was the enemy, it was my choking fear. I was no longer just a survivor. I was a conqueror, and just as I had imagined, I felt a deep satisfaction inside.

Sleep came fast and easy that night as I wrapped myself in my parka by the fire. The fear was gone, replaced by a new confidence. In the clear sky above the northern lights played to an almost empty house. If the weather holds, tomorrow will be a good day to hunt caribou.



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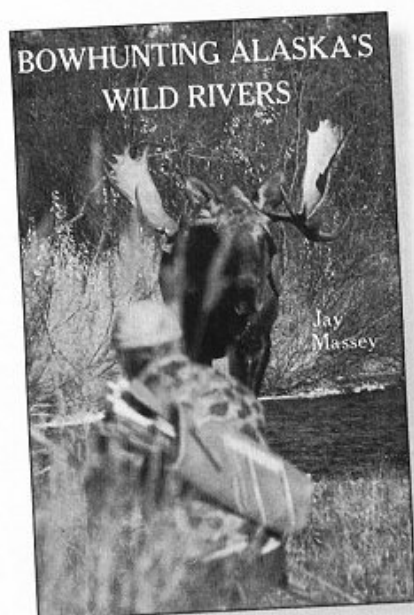
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# Book Review *by Paul King*



**I** first laid eyes on Jay Massey through the aperture of a Holiday Inn elevator door. As those accordion doors whooshed open and the elevator floor lightly bounced at the end of its tether, I immediately recognized the man waiting patiently inside. My son, Ian, and I were there to attend the Annual State Banquet of The Traditional Bowhunters of Oregon, and the man with whom we now descended toward the basement of the Portland Airport Holiday Inn was scheduled as the Keynote Speaker.

Holding out our hands, my son and I introduced ourselves. I explained that I had been particularly interested in Jay's writings and looked forward to hearing him speak because we had a number of things in common. When he heard that I was also a native Oklahoman who had moved to the Pacific Northwest, seeking the "bigness" of the place, and that I was also an unpublished novelist, he said, "Well, look, this thing doesn't start for a couple of hours. Why don't you guys come down to the restaurant with me and let me buy you a Coke or a cup of coffee."

We had a wonderful conversation. We talked mostly about Oklahoma (we had even attended the same college) and archery, and the future of bowhunting. We had a particularly-memorable discourse on the effects that good writing have had on the sport of archery. We talked about great writers we had read, men who had molded us as sportsmen, men with names like Ascham, Thompson, and Leopold; Melville, Hemingway, and London; Saxton Pope and Art Young. We also spoke of how this positive influence is being lost on a generation of young people who do not read. I was very impressed with the way Jay spoke of this matter to my twelve-year-old son. Far too many adults either look down on young people or simply pretend they aren't there. Jay Spoke "man to man," as an equal to my son. Jay realizes that the future of our sport, if it is to have a future, lies directly in the hearts and minds of our children.

Talking to Jay Massey and reading his writings leaves one with a sense that this man has not only a passion for raw nature and conquering it, but also a passion for sharing, for spreading the true spirit of human adventure. I can find no other explanation for why he writes so well.

*Bowhunting Alaska's Wild Rivers* is not a new book. Back in 1983, the "resurgence" of traditional and primitive archery was little more than a glimmer of hope in the eyes of men like Massey. At that time, American archers were at the height of their love affair

with high-tech equipment. It would be another decade before the "old ways" would begin to really catch on, but as far back as 1983, Jay was predicting that it would eventually happen.

The book is broken into three major sections, the first of which is a collection of short stories by Massey and several other authors, all men who write about one of their hunts with Jay. Three of the authors each tell their particular version of the same hunting adventure. It was great fun to note the differences and likenesses in the details of their stories. I also enjoyed experiencing the different emotional reactions these men had to what was essentially the same experience. As "adventure" stories, the ones by Massey and by Gill Stonebraker are standouts. I don't know if Stonebraker is a professional writer, but if he isn't, he ought to be. Another of the writers, W.P. Dougherty is, indeed, a professional (managing editor of the Anchorage Daily News), and his story about his first moose hunt makes that bit of information obvious. All of these initial short stories infuse the reader with a sense of awe and wonder at the vastness and danger of the Alaskan wilderness.

The second part of the book is a straightforward primer on "how to" plan a float-hunt in Alaska. There is a wealth of information on the preparations one must make to get ready for such an ambitious hunt. Massey covers everything from the equipment the hunter will need, to how best to dispose of garbage. I was particularly impressed with the information dealing with safety. The book covers everything from the dangers of hypothermia to reading and managing white water so as not to wind up in the drink.

The final section of the book is about actual hunting technique. Although the bulk of this section deals with moose hunting, there is also an excellent chapter on hunting caribou, bear, and small game. The discussion covers moose calling, glassing for caribou, the feeding habits of Alaskan bears, how to hunt grouse and ptarmigan, and even how to prepare your downed animal for the long journey home.

Doing a bit of "background" work on this article, I recently spoke with Jay Massey about his book. One of the first things I asked was whether the rivers of Alaska were as "wild" as they had been in 1983. Jay's answer came without hesitation, "The vast majority of these rivers are every bit as wild as they have ever been." But then he went on to tell me, with some sadness in his voice, that change was on the horizon. Much legislation has been proposed that may soon subject this pristine environment to many unwanted changes. Massey fears an impending rape of this beautiful land in the name of development and progress, for the sake of the almighty dollar.

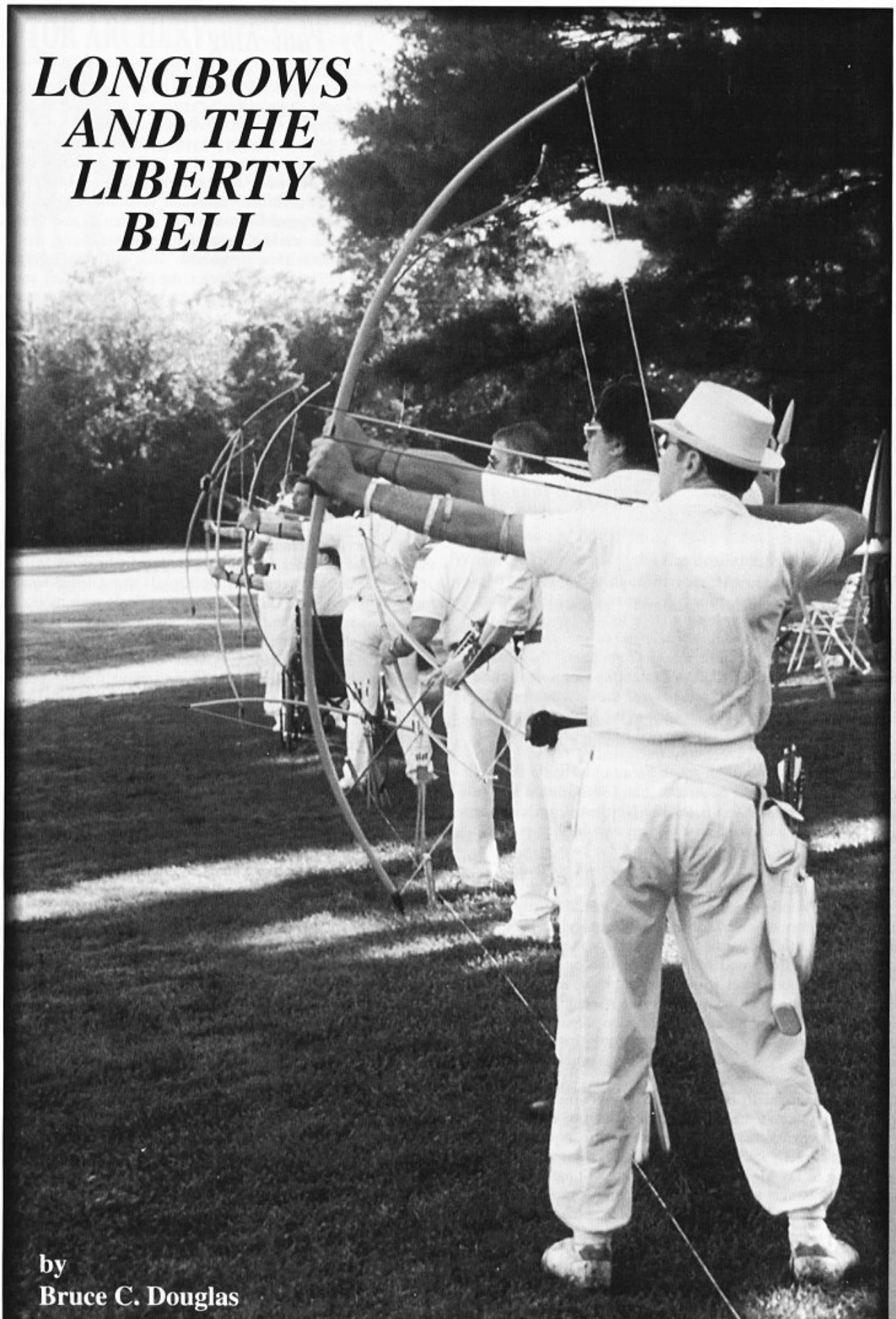
*Bowhunting Alaska's Wild Rivers* is not a document to be trifled with. It will make you want to go there, to face the challenge of an untamed wilderness. It may even get to you on such a deep level that you will want to spend your life's savings or quit your job or do whatever else it takes to make this fabulous journey. So let the reader beware: **exposure to this book could lead to the adventure of a lifetime.**



**Editor's Note:** Jay Massey passed away the morning of January 18, 1997. I received the call from a very close friend of his as I was editing this text. The Traditional Archers of Oregon have established a fund to help Jay's family with the medical costs of his very expensive fight with cancer. If you would like to help with the bills, please send your donation to: **Traditional Archers of Oregon, Jay Massey Fund, 4595 Briars, Eugene, OR 97404.**

Jay Massey was, and will always be, an inspiration to traditional archers everywhere. He and his writings have helped replant the seeds of tradition that are growing throughout the world. We'll miss you Jay. . .

# ***Longbows and the Liberty Bell***



by  
Bruce C. Douglas

On September 20 and 21 an unusual ritual took place on America's shore—the British Long Bow Society North American Chapter's annual shoot at the Corinthian Yacht Club, Essington PA. Only a short drive from the Liberty Bell and Independence Hall, we were going to pay homage to our Anglo-archery heritage. My friend Jonathan and I were joining others in this competition/celebration. For us it leaned more toward the celebration side, since we didn't feel we had a prayer at being competitors.

This was the next step in our unswerving interest in archery. After a 30-year break from messing about with bows and arrows, we had discovered, hidden away all over the country, people making wonderful bows. These were not the racks of compounds I would see in the stores, but simple sticks of wood, carefully selected, shaped, and finished into things of beauty and performance.

About 1 1/2 years ago, I met with John Strunk and ordered one of his yew longbows. While I waited for the bow, I began a period of intensive literature consumption, ordering and reading all the material I could find. Like a new love, everything was fascinating and I had to learn more. When my bow arrived, it was more beautiful than I'd hoped. Now I had to learn how to shoot. Arrow by arrow, I grew more consistent. Heating pads and chiropractor visits repaired my practicing excesses.

Then it was time to visit the Holy Ground, to go to England and see

the great grandparents of my bow at the Mary Rose in Portsmouth. I also was fortunate to meet with Alan Pritchard, bowyer for the Woodsmen of Arden. I toured the grounds and shot a few arrows on the clout. This seemed similar to a game we played as boys; but instead of shooting straight up in the air and running away as fast as we could, you shot at a slightly lower angle and waited for the arrow to make its way to a mark 180 yards away. Alan also introduced me to the British Long Bow Society. Jonathan's rediscovery of bowshooting took a different, courageous form: he decided to make his own longbow! And now, here we were in Essington.

#### FRIDAY, SEPTEMBER 20

Having arrived the night before from Tucson we were pretty well rested and still amazed all of our equipment made it. We took in a few of Philadelphia's waterfront museums before heading out to the Club. Once there we met our host, Dr. Eric Zehner, his wife Jenny, and several of the other archers. Everyone pitched in to set up the 48" target mats or butts, then stood back at the line to admire our work. Now that sinking feeling really set in: 48" butts are pretty big when you're hauling them around and hoisting them up on the wooden stands, but at 100 yards, they looked like bottle caps! I'd read about this thing called the York Round and was amazed (and yes, a little intimidated) at shooting 144 arrows, it had to be exhausting. But now that concern gave way to:

"Will any of my arrows make it to the target?" We began to wonder if September 21, 1996, would be remembered as the day those Arizonans launched 144 arrows into the Pennsylvania landscape. Deciding we hadn't traveled across the country to get cold feet, we decided simply to have fun and enjoy the novelty of having our arrows land in soft, grassy soil, instead of crushing against rocks or tunneling deep into a cactus. Oh well, that would be tomorrow, and tonight the Chapter had a wonderful distraction: a 6-course dinner in the old Yacht Club. We hurried back to the motel to clean up and dress for dinner. In this day of



#### Author's Note:

This article is dedicated to Horace Castillo (above), founder of the North American Chapter of the British Longbow Society. This was his last meet, he passed away this November. His love and enthusiasm for this art will be dearly missed.

undershirts, caps, and boxer shorts on airplanes, it's nice to dress for dinner. . . and step back in time to when manners and respect, rather than laws and regulations, guided social behavior. At the Club we spent the first hour with cocktails and more introductions, everyone made us feel welcome and right at home. As with traditional archery, it attracts interesting people from a variety of backgrounds, all bound by their love of archery. The evening was fantastic. Interesting conversation and a wonderful meal were almost enough to make me forget about the challenge I faced the next morning.

#### SATURDAY, SEPTEMBER 21

8:30 a.m. came around quickly—on this, the day the Arizonans would aerate the lawn. When we arrived back at the Club, people were already sorting out their gear. English longbows are rare in Arizona; to see so many of those slender sticks nocked with horn was exciting. Everyone asked and answered questions about equipment. These are not the massive war bows of Crecy, Agincourt, and the Mary Rose, but the refined symbols of English might first created for men of leisure in the 1600s to capture the romance of days past. We easily could have spent the day talking



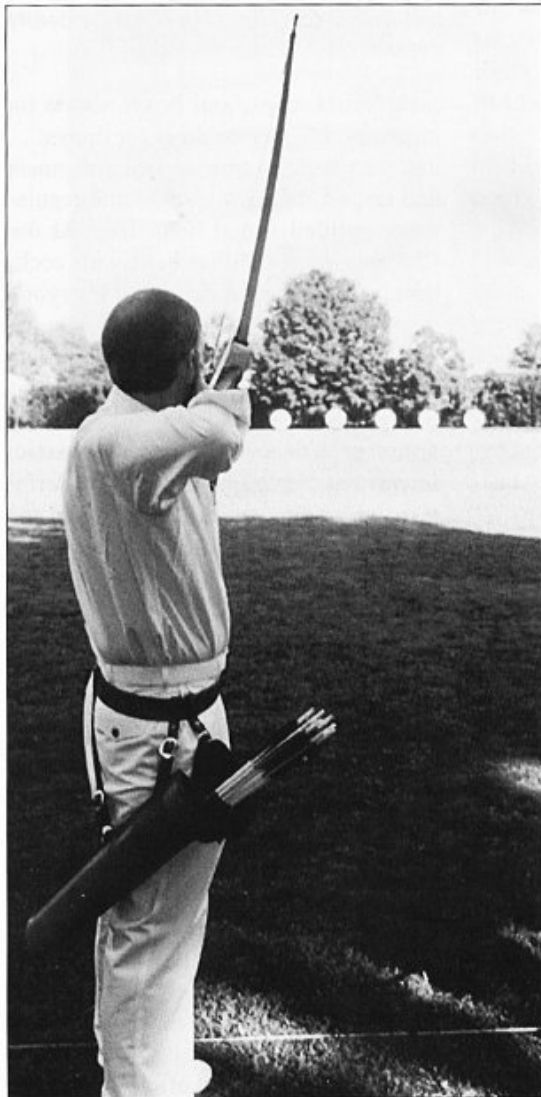
The author (with beard) and Bruce scoring hits.



"The Toast"



bows and arrows rather than shooting them. I was comforted by remembering that I shoot a lot at 20 yards for practice; this would be no different—only 5 times farther!



The author preparing to nail 'yon target.

But the whistle sounded and it was time to pick a shooting station and begin. I stepped up to the line and let my first arrow fly. What beauty took place in those few seconds as I watched my arrow arch through the air and stick solidly in that perfect lawn. . . 25 yards short of the target. Oh well. The next two dug in 10 to 15 yards behind the target. At least I knew I could shoot 100 yards—now just to hit the target. My friend Jonathan stepped up to the line, with concerns admittedly greater than mine: he was shooting this special bow for the first time. His yew self-bow was beautiful, but would it work. . . and without exploding? Yes! Jonathan turned and smiled after he launched his first arrow. "*It didn't break!*" Not only didn't it break, but his fourth, fifth, and sixth arrows hit the target. (The second coat of varnish had dried just enough that it didn't stick to the bow sock. He had built this bow with a single stave from Greg Harris and a stack of books. He ordered his arrows a month before the bow was finished, set to the spine weight he wanted (and hoped) his bow would be.)

The morning passed—shooting, retrieving arrows, and for some, scoring their hits. I was still collecting more of my arrows from the grass than scoring, but there's a funny thing about the York Round: hearing one arrow hit the target gives you so much satisfaction that you're compelled to keep shooting in the hope of hearing it again.

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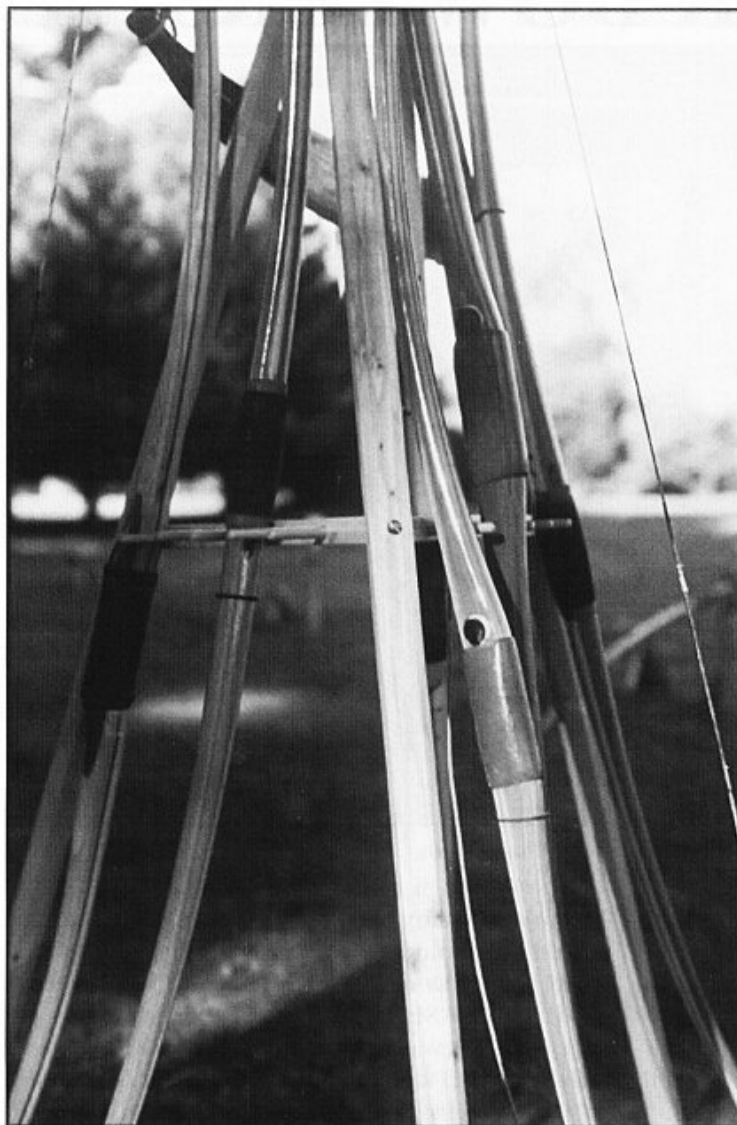
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We paused briefly for sherry to toast, yes, the Queen, the President, and the butts, along with special members of the BLBS and others who made the event possible. Then back to shooting. It was a beautiful sight: 20 archers, all in white, launching arrows high and watch-

ing the long, graceful arcs on their way to the target. It looked like someone had made one of those old pages out of *OF YE SYLVAN ARCHER* come to life. Soon we unstrung our bows, donned our blazers, and sat down to a wonderful lunch. Jonathan decided he

was going to live at the Club since every meal we had was followed by dessert.

The day passed. Targets moved from 100 to 80 to 60 yards. With each change in range more adjustments were necessary. Oddly enough it didn't get much easier. Many there were true competitors—they actually knew what they were doing, pulling more arrows from the butts than from the lawn.

The day culminated with the wand shoot—a 2x4 placed at 80 yards. All archers would shoot at will at this poor white painted board. Twenty archers sending 6 arrows each is a great sight; a constant stream of arrows flowing downrange, creating a stubble field around the white wand. As we picked up our arrows, Horace determined Jack had wounded the wand in the foot—enough to win this event. We wrapped up with a brief meeting and the issuing of awards. Farewells and pledges to meet again next year ended the day.



#### Author's Notes:

I encourage anyone who wants to taste a bit of archery's past to contact the British Long Bow Society and attend one of their annual shoots. Jack Treadwell handles the North American Chapter's membership; he can be reached at 25 Thomas Shilling Court, Upperco MD 21155 (410) 239-7222.

#### Special Thanks

I also want to thank my dearest friend Debra for making this trip possible and Delta Airlines for delivering our equipment safely to Philadelphia.

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# THE MASTER BOWYERS

By *Hugh Soar*



Meeting of the Guild of Traditional Bowyers and Fletchers, Britain, 1995.

The beginning of English bow-making is lost in the mists of time. Hunting weapon and war-bow alike, the mystery of their making was passed down father to son, from Master to apprentice and, as all traditional craft should be, was learned by example and by word of mouth.

It was a matter of honour that "outsiders" should remain in ignorance of the ancient secrets, and with the notable exception of James Duff, whose book *"Bows and Arrows"* is still a best-seller, no ex-apprentice worth his salt would dream of revealing his Master's methods. Indeed when George Sorrel, the last indentured bowyery apprentice, died in the 1950s, he did so taking his knowledge with him.

The old Craftsmen Guilds were virtually secret societies and remained so for generations, long after the handgun had supplanted the bow as a primary weapon. Known as "Misteries," from a medieval french word meaning the practice of one's livelihood, these Guilds were often intimately connected with a church or religious house, and, as in the case of the Bowyers Company of London, were known as "Worshipful." Absolute in power over their workmen, if one transgressed too often he was dismissed from the Guild; and if he wanted to continue in his trade, he had to travel many miles to find one which was not influenced by London. The expression "to send someone to Coventry" derives from this, Coventry being the nearest City with an independent Guild.

Their tools were simple. Today's bowyer's bench would to some large extent mirror that of earlier times. Files, hatchets, gravers (a small saw), planes, shaves and floats (a tool rather like a large coarse rasp designed to rough out a stave) would each be recognized by today's bowyers, as would the way in which they were used.

Although no "Working Manual" exists earlier than the present century, we know something of the sequence of operations in olden days and again this follows the same broad pattern as now. When first split, the bow-stave was known as the "Staff." After a lengthy seasoning (of about three years), it was hewn to rough shape with a hatchet, the limbs were then tapered using the float, in an operation known as "pointing," and finally planed to smooth the wood.

The bow, (by then in recognizable shape) was checked for straightness and corrected if necessary by heat or steaming, and this was followed by "horning," or fitting the rough horn tips.

These were then "nicked" (nocks cut), and the limb shaping continued. Once the on-going process of tillering had been concluded (with a final correcting of limb "high-spots") the by now almost finished bow was smoothed, polished, and lastly rubbed briskly with oil and a boar's tooth to make it shine and to "set a gloss" upon it. Smoothing might be accomplished by the use of dog-fish skin, readily available in many areas, and an excellent substitute for today's "wet-and-dry" sandpaper.

The word "float" is a curious one, and seemingly bears little relation to its purpose. However, it occurred around Sheffield in South Yorkshire during the last century as the dialect word "floit," being in this context a file with straight teeth. The local verb "to floit" or "floiting" meant to pare or scrape, and has an obvious connection with the earlier purpose.

Contrary to the belief of some, self-staves were not always used, largely because, as the 16th Century progressed, good yew became increasingly more difficult for master-



bowyers to come-by. The time of the "backed" bow had arrived; and although waterproof glue was not yet to be had, (with some resultant risk to an unprotected weapon) the marriage of back and belly was successful and, as we know well, the partnership has been long-lasting.

As in most callings, there was a hierarchy amongst bowyers. The office of "King's Bowyer" was important in olden days, not only for its security of employment, but for the prestige it brought. In times of war vital, although towards its end something of a sinecure, the post carried significant responsibility. Whilst answerable in earlier times to the King's "Artiller" (from whence the term artillery comes), from the end of the 14th century until its abolition in the 17th century, the task was a "free-standing" one, and although connected with the Guild, the bowyer was very much his own man.

Royal Letters of Patent defined his role and allowed him: *"house(s) in the Tower (of London) for his abode, of the Office of keeping, (ie storing safely), making, and providing the king's bows for the Tower, Calais, and for Ireland, as well as strings for them at the king's charges."*

He was also allotted a dwelling place beside that of the King's Fletcher and, to emphasize his importance as a servant to his Majesty, he was provided with a suit of livery of the King's Chamber, receiving from the Exchequer 6d a day for his pains.

It is just possible that we have some actual knowledge of the work of two King's Bowyers for, as is well known by now, when the Tudor warship "Mary Rose" which sank in 1545, was brought to the surface in the 1980s, a number of longbows were recovered with her. Whilst we can't be certain of course, since the practice of stamping weapons with bowyers' names came much later, it is certainly possible that some of the bows we see today were made by William Buckstead and William Pykeman, the two king's bowyers in Post when the ship went down. We know that they, with their apprentices, were then at work in the Tower of London making and repairing bows.

Very little is known of these men, neither of whom could have had the least idea of the world-wide interest their work would generate 450 years later. William Pykeman's father, Henry, also at one time a King's Bowyer, came from Essex, and William inherited the family lands there on his father's death. He also inherited, and presumably then used, his father's workshop with his stock of bow-staves, tools, and household goods.

Although William Buckstead married, he died childless, leaving his widow to inherit what goods and tools he had.

Let's allow the imagination to flow a little! A number of the "Mary Rose" bows have "peck" marks on their limbs. These incised marks may have been made with the corner of a chisel, as Dr. Hardy, author of *LONGBOW*, speculates; or as Richard Galloway has sug-

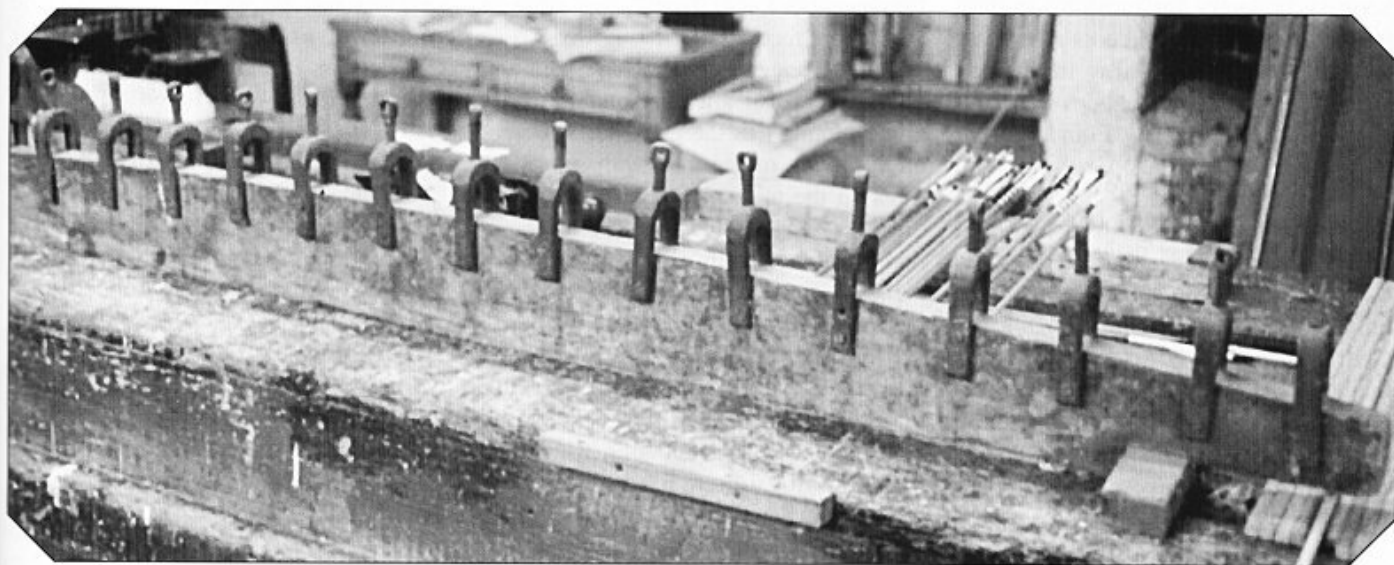
gested in a private letter to myself, by a pricker. It may be unimportant to know with what these marks were made, but it is important to know why, and at this stage in time we can only guess, albeit with the enlightenment of those familiar with bowyers and longbows.

Relying upon the very limited amount of information which is still even now available to archer antiquarians and others with direct interests, there appear to be marks on 116 of the bows recovered. These vary, but seem to be exclusively on one side of the bow limb only.

In this position these marks might indicate a number of things; an advised upper limb or an arrow pass; perhaps a bowyer's personal Mark; possibly a form of "shorthand" guidance to an apprentice or even himself, of the need for further work. Or indeed any combination of these suggestions. There is also the possibility that some of the marks were made by those using the bows, and not by the bowyers at all!

We can never know for sure; but if one had to go firm, I would point to the fact that with two bowyers working for the King in the Tower workshops, it might be necessary for Exchequer purposes, to have some means of checking output. What more natural than for one bowyer to use a cross, and another a circle?

But, what of the combined cross and circle? Well—these men were colleagues and almost certainly close friends (William Buckstead was witness



Thompson of Meriden's nineteenth-century workshop. This press was for making reflexed "backed" bows.

to William Pykeman's father's Will); is it unreasonable to suppose that they worked together, and that a cross within a circle indicated just that?

In passing, it is interesting that the arrow-passes in mother of pearl, which adorn many of the 19th and early 20th century recreational self-longbows, are similar in shape to the outlines of some of the angular marks on the Tudor bows.

But, returning (a bit reluctantly perhaps, because creative thinking is a heady pastime) to the title of King's Bowyer. The last man known to have held the post is the son of one John Jefferson, who in 1622 resigned the position in his lad's favour.

Incidentally, the title was not confined to England. The Scot's Kings had their own bowyers, or "bowers." As late as 1667, in the annals of the Musselburgh Silver Arrow Bow-Meeting, we come across Alexander Hay, "His Majesty's Bower." Since the bow had been outmoded in Scotland by then, as well as in England, it is curious but perhaps understandable, that when in 1673, only six years later, the Royal Company of Archers was formed in Scotland, apparently no-one then could be found to make their bows, in Edinburgh or, by implication, in Scotland either.

Alexander Hay, no doubt an accomplished archer (he won the Silver Arrow in the Contest), was perhaps more than a little rusty in the skill department.

Before we leave 17th century Scottish bowery for more up-to-date fare, we'll take a glance at a bowyer who in his own small way influenced history. His name was James Pett, and he traded in St. Andrews, Edinburgh. In 1628, he sold James Graham (the Marquis of Montrose) his bows; and as those who follow Scottish history will know, Montrose became a legend in his own lifetime for the defeats he inflicted on greatly superior armies during the Civil War, partly by his tactical use of the bow. Although dismissed patronizingly by later military historians, these were successes which archers would say came through Montrose's familiarity with the bow as a weapon.

During the battle of Tippermuir, fought on September 1, 1644, after Montrose had raised the Royal Standard of Charles 1st at Blair Atholl, his Atholl Highlanders, supported by MacDonalds armed with broadsword and longbow, defeated an army over twice their size.

But now, we roll forward over two-and-a-half centuries. To the Workshop of Thomas Aldred, one of the finest of England's Victorian bowyers.

Aldred arrived on the bowmaking scene in the early 1840s. In partnership with two colleagues, James Buchanan and Joseph Ainge, he bought the successful bowery business of John and David Freeman, and joined what was by then a rapidly-expanding market.

For some time, Aldred was unable (or unwilling) to spend his time making bows, being either obliged or preferring to carry on with his then work as a clerk. Ainge and Buchanan dealt with the Workshop, with the latter taking the lion's share. Predictably perhaps, this did not please Buchanan and, shortly after the partnership was formed, he left to create his own equally-successful rival workshop.

Obliged now to take control, since Ainge had also gone, Aldred left his clerical job and gave his full time to bow-making. His weapons, many of which survive today (the author has over thirty) are superb examples, and testament to the journeymen and apprentices who created them.

By a stroke of luck we know quite a lot about his methods, since Colonel Walrond, the co-author of the Badminton Library's book *ARCHERY*, was allowed to visit and record these.

He bought his wood in Spain and Italy; much of it after personal explanation. Noting that the grain was different on each side of the tree, with the closer rings on the more exposed side, he used this knowledge to the full. He preferred trunks of between eight and sixteen inches in diameter, and as free from obvious knots as possible.

On arrival in England, they were kept in the log form for a full year, ends waxed to prevent splitting. They were then cut (sawn, and not split, which is a bit surprising) into such billets as the master bowyer thought would make up limbs. These were then left a further year

to season, being stored to reduce the chance of warping.

The following year the bark was removed and the billets roughly trimmed and cut to lengths suitable for limbs. If thought suitable, billets were split to form "brother and sister" pairs, but if shakes or knots appeared, then one prospective limb would be discarded in favour of the other.

The limbs were then put aside for another year, after which time they were looked over for matching pairs, and these were tied together. The selected limbs were next trimmed into square sections, and fishtail splices cut and joined. Nothing but the best glue was used; whilst to allow the glue to set properly, (No "Resin W" in those days!) the operation took place during the springtime when the temperature was neither too hot nor too cold.

The joined limbs were once again put to one side for yet more time, to allow the glue to set firm; although a year was allowed for this, the splice was ready in fact after six months.

During the fourth year, a thin "riser" having previously been fitted to "round out" the handle section, the centre of the bow was bound with hemp. This was strongly glued, thus helping to strengthen the spliced joint. The shaping of the limbs being completed, with "pins," and "knots" raised, the bow was put away for yet another year!

During the fifth year, the stringing and lower horns were put on, and the bow finally tillered to ensure it still came around in compass. It was then weighed and the weight stamped. The handle covering (either binding, or moquette on earlier weapons) was positioned, the bow polished and made ready for sale.

Aldred recommended that his bows remain without further polish for a period to allow the wood to breathe and thus continue seasoning.

All this of course concerned a self-yew bow; backed bows were much less of a trouble. Hickory and hardwood were kept in strips for about twelve months. If yew was used as a belly wood, then it would come from those billets which had been rejected as not suitable for self-bows.

When the wood (backing, core laminate if included, and belly) had been prepared, the result was placed in a strong wooden frame to be glued under pressure. This frame (an example of which is still used by the bow-maker to the Woodmen of Arden) consisted of a shaped "former" fitted with a number of iron loops. It was managed by two men, each working from one end towards the middle, driving wooden wedges between the iron loops and the belly strip.

As an aside, the frame in use at Meriden (see photo on previous page) was designed to produce a bow with a marked reflex to its limbs. (Editor's Note: See Roy King's letter to the Editor regarding ancient "Perry-Reflex" bows.) Instead of wooden wedges, the iron loops are in the form of screwed clamps, tightened from the top, and it is a much more elaborate affair.

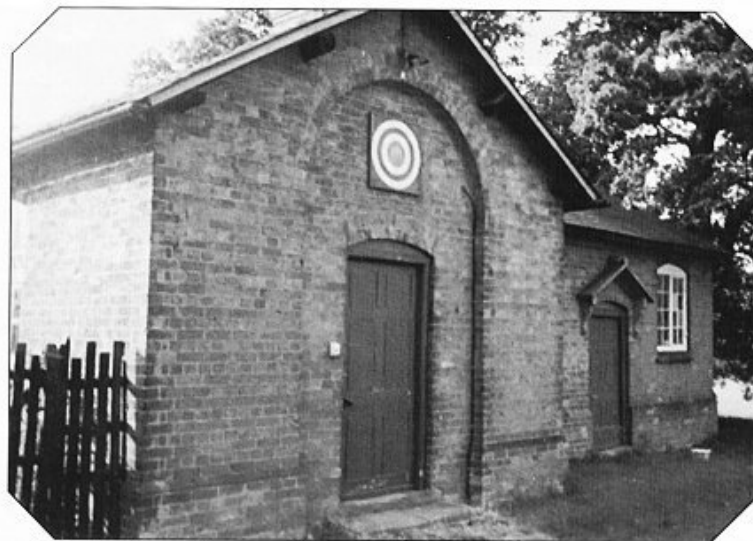
Aldred advised that all bows, whether "self," "backed," or "core laminated," should look the same in profile; that is straight, and not reflexed or set back in the handle. In this he differed from his Scottish rival Peter Muir who had no such inhibitions!

He also believed that whilst self-bows should not be whip-ended, backed bows might be made so to give more cast; although he excluded yew-backed-yew from this.

In the case of self-yew bows he insisted that the limbs followed the natural grain during construction, in his words *"any attempt to straighten a limb by artificial means would be fatal to it."* In this of course he differed from the earlier bowyers who would steam or heat to straighten! He was opposed to reflexing limbs, seeing this as causing the bow to give an unpleasant kick to the hand when loosed, and he is particularly caustic about the practice. He concedes however that some of his contemporaries were setting their backed bows back in the handle, claiming that they kept their cast longer, gradually losing the jar in the hand.

Aldred wasn't really convinced by this argument however, remarking that even if this were so, it would be best if one got a friend to shoot the bow in first!

His working dimensions are interesting. A bow should have an unbendable centre section of about 17" in length, and for a 50-pound weapon,



Exterior view of bowyer Thompson's nineteenth-century workshop.

be 72" in length to accommodate a 28" arrow. If 27" arrows were used, then 71" would suit. How closely this rule was followed the reader can judge for himself from the following statistics culled randomly from twenty-eight of Aldred's bows in self-yew and other woods, taken from the author's collection.

Material	Weight	Length
Lancewood, backed hickory.	48 lbs.	71 1/2"
Self-yew (taxus baccata)	57	72"
Yew, backed hickory.	52	70"
Yew, backed yew.	42	71 1/2"
Lancewood, backed hickory.	44	70 1/2"
Beefwood, backed hickory.	48	71 1/2"
Self-yew (taxus baccata)	53	71"
Degame, backed hickory.	50	72"
Ruby-wood, backed hickory.	46	70 1/2"
Self-yew (taxus baccata)	46	71"
Yew, backed yew.	46	71 1/2"
Self-yew (taxus baccata)	47	70 1/2"
Yew, backed yew.	49	70 1/4"
Self-yew (taxus baccata)	53	67 1/2"*

\*This bow belonged to C.H. Longman, National Champion in 1883, and was either made especially for him, or was "piked" at his request. The average length, excluding this one is 71 1/2" and the average weight is 52 pounds—near enough since most men used a 28" arrow!

But, let us look at the Ladies bows.

Material	Weight	Length
Yew, backed yew.	28 lbs.	62 1/2"
self-yew (taxus baccata)	27	63 1/4"
Lancewood, backed hickory.	31	63 3/4"
Beefwood, backed hickory.	29	64"
self-yew (taxus baccata)	25	63 3/4"
Yew, backed hickory.	30	63 3/4"
Self lancewood.	27	64 1/4"
self-yew (taxus baccata)	32	64"
Lancewood, backed hickory.	28	63 1/2"
Self-yew (taxus baccata)	26	63"
Yew, backed hickory, with fustic core lamination.	27	62"
Self-lancewood	29	62 3/4"
Self-yew (taxus baccata)	26	63 3/4"
Yew, backed hickory, with fustic core lamination.	25	63 1/2"

An average of 63 1/2" and 25 pounds draw-weight! Eight inches less in length, and half the draw-weight of the men's. But remember, until the introduction of the Hereford Round in 1894, no woman shot at more than 60 yards in competition, and with 24" arrows at that!

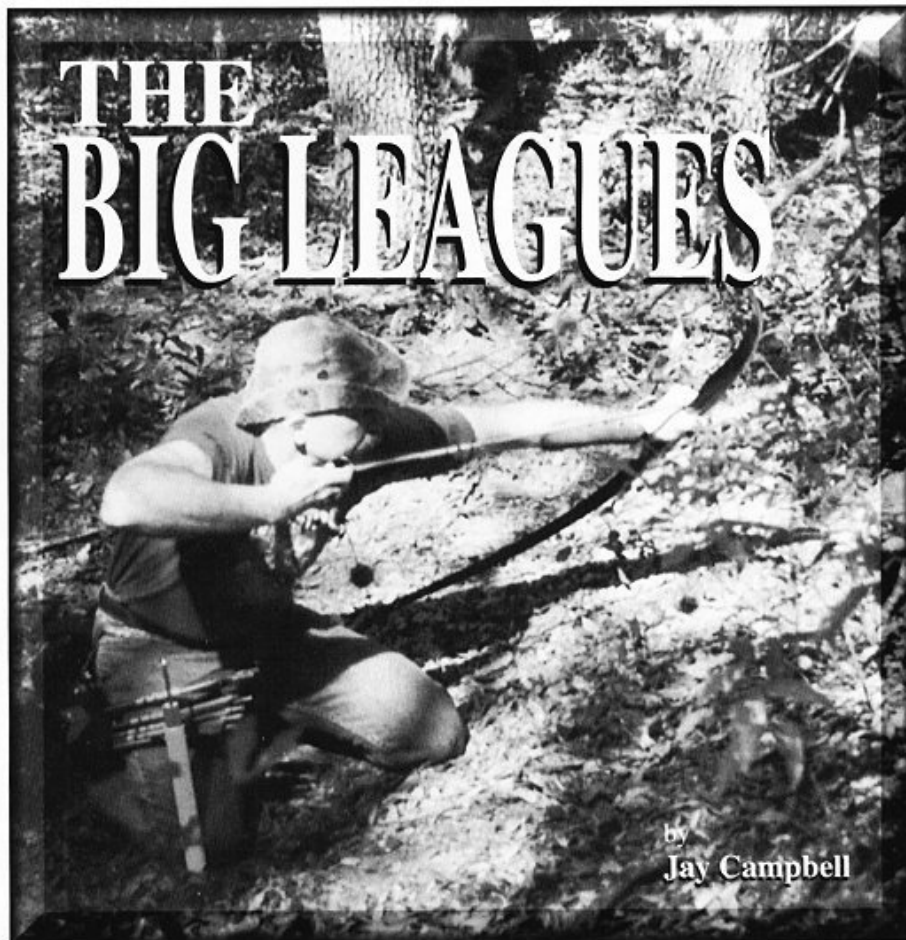
Master Bowyer Aldred, whilst acknowledging the worth of self-yew (much of which he personally chose whilst on expedition to the Pyrenees), speaks well of backed bows. Strange as it may seem to those of us today who will give a King's ransom for one of *taxus brevifolia* according to Aldred, many of the elite performers of his day used backed weapons in preference to self-yew.

He reckoned from experience that a combination of yew, fustic, and hickory made straight but "whip-ended," cast better than "two-piece" (backed) bows, whilst also lasting longer. Curiously though, of the 30 bows made by him in the author's collection, only two have this mix, and they are each for women! Something odd there perhaps?

From Thomas ALDRED to the modern craftsman is but a short step in the history of the longbow. British bowyers, skilful members of the exclusive Guild of Traditional Bowyers & Fletchers, still proudly craft the English bow. And as long as there are men and women who will wax the cord, and bend the bow, please God it will be so.







**H**ere in Florida, archery tournaments haven't moved into the big leagues of spectator sports yet. We don't have a new stadium, or a local sales tax, or even

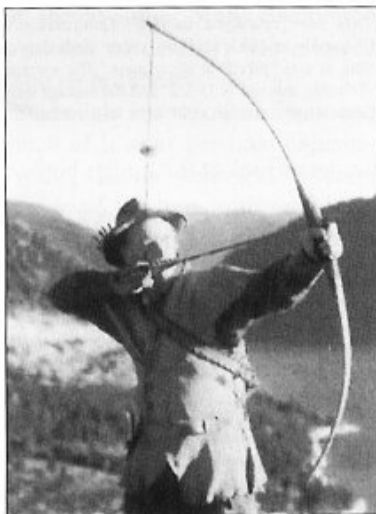
someone from Baltimore or St. Louis trying to steal our franchise. Okay, we don't have a franchise, but even if we did, Baltimore wouldn't want it. The reason is, we don't have enough fans.

So, my pal Lew Corlew figured out how to bring in lots more archery fans and get us a franchise too—put hecklers at our archery tournaments! You see, Lew saw Shaquille O'Neal rip out a heckler's epiglottis on T.V. once, which got the basketball fans coming in like crazy. (Lew didn't know what an epiglottis was, but I told him it's near that thing that hangs down in the back of your throat). Apparently Shaq grabbed it by accident when his arm just coincidentally happened to be down the heckler's throat at the time.

Anyway, Lew figured that if hecklers could bring more fans to basketball, why not archery? The plan was to have some bystanders act like crazed hecklers, maybe unnerve some top shoot-

ers, and bring more excitement to the match. Since Lew and I never have a chance to win anyway, it seemed like harmless fun.

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Unfortunately, the day we picked to try it there weren't any bystanders, and Lew and I had to do the heckling ourselves. So, we'd stand forward of the shooter in our group, jumping and waving our arms and holding up signs and chanting "*Aiiir Shaaft Aiiir Shaaft*," and other such things.

Well, we didn't notice lots more fans coming in right away, but we did notice that our shooting partners' scores fell off something terrible. In fact, by the last target in the afternoon Lew and I were tied for first place, with one arrow to go. That's when we learned that Lew was right—you can cause a lot more excitement at archery tournaments by heckling.

As I drew my last arrow, Lew stepped into my field of view, jumping and waving his arms and chanting "*Aiiir Shaaft*. . . *Aiiir Shaaft*" and other such things. Now with all that money on the line, I tried to focus hard on just that last target while I prepared to let the shaft fly. Then finally, when that bright arrow found its mark, all heck broke loose around us! The crowd went wild, the noise level rose, and I was carried away. Lew was a genius! It was the most exciting and action packed shoot ever—just unforgettable.

Unfortunately, I didn't win. You see, all of Lew's jumping and arm waving and "*Aiiir Shaaft*"ing really unnerved me. And that last target looked so small and so far away, and Lew was so close and so loud, and with first place on the line and all. . . well. . . I shot him! It just seemed like the right thing to do at the time.

I guess he must have jumped the string, because I only scored him for five points. But it wasn't too bad for Lew (he comes home from intensive care next Tuesday). As for me—I gave myself up, but Lew refused to press charges. He said everyone knew I hadn't hit anything on purpose for years, so I couldn't have shot him with "criminal intent," even if I wanted to. He really knows how to hurt a guy. And you know, it could have been lots worse for him—at least he still has his epiglottis. And I just know we're getting that big league franchise soon, if we can only work the bugs out with a few new hecklers. Lew says he's retired.



#### EDITOR'S NOTE:

Jay Campbell is Editor of the magazine of the Traditional Bowhunters of Florida, *The Stickbow News*. Lew Corlew is the 1996 Florida State Traditional Archery Longbow Champion. Jay is still out of jail, and Lew seems to have recovered, although he rarely steps ahead of the firing line anymore.

### Ted's Tips:

(Provided by Ted Fry, of Raptor Archery)



- For a better looking arrow, after tapering the nock, sand the edge of the angle to blend the taper to the nock.
- An easy way to remember how to line up the nocks on your arrows is to think of the string splitting the Vs or islands (growth rings) on your shafts.
- A good rule of thumb on what type of glue to use for fletching feathers is that if you use Bohning finishes, use Fletch-Tite glue. For any other finish, use Duco cement. There are other glues on the market, but if you use any of these, I recommend that you experiment to see if your finish and glue are compatible.

**R.R.A.**

**Rogue River Archery, Inc.**

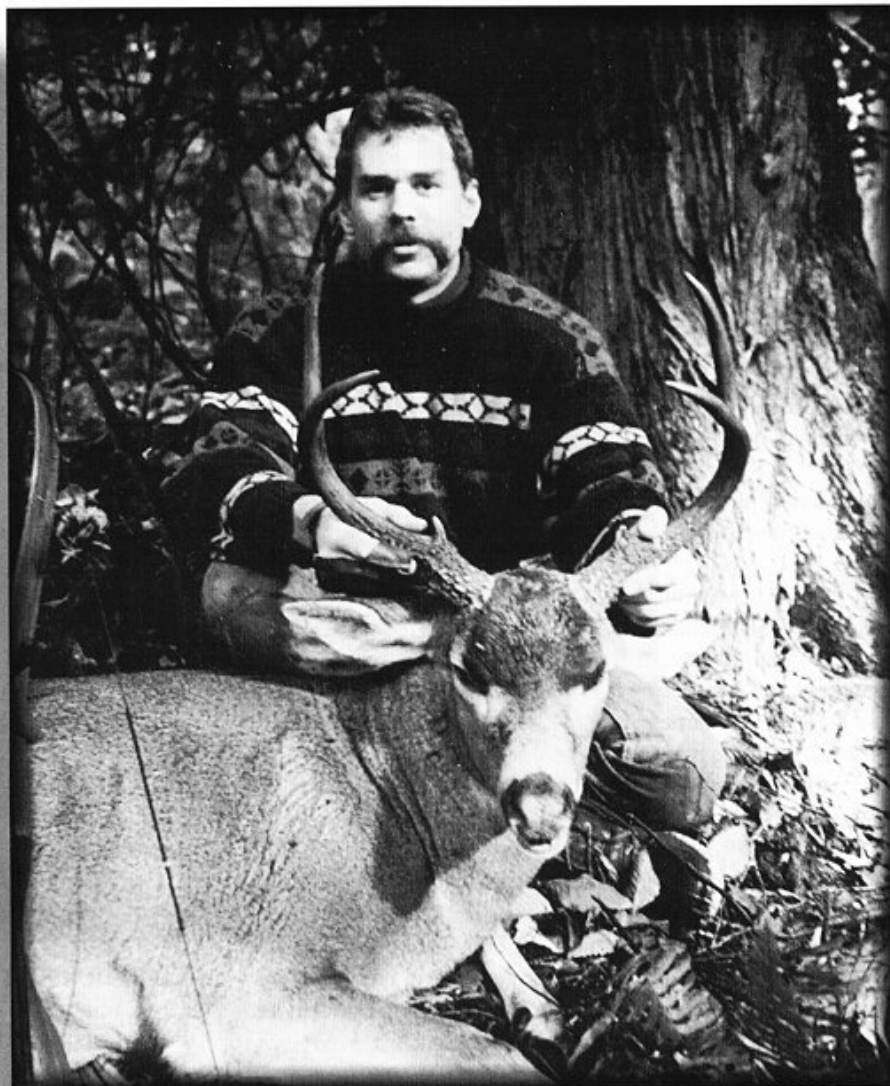
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# SUCCESS AT LAST

by Tim Wallis



**I**t was October 29, 1995. My hunting buddy Robin Buck and I were kneeling in front of the largest Blacktail buck I had ever killed. He was a magnificent animal that weighed well over two-hundred pounds, and although he was a two-point, his antlers were big enough to convince us he would make the record book.

This hunt took place on Vashon Island in Washington's central Puget Sound. I was busier than normal before season, so Robin did the scouting and called me afterwards with the news. Apparently he jumped several does in the period of a day but could locate any bucks. In his travels he did find some large buck rubs a shed antler; which left him feeling optimistic about our chance at a good buck during the upcoming rut.

The two of us returned at the end of October with the intent of still-hunting the area around the rubs. When we arrived I groaned at the site of the seven foot wall of salal we would have to work our way through. I will emphasize the word, "work." It never ceases to amaze me how little time it

takes to question the merit of such a fiasco, pulling and thrashing my way through some wet thorny tangle. The property consisted of sword fern, salal, stinging-nettle, and thorny blackberry brush under a high canopy of maple, hemlock, and douglas fir trees. The maple leaves had turned orange and were beginning to blanket the ground with the vibrant color of autumn. Because the ground is very hard with little top soil on Vashon Island, the hemlock and douglas fir trees cannot put down good tap roots, consequently their root systems are fairly shallow.

Because of this, many have fallen to high wind in previous years and lay as bridges over otherwise impregnable brushy areas. We used these downed trees to our advantage and soon crossed over into maneuverable terrain. Immediately we caught sight of a two- and a three-point coming our way. Robin decisively moved into position, setting himself up for a shot at the bigger one while I stayed low and watched. Even from a distance it was apparent that the rut was well under way. Both bucks had their noses to the ground and their



necks were noticeably swollen. When they passed though a shooting-lane at approximately thirty-five yards, Robin came to full draw and released. I could tell when he let go that the shot was perfect, but a blackberry vine seemingly appeared from nowhere and deflected it into oblivion. Neither of the deer were aware of our presence so the noise had little effect on them.

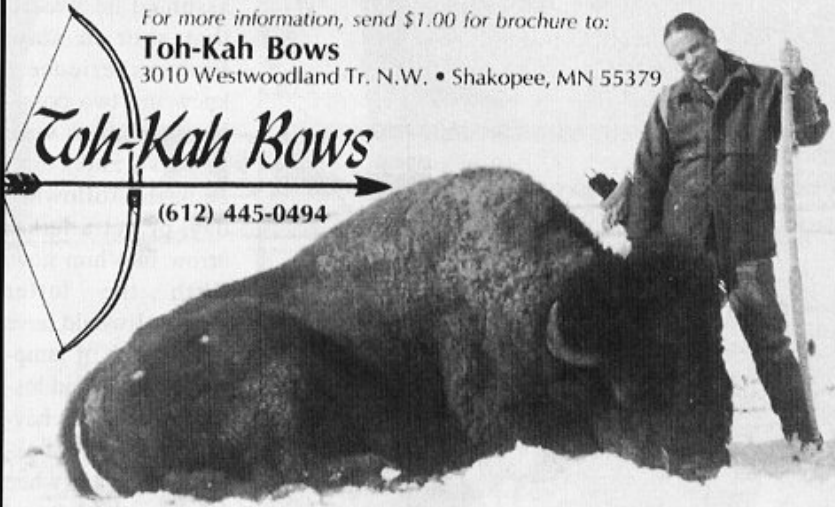
The smaller of the two continued on at a little faster pace, while the three point disappeared into a section of high salal and blackberry vines off to our left. My initial thought was to circle around this island of brush, get up wind in an effort to force the buck out, and give Robin another chance. I conveyed this to him with some hand signals and quickly got myself to the other side. As it turned out, I arrived just in time to see the three point look at me, turn, and walk in the way he had come out. I continued circling until I met up with Robin and told him that to my knowledge, the buck was still somewhere inside. It's hard to justify walking away from such a nice three point without pursuing every possible avenue for success. In a last-ditch effort I crawled though one of the waist-high deer trails in an attempt to push the buck to my partner. (An attempt I might add, that was as unpleasant as it was unsuccessful.) He had obviously either nestled himself into a tight spot or slipped out some place that Robin and I couldn't see. We felt we had exhausted our resourcefulness and pressed on with a clear conscience.

More progress put the gradual uphill grade we were on behind us. The remainder of the property stretched out, perhaps two-hundred yards further, ending on a high waterfront bank. It was a beautiful day. Standing there looking

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over a blanket of green salal and into the distance as Puget Sound glimmered through the trees. Two-thirds of the way across this expansive undergrowth lay our destination; the alder trees where Robin had discovered the rubs. Visually scouting the easiest route, we plotted a course and slowly still-hunted our way in that direction. Many times my height has put me at an advantage for spotting deer in these situations. By periodically looking over my shoulder, I'll see a deer that I've walked past. That is precisely what happened next. I looked over my right shoulder just in time to see an extremely large buck staring back at us. Although he stood twenty-five yards away and his chest was visible through a shooting lane, a branch following the contour of his back lay between us. I didn't think I could get an arrow under it. My only

other option was to shoot over it and try to drop one in. Quickly pulling an arrow from my quiver, I knocked it without taking my eye off the buck. In one motion I came to a full draw, anchored, released, and... missed. The slow-motion image of my arrow sailing over the branch—and the deer—instantly told me I should have shot under the branch. I couldn't help thinking about how long I had waited for that opportunity. Neither of us saw how many points he was sporting but his antlers were very heavy, and he was bigger than any Columbian Blacktail I had ever seen. With some effort we recovered my arrow from an alder tree and decided to look for a place to break for some mid-morning, pre-Halloween snacks. There was a little clearing under a cedar tree about seventy yards from where I missed the buck. We made our way over and sat down for awhile.

Our conversation wandered from topic to topic and was drawing my complete attention until a branch broke behind us. I stood up, simultaneously knocking an arrow and taking a few steps around the tree. To my surprise the buck I just missed had followed a doe to within twenty-five yards of us. His head was down as he approached, but the doe saw me, spooked instantly and bounded off. As the buck started to follow, a

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three point walked out of the salal some forty yards away catching his attention. While they began grunting at each other, I took the opportunity to move five or ten yards to my right; putting the big buck broadside and clear of any obstructions. The three point was carrying some huckleberry brush in his antlers that he picked up during the recent rutting activity. He looked like he meant business but when he spotted my movement he disengaged and disappeared as quickly as he had appeared. This alerted the bigger buck who turned around just in time to see me finishing my draw, anchor, and release.

Now, what I would like to say is that the arrow was right on target and he collapsed after a thirty-yard run. Unfortunately, it wasn't and he didn't. The shot was a little far back and low. He hunched up and moved about thirty yards into the salal and stopped, stood there for a few minutes, and then bedded down. Robin and I played out this first

hand by waiting. About fifteen minutes went by and I assumed he was in that spot to stay. From experience I knew my two possible alternatives were to leave and come back the following day, or get a lethal arrow into him now. With the latter choice, I would have run the risk of jumping the buck and losing him. I was having a hard time making a decision when he stood up and made it for me. My adrenaline instantly took over and in a game of last chance, I was able to make two more shots putting the buck down for keeps.

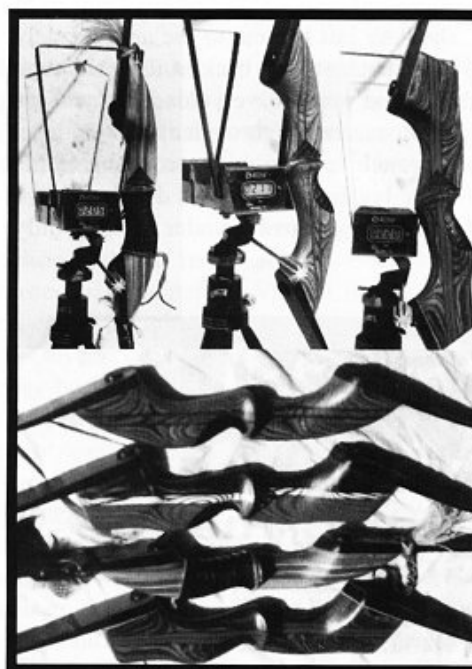
Since neither of us had seen actually how many points he had in all the excitement, we were surprised to walk up and learn he was a two point. Even so, after the required sixty-day drying period his

antlers scored ninety-six and six-eighths Pope and Young points. The bases alone each measured five-and-one-half inches around.

Despite my good fortune, the feeling of success was accompanied by a strange sort of sorrow. In addition to being my largest Blacktail, it was the largest buck I'd taken of any species in more than ten years of bowhunting. In the past I had been able to take consecutively bigger bucks; largely due to an increase in knowledge and by holding out for a bigger buck every year. What made this situation different was the jump in size between the last buck I had killed and the one we were now looking at.

I knew it might be some time before I had an opportunity at a larger one. However, overall I was elated, and after several photos, we started the skinning, caping, and quartering process. The bow I used was a sixty-inch, fifty-eight pound, Pacific Coast Recurve, and combined with cedar arrows and Buck Broadheads, the little outfit was tailor-made for hunting in thick brush.

We headed home and as the sun set over the Olympic Mountains, I thought about next season. Although it was a year away, I knew the time would pass quickly and once again I could enjoy pursuing my favorite species of deer; the Columbian Blacktail.



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# TEN BOWS FROM THE SEA BED

## ARTIFACTS FROM HUNTERS MORE THAN 5000 YEARS OF AGE

By  
*Flemming Alrune*

Normally we connect archaeology with the science of digging prehistoric items from the ground, but during the late '70s underwater archaeology became more and more widespread in Denmark. Now, it has nothing to do with diving on wrecks of sunken ships, but divers excavating from the sea floor. Geology made Denmark like a very slow "seesaw," which means the northwestern part of the land rises and the southeastern part sinks. A process which started around 5000 years BC, and still very slowly is going on.

Many settlements from the late "Kongemosell" culture and the succeeding "Ertebølle" in the Southeastern part of the country now are submerged into the fine layers of gyttja at the bottom of the sea. In 1978, scuba divers from a local divers club found remnants from stoneage settlements on the sea floor between 6 and 10 feet below the surface of what once was a small cove. The find was outstanding and a full scale excavation was established. The place had been occupied for 1,400 years. From 4,600 to 3,200 B.C. and revealed many new aspects from the period. Among the artifacts were ten bows, all made from elm. As usual, you may say, from the Mesolithic (or what is more commonly known as The Stone-age of Hunters lasting from about 8,900 to 3,800 B.C.)

Yes the hunters' bow wood was elm and along with the increase of temperature it became abundant in the woods, as did the access to prime-quality bow wood. The generous climate and the richness of food made man increase to a considerable number. Could that be one of many reasons that the

bow finds from "Tybrind" came up with different designs of bows? Perhaps bigger populations living under different conditions think and create differently.

**TEN BOWS:** They were all made of elm, and all were made from rather thin, knot-free trunks with diameters about 3." The find revealed two types of bows:

1. A "Holmegaard-like" bow with the distinct narrowing limbs halfway between grip and nock. Some with a semi-circular cross-section at the widest part of the limbs changing to almost circular on the narrowing part. Others with a elliptical cross-section on the widest part and changing to more or less circular on the narrowing part. I say "Holmegaard-like" because of certain differences from the real "Holmegaard," which has a flat belly. Most of the "Tybrind" bows have a convex belly. The handle section is distinctly marked on the real "Holmegaard." The "Tybrind" bows have a much more smooth outline from the limbs to the handle—not angular. Besides, the handle section is longer on "Tybrinds." The resemblance to the big bow from vedbaek is striking apart from length. The "Tybrind" bows are between 65" and 74" (the "Vedbaek" bow is 78" long, read about that in the Summer/Fall, 1996 issue of *Instinctive Archer*™).



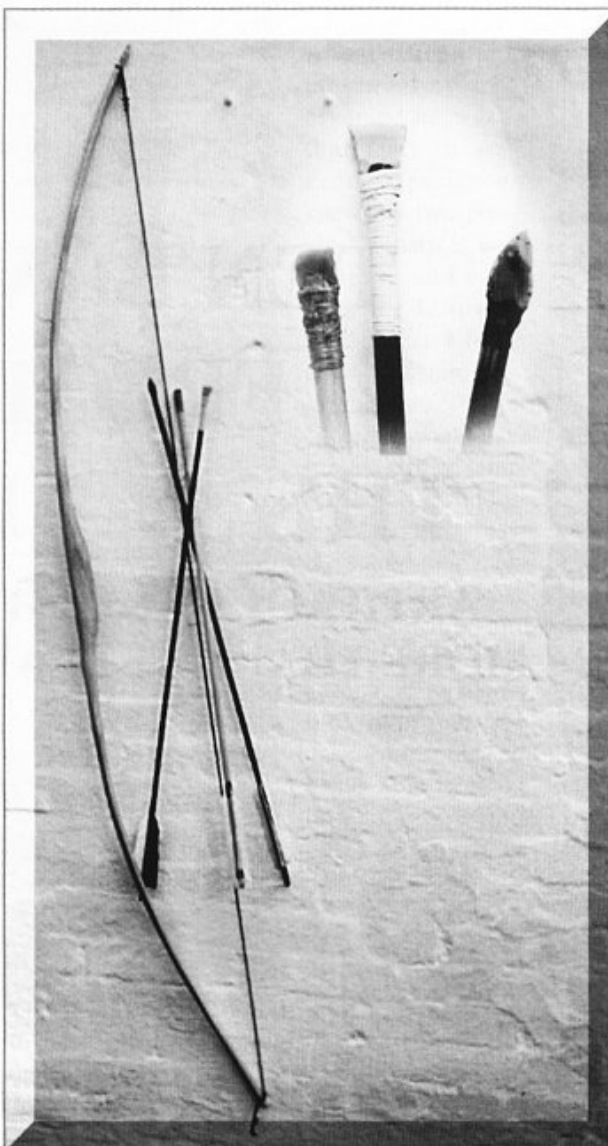
2. The other type is a common flatbow without the narrowing limbs. The following description is from one particular bow: The width (1 1/2") is the same from the handle about halfway to the nock. Halfway out, the limbs smoothly taper towards the nocks where the width is 1/2". Above the handle the thickness is 1" tapering to 1/4" at the sting grooves. The total length is 67". The handle is only a vague narrowing, not in any way distinct. The cross-section of limbs is semicircular with a flat belly. The handle is circular with a diameter of 1".

The peculiarity about this bow is that one of the limbs has what seems to be two string grooves—or could it be a decorative carving? If it is an extra string groove, why? The two notches could not have been used at random because the innermost one has weakened the limb and by that put the other one out of function.

Could the bowyer instead have been using the innermost groove in his tillering process? The limb might have turned out too bendable, and being a little nervous by taking away more material on the belly, he chose to stiffen the limb by shorting it. I've done that myself sometimes and it works—only you have to live with a bow with different length of limbs. Or is it a decoration? Maybe a little too much wood inspired the bowyer, and like we do with a pocket knife, he just let his flint work as he dreamt of game to come. I don't know which is true, but I sure like the last version the best.

On both types the back has not been worked, apart from stripping off the bark. On both sides of the limbs the year rings have been cut through to reach the desired width. All the rest of the work has been done from the belly side.

On some of the bows the outermost year ring on the back of the bow has been violated during the polishing process, but it is only partial and does



The author's bow and stone point reproductions.

not in any way mean any hazard to the limbs.

Two different designs of bows from the same site, but both of them have their offspring in the broad, flat construction, which after my opinion is the best way to use elm. All ten bows were care-

fully made with an expert's knowledge of wood and bowery, but whether they had been using seasoned wood or not will always be an answer based on belief.

My bet is that "my forefather" had been doing most of the hard work on a green trunk, and as it cured, he worked it closer and closer down to the bow, only leaving the final tillering and polishing process to be done on the cured and at the same time "finished" bow. A good, dependable, hard-shooting bow can be produced this way in about 6 months.

Flint tools work very well on green wood, but on seasoned trunks it takes a lot of time and flint. That could be an argument for the green wood. On the other hand, using un-cured wood might give you a bow with a heavy string-follow.

Doing it the way I think they have done it combines the two arguments, I've done it and it works. Besides; why put so much work, care, craftsmanship, and generations of experience into anything else but a prime piece of wood? They knew their trade, they had to live from it.

There are of course no traces left from the string, but we might get a hint from two very significant finds from the same site. A fish hook with remnants from the fishing line still attached to the hook. This line was made from sinew and, still from the same excavation, a plaited piece of rope was found. This was made from plant fibers, but I don't know from which species. Stinging-nettle is a marvelous plant and very durable

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strings can be made from it. Sinew or rawhide are two plausible materials for stringmaking. They could have been using both materials, depending on their access to either plants or animals.

Two pieces from two different arrows were found, both made from hazel, and both blunt-headed with a pear shaped arrowhead. Nothing can be said about fletching or from what species of birds the feathers came from. Geese of various species along with different species of swans and big birds of prey were at their disposal.

Abundance of food made the place worth living at throughout the year. From the find we know they hunted game for food, like red deer, wild boar, and roe deer; for clothing they used pine marten, fox etc. The

surrounding sea was filled with mollusc, fish, and all kinds of marine mammals and birds. What more could you ask?

My reconstructed bows from "Tybrind" and "Ringkloster" have draw-weights between 50 and 65 pounds at 28". Shooting through a chronograph with a 30 gram arrow with normal helical fletching shows speed from 146 to 160 feet per second.

My final article about "Elmbows of Prehistory" will be about the performance of flint-headed arrows. Archaeological finds have come up with many remnants from animals and *humans* who "ran into an arrow." As you will see in the photos, these heads performed extremely well.




## REFERENCES

**TYBRIND VIG:** A Preliminary report on a Submerged Ertebolle Settlement on the West Coast of Fyn by Soren H. Andersen, *Journal of Danish Archaeology*, vol. 4, 1985 (pp 52-69).

## ABOUT THE AUTHOR:

For the last 15 years, Flemming Alrune has been researching and reconstructing archaeological finds from Denmark, Sweden, and the Northern part of Germany. He works free-lance with different museums and experimental centers, among them the renowned "Historical and Archaeological Experimental Center" at Lejre in Denmark. He also gives lessons in bowmaking, teaches school classes, writes books, and is active in the television and film industries.

Many people have asked him why he does this—he has but one answer: *"I love romance, adventure, and the kid inside myself."*



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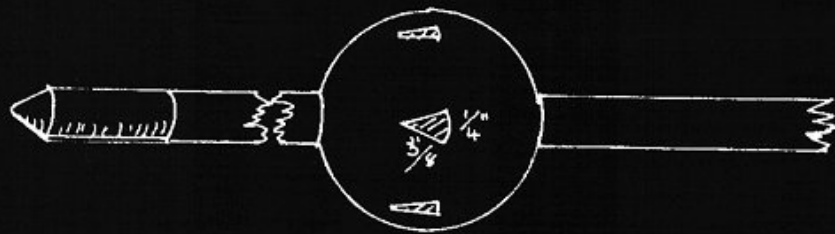
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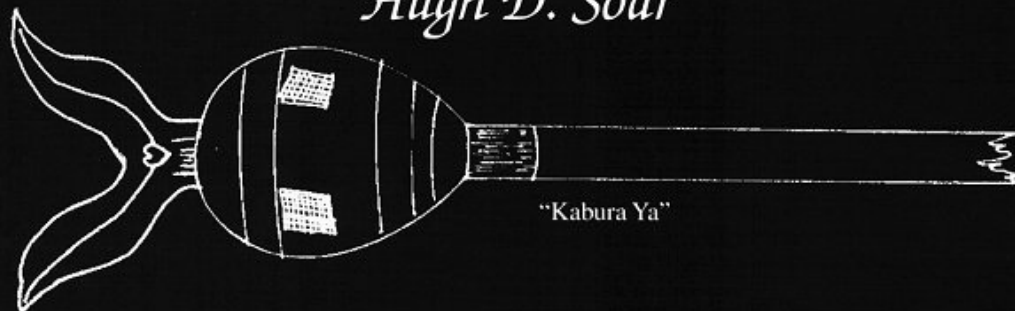




# THE WHISTLING ARROW

By.

*Hugh D. Soar*



**I**n my Club we have an Equipment Officer. He has what might be described as an enquiring mind. I have learned to be cautious of his furrowed brow as he mulls a problem around.

It was not always thus. I am the Field Captain of the Club, and as such have a whistle; a shiny thing, much-prized, dangling from a length of white cord attached to my person. One day my friend, or so I thought, decided that for the advancement of knowledge, he would construct a "whistling" arrow. Lateral thought having suggested a certain course, he borrowed my sylvan whistle, and whilst I was attending to other important duties, strapped it to the end of an arrow and, bow fully drawn, launched it upwards. Predictably it fell to earth, having made no sound whatever! Returning it to me without comment, I pocketed it, and that afternoon, at the Club Meeting, I placed it to my lips as is my wont, and took on board several grams of mud!

There are two morals to this tale. Firstly don't trust anyone, especially not your Equipment Officer. Secondly, you can't make a "whistler" out of a whistle!

Whistling arrows are not new, neither are they confined to Europe or the Americas. The Japanese made and used "whistlers" (kabura-ya), and there is more than a suspicion that they were also in used in India. They were familiar to the Chinese (Liao Dynasty), and the Turks; whilst the Mongols used them for signalling. Whistlers were well known to Tudor bowmen; King Henry VIII was familiar with them, since on one occasion his archer guard sent up a volley whilst he and his Queen were out walking.

Experimenting Equipment Officers apart, they can in fact, be made quite simply; a couple of dozen shot at the start of a tournament adds interest to the proceedings, apart from waking up the Judge. Take a 5/16" or an 11/32" shaft of some two inches or so longer than your normal draw-length. Acquire from somewhere a table-tennis ball (raid Junior's toy box if necessary). Have fletchings, nock, and pile (point, for those of you in the Americas) handy. Lock the door to prevent recovery of the ball, and commence work.

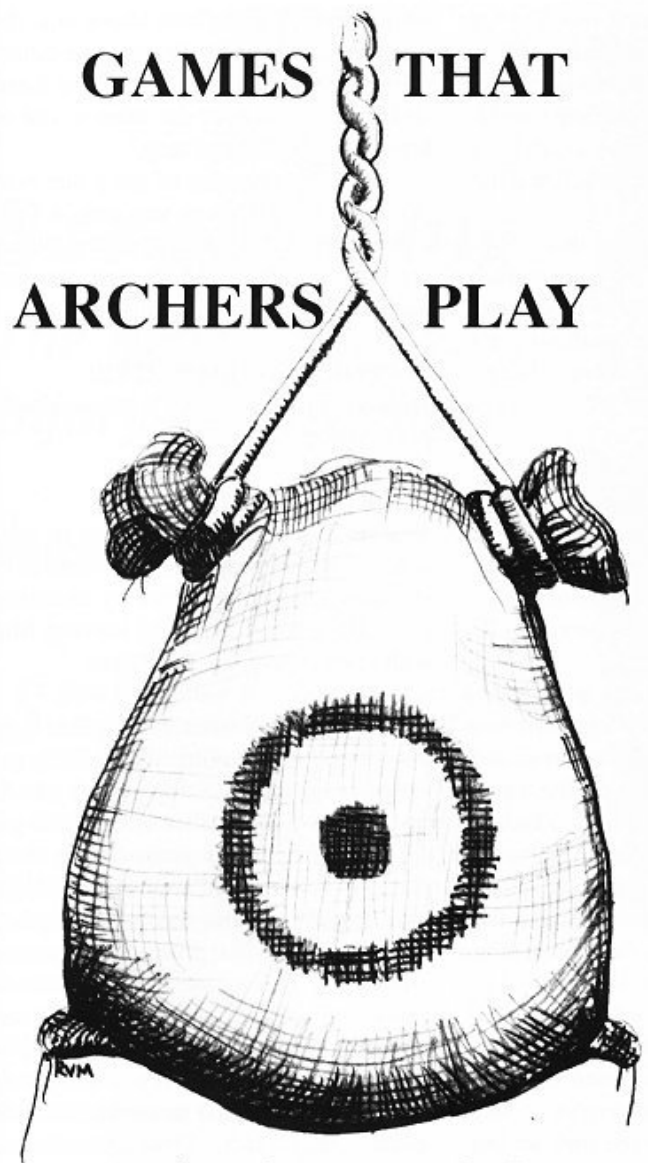
First, take your ball and run a tape measure around its circumference (a piece of string measured against a ruler will do just as well). Divide the circumference into four, and mark with a pencil. From these marks, make four triangular holes with their points towards the arrow pile (see illustration above). They should be about 3/8" long, and 1/4" across. How you do it is up to you; a razor blade is better than an Arkansas toothpick, but with a delicate touch, who knows?

Create holes of the appropriate diameter at the "North" and "South Poles" of the ball and slide the shaft through, leaving about 1 1/2" between the lower hole and the shoulder of the pile. Anchor the ball in position with a dollop of whatever takes your fancy, and/or secure it from moving with thread. Varnish the shaft if you're that way inclined, and feather it, preferably with deep fletchings to bring it down within a reasonable distance; remember that the Judge might just call upon you to retrieve the thing before he authorizes the business of the day.

I can't promise a particular note, but I can promise a noise. My part of the bargain being done, if your wife/child/dog looks at you in a certain way, I leave the explanation to you! Good luck.







# GAMES THAT ARCHERS PLAY

## ... in Quest of the "Charming Shot"

by  
Mark Keller

Some years ago, while working as a framing carpenter with a couple of archery enthusiasts, we'd read from various pieces of bow and arrow literature during our lunch and then talk about them in the afternoon. The practice made for some enjoyable days at work and helped set the tone on the jobsite in contrast to the typically less encouraging discussions known to the trades. As a matter of fact, there were a number of sweet spring days when instead of using lunchtime for food consumption only, we'd wolf down a quick sandwich and then fling arrows into a dirt pile backstop

using styrofoam cups or whatever bit of debris took our fancy for targets. It was a great breaktime for us shooters and good lunchtime entertainment for the onlooking electricians, plumbers, or other contractors who happened to be on the site.

It was during a rainy day, while reading aloud from *"The Witchery of Archery"* that I first heard the expression "charming shot." Maurice Thompson was describing a day of shooting in the Floridian swamps, noting that lots of arrows had been loosed. He tells that of the many missiles sent flying, he and Will had made several "charming shots." I had to read that aloud again, and from that time forward, among my hammer-swinging, arrow-slinging companions, any good shot, by luck or not, was called a "charming shot."

The words of Maurice Thompson have likely been quoted more in the last ten years than in the previous three decades of archery in America. If it is true that Maurice is the "patron saint of American Archery," his statue is likely back on the dashboard of this wooden-bow-vehicle making its way on the interstate highways of our country! It has been gratifying to see the phenomenal interest and participation with the wooden bow. We owe much thanks to Tim Baker, Paul Comstock, and the many others who have not invented archery but who have re-assembled her essential parts, put it on display and then turned the crank to get it running. Anyone looking to start a home project of woodworking to make something beautiful and useful afield for outdoor sport and recreation, can find numerous instruction videos, books, magazines, and raw materials for making any style of traditional bow.

It stands to reason that since so much information is available for constructing wooden bows, more and more folks will be making them. Once one has figured how to make a bow that shoots, then the challenge is to make one that shoots well (efficiently) and it seems logical that once you can consistently produce bows that shoot well, you will begin to concentrate on more consistency in making that "charming shot." Who does not wish to shoot better than he or she now does? It's something along the order of "I can make the bow, now I want to make the shot!" Herein we can go beyond the mark, in our admirable pursuit.

In my opinion, it's possible that we can get "off target" in a pursuit to get "on target." As an illustration, consider the irony of the fellow who takes up golf for recreation. He admits that at some point in his professional duties, he has become occupationalized into a state of undue stress and general decline in health and well being. He's lost his sense of humor and is simply not enjoying his life as he once had. So, he decides to take up golf as a form of recreation (re-creation of that playful, happy spirit common to earthlings). The irony, realized at the end of a day of his new found "recreation," is evidenced in the shafts of his clubs, his tools of recreation, wherein they had assumed the arcs matching the circumferences of several trees along the fairways! What had been chosen as a healthful recreation somehow became a source of additional frustration.

As I sit here this moment watching snow swirl about the trees outside the cabin, I recall a Saturday in June, bright, clear, and warm, a great day for an outing with the bow and a

likely day to make at least one "charming shot." I'd arranged to meet several of my buddies at an archery shoot sponsored by a club about an hour's drive from us all. We hadn't visited since late fall and there was lots of news to catch up on, teasing to make up for, and the endless barrage of verbal "slings and arrows" in the kind of humor that makes friendships what they are.

Our merry foursome had laughed our way through a half dozen or so of the targets when we heard a loud voice command, "**HOLD PLEASE!**" A fellow, two targets ahead of us, came walking across the lanes to approach us. He walked deliberately to where we were still scratching back leaves in search of someone's arrow (probably mine).

He stopped right at the target and spoke, "*You guys might like to know that some of us are serious about our scores and your noise is not appreciated.*" No introduction, no greeting, just this announcement on behalf of the "serious" on the range. I don't recall, but I'd bet a dozen premium cedar shafts that I was standing there with a big smile on my face, certain that he knew someone in our foursome and would let on with a smile and visit. To my surprise, he about-faced and returned as he'd arrived, deliberate, sober, and "serious."

Had I been less shocked and a quicker wit, I might have offered, "*Serious? Well, go fetch your bow and join us, we'll help you get over that!*" I would imagine that he is the kind of guy who could wrap golf clubs around the tree trunks. We shot a couple more targets "sheepishly" feeling like a group of bad boys who'd just got their ears pulled by Sister Mary George Marie Anastasia for giggling in church. So, we slipped over the hill, off the range, and spent the rest of the afternoon roving and stump-shooting along a creek bank, on the back side of some beautiful farm.

It's easy for me to imagine the disposition on the range Mr. Drake had rehearsed for me. But don't misunderstand; I am all for improving accuracy. Every archer wants to make a more predictable "charming shot." But just maybe we should reserve that kind of (to

quote M. Thompson) "*hard shooting*" to personal practice or with a close buddy of a similar mind. There is a necessary time and place for assessment and adjustments on form and equipment, but I wonder if it ought not be done before and after a day of recreation with friends.

In an effort to keep things fun, I'm always on watch for a new archery game to drop in my quiver of games that archers play. I've found a bundle of 'em and hope to get a bundle more. Here's one that you might try:

#### **SPINBAG: Materials needed:**

- burlap feed sack, potato or onion mesh bag;
- plastic shopping bags, old nylon tarps, or construction-type sheet plastic; and
- a length of 1/2" rope or strong cord.

Stuff your saved shopping plastics or whichever material you've obtained into your feed sack until it's full and rounded, but loose enough to gather up the top of the sack for tying. Hang it from a limb or support of some sort in an area you go shooting. If you can hang the bag so it is backgrounded by a hill you'll spend less time hunting those less than "charming shots," but any safe range will do.

#### **MAIN OBJECTIVE: TO HAVE FUN!**

Two archers stand at a given distance with an equal number of arrows in their quivers. Someone twists the rope so that when it's released, the bag begins to spin

on its own. The archers shoot and the first arrow to strike the spinbag determines your scoring side. You keep shooting until one or the other is out of arrows and he shouts "stop."

The objective of the game is to get as many arrows as you can in your side of the bag. If your opponent places arrows in your side of the bag, too bad for him, those are your points!

#### **SUPPORTING OBJECTIVE:**

To train your eye to pick a spot against a plain background.

#### **SCORING:**

You get a point for every arrow in your side of the spinbag. So, the idea is to shutdown your opponent by shooting your arrows out first and leaving him with unused points in his quiver.

**Note:** If you will twist the bag line only enough to get it moving, it will likely get slow enough or even stop so that one of you will have to sacrifice an arrow to get it spinning again. If your shot is close enough to the edge of the bag, you might pass through it, get the bag turned to your side, and not give a point to the other guy. This game is hazardous to arrows. Participation in this event can lead to shortness in arrow life and/or length.

Invent some new twists to the game. Have fun. Give it a shot, a "charming shot."



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**VIVAT REX**

# Stretching

## The Key to Strong, Injury-Free Archery

by

**PRICE EBERT**

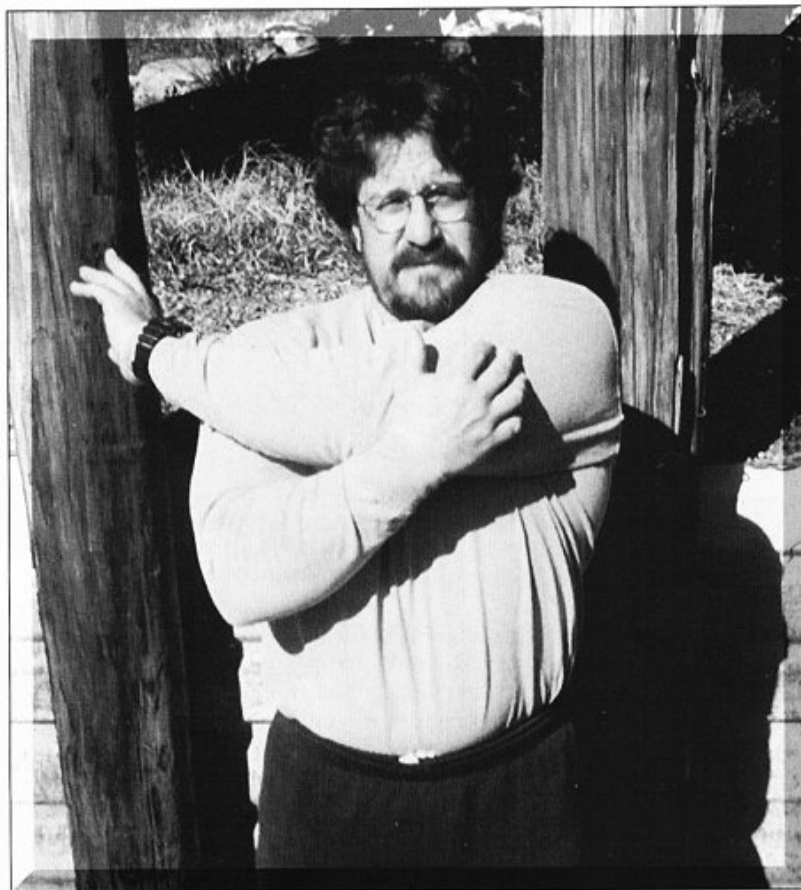
Since beginning traditional archery I keep hearing that shooting the bow is "Ten percent physical, and ninety percent mental." I like to think of it more along these lines. Shooting the bow is thirty-three percent physical, thirty-three percent mental, and thirty-three percent neural, (the remaining one percent, luck). By neural I mean that through proper practice, "grooving in," you create neural pathways from the muscles involved to the spine.

You might think of a nerve being not unlike a muscle, in that it grows with stimulation. The bigger it gets the more sensitive it gets. It is this mind-nerve-muscle connection that makes the act of drawing, anchoring, aiming, and releasing second nature to some. The lack of mind-nerve-muscle connection makes these acts inconsistent, and frustrating.

Bow exercises are excellent to achieve this connection. "Stretching" is their counter-part. To fully develop a muscle, it must be stretched. A muscle that has been fully stretched is much faster than one that hasn't. A fully-stretched muscle is almost impervious to injury.

You don't need great strength to stretch. You don't need any equipment to stretch. Now you no longer have any excuses not to stretch (well, just one of course, but I'm going to ruin that one for you too). Since most stretching manuals are several hundred pages long, we'll just focus on the back, shoulders, chest, and arms.

Before I give you the stretching routines, let's discuss how to stretch, and when to stretch. Don't kid yourself—stretching can be dangerous if done improperly. Not to fear though, the rules are few and simple. First, never bounce in the stretching movement. Bouncing will only tear the muscles. The healing process will make those torn muscles shorter. So—ease into those stretching movements nice and slow. The second thing to remember is to keep breathing normally. If you're holding your breath, you're trying to stretch too hard. I find myself concentrating on the breathing part as



The rear deltoid and scapula stretch.

much as the stretching part. Stretching should be a fun thing. You should never stretch to the point that it hurts, just to the point where the muscle stretches.

There really isn't a bad time to stretch. I strongly encourage you to start an early-morning stretching routine. It does take some discipline at first, but the rewards are many. Stretch before archery practice (weight lifting), and during practice (weight lifting). Take a few breaks during your practice sessions to stretch. You'll find that they revitalize you. During weight-lifting sessions, stretch the muscle you're training between sets. You'll get stronger, bigger, faster. After any and all exercises is the best time to stretch. It's the perfect cool down. Plus, your muscles are all warmed up, and able to stretch to their maximum ability.

As with weight lifting, using compound stretches or movements is the most advantageous. Compound implies there are multiple muscles involved. If you can stretch a major muscle or muscle group, and in the process stretch some minor muscle groups, that's efficient. It's also more natural. Very rarely in nature do we isolate a single muscle group, albeit stretching or contracting.

Start your stretching routine with your neck, and work your way down the body. The neck is one of the most relaxing stretches. It's very important for archers to stretch and develop their neck muscles. Neck problems due to archery can end your career. The standard neck stretch is simply, and slowly rotating your head completely around the





Stretching side and back muscles to the waist (left), and stretching the upper back, traps, and rear shoulder muscles (right).

shoulder girdle. The whole time allowing your neck to stretch in all possible directions, up, down, and to the sides. Stretch just enough to pull the trapezius, or upper shoulders, upper back, and the chest. Rotate your head clockwise ten rotations. Then rotate counter-clockwise ten rotations.

Shoulders need be stretched from several angles. My first shoulder stretch is the over-head shoulder stretch. Begin by interlacing your fingers together palms out. Now reach for the sky. When you feel the stretch, hold and count to twenty. When you reach the twenty count stretch just a little more. Not much, it shouldn't be painful, and hold twenty more seconds.

Next, hold your right arm out in front at shoulder height. Grab your right arm at the elbow, and pull across your chest. Use the same method as described above, and repeat with your left arm. This will stretch your rear delt, trapezius, and the muscles of the scapula. To stretch your middle shoulder muscle, or medial delt, grab your right arm at the wrist with your left hand over and behind your head. With your left hand pull your right arm gently down, till you feel the stretch. Hold for twenty seconds, take it a little farther, hold for twenty seconds. Repeat the stretch to the other side.

When you do the chest stretch you will also stretch your front shoulder. You'll need a door frame or vertical

beam that can easily support your weight. Stand in the center of the threshold, with the frame on the left and the right. Put your right forearm against the frame, with your upper arm parallel to the floor. With your right leg slowly step forward. When you feel the stretch, stop, hold for twenty seconds, stretch a little farther hold for twenty seconds more. Repeat to the left side.

I stretch my back using two angles. First, hold your arms out in front, and wrap your wrists around each other, and interlock your fingers. Now bend at the waist to just above parallel to the floor. At the same time try to twist your arms, and try to touch the ground. It is kind of a drilling motion. If you can touch the floor, don't bend over so much. Your shoulders should follow your arms, so from shoulder to shoulder there is a big arc. In other words, round your back. Pull and twist toward the floor gently till you feel the stretch. Hold for twenty seconds, stretch a little farther, hold for twenty seconds.

Next, stretch the "lats," or the sides of your back. Get down on your knees, stick your left leg straight out to the side. Put a bent right arm over your head, and your left arm out to the side just over your left leg. Like a ballerina, gently bend to the left. When you feel the stretch on your right side, stop and hold for twenty seconds. Stretch a little farther, and hold twenty seconds. Repeat to the other side.



The chest and front shoulder stretch.

To stretch your lower back, sit on the floor with your legs together, and straight in front. Bend over and try to touch your toes ( If you can touch your toes easily, grab them and pull a little). When you feel the stretch, stop and hold for twenty seconds. Stretch a little more, hold for twenty seconds. You'll notice this stretches a lot of other things, too.

The triceps stretch begins with a bent right arm behind your head, with your elbow sticking straight up. Take your left hand overhead, and grab your right elbow. Gently pull your right arm down, till you feel the stretch. When you feel the stretch stop and hold for twenty seconds. Stretch a little farther, and hold for another twenty seconds.

The last stretch in this routine stretches the biceps and the forearms. Stand on your knees, bend forward far enough to put your hands down on the floor, fingers toward your knees, as much as possible. Keeping the heel of your palm firmly on the floor, start leaning back. When you feel the stretch, that's right, stop and hold for twenty seconds. Stretch a little farther and hold how many seconds? This entire routine takes about twelve minutes, and is just as important as your ninety minute iron ordeals.

If you want, or need more stretching simply do each stretching exercise two, or three times in the 20/20 fashion.



# SENTMAN LONGBOWS, "THE COMPETITOR"

A Bow Review



By  
Scott Toll

I met Gary Sentman at the Western States Rendezvous, in Tygh Valley, Oregon, this summer. This was a large, non-competitive event, sponsored this year by the Traditional Archer's of Oregon (TAO). I wanted to meet Gary after reading his excellent article called *Mental Conditioning*, which appeared in the premier issue of this magazine. I also wanted to try out one of his bows.

When I did find him, we talked for nearly an hour about his bows. I liked him right away and agreed with many of his concepts about shooting and building bows.

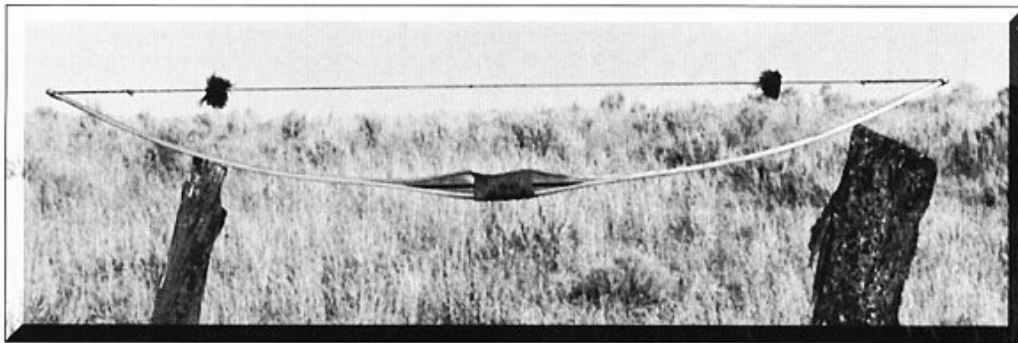
Gary Sentman has been shooting a longbow for the past 30 years. He has hunted with a longbow in Alaska, Australia, South America, and all of the Western United States. In 1975, Howard Hill Archery Company sponsored him to shoot on stage, and attempt to set a new World record for pulling the heaviest, hand-held bow. John Schultz was the bowyer for Howard Hill Archery at the time and helped with the necessary arrangements and paperwork for the event. When the time finally arrived, Gary and John went onto the stage in front of 3,000 spectators, at a sports show in Quartzville, Pennsylvania. John did his famous trick shots for the crowd, and Gary warmed up—by shooting balloons with a 150-pound bow. Then, Gary successfully pulled a 176-pound bow back to 28 1/4 inches and set a new world record. It was recorded in the Guinness Book of World Records.

Gary Sentman has been in the bow-building business for eleven years now and has worked hard to develop a quality, high performance longbow. He builds his bows at his home in Drain, Oregon.

When I asked him what his goals were, he told me, *"I want to build the ultimate traditional bow. I want to build a bow with the best 'consistency of performance,' that I can. The business is less important to me than the archery itself. Archery is my life; I live it and breath it."*

I asked him to explain what he meant by "consistency of performance," and he told me, *"What makes accuracy, under any situation is consistency of performance; in the shooter, in the bow, in the arrow, in the glove, and in the form. The whole system must work together. Show me a little inconsistency, and I'll show you a little bit of inaccuracy. When you can work as a team—the whole thing, and it fits you, then you are on the right track for top scores or top shooting."*

At Tygh Valley, Gary had a bunch of nice looking bows hanging on a bow rack and more of them lined up on tables, in front of his travel trailer. After I looked his bows over carefully and finished asking questions about them, he offered to let me shoot one. I picked out the lightest pulling, left-handed bow he had, and shot my arrows into a small target he had set up, about 20 yards away. My cedar arrows were too stiff for this particular bow, but they still formed a nice



group, just to the left of the bullseye. Next, I shot a 66" Competitor. From the very first arrow I shot out of this bow, I knew I'd found a "real shooter." My first group of arrows were tight enough that I tore fletching off and even damaged several nocks. I wanted to shoot it more, so we agreed to shoot a round of 3-Ds together.

I have always shot longbows quickly and have conditioned myself to hold them at full draw for one to two seconds at the most. When first shooting the Competitor, I did not change my rhythm of shooting, at least not at first. It didn't take me long, however, to discover that I could shoot it much better if I forgot about rhythm and just held it a little longer.

Gary makes a statement in his video, that, *"It takes a little time for each individual to make a connection between the eye, to the brain, and then to the muscle coordination. If you release before that time, you are shooting prematurely."*

The bow I was using at Tygh Valley was the same one I took home as a lender. It was a 66" Competitor, and weighed 63 pounds at my 29" draw length. This 66" model would consistently cast my 590 grain, cedar arrows at 185 fps. I also shot 555 grain aluminum arrows with an average speed of 189 fps. These are fast speeds for such a light pulling longbow. About the time I started getting used to this bow, my own Competitor arrived, compliments of Paul, our friendly UPS man. I didn't really want to give up the lender by now and even considered buying it, too. It was only after I shot my new one and discovered how much better it shot, that I sent the old one back.

#### THE BOW TEST:

I was very careful when I tested this bow for speed. I shot it for several days, using the chronograph to develop an accurate, holding style form. I found that if I did shoot this bow very quickly, my arrow speeds would become erratic and usually 5-8 fps faster.

I tested this bow using a 29" draw length and controlled this by having another friend watch my arrows as I drew them and anchored. Test results were as follows:

- |                             |         |
|-----------------------------|---------|
| 1. 536 grain arrow average: | 190 fps |
| 2. 605 grain arrow average: | 183 fps |
| 3. 693 grain arrow average: | 172 fps |

These test results show that this bow really shoots a lighter arrow fast, but, that it's speed decreases quickly when using heavier arrows. This is typical of a high performance bow. When I matched aluminum arrows to this bow, they turned out to be 31 1/2" 2216s with 100-grain points. It handled stiffer spined, aluminum arrows the best. This extra length is contrary to what many archers will agree with; but, I like it because it gives me a little more arrow to aim with. Besides, they have very good arrow flight. After finding out that the stiffer-spined aluminum arrows shot best, I went to work matching some stiffer-spined cedars to this bow. I quickly discovered that this bow required well-matched wooden arrows, by weight and spine. This is due to it's high performance characteristics. Even so, I assembled a set of cedars that shot very accurately from this bow.

My Competitor is 68 inches long and pulls 64 pounds at my 29" draw length. I prefer longer bows because of their reduced finger pinch and more for-

giving string release. Besides, I'm 6'6", and that doesn't seem like a very long bow to me. The poundage is perfect since I can pull and hold it easily, yet still get a crisp release. The statistics for my bow are as follows:

Length:	68"
Draw Weight:	64# at 29"
String Length:	66 9/16"
Brace Height:	6 5/8"
Sight Window:	3/16" out from center
Arrow Rest:	2 7/8" above center

Gary gave me a call several days later and asked me how I liked the new bow. He even offered to shorten its length to 66", if I wanted him to; he thought it might shoot better. I appreciated his concern, but I did order a 68" bow because I was more concerned with shooting comfort than I was arrow speed. It is a very comfortable bow to shoot.

According to Gary, the Competitor is *"A no-holds-barred, competition bow. The limb design is wide at the fadeout and narrow at the tip. This straight end bow has the stability, ruggedness, and accuracy that one expects from the deflex/reflex, parabolic limb design."*

With my new bow sitting in front of me, I can make several observations about its construction. There is only 3/8" curve in the limbs, measured on the backside between the fadeout and the string groove. The way the handle is partially reversed, it is difficult to determine exactly how much the limbs are deflexed. According to Gary, these limbs have been designed for accuracy and stability, not speed. The Red Elm laminations, under clear glass, make this a beautiful bow to look at, too. There



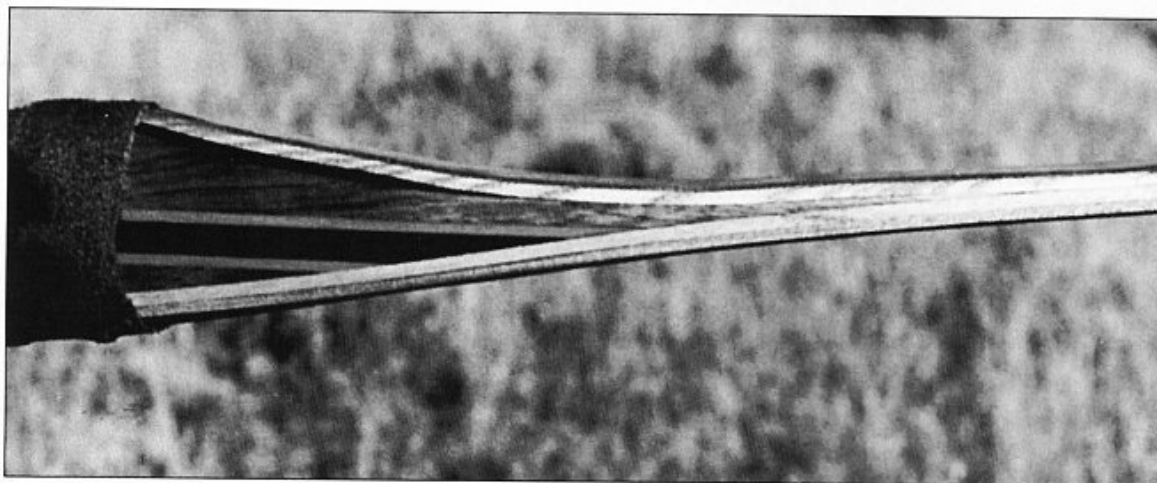
are three laminations altogether, including the two parallel, red elm laminations on the back and belly, and then a single, tapered lamination of Black Locust for the center core.

Gary uses different combinations of Red Elm and Black Locust in his limbs, depending upon the draw weight and draw length of the archer.

Gary uses Black Locust in the heavier pulling bows because it is a little stronger. The only problem with using Black Locust is that it is somewhat heavier in physical weight, and decreases performance slightly. He prefers to use Red Elm in his bows when he can. He said, "I feel it's especially more efficient in a lighter-weight bow, but Red Elm, for an all around limb core, is very good, because not only is it resilient and less prone to compression checking, but it's also very light in physical weight, adding to the bow's performance."

The dimensions for the lower limb are identical to the top limb except for its working length of 22 1/4 inches, between the fadeout and the tip, at the string notch. There are two theories about building bows using equal or unequal limb lengths in their design. Many bowyers claim that unequal-length limbs produce too much handshock. Still, others will say that there are advantages to having different length limbs; thereby, placing the hand and pivot point of the bow closer to the center of the bow for better stability. The Competitor has no more handshock than any of the other equal limb-length longbows I have ever shot; besides, I believe that handshock is more a matter of how each of us hold the bow when we shoot it.

I asked Gary to comment about his selection of materials and he was very honest with me. Gary said



Close-up of the lower half of a Sentman longbow riser.

*"Through the years, I have selected only the hardest of woods for my riser materials, such as: Bubinga, Wenge, Purple Heart, and even some Osage Orange. I stay away from the softer woods because a harder wood will absorb more shock. I also sandwich into my laminations, two strips of synthetic, which further absorbs more shock and further minimizes breakage."*

On the back of bow (the side facing the target) there is a brown, glass overlay to further strengthen the handle section of the riser. Also, by special request, there are some black, synthetic, tapered inserts, approximately four inches long, inserted between the overlaying limb laminations, just above and below the belly side of the bow's handle. These add even more strength and stability to the bow. The sight window is cut into the riser 2 7/8" above the center, measured between the tips of the bow.

The fadeouts have a long, thin taper to them for about the last two to three inches. The reason for this is to create a working fadeout. Gary wants his limbs to work into the fadeouts approximately 1 1/2" to 2" to minimize the hinge effect at the juncture of the fadeout and the limb. This reduces the fatigue in this area and also helps the middle section of the limb to flex better and not flatten out. Gary learned this from the late Jim Brackenbury who used this feature in his own limb designs.

The handle of my new bow is shaped very well for my hand and I am

left handed. It has a special five-degree angle cut into its shape; that is, if you look at it from the belly side of the bow (the part that faces the shooter) the entire handle is angled over to the left, at the top; in other words, the handle is not in line with the limbs of the bow. I can roll the elbow of my bow arm further out, without canting the limbs of the bow quite as far. This helps to stabilize the bow arm.

If you have ever watched the video *The Legendary Hunts of Ben Pearson*, Ben is using a take-down bow called a Bushmaster. I have one of these bows and have studied it very closely. Its handle is also canted over, possibly even ten degrees. The Wildcat I have is right handed, so it is angled over to the right, at the top of the handle. If Ben Pearson used this feature in his handles, then it deserves some special attention. This is another requested feature on the Sentman Longbow and I sure like the way it feels in my hand. It has a very positive feel and never has a tendency to slip when my hands are slick from sweat.

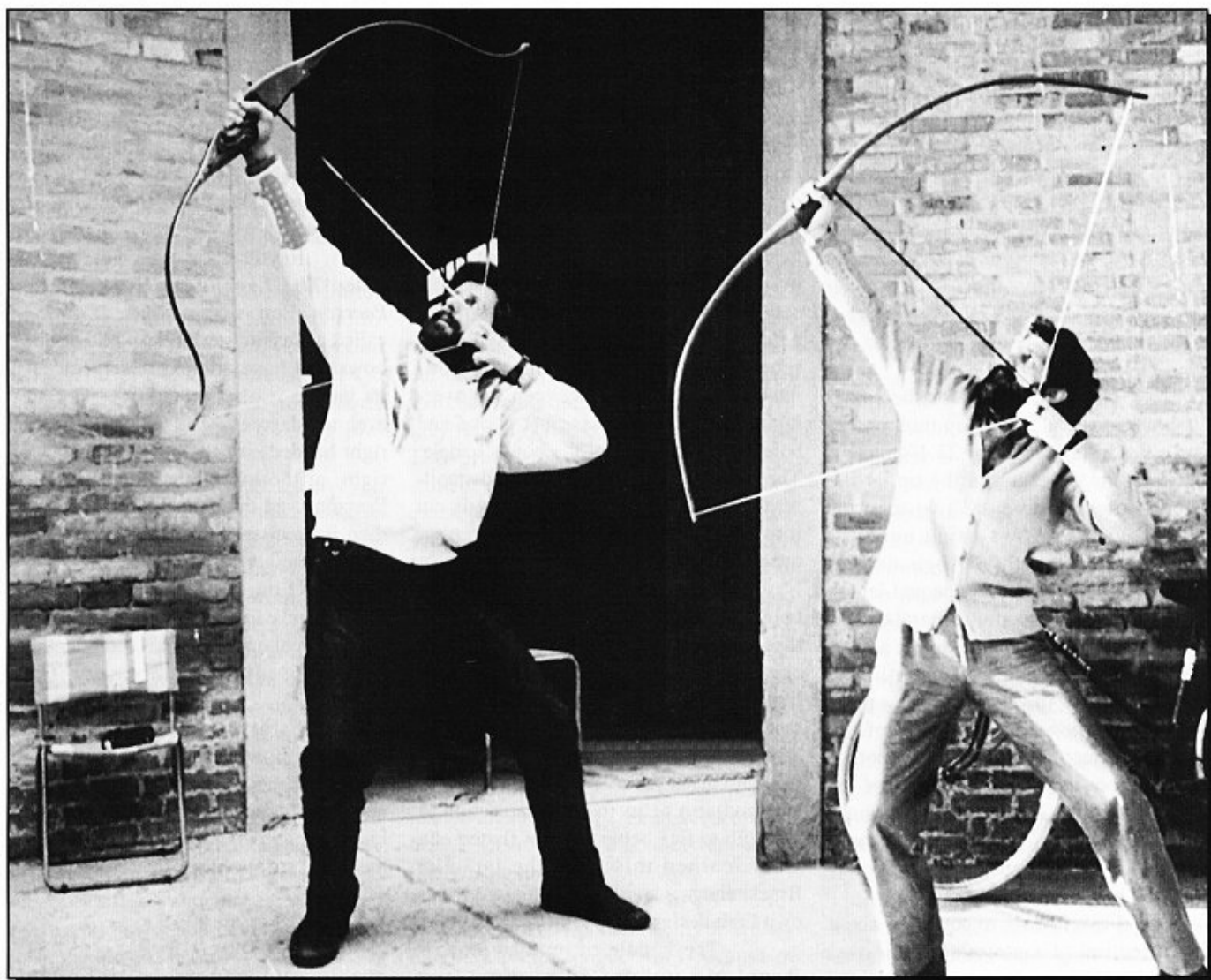
I trusted Gary to build me a complete bow, right down to the last detail and the fitting of the handle. My new bow fits me perfect, like a "one of a kind," longbow should. It was built for me with "consistency of performance" in mind.



## World-Record Holder Giancarlo Marchesini Launches Another Arrow into the Record Books

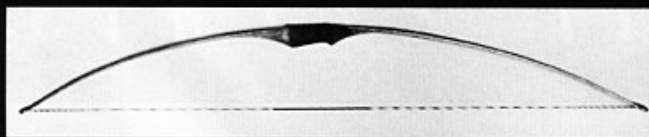
Giancarlo Marchesini sailed an arrow through the air an astonishing 331 meters, setting a new longbow World Record at the the World Flight Shooting Championship. Mr. Marchesini, an Italian Longbow Association member, used a 70-pound, 68-inch Martin ML-14 Mountaineer to set the new World Record on the weekend of October 4-6 in California. Mr. Marchesini also finished second in the 70-pound recurve class after shooting an arrow 474 meters with his Martin Mamba.

Giancarlo Marchesini first claimed his spot on the flight-shooting field when he blew away the crowd in October, 1995 at the U.S. Flight-Shooting Championships. There he took to the field with his Martin Mamba and fired his flight arrow just over 515 yards! That amazing distance turned out to be a new World Record.



Giancarlo Marchesini (times two) displaying the flight-shooting form he used to set both the longbow and recurve world records. Congratulations on some fine shooting Mr. Marchesini!

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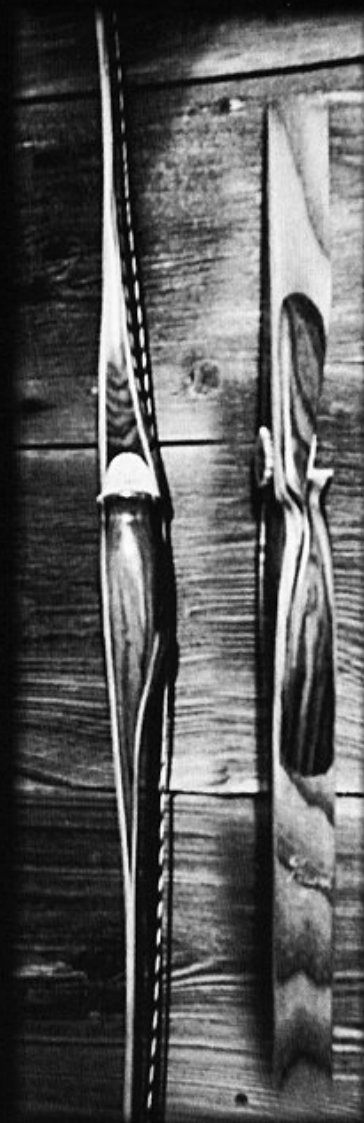


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# Traditional Events



## McMahon Eagle Eye raises \$3,434 for WLFA Bowhunter Defense

Dan McMahon and Ben Bailey, organizers of the McMahon Eagle Eye Shootout presented Rick Story of the Wildlife Legislative Fund of America with a check for \$3,434 to be used for bowhunter defense. The money represents 100% of the \$2.00 entry fees paid by contestants all over the U.S. to qualify for the 1996 McMahon Eagle Eye Shootout.

The McMahon Eagle Eye goals for 1997 are to raise over \$5,000 for the WLFA and generate a grand prize of over \$5,000 in cash and merchandise. **Contact McMahon Traditional Archery at (800) 627-3199 or (508) 261-9783 for information on hosting qualifying shoots for the 1997 McMahon Eagle Eye. Do your part to help the WLFA!**

**February 28 - March 2: 1996 Florida State Traditional Archery Championship and Spring Rendezvous at Crooked Lake, Florida.** Hosted by the Traditional Bowhunters of Florida. Giant raffles, including a Colorado Archery Elk Hunt. Contact Ron Weatherman at (352-669-5636 (FAX: 669-1293) or Mike Kuhn at (813) 526-6159.

**March 1: Idaho Traditional Day,** hosted by the Idaho Traditional Bowhunters at Bishop Kelly High School in Boise, Idaho. Seminars all day on everything from string making to flint knapping. Bowyers and vendors welcome. This year's dinner speaker will be Monty Browning. He will give a presentation on bowhunting for dangerous game. You won't want to miss this one! Contact Doug Chase at (208) 336-6761 for more information and RSVP (required) for the dinner.

**April 19 & 20: Sun Basin Archers Traditional 3-D Shoot** in Moses Lake, Washington. Trophies in 1st, 2nd, and 3rd, places for all classes. Exhibitors welcomed and encouraged. Contact Mike Prior at (509) 765-2130.

**June 21 & 22: 6th Annual Traditional FunFest.** Hosted by the Iroquois Archery Club of Rensselaer, Indiana. Free camping. For information call (219) 866-4269 or (219) 866-8693.

**Memorial Day Weekend (Saturday and Sunday): 5th Annual Memorial Day Shoot,** hosted by the Kansas Traditional Archers. 2.25 miles east of Highway 177 at mile marker 90, then follow the signs. For more information, call Kip Hoffman at (913) 499-6328 (FAX: 499-6378), or send e-mail to dbpn@aol.com.

## 4TH ANNUAL TEXAS HILL COUNTRY SHOOTOUT JUNE 21 & 22, 1997



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... and the list is growing each week.

These prizes will be given to shooters, there will be score card drawings as well as other prizes. Lodging, camping, hog and exotic hunting will be available. Garner State Park, Lost Maples State Park, the Frio and Sabinal Rivers are just minutes away. Bring the whole family and tube down one of the rivers, hike the nature trails, or just kick back and relax with your family for the weekend.

For more information on the hunting or on prizes and donations contact Wyatt Birkner (210) 278-4845. For information on the shoot or family activities in the area contact Bobby Buff (210) 988-2237 or Wyatt Birkner (210) 278-4845.



## The Stockbridge Sportsmen's Club 1st Annual Buckhorn Rendezvous

All Traditional Shoot - May 17<sup>th</sup> - 18<sup>th</sup> 1997  
Coon shoot - May 16<sup>th</sup> at night

### BYRON FERGUSON

(featured on ESPN - American Shooter)

Trick Shooting - Demonstrations

Friday - Saturday - Sunday

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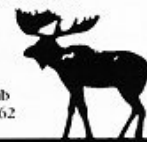
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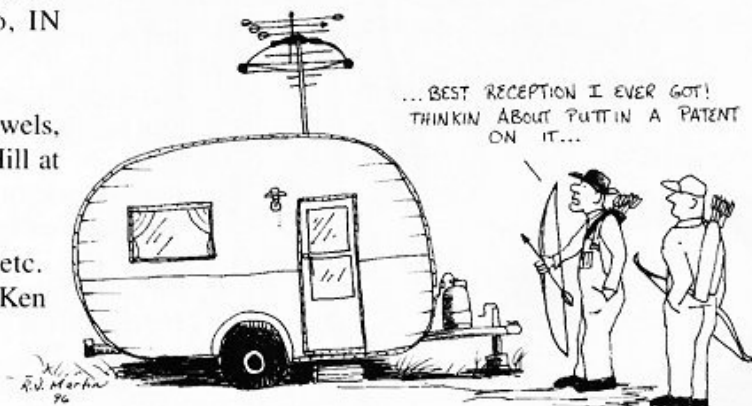
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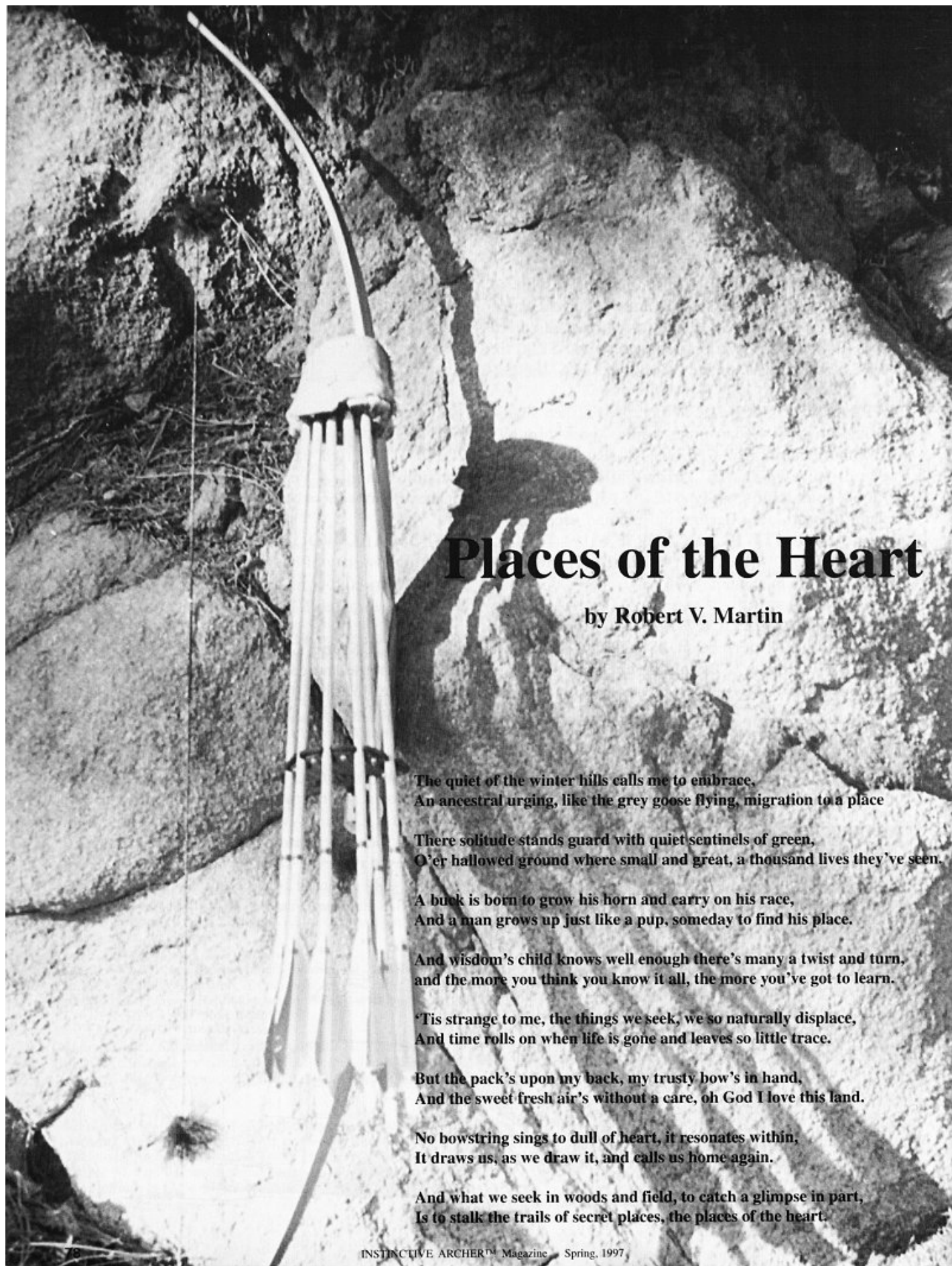
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# Places of the Heart

by Robert V. Martin

The quiet of the winter hills calls me to embrace,  
An ancestral urging, like the grey goose flying, migration to a place

There solitude stands guard with quiet sentinels of green,  
O'er hallowed ground where small and great, a thousand lives they've seen.

A buck is born to grow his horn and carry on his race,  
And a man grows up just like a pup, someday to find his place.

And wisdom's child knows well enough there's many a twist and turn,  
and the more you think you know it all, the more you've got to learn.

'Tis strange to me, the things we seek, we so naturally displace,  
And time rolls on when life is gone and leaves so little trace.

But the pack's upon my back, my trusty bow's in hand,  
And the sweet fresh air's without a care, oh God I love this land.

No bowstring sings to dull of heart, it resonates within,  
It draws us, as we draw it, and calls us home again.

And what we seek in woods and field, to catch a glimpse in part,  
Is to stalk the trails of secret places, the places of the heart.



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