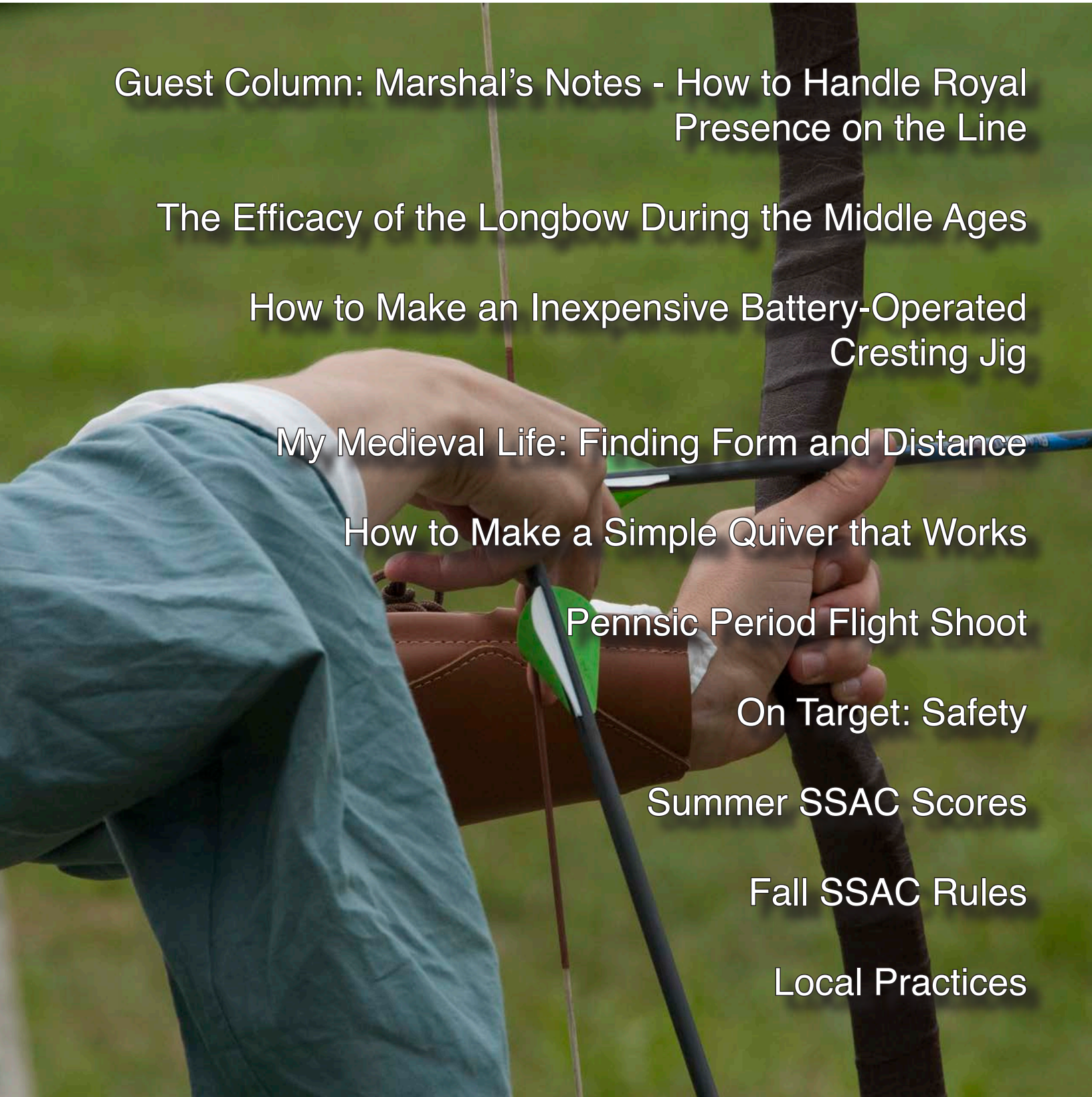
Quivers & Quarrels

The Official Publication for the Archery Community of the Society for Creative Anachronism, Inc

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Guest Column: Marshal's Notes - How to Handle Royal Presence on the Line

The Efficacy of the Longbow During the Middle Ages

How to Make an Inexpensive Battery-Operated Cresting Jig

My Medieval Life: Finding Form and Distance

How to Make a Simple Quiver that Works

Pennsic Period Flight Shoot

On Target: Safety

Summer SSAC Scores

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Local Practices

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Quivers & Quarrels is the official publication for the archery community of the **Society for Creative Anachronism, Inc.,** and is published as a service to the archery community.

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About our cover: This photo was taken during a speed shooting class at Pennsic. The arrows are not wood. Instead, they are carbon with plastic veins because plastic veins will not cut the bare bow hand like feather fletching is prone to do. Note the use of a thumb draw and resting the arrow on the thumb of the bow hand. Photo by HE KerMegan of Taransay.

Previous issues of Quivers & Quarrels are available in the "files" section of https://www.facebook.com/groups/QuiversQuarrels/, at enewsletter.sca.org/archery-community.html, from http://scores-sca.org/qnq, or by request from the Chronicler at qqchronicler@gmail.com

Summer Turkeys





Mighty Archers of the Known World,

Summer is leaving us too quickly. I have not picked up any of my bows since Junefaire, and the calluses on my string fingers are gone. Such is life, I suppose. The ebb and flow of life can frustrate me when it robs me of the time and energy for hobbies that I love, but I also know that there will come a time when that ebb and flow will not be so demanding.

I did have a chance to take my kids home to visit family this summer. I grew up in the Shire of Windy Meads in the West Kingdom (Davis, CA). My family still lives there, and my mother likes to send me pictures of the flocks of wild turkeys that occupy the green spaces of the city. I happened to find a few flight feathers last time I was home, so this time, my sister and I decided to take the kids and go feather hunting.

We traipsed all through the secluded corners of the public spaces where the turkeys make their homes, and we found the roosts of two flocks. We went out at dusk before the turkeys came in to roost, being careful not to disturb them by getting too close. My children squealed with delight at spotting feathers, and raced each other to grab them first. Of course the most important rule was that they had to give Mommy all of the flight feathers. It's a shame that the tail feathers of turkeys are not good for fletching. They are really beautiful.

As I combed the ground for molted feathers with my family, it made me wonder how fletchers in history were supplied with feathers. The roosts we found were for two fairly large flocks of turkeys. Each flock probably had three or four dozen birds, but collecting suitable feathers that are molted by wild birds doesn't really yield that many. Turkeys are also ground birds, flying up into the trees to roost at night, and they don't migrate or have a large territory. How would one go about acquiring quantities of naturally-molted feathers from turkeys, geese and pheasants unless the birds were raised and not wild? It would seem that building up a stockpile of naturally-molted feathers from wild birds would take a very long time, making kept flocks a practical solution. But, trapping wild birds for breeding stock instead of for food also seems completely impractical, or maybe even logistically impossible for some individuals or communities. Maintaining breeding flocks requires facilities and resources in addition to knowledge about the needs of the birds.

We know that arrows were abundant, and we know what arrows were fletched with across different cultures. Perhaps governments or large communities had the resources to raise flocks of birds to supply fletching in bulk for their archers, and for a supply of food. Perhaps arrows were highly valued, and were retrieved and recycled from battlefields and hunts as much as possible. Perhaps wild birds were hunted for their feathers in addition to being hunted for food. Probably all of the above, maybe some more than others. I haven't done any purposeful homework to see what historical evidence might be out there about how quantities of fletching were supplied, but a quick look through Google Scholar didn't yield any promising results. It's an intriguing question that crossed my mind on our family turkey feather hunt, but alas, I am not a historian. In any case, the archer in me enjoyed feather hunting with my sister and my children, just as I'm sure many archers throughout history have enjoyed as well. I plan to go feather hunting again, next time I return to Windy Meads.



Yours in Service,
Lady Sayako Enoki

Guest Column
Marshal's Notes: How to Handle Royal Presence on the Line

By Master Dougale MacAlestyr O.P.

I have been Marshal in Charge (MiC) at Pennsic War XL, and Assistant Marshal in Charge (AMiC) at Pennsic War XXXIX. I have also been the Lt. General for target archery, and for those who don't know, this is a command/leadership position regarding the Champions Team shoots at various multi-kingdom events. I have been Kingdom Champion twice. I have also retained for Royals at a variety of multi-kingdom events and have been on numerous Royal staffs. I've seen both sides of this encounter. I've seen when it can go poorly for all parties, which is never good as, you know, we are all on vacation. This is why I teach this encounter in my Marshal in Training (MiT) classes. It may not happen at local events, and that's fine, but keep these tidbits in your marshal toolbox, and the experience turns into something manageable to down right enjoyable.

You know, laying out my credentials just seems silly to me, but it may be important to new people or those that haven't had the Royal Experience.

The very important information and insight of the Royal Staff is the true realization that Their Majesties time is not Their own. There are constant meetings and demands, and They truly serve the populace in ways that the populace doesn't see. The Royals are on a constant schedule of battles, courts, visiting Kingdoms, war negotiation, arts and sciences (A&S) judging, and saying "Hello!" to new people who may have never met nor spoken with a Monarch before. Our Royals take the time to help enrich the experience of all by stopping and chatting for just a few moments, or just making a few small quiet moments with Their wives and husbands. But, we retainers and staff say naught of these times, as they are the very few, truly private times.

The gist of it goes back to the idea that Their time isn't Their own. So, when They do decide to make the time and the trek to the range, it can be on a whim, some found time between Peerage meetings, or more recently at Pennsic War, after the Woods Battle. They are tired, they are in a hurry, their staff is trying to keep up. They may be short of temper by this part of the day.

As marshals, our most important job is the safety of all, quickly seconded by providing a fun day. When a Royal Entourage descends upon your range, the most beneficial thing to do is to to finish up whatever it is that you are doing, and go and introduce yourself. Give Them your best smile, even if you've just been shot on the youth range. Brush that off as just a day at the office, show Them you're the true professional. Have a polite and direct discussion, and nail down what Their objective is for the day: War point shooting, social shooting (we're pretty good at social shooting in the Midrealm, and the Atlantians are excellent at it as well), or instruction.

Instruction: As I've had the opportunity to instruct Royalty, I handle it usually one on one with the Monarch. However, this does not mean that as MiC, you cannot delegate the instruction of Royalty to

Photo Credit: HL Tristrum de Kerjean

a trusted marshal should the need arise. It is important to be very low key, very personable, and very encouraging, especially if They can't hit anything. But, it is usually the Ladies who are there for instruction, and have finally made some time to learn. This is a wonderful thing! Remember this: All new shooters are an opportunity to make a long term archer. Perhaps They haven't had much training or confidence in trying this most ancient of martial arts. It is our job to assist as best as our abilities allow us.

Social Shooting: Ah, what a treat! These Royals are most likely on the Range for an afternoon in the sun. This is usually enjoyed by "non-principle" Kingdoms, as they may have less demands upon Them at this particular event. They are there to shoot and have some fun. They may not require any of your assistance at all, nothing but a smile, recognition, and a, "Yes, Your Majesty, go forth and have fun in a safe-like manner." They are usually also quick with a joke, a smile, and a story.



Photo credit: Wanda Ostojowna

War Point Shooting: This is usually the most involved, because They probably didn't come alone. They have brought Their entire Kingdom with them. I personally think this custom is totally sweet. I've found it a best practice to - and this is a bad term here - "hand hold" the group through each war point station. Keep them together. Take over one station at a time, in order to limit the impact of the group on all of the other shooters. Stand in front of their shooting line and address the group all at once. Why do you stand in front of the line as you explain? They can't shoot while you are there, and it helps to hold their attention.

Run the station until the entire group finishes. Tabulate their scores, and only then proceed to the next station and start the process again. By doing so, you have most likely calmed a few Royals down. Perhaps that's a bad term as well. It can sound condescending, and be very clear that that is not what I'm about, nor is it what I teach marshals. However, a calm, orderly experience directly contributes to a pleasant experience, and gives the retaining staff those few moments to take a breather for themselves. Archery can be a serious business, this is true, but leave that for the Champions Shoots. Royals are usually on the range to actively support archery, so let Them. No, that's wrong. Help Them! Let Them in on the back doors that can be designed into the victory conditions of a particular station. Let Them know who's got a "hot stick", it may come up in Court. But, mostly let Them have some fun without expectation or "want". If we as marshals can give Them some time to relax and learn, chances are They will come back again.

Notes on working with Retaining/Household Staff

Work with these nice folks, they most likely know their Royals very well. Address the entire party the same as you would any other group when it comes to range safety. Hold means Hold. Pretty standard for us. It's part of the reason that all Martial Arts use the same word in the SCA.

Other Points of Note

Upon arrival, especially at local/regional events, announce Their presence, bow until relieved, and bring them up to speed with the current shoot so They can understand what They are watching.

Always thank Them for coming, They really didn't have to.

Most importantly, these are just my experiences on both sides of range time, your experiences will vary, but I truly hope that my insights help you make someone else's day more enjoyable.

Guest Column
On Target: Safety

By THL Deryk Archer

"On Target" is a recurring archery column featured in the Aethelmearc Gazette. To read more "On Target" entries and other articles related to archery, please visit http://aethelmearcgazette.com/category/archery/

In this article, I want to talk about safety on the range. Here are some do's and don'ts that will make your day safer:

The do's:

- Do check your bow string and wax it – the shooting season is half over, so check your equipment.
- DO check your arrows for compression fractures. If you shot a lot this year your arrows may be cracked near the point.

  Tip: Break a cracked arrow so you don't shoot it again. It may shatter on release, so don't spend your day in the hospital having wood removed from your hand. Also, share the aroma of fresh cedar with your friends (we call it "archer's crack"). Remember, it's only ammunition.



Figure 1: Target area too soft, arrows blowing through.

- DO check your bow for cracks and frets. If you think you see a crack, take a felt tip pen and put a dot on both ends of the fret. If the fret gets bigger, it's time to retire the bow. It's sad to retire a bow, so to make yourself feel better, buy a new one.
- DO check your target area for weak spots from blow throughs (*see Figure 1 and Figure 2*).



Figure 2: Target area still safe, still stopping arrows.

- DO check your target area for rocks or anything hard this may cause a ricochet.
- DO obey the Marshall in charge at all times.

Now for the don'ts:

- DON'T drink and shoot. REPEAT: DON'T DRINK AND SHOOT.
- DON'T put things like M80's (firecrackers) on your arrows. People have lost fingers doing this.
- DON'T play with fire arrows. I do one demo a year with fire arrows. I love doing this, but I put in over a year of research before I made my first fire arrow. They don't always work and one exploded on me. I was lucky, I was not hurt.
- DON'T dry fire a bow. That means don't draw a bow without an arrow nocked and then release it, because the bow may break. This is because when you fire an arrow, the energy of the string when released is absorbed by launching the arrow. When you dry fire, all of that energy goes into the limbs because there is no arrow, and limbs were never intended to absorb that energy.

Enjoy the rest of the season, hope to see you at the range! As always, shoot often, shoot safe, and have fun…

How to Make an Inexpensive Battery-Operated Cresting Jig

By: Lord Sigbiorn Sigmundarson

Originally built by Angus "the Sledge" MacIver of Stirling and Lord Sigbiorn Sigmundarson, the following article gives you some instructions for building a battery powered cresting jig for little to no cost. You will need a few basic tools such as a saw, drill, and screwdriver. While making the jig in the photos, I was lucky enough to have access to a full workshop, but it really is not needed.

Specialty parts you will need:

- Small Motor (mine was purchased directly, but one from an old bed inflator will work)
- Switch
- No more than two inches of surgical tubing
- Battery Box for single D-cell battery. (I built my own from some pieces of copper and wood)



Figure 1: The complete cresting jig.

Getting Started:

To get started, you will need a base. A piece of 26" x 4" wood worked well for me. I glued two more 3"x4" pieces of wood to act as a raised base for the motor. Be sure to cut two more of these, as they will be needed later. On the base, carve out a small notch with enough curve to hold your motor in place with a strap (*see Figure 1*). Hanging straps work wonders in this situation. IMPORTANT: Make sure that your motor is straight and level to avoid damaging your arrows. Once the motor is mounted, you can wire and attach your switch and battery box.

Here's the hard part:

You will need a way to attach your arrow to the motor securely and evenly. I cannot give you a fool proof way of doing it yourself, but I will tell you the way I did it. First, the motor I had purchased had a small gear still attached. To that, I used epoxy to attach a 9/32-inch bit from a socket wrench. Once that dried, I slipped a small length (about an inch) of plastic tubing around it and used a heat gun to shrink it in place, though in hindsight, surgical tubing might have worked better.

Supporting the shaft:

Now you will need the two blocks that we cut earlier. Place them up against the now-mounted motor and mark where you will need to drill holes for the arrow shaft to go. Drill a ¾-inch hole where needed in both blocks. Cut one block in half, bifurcating the hole you just made. Glue in pieces of Velcro (soft side) to the inside of the holes you just cut. This will keep you from scratching your shafts. Before attaching the blocks, place the whole block closest to the motor and the one cut in half towards the end. Place an arrow or shaft in the jig and turn it on, allowing you to adjust placement of the support blocks (*see Figure 3*). Attach them where they finally rest. Finally, using a small hinge and hook, attach the top portion of your cut block so you can open and close the end piece (*see Figure 4*). This will allow you to remove your arrow without damaging your new paint job.

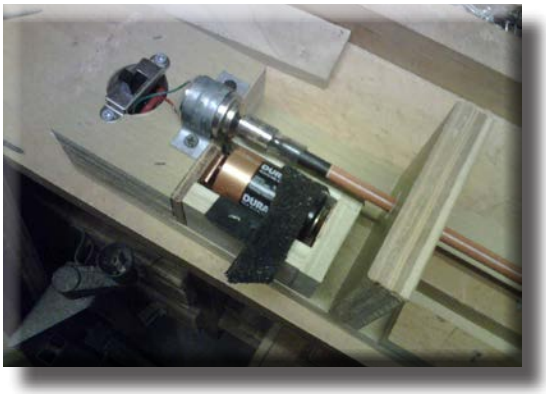


Figure 2: The mounted motor and tubing to hold the arrow.



Figure 3: Spin the arrow shaft to adjust the placement ofthe blocks.



Figure 4: The finished end block.



Figure 5: Guide for the cresting pattern.

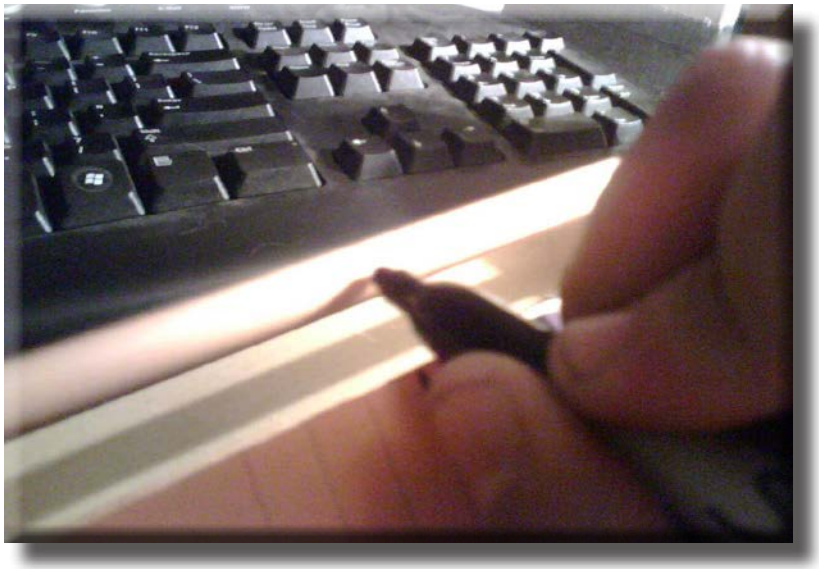


Figure 6: Marking the shaft using the pattern as a guide.



Figure 7: The marked shaft, ready for cresting in the jig.

Optional guide:

To keep a consistent look to every arrow, you may need a guide to work off of. How to do this is up to you. I attached two long pieces of wood to the bottom of the jig that had enough space between them to allow a third smaller piece of wood to sit in between them. Attach a piece of paper to act as a reference, or be adventurous, your choice (*see Figures 5, 6, & 7*).

Conclusion:

Hopefully this is enough information to get you started on your own project. I was lucky that most of what we needed was already in the shop and available. Ultimately, the cost for me was 5 dollars for the motor and switch, and a couple hours of work. What I ended up was a very useful tool for giving my arrows a distinctive look. Good luck and enjoy!

The Efficacy of the Longbow During the Middle Ages

By: HL Christophe of Grey and Sir Jon Fitz Rauf

In the SCA there is a lot of discussion and misunderstanding about the efficacy of the longbow as a battle weapon during the Middle Ages. What exactly is a longbow? How destructive/effective was it as a weapon of war? Was it effective against armored troops? How common of a weapon was it? Was the longbow only used by the "lesser classes"? This paper will discuss all of these questions.

Let us begin with the weapon, the longbow. The British Longbow Society defines a longbow as:

> *"…being of a length greater than five feet and having a stacked belly (i.e. deep D section rather than the rectangular section characteristic of traditional "American" bows), with horn nocks and limbs made of wood only. The thickness of the limbs, measured from belly to back, should at no point be less than three-quarters of the overall width of the limb at the same point. At the arrow pass (where the shaft flies past the bow on release), the bow shall be no narrower than at any point along its length. There should be no arrow rest built into or attached to the bow."*



Figure 1: Detail from St Sebastian with Archers,1475-80, MASTER of the Housebook, Drypoint (unique impression), 129 x 192 mm, Rijksmuseum, Amsterdam. Public domain.

It is known that a variety of bows were in common use during the Middle Ages, including composite bows of an Eastern design and relatively short bows that appear to have been used by the Norman archers in the Bayeux Tapestry. Evidence from both archeological finds and pictorial representations of archers from throughout the period suggests that the majority of the bows were longbows of a common design and similar to that prescribed by the British Longbow Society, as above. These bows were constructed of the best materials available at the time and the technology known to the bowyers. The most common wood used was yew, selected for its combination of heart and sap wood of contrasting properties to produce a natural composite of excellent strength and efficiency. However, longbows were also constructed of ash, elm, or hazel, which were considered to be more "base" woods but were probably used for their greater availability.

As the longbow gained importance as a war weapon and became standard ordinance for the armies of the 14th century, yew bowstaves were imported from Spain, Venice (Italy), Salzburg (Austria), Basle (Switzerland), and Dansk (Poland). The bowstaves from Venice were the most prized as it was felt that heat of the sun dried up the humidity and sap of the wood. The bowstaves from the other locations were less prized as it was felt that the wetter growing conditions yielded bowstaves of lesser quality.

Contrary to popular opinion, longbows were not necessarily constructed from a straight piece of wood. Often they were curved forward when new to produce a mild reflex. This was, in part, due to the natural tendency of the heart wood to expand during seasoning. This curvature would have initially served to increase the efficiency of the bow but over time the wood of the bow would have

compressed due to being drawn resulting in the bow curving in the opposite direction resulting in what we refer today as "string follow". There is some speculation that archers did not hold the draw, as in movies, so as to not aggravate the "string follow" condition.

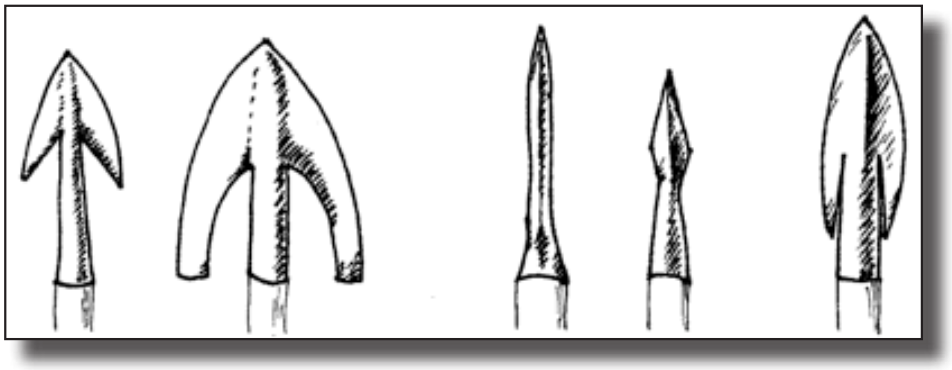


Figure 2: Common styles of arrowheads during the Middle Ages.

Using the dimensions of bows recovered from the Mary Rose, reproduction longbows suggest a draw weight of 100 to 140 pounds with an occasional bow exceeding 180 pounds. However, modern tests have shown that the optimum draw weight of a longbow is about 120 pounds and draw weights significantly greater than this provide no significant advantage.

The strings for these bows were typically made from hemp fibers but silk and linen were also used. The strings were coated with glue to assist in waterproofing them. Care was required that the strings did not become too dry as to cause the glue to crack. As with the modern Flemish bow string, strings in period were constructed by twisting the fibers to form the string. Typically the string had a loop on one end and no loop on the other. The string was then affixed to the bow using a timber hitch or bowyers knot. This afforded the string makers to make many strings suitable for many bows of different lengths. From descriptions it appears that strings in period were wrapped with a serving material in the string's central position much like modern strings. Strings recovered from the Mary Rose indicate that they had a diameter not to exceed 1/8 inch, resembling modern strings.

The ammunition for the longbows, arrows, had a single purpose in battle – deliver a large, heavy warhead towards an armored enemy and pierce their armor to do the maximum damage possible. To carry a heavy tip most arrows were made of shafts up to 3/8 inch in diameter and normally made out of light, straight wood such as aspen or popular but were sometimes made of ash, alder, birch, elder, willow, and hornbeam. The latter woods were heavier and thought to better carry a heavy war tip, however, as developed later in this paper, heavier arrows shortened the effective range of the archer.

Medieval arrows were constructed in lengths ranging from 27 to 32 inches. However, to ensure consistent shooting most arrows were made to a consistent length. Nocks were normally cut as parallel sided slots at right angles to the grain of the arrow shaft. In some cases horn inserts were used parallel with the shaft grain and cross-wise to the nock cut. These provided greater strength and aided in reducing splitting of the shaft upon release by the bow string.

Feathers were cut from the pinion feathers of geese and ranged in shape from simple wedges to more rounded shapes similar to the parabolic fletches of today. It is not known if cock feathers were in use or mattered to the archers. Fletches were glued and tied to the shafts with both ends of the fletch and thread coated with glue for weatherproofing. Fletches were considerably longer than those used today and ranged from seven to nine inches. It is speculated that the longer fletches were required to stabilize a shaft with a heavier tip.

Figure 2 shows five arrows heads in common use during the middle ages. The first two points are broad heads commonly used for hunting. The next two are of the bodkin type used against metal armor. The final arrow head was used against light armor or for harassing an enemy at longer distances. The barbs made the withdrawal of the arrow difficult. Arrow shafts were often constructed without arrow heads which were attached on site often by simply jamming them on or with wax. In this manner the arrow shaft could be easily dislodged but the heavier arrow head remained in the wound.

Medieval military archers seldom used quivers. Instead they often simply stuck their arrows under their belt or in the ground in front of them. This habit of sticking the arrows in the ground allowed

dirt to get on the arrowheads which further contaminated the wounds of those hit and lead to the idea that English archers poisoned their arrows. If a quiver was needed typically a simple bag for carrying the arrows was used.

Medieval military archers had no requirement for accuracy at great distances. Instead their main force was applied via arrow storms. When we consider that the average medieval archer could loose eight arrows a minute and was shooting an average distance of 250 yards with an average flight time of about eight seconds, by the time the first arrow storm arrived, another would be on its way. Considering the average number of archers per battle, see below, a 10 minute arrow storm could inflict considerable damage to an enemy.

Were archers a significant part of Medieval armies? One reference cites the following numbers:

- Crecy – 12,000 men, 7,000 of which were archers
- Poitiers – 7000 armored horses, 3000 longbow men, 100 light troops
- Agincourt – 6000 men "mostly archers"

Putting together the numbers of thousands of archers loosing arrows every 7.5 seconds (eight arrows per minute), with a flight time of eight seconds at 250 yards and considering each archer had hundreds of arrows to shoot, an arrow storm would be a formidable battle tactic of the time!

But the question remains, how effective were the arrows when they arrived at the target? To answer this question I draw heavily on research done by Matheus Bane and his 2006 thesis *English Longbow Testing* against various armor circa 1400, which I will summarize here.

The testing was based on an English Longbow similar to the Spencer Bow: 79 inches long, draw weight of 100 pounds, constructed of yew with horn nocks. The actual bow used in the testing was an Oregon yew self longbow, 75 pound draw weight, AMO string length of 72 inches, horn nocks, and a leather grip with no arrow rest. The author shows the calculations that support that his 75 pound longbow has the same striking distance at 10 yards that a 100 pound longbow would have at 250 yards. (Arrives with the same amount of energy from the strike.)

The test arrows were 30 inch by 0.4 inch diameter ash shafts with self nocks bound with linen thread. Fletching was grey goose glued and tied with linen thread. Four types of period arrow heads were used as pictured in *figure 3*. The final weights of each arrow type were:

- Needle Bodkin – 905 grains
- Short Bodkin – 1150 grains
- Wide Broadhead – 950 grains
- Curved Broadhead – 935 grains

These weights compare favorably with arrows recovered from the Mary Rose.

An arrow hit may be lethal in two ways, a direct hit penetrating to cause a traumatic wound, or a hit that does not penetrate the flesh but causes a significant deformation in the body resulting in internal organ damage. To test this, Bane used the National Institute of Justice (NIJ) testing procedures for modern body armor which tests not only projectile penetration but body deformation. Roma Plastilian #1 clay is used to represent a human body and for testing degree of deformation from the hit. NIJ testing threshold is 1.7 inch of deformation for modern armor to pass. The penetration threshold is 0.28 inches which research has

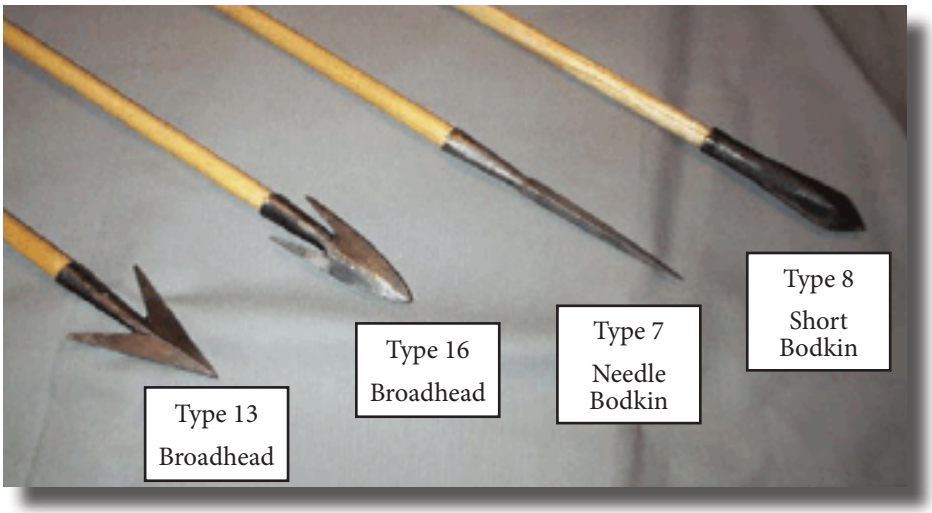


Figure 3: Period arrowheads on test arrows.

determined would cause injury to internal organs. The standard for Bane's tests are that an individual sustaining a wound of 1.7 deformation who is brought to a hospital will survive. Penetration of 0.28 inch was determined through research to indicate that internal injuries to organs would be extremely unlikely. These standards are for modern body armor and modern medicine. Without these modern advantages it is realistic to assume that a Medieval military person sustaining injuries of this degree would most likely die or be seriously debilitated, i.e. the arrow strike would be considered effective (Bane, 2006).

Bane (2006) tested six forms of armor in common use during the Middle Ages. Bane noted that many armor/arrow tests test only the armor but not as it was commonly worn by the Medieval military man. Therefore, Bane made the point of "dressing" his test subject in a more period appropriate fashion, i.e. he included the under garments that would have been typically worn. Each of the six armor types is described below:

Jack Coat – This armor was primarily made of layers of linen topped with deer hide. This armor has been described as the "most serviceable defense in the fifteenth century" (Ffoulkes). Bane (2006) used 15 layers of linen stitched to one layer of deer skin on top.

Butted Maille – Bane (2006) notes that no butted maille has been found from period but wanted to include this armor type to see how it would have performed if used. His armor was constructed of 18 gauge mild steel wire with inside diameter of 5/16 inch round wire butted together. Bane notes that most chain maille of period was iron not steel. This was worn over two layers of linen stuffed with one inch of cotton batting.

Riveted Maille of average quality – The maille was constructed of 18 gauge iron wire, 5/16 inch inside diameter, 0.79 cm outside diameter. Each ring was slightly flattened and riveted with wedge rivets. This armor was worn over two layers of quilted linen with one inch of cotton batting (Bane, 2006)

Riveted Maille of high quality – Constructed of 18 gauge steel wire with 5/16 inch inside diameter, flattened in a clockwise direction, fixed with a steel wedge rivet made out of iron. This armor was worn over two layers of quilted linen stuffed with one inch of cotton batting (Bane, 2006).

Coat of Plates – Constructed of three inch square metal plates covered with 1/16 inch thick leather and padded with eight layers of linen. He does not state the thickness of the metal plates (Bane, 2006).

Plate Armor – Tests done on armor in the Tower of London show minimum thickness of 1.2 mm and maximum of 4.57 mm. Medieval armor was often constructed with thicker plates to cover vital areas and thinner plates for non-vital areas. This was done in supposition to save weight. Bane tested the minimum thickness and used three layers of quilted linen as under padding which was the equivalent of the arming coat made for Henry VIII. Other sources cite the varying thickness of plate armor and also cite that the metal used was of a softer nature than the steel of today (Bane, 2006).

The results provided some surprises and some expectations. I've summarized them below for each armor type:

- Jack Coat – This armor, while constructed as the thinnest on historical record, provided adequate against the needle and short bodkin points. The deer hide actually rolled in with the arrow strike acting as a brake and preventing deeper penetration. The bladed points were as expected, the cutting force against the deer skin and linen proved very efficient and allowed 3.8 inch penetration. The final conclusion is that the Jack Coat at it's thickest would have provided adequate armor on the battlefield, though very resistive to movement and hot to wear (Bane, 2006).
- Butted Maille – This armor provided no match for all four arrow types tested. The short bodkin, typically the least penetrating arrow point, had 1.7 inch of penetration. Bane believes that while some believe this armor to have actually been in use in the Middle Ages regardless of lack of proof of existence, his tests prove why it was not used. He observed that the broken rings would have

been easily pushed into the resulting wounds introducing more infectious dangers. Barbed arrows would have been difficult to extract if at all (Bane, 2006).

- Riveted Maille average quality – This armor type proved not much better than the butted maille. The rings were inconsistent in construction and the integrity of the metal questionable. The arrow penetration depths were slightly less that the butted maille but every arrow tested proved fatal. The needle bodkin penetrated 2.8 inch. The short bodkin while not breaking rings like the needle bodkin, did push maille rings through the padding into the "flesh" to a depth of 1.3 inch. The broad heads, while not penetrating far enough for the barbs to become entangled in the maille, did penetrative to a distance of 1.8 inch and sent broken rings into the "flesh". This armor type was not effective (Bane, 2006).
- Riveted Maille high quality – This armor was constructed of rings of consistent and solid nature. The needle bodkin broke rings and penetrated to a depth of 2.8 inches. The short bodkin simply bounced off but deformed the "flesh" 1.8 inches which is over the fatal threshold. The broadhead did not penetrate past its barbs and did not introduce rings into the "flesh". The penetration was 1.3 inch. The type 16 broadhead, swept back barbs, cut through the rings and padding to a depth of three inches. While this arrow head did not penetrate as deeply as the needle bodkin due to the barbs it would prove significantly more difficult to remove and cause a much larger wound area (Bane, 2006).
- Coat of Plates – Only the needle bodkin penetrated and resulted in a very small wound. The other arrow heads while not penetrating did leave large plate sized deformations that were well within survivable limits (Bane, 2006).
- Plate – This armor form stopped most arrows. The needle bodkin did punch past the threshold but would not cause the wearer great risk. The padding tested was the minimum of historical examples. If thicker padding were used it is felt no arrow would have reached the skin. However, other sources remind us that plate armor was worn over vital areas, varied in thickness and provided joints that were either unprotected or protected only with padding or maille. Thus, while a warrior in plate armor would survive lethal strikes, it is safe to assume that they could become incapacitated through more minor wounds. And let us not forget that in today's money values a full suit of armor would cost around $80,000, well beyond the price range of the vast majority of military men of the time (Bane, 2006).

In conclusion then to answer the question "Was the longbow an effective military weapon?", the answer has to be a resounding YES. Bane (2006) notes the following conclusions from his tests:

> *"Most soldiers on the battlefield would have been at risk from the longbow. The average archer would have had the tools to wound or kill most armor types. Even with the advent of the coat of plates, the archer would have had an impact on an advancing army. Only the most expensive and well made plate armor wearers would have had an advantage. Although even with plate, I only tested the impact to major protected areas. The joints and gaps would still be vulnerable being mostly of maille until the 16th century. Without significant metal to withstand the energies of an arrow or excessive padding to spread out the force, arrows of the 1400's would have been deadly."*

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How to Make a Simple Quiver that Works

By: Moira nicConnell the Strongbow

Many years ago at an event I had a very earnest gentle explain to me that my back quiver wasn't period at all. Nope, not even close to being period.

"Hmmm," I said to myself, "looks like time for some research." Here's what I found: Most of the representations of archers that I found, and there weren't many, show archers with arrows tucked through their belts, with arrows stuck in the ground, or with arrows simply laid upon the ground. Knowing what I know about hunting, the last thing you want is razor sharp arrow heads tucked into your belt waiting for you to trip on a tree root and drive them into your vital organs. Likewise, there is no way you can tuck enough arrows into your belt to see you through a battle.



Figure 1: One depiction of archers in the Bayeaux Tapestry.

Battle of Hastings. (2015, September 2). In Wikipedia, The Free Encyclopedia. Retrieved 02:38, September 14, 2015, from https://en.wikipedia.org/w/index.php?title=Battle_of_Hastings&oldid=679144869

Creative commons.

So, I looked a little harder. There, in the Bayeaux Tapestry, I found quivers (*see Figure 1*). The panel that shows the Norman archers shows archers with hip quivers and one other archer with a back quiver. Further digging turned up more representations of archers with mostly hip quivers. I also found representations of horse archers and crossbowmen all with hip quivers. I take this to mean that hip quivers may have been more common, but back quivers certainly existed and were used in period.

Now that we have that out of the way, you can find perfectly good quivers at sporting goods stores, but they look, well, modern. I want you to take the time to make your own.

A good, basic hip quiver can be made simply by taking a mailing tube big enough to hold a dozen arrows. Reinforce the bottom by cutting a couple circles of plastic from, say, a margarine lid, and putting them inside. Then take some plain white cotton duck and a little spray adhesive and cover the tube. With a craft knife, cut a slit near the top for a strap to hang it from your belt. If you do basket weaving, I've seen two very nice quivers made of wicker. Or, you can go with my favorite, leather. The following is a set of instructions to make a simple back quiver out of leather, with brief instructions at the end to modify this pattern for a belt quiver.

Tools

- Light to medium weight tooling leather.
- Paper for pattern.
- Marker, tape measure and straight edge.
- Scissors for paper and for leather.
- Leather punch and/or punch awl.
- Leather needle and waxed cord or sinew.



Figure 2: Use a piece of paper around your arrows to create a pattern for your quiver.



Figure 3: Side view of the reinforcement of the bottom seam to protect the seam from damage by arrow tips.



Figure 4: Attachemnt of one end of the backstrap to the quiver.

Design

I start by laying 12 to 20 arrows on a piece of paper, and folding the paper to loosely hold the arrows (*see figure 2*). I say loosely, because if you pack the arrows in the quiver, you will damage the fletching. Use the straight edge to make the pattern edges nice and neat, then go through your leather and see which pieces will be right for the job.

If you are new to leatherwork and you are planning on purchasing leather for this project, lightwieght tooling leather (three to four ounce) or medium weight tooling leather (five to six ounce) are suitable weights to consider. There are also different grades of hide. The highest grade ("premium") is free of scars and brands, but is also the most expensive. "Economy" hides are often a fine option and are less expensive, but when placing your patterns, you may need to consider scars and brands, and whether or not you wish to cut around them.

The more pieces you have to stitch together, the more chance you have for a critical failure at an inconvenient time, like in the middle of a timed round. It is best to make the quiver out of one continuous peice of leather since fewer seams mean fewer chances for seam failure.

Assembly

Cut your pattern out of the paper and transfer it to the leather by scoring the smooth side of the leather with the tip of your punch awl along the edges of your pattern. Leather can be scored with any suitable point, and the point does not have to be sharp. Tools that are specific to scoring patterns on leather have a small ball for a tip instead of a point. Scoring a pattern into the leather only needs to leave an impression. You only need your score marks to be visible enough so that you can see them well enough to cut them. When placing your paper pattern on the hide, remember to consider whether the bag of your quiver will be cut from one continuous piece, or cut from two pieces. If you have a piece of leather long enough, you can simply fold the leather over at the bottom of the quiver, creating seams along the two sides.

After scoring your pattern into the leather, cut the leather piece out with leather scissors or a sharp utility knife. If your leather is very light weight, you may need to reinforce the bottom where the arrows will rest so that they do not wear through. If you used two shorter pieces of leather instead of one continuous piece folded over at the bottom, you will have a seam of stitching along the bottom of the quiver. The tips of your arrows will wear the stitching of the seam, so cut and glue in a reinforcing piece to protect it (*see figure 3*).



Figure 5: The completed back quiver.

To make the strap for a back quiver, have a friend hold the leather that will be the bag of the quiver in place across your back. Now, you need to measure from the bottom of the bag diagonally across your chest to the back of the opposite shoulder so that the quiver will be worn cross-body. Using your straight edge, score the markings in a strip of leather to make the strap. The length of the strap should be the length of your cross-body measurement that your friend helped you with, and it should be about two or three inches wide. Once this strip is cut out, attach it to the bottom of the quiver bag (*see figure 4*).



Figure 6: Variation on the instructions to make a belt quiver.

Once the strap is attached to the bottom of the bag, you can punch lacing holes with your leather punch or your punch awl, and stitch up the sides of the quiver bag. Be sure that the punched holes for the stitching align so that your stitched edges will be even. Then, with arrows in the quiver bag, have a friend help hold the quiver in place across your back, and fit the cross-body strap for comfort.



Figure 7: Examples of completed belt and back quivers.

Stitch the strap into place, and you have a back quiver ready-to-go (*see figure 5*)

Constructing a hip quiver is almost the same. Once you have the bottom of the bag done, punch the lacing holes and start stitching up the sides from the bottom up. As you stitch up the sides, you can either attach a loop of leather to the top of the bag to hang it straight down from the belt, or you can attach a loop into one side seam at an angle (*see figure 6*).

All you have left to do is to trim any excess leather and make your new quiver look spiffy (*see figure 7*). The great thing is no two quivers are going to be exactly the same. Now, go out there and make yourself a quiver to be proud of.

See you on the range.

My Medieval Life

"My Medieval Life" is a blog by Negoshka Gorodisha (mka Kristine Schilling) documenting her return to the Dream after many years of absence, and her journey as a new archer in the SCA. To follow this blog, please visit http://munchkinsmedievallife.weebly.com

Finding Form and Distance

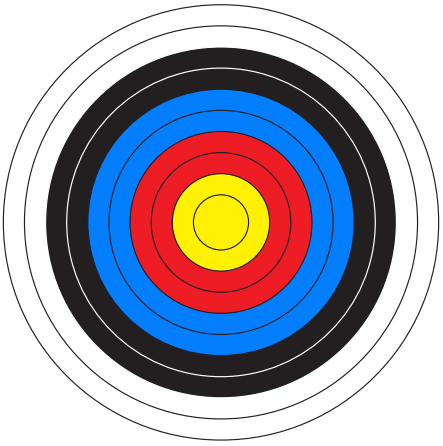
The trials and tribulations of finding a distance when you are still a fairly "new" archer can be daunting. Going on seven months now, I have been shooting about once a week, although twice a week is becoming more common. In that seven months I have had good days and bad days.

The bad days can be so bad I want to throw my arrows at the target instead of shoot them. The good days, I begin to feel like I am on my way to being a modern Merida. lol

I get to practice twice a week lately. This is great, except that the target butts at the range are set at 18, 22, 30, and 45 yards, while on Sundays we set up at 20, 30, and 40 yards. When you are a newbie like me, the distance being the same every time is important. So, on Thursdays I have been working at 18 or 22, then on Sundays I warm up at 20, then switch to 30.

In the SCA, we have archers rankings. 25-44 is Bowman. (*Editor's Note: Ranking systems may vary from Kingdom to Kingdom.*) I have been pretty consistent in 28 points during the scored ranged rounds. So I am a Bowman. At 45-64 is Yeoman. That's a goal. I think for now I will just aim for a score on each distance. Any score, thankyouverymuch!

Point rounds are 40 yards, 30 yards, 20 yards, and a speed round at 20 yards of as many arrows as you can loose in 30 seconds. 6 arrows per set (*Editor's note: Also called an "end". For example each end is 6 arrows.*). Points are one, two, three, four, and five, with the outermost ring as one point, and the innermost ring as five points. So, a maxed out round is 30 points per end, for a total of 90 points. With the ability to gain more during the speed round, based on how many arrows you can let fly in 30 seconds.



My typical score is:
40: 0
30: 3-5
20: 12
speed: 11

It is almost annoyingly coincidental that if I score at 40, I will miss totally at 30, and vice versa. The same holds true with 20 yards and the speed round. If I score high at 20, chances are I score lower at speed. Go figure. Clearly I need to work on consistancy with my form.

My bow arm drops a bit on release, I think it is because I am shooting a 40 pound draw. As if the release of the string tension is releasing my shoulders too. Its my next focus, since I am starting to keep my floating anchor steady.

Quivers & Quarrels Article Ideas & Wish List

Would you like to contribute to *Quivers & Quarrels*? Here is a list of possible topics for ideas that you might write about. Possible topics for *Quivers & Quarrels* are not limited to those listed here. If you would like to write about anything at all related to archery in the SCA, your written work is most welcome!

Features:

- Interviews with anyone who is accomplished or influential in SCA archery
- Anything about horseback archery
- Anything about crossbow
- Anything about combat archery
- Anything about target archery
- Anything about youth archery
- Features on other historical archery societies or groups outside of the SCA.

How To:

- How to build combat arrows - with the kingdom-specific caveat.
- How to make period archer's garb. (This could be a VERY big topic to write about, so simple is probably best. Feel free to consult with me [Sayako] on this topic if you'd like to write about some part of it. I have been sewing since I was 10 years old. I won't tell you how many decades that's been, but if you want to guess, the lower the number, the more I like you.)
- How to make archery stuff out of leather (quivers, bow cases, bracers, etc.)
- How to make archery stuff from horn (bracers, nocks, reinforcements for self nocks, thumb rings, etc.)
- How to make archery stuff from wood (quivers, what else?)
- How to make archery stuff from what else? PVC (not bows, but PVC as a modern substitute for ivory or similar use)? Bone? Metals?
- Cresting and how to do it.
- How to make an inexpensive cresting machine (old sewing machine motor anyone?)
- How to cut your own fletching from raw feathers.
- Pictorial how-to on whipping.
- How to make bowstrings.
- How to set up your new bow.
- Illustrated explanation of how to measure draw length.
- How to test spine weight of bare shafts.
- How to straighten arrows and maintain them so they stay straight.
- How to make other archery equipment (target butts, bow stands, storage racks, dipping racks, etc.)
- How to get into combat archery on a budget? Have you built your own armor and can share the experience?
- How to string static-eared recurves that can't be strung with a simple stringer because they curl up when unstrung (like Korean SERs)

History:

- History, development, and evolution of archery in the SCA.
- Social history of archers in society.
- History of archery and/or archery equipment in any culture.
- Composite bows and their development in history.
- Historical recurves.
- About the Battle of Agincourt, or any other archery/crossbow-dominated historical event.
- Role/life of military archers.

Garb/Persona:

- Archer's garb for any SCA-appropriate time period or territory.
- Comparative carriage of arrows across different cultures.
- Comparative archery from different cultures.
- Comparative archery accessories from different cultures.

Technical Stuff of Archery:

- Proper shooting techniques with photos/illustrations.
- Comparative shooting techniques (draw lengths, placement of arrows, various styles, etc.)
- Alternative releases (thumb release, releases favored by archers of various cultures, etc)
- How bows are made. (Maybe not "how to build a bow", but an explanation of the process with pictures. Let's stay away from PVC bows on this topic for now, please. There are currently strong pro and con arguments regarding the role and use of PVC bows in the SCA.)
- In-depth discussion about the Archer's Paradox.
- Bow tuning
- Arrow tuning
- Refinishing bows
- Proper techniques for drawing arrows from various styles of quivers.
- Proper stringing techniques, and discussion of improper stringing techniques and their consequences.
- Proper storage and maintenance of bows and arrows.
- Experiences and critiques of different shaft woods for arrows.

Newcomers:

- Archery newcomer FAQs and answers.
- Getting into archery on a tight budget.
- Who are the "People of Archery" and what do they do? (Range marshals, marshal-in-charge, kingdom archers, local champions, archery orders - for the kingdoms that have them, etc.)

SCA Archery Basics:

- Range rules, range etiquette, range traditions, and safety basics.
- Explanation of shoots in the SCA for newcomers (what's a Royal Round, IKAC, SSAC, York, period, fun shoots, etc.)
- Comparative ranking of archers among kingdoms.

Scholarly/Academic:

- Examinations of artwork in history and what knowledge can be gleaned from it. (Any photos from museums or third party providers must be open-source, or the author must provide the appropriate photo release from the owner of the photos.)
- Curricula for off-range archery classes.

Any requests or suggestions for articles you would like to see? Let me know! Send me an email at qqchronicler@gmail.com, and I will add your request to the wish list. -Sayako

Society Seasonal Archery Competition (SSAC)

Shoot Begins Tuesday September 1, 2015
Shoot Ends Monday November 30, 2015

Scores must be Submitted by: Monday, December 7, 2015 and within 30 days of being shot.

Rules

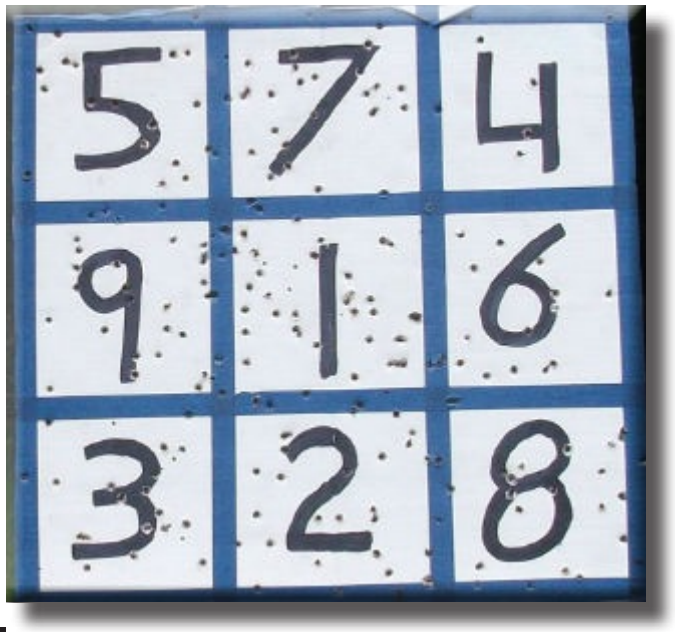
Please read the SSAC General Rules, as these apply to all SSAC shoots. Below are the additional rules for this specific shoot.

Target

The target is setup like a Tic-Tac-Toe board, where the scoring area is 6" square, with a 1" gap between squares.

Ranges

This shoot is shot at 20 yards for both Adults and Youth.



Running the Shoot

The goal for each end is to shoot a score that matches the number of the end. The first end is for 10 points, followed by 12, 14, 16, 18, and 20. Your actual score is how many points you shoot above or below the intended number.

The ends should be shot in order from low to high, alternating un-timed, timed.

This shoot has three Un-timed ends the 10, 14, and 18. For each un-timed end you have up to 6 arrows to attempt to match the points.

This shoot has three Timed ends the 12, 16, and 20. For each timed end you have up to 30 seconds, unlimited arrows, to attempt to match the points.

All arrows touching any part of the scoring area count as that score, even those breaking the line into the gap. Arrows landing completely within the 1" gap count as zero.

Example for the 10 point end:

- If your arrows where to add up to 8 or 12, your score for the end is 2.
- If your arrows add up to 10, a perfect match, your score is zero.
- If all your arrows miss or land within the lines, your score would be 10.

- It is possible to have a score of greater then 10, should you hit the 9 block with all six arrows (unlikely but possible) your score for the end would be 9*6-10 = 44

Bonus Challenge

To gain a bonus of -2 to your score for the end, shoot each end per the normal rules with these four additions:

- Shoot exactly 4 arrows (timed ends still only have 30 seconds)
- Each arrow must hit a unique scoring block (no repeats)
- Every arrow must hit a scoring block
- Match the end's score perfectly

For example, on the 10 round:

If you shot 3, 2, 4, 1 you matched the 10 exactly (score of 0) plus you met the bonus rules so your actual score for the end becomes -2. However shooting 3, 2, 3, 2 (repeat); 3, 2, miss, 5, miss; or 3, 2, 1, 2, 2 (five arrows) would not qualify for the bonus even though they still matched 10 perfectly and would score 0 for the end.

Shooting 3, 2, 1, 5 would also not qualify for the bonus as it does not match perfectly, and would score 1 for the end.

Remember:
A *LOW* score is the best score for this shoot!

This shoot was suggested by:
Gladius





Starting with the Spring 2015 SSAC, Sir Jon Fitz-Rauf will be giving an archery coin to the top five archers in the each of the five divisions as a token of their skill in the SSAC. The divisions are period handbow, period crossbow, open handbow, open crossbow, and youth.

The coins were a gift to Sir Jon from the Moneyers Guild of An Tir. The dies were cut by Arion the Wanderer, OGGS. The inscription lettering style is circa late 1200`s - early 1300`s. It reads: SIR.JON.FITZRAVF on the bust side and TRVE.HEART.TRVE.AIM on the reverse, which means "TRUE HEART/TRUE AIM". The coin is modeled after the French gros tournois/ English groat. It is 25 mm diameter x 0.7 mm and is 3% silver / 97% tin pewter.

To receive a coin, you must be one of the top five in any of the divisions, and you must send Sir Jon a self-addressed stamped (49 cents) envelope by US mail within fourty-five days of the end of each seasons' contest. His mailing address is: John R Edgerton, 7662 Wells Ave. Newark, CA 94560-3530. Please include your Scadian name and division.

Summer SSAC Results

Rules for this Shoot

This shoot is pulled from the old Atlantian Seasonal Challenge. It was a shoot designed to get archers to focus on grouping their arrows. No target face is required, however you are welcome to put almost anything on the target butt to provide a point of reference, except *NO FITA TARGETS* allowed. So, some stickers or post-it notes, an old SSAC target you have kicking around, anything that does not involve concentric circles. It is suggested that archers attempt to place their group of arrows away from other archers, but this is not required.

For Winter, only 20 yards. For Summer and Spring, 25 yards and 35 yards. For each range there are two ends; 1) Un-timed using 10 arrows; 2) Timed for 45 seconds unlimited arrows. After each end is shot, the archer will determine which single arrow will define a `center` from which to measure a 3 inch radius (6 inch diameter) circle. Any arrow either in or touching the circle gains one point. Any shaft stuck in the frame of the butt or in the ground does not count even if `technically` inside the measured circle (i.e. the `center` of the circle is very low on the butt).

Final scores for the Spring SSAC competition.

Full scores may be seen at the SCA SCA-scores site.

Period Handbow

1.	Konrad von Alpirsbach	Caer Galen	16.0
2.	William Hawke	Caerthe	14.0
3.	Alaricus Simmonds	Dragon`s Laire	12.0
4.	Ubertino Nicolai	Caer Galen	12.0
5.	Wintherus Alban	Politarchopolis	11.0
6.	Sigmund Spelmann	Politarchopolis	11.0
7.	Plachoya Sobaka	Shadowlands	10.0
8.	Gladius the Alchemist	Cleftlands	10.0
9.	Ailinn Shadowfox	Hawk`s Hollow	9.0
10.	Kaitlyn McKenna	Shadowlands	9.0

Open Handbow

1.	Paganus Grimlove	Dreiburgen	20.0
2.	William Cristofore of Devonshir	Adiantum	18.0
3.	Loegaire mac Lochlainn (Loric)	Dragon`s Laire	17.0
4.	Alaricus Simmonds	Dragon`s Laire	16.0
5.	Winfred of Heatherwyne	Lyondemere	16.0
6.	Paul Stoddard	Starkhafn	16.0
7.	((Justin Godey))	Vinhold	15.0
8.	Robin Greenwood of Arden	Lyondemere	15.0
9.	Ronald fitz Robert	Steppes	15.0
10.	Wolfgang Bieneman vom Swartzwald	Hawk`s Hollow	15.0

Period Crossbow

1.	Jonathas Reinisch	Dun Carraig	21.0
2.	Daffyd of Emmet	Caerthe	19.0
3.	Plachoya Sobaka	Shadowlands	14.0
4.	Kaitlyn McKenna	Shadowlands	13.0
5.	Catan ingen M	Steppes	11.0
6.	Soffya von Kulp	Flaming Gryphon	11.0
7.	Johann Steinarsson	Vatavia	8.0

Open Crossbow

1.	Jonathas Reinisch	Dun Carraig	22.0
2.	Karl Thorgeirsson	Northkeep	16.0
3.	Kaitlyn McKenna	Shadowlands	13.0
4.	Ulrich von Budigen	Northkeep	13.0
5.	Tarmach	Cleftlands	12.0
6.	Plachoya Sobaka	Shadowlands	11.0
7.	((Grant Adams))	Dun Carraig	7.0
8.	Caterina Giovanni di` Gilead	Namron	6.0

Youth

1.	Summer of Starkhafn (13)	Starkhafn	5.0

Pennsic Period Flight Shoot

by Lord Naran Numuchi (MKA Nicholas Freer)

Pennsic War 44

The third Pennsic Period Bow Shoot was hosted by Lord Naran Numuchi of the Great Dark Horde, on Wednesday of War Week. Eternal Blue Heaven provided us with excellent weather, sunny and not overly hot. There were 19 shooters (10 longbow, eight horsebow, and one crossbow). The rules required that one's archery equipment be period, according to the IKAC rules (no modern pistol grips, built-in arrow shelves, plastic arrow nocks, or all fiberglass bows. Garb and archery kit to match for culture and time period. Each category vied for standing within their own ranks. Everyone shot the opening volley with whistling arrows en masse, just because it was fun.

That was followed by the flight shoot, with each archer shooting six arrows, and scoring his or her longest shot of the six. Samkin Thomas of the Middle lofted his arrow the farthest, and outdid Naran Numuchi by a few feet. After that, the archers tried their aims at a full period royal round, a Turkish puta (a traditional Turkish competition using a large, pear-shaped target), a Manchu tunken (a five-ring target of foam shot with a rubber blunt arrow, to knock out the least number of rings, knocking out only the bullseye indicating a perfect shot with minimal wobble from the tail of the arrow). Roving clouts and a wand shoot completed the Shoot. The winners were Lord Grimm (Atlantia) for crossbow, Lord Naran (Great Dark Horde) for horsebow, and Symon de Poitiers (East) for longbow. There is an additional prize for "Best Ensemble" awarded to Symon de Poitiers by popular vote for an Agincourt archer. The Pennsic Period Shoot continues to grow, from 6 archers the first year, to 19 this year. Come on out next year and try your hand.



Left to right: Hallbjorn Egillson, Lord Naran Numichi, and Ronan Mac Iomair.

Local Archery Practices

Editor's Note: This list is a work in progress. Please send your submissions and updates for local practices to qqchronicler@gmail.com, or contact me via the Quivers & Quarrels Facebook group. Quivers & Quarrels is only published quarterly, so it is highly recommended to include contact or web information along with a brief description of your archery practice arrangements. YIS, Sayako

Ansteorra

Northkeep

Missile practice scheduled every Sunday from noon until whenever people go home.

9737 W 61st Street S, Sapulpa, OK.74066
(918) 200-5584
Calling first is a good idea, as I may be gone to an event.

Random cook out / pot lucks. Thrown weapons practice from noon till 2pm. Children's archery practice from 1pm till 2:15pm. Adult archery practice from 2:30pm till people go home.

Submitted by Arthur Blackmoon, Baronial Missile Marshal - Barony of NorthKeep.

Cancellations: For major regional archery events and if the temperature is below 40 degrees.

An Tir

Barony of Dragon's Laire
(Kitsap County Area, WA)

Winter Archery Practice is held at the VFW Hall in Silverdale, weather and light permitting, on Wednesdays from 5-7 pm. Any questions please contact the Chief Archer, Lady Kloe of Thira, or a Deputy Chief Archer for more information.

For more information about the archery newcomers program and for updated information about practices throughout the seasons, please visit www.dragonslaire.org

Barony of Three Mountains
(Portland, OR Area)

The Barony of Three Mountains is pleased to host archery practice every Wednesday from 6:30 PM to 8:30 PM at:

Trackers Earth
4617 SE Milwaukie Avenue
Portland, OR 97202

This is an indoor 40 yard heated range. Contact Archos Andrew Stiubhard (Baronial Archer) at archer3m@yahoo.com, or Archos Eobhan Dunbar at eobhan.dunbar@gmail.com for more information.

Barony of Wyewood

By Ikea in Renton, WA. Saturday 10am-1pm, Wed will be 4:30pm-7:30pm.

Please contact t_a_geyer@yahoo.com for more information.

Wyewood also has a Yahoo group for announcing whether practice is on or cancelled, and that is "wyewood_archery".

Tymme "Prodkiller" Lytefelow
Chief Archer, Barony of Wyewood
Arcuarius to HL Evrard de Valogne, OGGS

Summits (Principality of An Tir)

Shire of Glyn Dwfn

Archery, thrown weapons, and At'latl practices are currently the second and fourth Sundays of each month from 1pm to dusk in Shady Cove, OR. In inclement weather, we do equipment repairs and construction. As darkness falls we have a potluck dinner and socialize. Check Glyn Dwfn's website at http://glyndwfn.antir.sca.org/ for address or more information.

Avacal

Barony of Montengard
(Calgary, Alberta)

Archery practice is held at the Calgary Archery Centre 4855 47 St. SE Calgary, AB.

This is an indoor range space with multi distance ranges, 3d course and pro shop.

The SCA hosts practices Tuesday and Friday evenings from 6:30 - 9 pm.

capt.archers@montengarde.org
www.montengarde.org

Atenveldt

Baronies of Sundragon and Atenveldt

The baronies practice together on Sundays at El Oso Park. This is for royal rounds and tournaments only at this time for target archery. October thru April 9 AM and May thru September 7 AM

Caid

Altavia

1st, 3rd, and 5th Sunday of every month at Woodley Park 11:30am-3:30pm

Angels

See webpage at http://www.sca-angels.org/, or contact Lady Rayne Archer of Annan at raynearcherofannan@gmail.com.

Calafia

Sundays from 10:00 am to noon, and on Tuesdays and Thursdays at UCSD Thornton Hospital from 5:30pm to 7:00pm

Dreiburgen

1st and 3rd Sundays, 10am at House Montrose in Pedley, 2nd and 4th Sunday at Paganus and Rekon's

Dun Or

Unofficial practices Mondays, 6:30-8:00pm at H&W Archery on Trevor St. in Lancaster and last Sunday of the month at 2:00 in Littlerock

Gyldenholt

Target Archery Practices are weekly on Sunday from 10:30 am to 12:30 pm at the Santiago Park Archery Range in Santa Ana, CA. Contact the Gyldenholt Captain of Archers at archery@sca-caid.org.

Lyondemere

El Dorado Park (north of Spring Street), Long Beach 7550 E Spring St, Long Beach, CA, 90815 - Sundays from 1-5; and Thursday nights from 7-9 PM at Rancho park in Cheviot Hills.

Naevehjem

At Baldwin's keep, a private residence. For more info contact jotl2008@wildblue.net

Nordwache

No Info

Starkhafn

Clark County Archery Range (6800 E. Russell, Las Vegas, NV 89112) located behind Sam Boyd Stadium/Old Silver Bowl Park.
Tuesday: 6:00pm until 7:30pm (or dark)
Saturday: 10:00am until noon.
Western Seas

No info

Shire of Al-Sahid

Same as Dreiburgen

Shire of Carrweg Wen

On Hold

Shire of Darach

No Archery Practice

Lochac

Barony of Southron Gaard

Weekly practices from 2pm to 4pm every Sunday, weather permitting, on the back field of Kirkwood Intermediate.

Submitted by Darayavaush Ah.r'r. Captain of Archer for Southron Gaard and current Baronial Archery Champion, MKA Damon Daines

Meridies

Barony of Thor's Mountain
(Knoxville, TN)

The Barony of Thor's Mountain holds its practices on the 2nd and 4th Sundays, 3:30pm to 5:30pm, with reservations (no practices on weekends with Kingdom-Level Events or TM events. We post updates on our website calendar.)

Midrealm

Barony of Ayreton
(Chicago Area)

Wednesdays: 6:30PM, 7240 Madison Street, Forest Park
(708) 366-4864

Confirm with: Forester Lukas Mesmer Stoutmaker@hotmail.com

Barony of Cynnabar
(Ann Arbor, Michigan)

"Official Archery Practice in the Barony of Cynnabar is held Sundays from 2-4pm, weather permitting, at the archery range of The Honorable Lord Forester Dillon ap Dillon.

More information regarding archery in the Barony of Cynnabar can be found at our Website: http://www.cynnabar.org/archery

For all questions regarding practice dates, times, and the location of the official Baronial archery range, please contact Lady Godaeth se Wisfaest, GM, archery@cynnabar.org

Barony of Cleftlands
(Cleveland/Cuyahoga County, Ohio)

The Cleftlands is instituting two new weekly archery practices. A West side practice on Monday evenings at the Cleveland Metroparks Albion Woods archery range. I'll be out there starting at 5:00pm. We plan to shoot until dark. If loaner equipment is needed, I can bring it is if I am notified by no later than 3:00pm. An East side Tuesday evening archery practice will begin on April 21st at 5:00pm. This will take place in the back yard of Lisa Heller at 411 Douglas Blvd, Richmond Heights 44143. It will also run until dark. Loaner equipment will be stored on site, so no advance notice will be required. There will be no charge for either practice, but donations will be accepted to cover the equipment costs. These practices will continue until Autumn when the days are too short to allow us to shoot outdoors in the evening. At the date we'll return to shooting in the indoor arena in Russel.

Barony of Flaming Gryphon

Archery practice at Wildlife District 5 at 1076 Old Springfield Pike in Xenia, OH. As of November, indoors.

The Shire of Eastwatch
(Cleveland Ohio area)

The Shire of Eastwatch has archery practice every Sunday from 4:00 to 7:00 p.m. at Free Spirit Farm located at 13987 Watt Road, Novelty, Ohio 44072.
If people would like to contact us about attending, they can email me at whgkingstone@ameritech.net or they can call me at (216) 246-0085.

Our practices sessions are announced on the Facebook Pages for Eastwatch, Barony of the Cleftlands, March of Gwyntarian, Northern Oaken Archery, as well as the Eastwatch Yahoo group page. Besides archery, horseback riding is also available at Free Spirit Farm .

Shire of Mnynydd Seren
(Bloomington, IN)

When: 2:00 P.M. every Saturday
Where: Shire of Mnynydd Seren
5501 South Rogers St, Bloomington Indiana
Contact: Eogan - Baiorofred@gmail.com

Cancellations: For major regional archery events and if the temperature is below 40 degrees.

Barony of Sternfeld
(Indianapolis, IN)

Wednesday evenings 7:00 to 9:00 PM at Yurts of America, 4375 Sellers Street, Indianapolis, IN 46226.

Outdoor practices will be announced on the Sternfeld Facebook page and on the Yahoo group page. Come have some fun!

Trimaris

Barony of Darkwater
(Orange, Osceola, Seminole, and Lake Counties)

When: Darkwater archery practice
Where: 8545 Treasure Island rd Leesburg, FL 34788
Address: 8545 Treasure Island Rd
Leesburg, FL, 34788
Contact: Ld Willaum of Willowbrook
352-326-0083

Notes: Practices are the second and last Sunday of the month. We do a potluck after practice if you wish to attend you are more than welcome to join in. We do ask that you bring a little something to add to the meal.

Barony of Marcaster
(Pinellas County, Florida)

All practices are Camp Soule, 2201 Soule Rd., Clearwater, FL 33759
Some loaner gear is available for folks who wish to try out the sport.

Honorable Lord Gavin Kyncade
Marcaster Archery & Thrown Weapons Ranger
gavin.kinkade@yahoo.com

Barony of Oldenfeld
(Tallahassee, Gadsden, Wakulla)

When: Oldenfeld Archery Practice
Where: Ox Bottom Hollow
Address: 2020 Ox Bottom Road
Tallahassee, FL 32312
Contact: Jay or Jancie Ter Louw
(850) 668-3807

Notes: We will practice at 3 p.m. on any Sunday that does not have an SCA event or mundane schedule conflict. Please call or email to confirm the actual dates of practices.

Canton of Peregrine Springs
(Seminole County)

When: Darkwater East Archery Practices
Where: Springdale Farms, Longwood FL
Address: Bay Meadow Lane
Longwood, FL 32750
Contact: Bennett Redstone (407) 456-0077

Notes: First, third, and (optionally) fifth Sunday of the month. No practices the Sunday of a Kingdom event. Check postings on Trimaris-Archers board on Yahoo for cancellations.

Shire of Southkeep
(Miami-Dade County/Florida Keys)

When: Every Other Sunday @ 1:00pm
Where: Homestead
Address: 20420 SW 319th Street
Homestead, FL 33030
Contact: Cian mac Cullough
(305) 213-3732

Notes: We practice every other Sunday (weather permitting), provided there are no events or modern conflicts. There may occasionally be additional practices scheduled, depending on availability of a ranger. Please call or e-mail to confirm, or check Facebook. There are usually other activities going on for those who don`t want to shoot. Practices are potluck, and we ask that you do bring something to contribute if you can. However, if for some reason you cannot, please don`t let that stop you from coming.

Shire of Trysel
(Ft. Myers)

When: Sunday @ 2:00pm
Where: Fort DeNaud Archery Range
Address: 506 Trader Road
LaBelle, FL 33935

Contact: Juliana Strangewayes
(239) 839-8333

Notes: All are welcome. We will practice on Sundays unless an event or mundane scheduling conflict arises. Please contact by phone or email to confirm and avoid disappointment.

West Kingdom

Barony of Eskalya
(Anchorage, Alaska)

We usually hold practice Sundays at 2pm at the public range in Kincaid Park during the summer/fall.During the winter we occasionally visit an indoor range. This year we will also be going to the Northwest Archers classes (non-sca.) We will have to use their equipment, (compounds) but at least it will be free target time.

For more information, please contact Dawn Quick at c_textrix@yahoo.com

Province of the Golden Rivers
(Sacramento Area, California)

Target archery practice is held from 10 am to 1 pm, non-event Sundays at Creekwood Equestrian Park in Elverta, CA (Sacramento area). This is an outdoor range on a horse ranch.

In addition to IKAC, Royal Round, and Seasonal shoots, we have also thrown weapons and mounted archery available, depending on interest. Some loaner gear is on-hand, more in the works.
Archers of Golden Rivers have a Facebook Group for discussion of upcoming practices and other activities:
https://www.facebook.com/groups/735450109809751/

For additional information, contact our Target Archery Marshal, Brigid O'Connor, email: arcmarshal@goldenrivers.westkingdom.org

Quivers & Quarrels

Submission Deadlines

Winter 2015 Edition
November 30, 2015
(for publication in December 2015)

Spring 2016 Edition
February 29, 2016
(for publication March 2016)

Summer 2016 Edition
May 31, 2016
(for publication June 2016)

Fall 2016 Edition
August 31, 2016
(for publication in September 2016)

Submissions, including photographs and releases, are due by the submission deadlines above. Questions about submissions may be directed to the Chronicler, at qqchronicler@gmail.com.

Advertising in *Quivers & Quarrels* is not available at this time. Questions regarding advertising may be directed to the Chronicler, at qqchronicler@gmail.com.

Submission Guidelines

All submissions require releases.

Written submissions may be of any length. Very lengthy feature articles may be broken up over two or more editions.

Written submissions must be in .doc, .docx, .txt, or .indd format. PDF files may be acceptable, but are not recommended. No other typeset formats. Document formatting for style is optional. Submissions should be minimally formatted with headings so that sections are clear. Academic-style papers with references should be submitted in MLA or APA style with all appropriate citations. Footnotes will be reformatted into endnotes, and tables of content will be omitted.

Photographs and illustrations must be submitted separately as .jpg, .jpeg., .bmp., or .ai files, though they may also be included within the text of the article to indicate placement. Photographs and illustrations of a usable file size and resolution generally cannot be extracted from .doc, .docx, or .pdf files, so the original, full-size files are needed.

In-text photographs should be a minimum of 2048x1536 pixels at 300 dpi. Full-page or cover photographs should be a minimum of 2736x3648 pixels at 300 dpi. Sizes are approximate. Photos with a resolution of 150 dpi or less cannot be used.

Questions about submission guidelines may be directed to the Chronicler, at qqchronicler@gmail.com.