

A Commonsense Approach to the Care and Feeding of Bows

By THL Paul Stoddard

The bow is an elegant weapon. It can have the simple clean lines of a longbow or the multiple inlays of wood and other material found in many recurves. Your use of a bow in the SCA places you in a long line of archers stretching back into antiquity. No matter your persona may be, your performance depends, in part, upon the condition of your equipment. While a Marshal may conduct a cursory examination, you are ultimately responsible for your bow's care and maintenance. Below, I have provided a few commonsense tips on the care and feeding of your bow.

Don't Dry Fire a Bow

"Dry firing" is shooting a bow without an arrow. Every SCA archer has seen it. A new person comes onto the range, grabs a bow, draws back, and then releases the string. This action is generally followed by another archer grabbing the bow, checking its structural integrity, and trying not to beat the offending party senseless. When the limbs of a bow are pulled back by the string, potential energy is created. When released, the bows limbs move forward creating kinetic energy which propels the arrow. Without an arrow, the energy is absorbed into the bow. The results can include (1) breakage of the bowstring, (2) fracture of the bow limbs, and/or (3) delamination of the bow limbs (the separation of the component parts of the limb). Any of these results can render a bow unusable. One of the primary rules of SCA etiquette is never to touch another archer's bow, arrows, or equipment without their permission. If you follow this rule, your archery experience will be more rewarding.

Keep Your Bow Away from Extreme Heat or Cold

Bows function best in temperatures between 35 to 95 degrees Fahrenheit. I have seen bow limbs literally come apart after being stored in a car trunk during a hot summer day in Nevada. Extreme cold or heat will make the bow limbs brittle or cause limb delamination. If your pet would not be comfortable in the temperature, your bow probably will not be either.

Storage of Your Bow

Store your bow in a horizontal position, preferably away from other items. The storage of a bow vertically runs the risk of the accidental breakage of the bow tips or limbs. A friend stored his anvil in the same closet as his bow. I was present when he discovered that the bow tip had been completely pulverized by the anvil. I learned that day that Gaelic can be a beautiful language even if it is composed of mostly swear words and phrases.

Don't Keep the Bow Strung

Unstring your bow when it is not in use. Most bows use wood and other natural materials in the body and limbs. When your bow is strung, it is under tension. Over long periods of time, this tension will weaken the bow and may cause the limbs to twist. While you can keep a bow strung during a shooting session or event, it is not advisable to keep a bow strung over a period of weeks or months.

Use a Bow Stringer

There are multiple methods of stringing a bow. Many methods run the risk of twisting of a bow limb. A bow stringer reduces that risk.

Use a Bow Sock

A Bow Sock is an inexpensive method of protecting your bow from dings, divots, and scratches. You can have an SCA artisan create your bow sock. It allows the artisan artistic expression and allows you to display your individuality and identify your bow at events.

Examine Your Bow Before Each Shooting Session

One of the first things you should do before a practice or competition is examine the condition of your bow. There are several items that should be examined including the following:

1) Examine the Bow Limbs

When examining the bow lengthwise from tip to tip, are the limbs straight? If not, you have "twisting" or warping. It can be slight or significant. A twisted limb leads to inaccurate shooting at best and the limb breakage at worst. If twisted, a range marshal can examine the bow and determine whether it is safe to shoot. There are several ways of straightening a limb and most require a professional since limb breakage can result if done incorrectly.

2) Look for Cracking on the Limbs or Body of the Bow

Is there cracking in the limbs or the risers of the bow? During shooting, stress occurs at the limbs or the intersection of the limbs/riser. If there are lines on the limb which are surface deep, the limb likely has "crazing," a condition common in older bows which does not affect performance. If there is deeper cracking on the limbs or riser, there is a heightened risk of the breakage during use. If you have a question concerning the condition of your bow, you should have the bow checked by the archery Marshal. Light cracking may be repairable while deep cracking will not be.

3) Check Your Bow String

The bow string is the one of the most heavily used parts of your bow. If the string is dry, you will want to apply bow wax at 2 or 3 locations and then rub the wax throughout the string. As a rule, you will want to wax your bowstrings once a week or once every 2 weeks to keep it in optimal condition. String wax is both widely available and comes in a variety of types. Most bow strings have between 10 to 14 strands. When strands start to break or fray, there are fewer strands doing the work. If there are strands coming loose, replacement of the string is advisable. Bow strings will usually last 6 to 8 months in heavy usage (which is defined as shooting 2 to 3 times per week).

4) Check Your Bow Tips

Are the tips chipped or cracked? Does the string fit over the grooves of the tip? If the tips are cracked or chipped, your bow could be subject to string breakage while shooting. The breaking of a bow string or bow on an archery line is both specular and dangerous. Cracking can be fixed while chipping is more difficult. If you have any doubt, bring this issue to the attention of the Range Marshal.

5) Check Your Brace Height

The brace height is the distance between the string and the deepest part of the bow grip. Most Bowers have brace heights set at 6 ½ inches up to 8 ½ inches. Brace height is important for several factors including arrow speed and accuracy. You can adjust brace height by twisting your bow string in 5 to 6 turn increments. Adjust one end of the string, put the string back on the bow and then adjust the other end of the string. String the bow and check the brace height until you get the right distance. If the brace height is right, your bow will be relatively quiet during use.

Cleaning Your Bow

Cleaning your bow monthly is a great way of keeping the bow looking good while also giving the opportunity to examine the bow. With long bows, many archers use Danish oil with a soft cloth or soft furniture wax (without silicone). With my recurves, I use car wax with a high Carnauba content. Wipe down the bow with a moist microfiber cloth to clean off the bow. To wax a recurve, start with the limbs and apply a thin layer of wax with the cloth. Let the wax dry until sticky (do not allow it to become completely dry or pasty). Rub in gentle circular motions and buff/clean the wax off of the limbs. Continue to buff for the desired look. Do the limbs first and then do the body of the bow. I use 1 coat of wax during the winter and 2 coats during the summer. Also be sure to wipe down your bow after each shooting session.

The Feeding of Your Bow (Arrows)

Wood arrows are used in the SCA. The choice of arrows is highly personalized. If you ask 6 archers what arrows should be used, you will get 6 different answers and none of them will be wrong. However, there are certain uniform considerations:

1) Length of the Arrow

For most archers, the preferred arrow length is between 28 to 30 inches. Have the Captain of Archers or the Marshal measure your draw length to determine what length of arrow you need.

2) Weight of the Arrow

Both bows and arrows are measured by poundage. A bow is measured by the amount of poundage it takes to draw back the bowstring to the anchor point. A arrow is measured by the flexibility or stiffness of the spine. Lighter poundage arrows are more flexible. Heavier poundage arrows are more stiff and less flexible. You should match the weight of the arrow (plus or minus 3 to 4 pounds) to the weight of your bow. Shooting a light poundage arrow through a high poundage bow creates undue stress on the arrow. While line marshaling, I had an archer shoot a 25-pound arrow through a 50 plus pound bow. The arrow split in 2 during flight. I gave the archer points for hitting both the red and the gold of the target and then politely asked him never to do it again.

3) Types of Arrow Heads

There are multiple types of arrow heads. The use of broadheads (hunting arrowheads) is prohibited in the SCA. At some SCA competitions, bodkins may also be prohibited due to their destructive power on targets (especially with 3-D targets). Field tips are always allowed in practices and competitions.

General Observations on Arrows

If you are a beginning shooter, do not form an attachment to your arrows. They will be lost, broken, split, and shattered during normal use. It is not unusual to lose 1 or 2 arrows a month. It is also not unusual to see archers in the bare feet doing the “archer’s shuffle” in a grass field trying to locate their arrows. As a result, it is a good idea to have a metal detector on hand if your arrows are expensive. Many archery fields have a particular fondness for expensive custom or period wooden arrows. Check your arrows before each session for structural integrity. Try shooting “loaner” arrows, if available, before making a purchase to get a feel for the arrow which fits your needs and aesthetics.

Care and Feeding of the Archer

Archery is both a physical and mental art form. Do gentle stretching exercises before a shooting session. Take periodic breaks to allow your muscles to rest. Try to stay in the shade during competitions, particularly if you are shooting in a hot climate. Drink water or Gatorade to keep hydrated during your shooting session. Please give thought to using an armguard. If you are not utilizing proper form, your bowstring will repeatedly hit your arm causing bruising. While pain is a good reminder of the need for proper form, it is not recommended on a repeated basis. Additionally, please use a good fitting archery glove, tab, or thumb ring. While the use of bare fingers may be historically accurate, it can cause permanent nerve damage to your fingers over time.

Finally, be safe and have fun. In the end, that is the most important part of your SCA experience.