

# Using the English longbow Archers du Genevois



# Security when shooting a bow

Archery is a potentially dangerous sport which must only be carried out in an appropriate place reserved for such activity with correct supervision. We decline all responsibility for damage and/or accidents which occur as a result of putting any of the activities described in this tutorial into practice.

## Shooting line

When shooting in a group, it is important that all archers remain behind (or astride in the case of a competition) a visible (or imaginary) line while arrows are being shot. Crossing the line towards the targets during shooting is not only dangerous but is sanctioned by immediate disqualification during competitions. Spectators must, under no circumstances, be allowed to stand between the archer and the target even if they are outside the shooting angle.

## Retrieving arrows from the target

The basic rule is to wait for the last archer to shoot his or her last arrow before advancing to collect one's own arrows from the target. However, if the order "fast" is given, all archers must immediately stop shooting. The signal that indicates that all is clear to cross the shooting line is when a designated person shouts the order: "Arrows" (or a word such as "score" or "pull").

## Arming a bow

Never arm a bow or even place (*nock*) the arrow onto the bowstring if the bow is not pointed at the target. All archers must be aware that an arrow can be loosed accidentally before it is correctly aimed. Therefore the arrow must not be allowed to travel in any direction other than that of the target.

## Historical events

Never place pointed arrows in the arrow-bag or quiver when you enter an area used for theatrical reenactment or demonstrations. Only use unsharpened shafts equipped with rubber blunts. In the heat of the moment, you will not have time to sort through the arrows in your arrow-bag. They must therefore **all** be neutralized blunt arrows. A pointed arrow can be deadly even when it follows a parabolic trajectory. Never shoot an arrow over a flat trajectory at full draw length (even with a blunted arrow). If it is necessary to shoot in this way, use a shorter draw length to reduce the arrow's speed and energy and make sure that the reenactors that you are shooting at:

- are aware of the fact, and have agreed, that they may be hit by a blunted arrow
- are equipped with armour and any other appropriate protection required by the event organiser

## Precautions specific to traditional longbows

When a wooden longbow is drawn to its full draw length, it is close to its point of breakage. Therefore never

- Draw the bow without an arrow (you might go beyond the maximum draw length)
- Hold the bow at full draw length for more than necessary.
- Leave a braced bow in direct sunlight for a long period

## Protecting the bow arm

Over and above the usual protective devices used for archery, the traditional English longbow requires that the base of the arrow fletching be bound to the arrow shaft using fine thread. This avoids the risk of feathers coming loose and penetrating the archer's hand.

# Equipment

## The English longbow

Today's traditional English longbows have developed from the longbows of the middle ages which gained a deadly reputation during the famous battles of the hundred year's war. Formerly made of yew or ash, many longbows are today made using laminated strips of wood carefully assembled to obtain the qualities required by a bow. Hickory, osage, yew and many others, are often used in such a way to obtain a high degree of flexibility on the external side of the bow (the back) and resistance to compression on the inside (the belly).

A traditional English longbow is immediately recognizable by its D-shaped cross-section and its overall length which is typically in the region of 72 inches (1.85 meters). The nocks at each end of the bow are usually made of horn but on less powerful bows, can be directly cut into the wood itself.

A traditional English longbow has no arrow rest. The latter is replaced simply by the archer's bow hand. The bow may or may not have a central grip bound in leather.

The draw weight of a longbow is measured using the same method and standard as any other bow. X pounds at Y draw length – for example: 60 pounds at 28 inches. This represents the weight that must be applied to the bowstring in order to draw the bow back to a length of 28 inches.

## Bowstring

Most archers using the English longbow have adopted the Flemish-twist bowstring. This type of bowstring has a loop at one end for the upper nock and a bowyer's knot for the lower nock. The loop tends to slide down the bow when the latter is not braced and can be held in place by a *string keeper*.



*String keeper or ribbon to keep the bowstring from slipping down.*

Bowstrings are commonly made of several strands of Dacron. Be aware that not all bows can accommodate *fast-flight* strings the latter requiring reinforced nocks.

The central portion of the bowstring is bound with string serving that not only holds the arrow in position before shooting but also protects the bowstring from friction. A nocking point may be added to the string serving to indicate the exact height at which the arrow must be positioned.



*Nocking point*

## **Arrows**

If you wish to respect the spirit of traditional archery, use wooden arrows with natural feathers for the fletching. Real traditionalists will even cut the arrow-nock directly into the end of the arrow shaft for a more authentic effect.

A commonly used wood for arrows is cedar – although poplar, ash, sycamore and pine can also be used. Cedar is particularly resistant to humidity. Ready made arrow shafts are available in a variety of diameters two of the most common being 5/16ths and 11/32nds of an inch. The diameter you chose depends on the draw-weight of your bow.

The stiffness or *spine* is also chosen in relation to a particular bow's draw weight. Generally, the spine value is 10% less than that of a bow. For example: a 40lb bow would require arrows spined at 35lbs.

Most arrows have three feathers equally spaced around the arrow shaft (a 120 degree angle between each feather). The feather that is located opposite the bowstring is called the cock-feather. Sometimes a different coloured feather is used to identify it quickly when placing an arrow on the string.



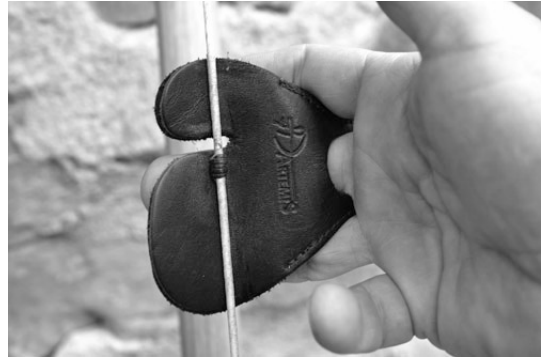
*Cock-feather*

## **Shooting glove**

A shooting glove or finger tab protects the three fingers that pull the bowstring.

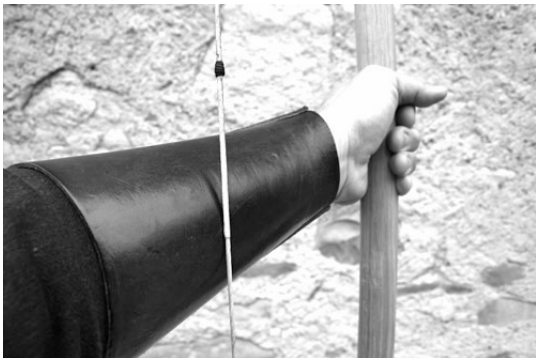


*Shooting glove and finger tab*



## **Bracer (or arm-guard)**

A bracer is worn on the inside of the forearm to protect it from friction when the bowstring is loosed.



*Bracer or arm-guard*

## **Chest-guard**

Women archers may wish to wear a chest-guard to avoid injury to the breast caused by friction and pressure of the bowstring.

## **Targets**

Foam targets can be shot at at angles without the risk of breaking the arrow shaft. This is not the case with traditional straw targets where the archer should shoot directly in front of the target and not to one side.

## Getting started

### Stringing or bracing the bow

Stringing or bracing a bow is simply the action of putting the bowstring correctly onto the upper and lower nocks of the bow. Remember: for a Flemish-twist string, the loop is used to attach the string to the upper nock and the bowyer's knot is placed at the lower nock. Caution: do not leave a braced bow in direct sunlight for a long period.



*Method no. 1* (left-hand photo). The bow is held down by the archer's foot. The archer simultaneously pulls the grip of the bow upwards and pushes the upper limb downwards, allowing him to slide the loop into place.

*Method no. 2* (right-hand photo). The lower limb of the bow is placed over the archer's left foot and the bow's grip behind the archer's thigh. Using both hands, the archer pushes the upper limb forward and slides the loop into place.

### Using a bow stringer

A simple alternative method exists for more powerful or longer bows. A piece of string looped over both nocks and held on the ground by the archer's feet, allow him to raise the bow and slide the upper loop into place. This does however require a second groove on the upper nock to accommodate the extra loop of string.



*Bow stringer – a relatively effortless way of stringing a bow*

## Warming up the bow

A wooden bow should be warmed up before being drawn to full length. The warm-up phase will avoid premature breakage. To warm up a bow, simply draw it to half its normal draw length a dozen times before nocking the first arrow.

## Brace height

A bow will shoot with maximum efficiency and power if the string is of correct length and set at the correct brace height. The brace height is the distance between the bow grip and the string. It can be anywhere between 5.5 and 6.3 inches (14 and 16 centimetres) for a 72 inch bow. The bowyer should give you his recommendation for the optimum brace height.



*Measuring brace height using a bow square.*

## Fistmele

The traditional method of measuring the brace height is to put the hand on the bow's grip and raise the thumb to indicate the distance between string and grip. This method – called fistmele – is of course not very accurate but can serve as a guide if you already know where the correct brace height is on your bow.



*Fistemele*

## Stance, holding the bow and preparing to shoot

### Are you a left-handed or right-handed archer?

A left-handed archer holds his bow in the right hand and vice-versa. That's a little complicated. Well, think of it this way: a left-hand archer pulls the bowstring back with his left hand.

### The dominant eye

How can you determine if you are a left-handed or right-handed archer? Your dominant eye will give you the answer.

### The test

Stretch your arm out in front of you and raise your thumb

With **both eyes open**, align your thumb with a distant object (picture 1)

Close the left eye, open it, and then close the right eye (pictures 2 and 3)

When you close the dominant eye, the object is no longer aligned with your thumb

When you close the non-dominant eye the objects remain aligned.

Dominant left eye = left-handed archer

Dominant right eye = right-handed archer



*dominant eye test*

Fortunately many traditional longbows are made to be used by either left- or right-handed archers. This is of course not true of a bow equipped with an arrow rest.

### Body stance

Stand with your shoulders at a right-angle in relation to your target. Turn your head towards the target. Stand with the feet apart – approximately the width of your shoulders.





*classic position – forward-leaning stance*

Both of the above stances can be used. The most important factor to remember is that your stance should give you a stable and reproducible shooting position. Once you have found the most comfortable stance that suits you, adopt it and **keep** it.



Hold the bow as you would hold a hammer. The belly side of the grip should comfortably rest in the fleshy part of your hand between the fingers and thumb. Do not grip the bow too tightly

*Position of the bow hand*

### **Cock feather**

The cock feather is the one lying furthest from the bow. When the arrow is nocked onto the bowstring correctly, it should not cause any unnecessary friction when loosed. Sometimes the cock feather is of a different colour to easily distinguish it.



*Cock feather placed on the outside*

### **Nocking an arrow**

Nocking an arrow means simply placing it on the string ready for shooting. Nock your arrow with the cock feather furthest away from the bow. Do not forget to use the nocking point to position the arrow at the correct height on the string.

### **Finger position**

In modern (non oriental or asian) archery three fingers (index, middle and ring) are used to pull back the bowstring. The index finger is placed above the arrow and the two others, below. This technique is called the Mediterranean draw. The fingers should not grip the arrow but simply touch it very lightly. The bowstring is actually held by the flesh between the first finger joint and the top of the finger. Some archers prefer to hold the string in the crease formed by the first finger joint.



*Left picture: string held on the flesh between first joint and top of finger*

*Right picture: string held in the crease of the first joint*

*NB: For clarity, these pictures were purposely taken without a shooting glove or tab.*

### **Leaving open a clear *shooting window***

Contrary to Olympic recurve archery, a longbow is not held vertically. The bow leans at an angle of up to 45°. This is basically for two reasons: firstly to avoid the arrow sliding off the archer's hand and secondly to have a clear view along arrow to the target.

### **Observing the target**

Before raising the bow and drawing it to full length, your sight should be concentrated on the exact spot that you want to hit. This spot (as small an area as you can possibly see) should no longer leave your sight until the arrow has reached it. Do, however, keep the bow and arrow in your peripheral vision.

# Draw and loose

## Phases leading up to the loose

Shooting an arrow can be broken down into several distinct movements. Although distinct, they must be carried out without hesitation as fluidly and smoothly as possible. This requires a lot of practice.



*Starting position – observing the target*



*Drawing and (less than one second later)...*



*Loosing: the three fingers open **together** and the archer's hand moves slightly backwards along the archer's cheek to avoid any sideways movement of the hand.*

**Follow-through** – maintain your position for a few moments after the arrow has been loosed and wait for it to reach the target. Keep your eyes on the arrow during this time.

### Correct breathing

As in many sports, drawing a bow requires above-average muscular power. It is an intense but brief effort. Correct breathing helps the muscles to overcome the effort of drawing a powerful bow. While preparing your shot, breathe normally. While drawing, breathe out slowly and stop just a fraction of a second before the loose. If you stop breathing too early, you will deprive your muscles of valuable oxygen.

### Different draw techniques

Many techniques exist to draw a bow. Three of these are explained below:



#### Push-pull

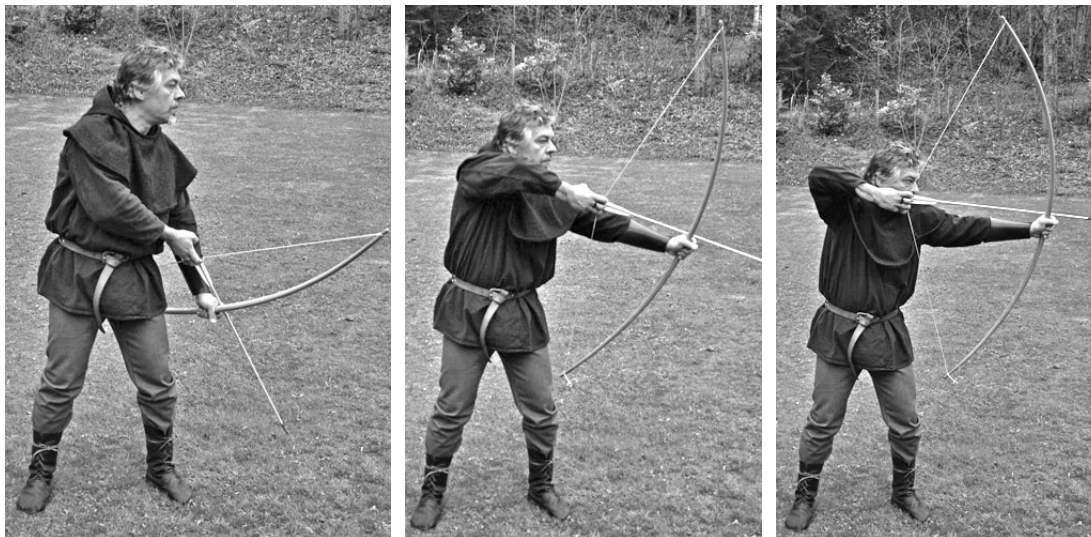
This basic technique involves raising and pushing the bow away from your body while drawing back the bowstring up to the anchor point (anchor point: *see below*)

In the first picture, you can see that the archer's left arm (furthest from the camera) is bent back behind the archer's body.

In picture two, the left arm straightens out (push action) while the right arm pulls back the bowstring (pull action).

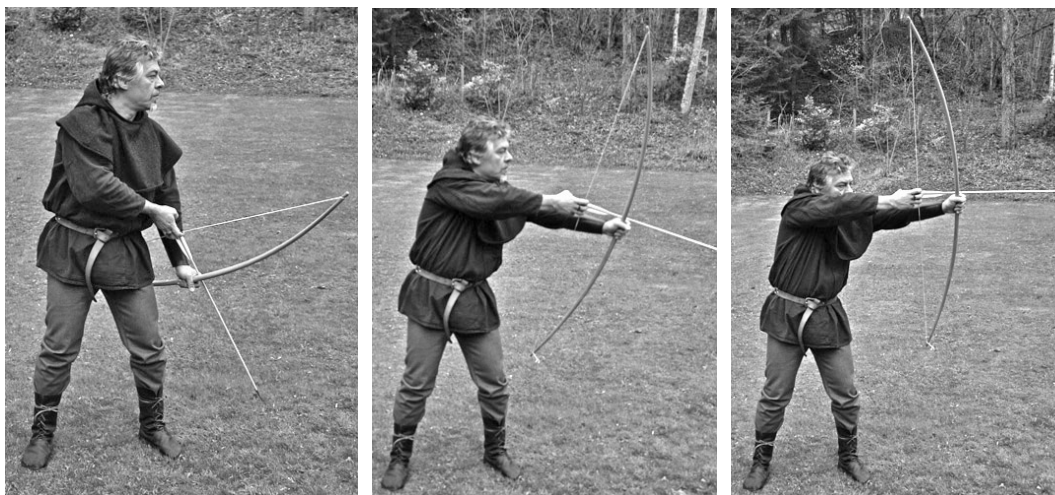
### Raise-pull

This slightly different technique involves simply raising the unbent bow arm (in our pictures the archer's left arm) while the right hand pulls back the bowstring up to the anchor point. According to some archers, this technique simplifies the action of shooting since it reduces the number of upper-body movements to coordinate.



### Raise-pull (version 2)

Yet another variant involves raising the unbent bow arm **first**. Once the bow has reached the correct shooting height, the right hand **then** pulls back the bowstring to the anchor point.



The third picture in the above series shows how the hand holding the bowstring only comes into play at the very last minute but it leaves a few short seconds for the archer to adjust his shot if necessary.



The third technique shown here is very hard on the muscles in the arm and shoulder pulling the bowstring. The technique is hardly possible with bows above the 80 to 100lb draw weight. For medium sized bows, this can be a very accurate method but tends to be frowned upon by the purists of instinctive archery.

**Important:** When shooting the longbow, the loose must immediately follow the draw. Never attempt to hold a bow for a prolonged period at full draw length. You may damage the bow and cause yourself serious injury.

**What do all of these techniques have in common?** The final position just before the loose is identical no matter what technique you adopt. In this final position, the bow arm must be unbent but not outstretched and rigid. The archer's body forms a T-shape and the right elbow is not sagging down. Correct breathing is the same for each technique. The stance is also identical.

#### **Anchor point**

The anchor point is a part of the archer's face where the fingers come to rest just before the loose. Many archers position the middle finger in the corner of the mouth.



*Anchor point: middle finger « locked » into the corner of the mouth ready for the loose.*

#### **Drawing to the ear**

The anchor point shown above is used to gain accuracy. The eyes are in line with the arrow and the target. However, it is probably **not** the technique that was used for long distance shooting on the battlefields of the middle ages where bows were drawn back to the ear or even further in order to get that last pound of power out of the bow.

**IMPORTANT:** check the maximum draw length of your bow. You can easily break a modern longbow if you attempt to draw to the ear if it was not built to withstand that kind of draw length.

## Golden rules

- Adopt a comfortable anchor point and KEEP IT.
- Never go beyond the maximum draw length of your bow

## Loosing the arrow (release)

Many expert archers consider the loose (also referred to as the **release**) as the most determining factor for accurate shooting. When correctly executed, a smooth release can add several dozen yards on to the distance your arrows will fly.

The three fingers holding the string should all open together. The string should not be hindered in any way when the fingers open (cracks in a leather shooting glove for example). The hand should move backwards if at all. The hand should never make a sideways movement. This could alter the forward movement of the string and cause the arrow to fly off its trajectory.



*Loose (the release).*

## Follow-through

*Follow-through* describes what happens *after* the arrow has been loosed.

- Do not lower your bow too quickly. In the worst case, this can cause the arrow to depart from the intended trajectory.
- For a few moments, keep the bow at its shooting height.
- Keep the string hand on your cheek until the arrow hits the target
- Keep your eyes fixed on the arrow until it hits the target.

Although this may appear insignificant, the follow-through allows your brain to imprint in your memory (for future use) the flight of an arrow and the body movements that made it happen. You can only do this by concentrating on the flight of each arrow – the good ones and the bad ones.

## A few words on instinctive archery

It is not easy to explain what is meant by instinctive archery. We *can* say that instinctive archers do not use any form of aiming device. But in that case how *do* they get their arrows into the target?

First of all, let me say that I personally find the term *Instinctive* quite confusing. We are not born with the capacity to shoot instinctively within us. We have to learn how to shoot instinctively. Quite a contradiction!

Learning instinctive archery is similar to learning to throw stones at a rock in the river. The more you practice the better you become. Accuracy improves gradually but it's hard to explain what makes a good throw.

The best way to learn is to study each arrow you shoot (remember the follow-through). Gradually you will remember the bow height and left-right alignment, the body stance, the release and all the factors that allowed you to hit your target at 10 yards, then 20 yards, then 50 yards and so on.

Your brain will selectively sort out the good shots from the bad ones and – with time – you will be able to reproduce the good ones more and more often as your memory becomes richer and your technique becomes more regular.

As a general piece of advice, try shooting first of all at relatively short distances, 5 to 10 yards. You will hit the target more often and be encouraged to continue. Moving back a few paces and *still* hitting the target will become a day-to-day personal challenge.

**May your arrows ever fly true....**

**Rich the archer - author**

Translated from the original French version by the author Rich Simmons – January 2008

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