

# Combat Archery: A Manual for Western Archers

by

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An Archer must be:

Keen of eye,

steady of hand,

fleet of foot

and cunning of mind.

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Combat archery involves the use of light draw weight (thirty pound maximum or fifty pounds with special oversize arrows) bows and specially constructed arrows. Special protection is worn to help prevent injuries. It consists of several types of combat, from individual duels between lights to full scale field or woods battles involving both heavies and lights. All participants are required to be familiar with and follow the Rules of the List and SCA and West kingdom heavy and light combat rules.

Combat archery first began in the SCA in the Kingdom of the West at the Island War in 1967. The arrows were eighteen inch long green stained bamboo garden stakes. There was no fletching and the blunt heads were made of one inch thick foam rubber secured with white first-aid tape and were about one to one and a half inches wide. There was no maximum weight limit for the bows, because the short arrows kept the draw and power down. The archers were not required to wear any face protection.

By 1970 the Saunders Bludgeon Tip was discovered in Atenvelt, it was brought back by Duke Henrik of Havn and then adopted by the West. The Saunders Bludgeon Tips were a commercially made three quarter inch wide blunt of soft plastic made for hunting rabbits, squirrels and other small game. This brought about the use of fencing masks, soccer cups and other protective gear.

In the East Kingdom combat archery was developing using the blunt created by the Markland Military Militia. These Markland blunts had a two inch diameter head built up from foam around a one inch wood dowel. These were large enough so that they could not pass through the visor slot or bars of a helm and therefore screening was not needed.

As the SCA grew, the Eastern and Western areas developed their own styles of blunts and their own conventions of combat. The first SCA wide rules for combat archery were published in 1978. Then in 1985 the rules were revised by the SCA Marshal, Earl Kevin Perigryne. We now have, just as in heavy tourney and war combat, a comprehensive set of rules that provide for both safety and for conventions of light combat.

Just as in heavy combat, as long as the rules are followed, light combat is a safe and enjoyable part of our SCA events. It allows participation in combat by many that are not interested in, or capable of, heavy combat. Light fighters are given a taste of heavy combat in mixed battles and many later become heavy fighters. It enables heavy fighters to broaden their skills as well. It also increases the tactical scope of our wars, by including highly mobile elements capable of striking from long range.

In missile combat, as in heavy, hits are counted on a honor system. The fighter being hit decides how to count the blow. The main difference is that a hit to a heavy fighter from the impact weapon of a heavy fighter must strike with sufficient force to count. While a hit from an arrow does not require a minimum impact to count. It counts no matter how light the impact as long as it is not a glancing hit. This is because bows strong enough and arrows hard enough to be felt in armour or padding at sixty yards or more, would be highly unsafe at our minimum range of five yards.

Arrow hits to the head or torso count as kills. Hits to the arms or legs cause only the loss of that limb. Hits to the hand or below the knee are not counted. In a mixed battle it is safer to have dead lights leave the field, rather than remain upon it and be tread upon by live heavies.

When using non-contact missile troops, light fighters are NEVER to be struck by heavies. They are killed when the heavy is within five yards of the light. Some kingdoms use full-contact archers. These archers wear, at least, minimum SCA heavy armor and can carry heavy weapons and are qualified as heavy fighters. They have the option of yielding or putting down their bow and drawing a heavy weapon to fight their attacker.

All combat in the SCA is on a honor system. You do not question a fighter you have struck, if he does not acknowledge your hit. This may be discussed in a friendly manner after the battle and off the field. However if a fighters padding or armour make it difficult to feel the impact, then the marshals or other fighters may inform him of the hits. But it is up to him to decide. Only the person hit has the final say if the hit was good and the light is the final judge of if the heavy is within the five yard range.

We now have several styles of combat arrows that combine both safety and accuracy. The SCA and kingdom rules for combat archery provide a high degree of safety and enjoyment for those who wish to participate in this aspect of Medieval warfare.

If you are interested in becoming a combat archer the first thing you need is obtain copies of the Rules of the Lists, the SCA Combat Archery Rules and a copy of your kingdom's combat archery rules and war rules from your local Marshal or Kingdom Archer. These rules will tell you what the basic SCA requirements are for the equipment as well as any specific regulations for your area.

As the SCA rules have priority over kingdom rules, the kingdom rules must at least meet the SCA minimum requirements, but each kingdom may make additional or more stringent regulations for combat.

One idea you should keep in mind is that the Society is based on honor and courtesy both on and off the field. This applies to archers as well as fighters.

## **EQUIPMENT**

### **BOWS**

The first item you will need is a combat legal bow. The SCA rules limit bows to a thirty pound draw weight. This means that your bow may not need more than thirty pounds of pull to draw a 28 inch arrow to its head. You will find that most bows have the draw weight printed on their lower limb. There are several types of bows that you may use for combat. The most effective is a recurve or longbow made of laminated wood and fiberglass. The most commonly used type is the fiberglass recurve bow, but this is less effective than the laminate bow. The remaining type, the all wood (self) bow is less efficient unless you are lucky enough to find a quality bow constructed of yew, lemon wood or osage orange or other good bow wood.

A good quality laminate recurve will far exceed most self bows in velocity and range. The only exception to this is in the case of quality self bows. They will out shoot solid fiberglass bows and some laminate recurves. A laminate recurve is generally the best bow you can use. But there can be reasons for not using one in combat. The first is cost, but this can be avoided by buying a used bow. You can find good bargains at yard sales, flea markets and pawn shops. A bow that might cost \$150 new can be found for under \$50 and often for around \$25 or less. However you must consider the nature of combat, bows can be damaged. You must decide if you are willing to risk an expensive bow on the field.

The most durable bow is a solid fiberglass bow. These can be found in both recurve and longbow styles. The recurve style is more efficient than the straight long bow. The fiberglass bows can be dropped, hit or walked on by a two hundred pound fighter in fifty pounds of armour with little or no damage. They can be bought new for around thirty dollars and for five to ten used.

Be cautious when buying used bows. A self bow must be examined carefully for any sign of cracks or warping. If the finish is only cracked or rough it is still safe, for that does not affect the wood underneath. With laminate bows, you should also check by flexing the bow, to see if the laminations are separating. If you do not find any signs of cracks then you

should string the bow and check again. After you have strung the bow, you also need to check the limbs for straightness. You do this by sighting down the string so that it divides the belly of the bow in half, it should divide it equally. If the limbs seem warped, do not draw the bow and do not buy it. A bow with warped limbs is very hard to repair. If the bow still seems sound, draw it and check again for cracks or separation of the laminations. Never pull a bow to full and draw and release it without an arrow on the string, this will damage the bow.

When you first shoot an older self bow you should wear face protection, such as your combat helm fencing mask or at the least, safety goggles. This is because old bows can dry out and when shot, break and fly back into your face or explode and send splinters into your eyes.

The first few times you draw an old self bow, do not bring it to full draw. First string the bow and let it set for a a day or two. Then you should draw it a quarter of the way at least twenty or thirty times, then half way twenty or thirty, then three quarters and finally to full draw twenty or thirty times before you shoot with it.

Some archers feel that laminated recurves are not in period. However, laminate recurves were in use before four thousand B.C.. The Egyptians and Assyrians made early use of them. Then later the Parthians stopped the Roman legions and the Huns devastated the armies of Eastern Europe with them. The recurve has stayed in continued use into the Twentieth century. They can also be seen in Medieval European drawings and were used not only by Eastern archers, but sometimes by West European archers as well. There are etching by Durer in the 1500's showing self longbows with recurved tips and what also appear to be short self recurves. Recurves brought from the near East were also used in Italy and other Mediterranean countries.

Sometimes you may find an old self bow that has a marked draw weight of over the thirty pound limit. It should have its actual draw weight measured on a spring (fisherman's type) scale. You will often find that the true draw weight of the bow is a few pounds less than the original marked weight. This frequently happens with old self bows. As wood ages and dries out it loses its resiliency and power. It is quite possible for a bow marked thirty five pounds to have an actual draw weight less than thirty pounds and to be legal. However, if you should happen to have such a bow, you should have your area archery marshal test and approve it and give you a waiver for its use.

Another exception that sometimes may be allowed, is bows that weight over the limit, but have less power(impact) and range than a fiberglass or laminate bow of a true thirty pounds weight. This is often the case with old bows of all kinds and sometimes even with a new bow that is not correctly labeled.

If you want to use a longbow and do not want to be out-ranged by archers using laminate recurves, your best bet is to find a laminate longbow. A well made laminate longbow can be the equal of a laminate recurve and will be less expensive than buying a new, quality self longbow. Also, yew is a soft wood and easily damaged by the rough handling that may occur in combat. Quality longbows are generally used for hunting and are hard to find used

in thirty pound weights. You should check with your kingdom archer for a list of longbow suppliers.

If you have some experience in wood working, you could make your own longbow. There are articles available on how to do so. However, before you attempt yew or osage orange, you should start with an inexpensive and easy to work wood such as ash, elm, oak, hickory or red cedar. Rattan also makes a usable bow wood. What you need for combat is a bow that can loose an arrow fast, flat and far. It should also be durable to survive being dropped or stepped on in battle. The best bows you can use are a full thirty pound draw laminate recurve or longbow, because of their flat trajectory and speed. This allows you to keep your point of aim on or near your target at longer ranges and makes it harder for your target to dodge your arrow.

It is important that your arrow nocks fit properly on your string. The arrow should hang from the string without falling, until the string is tapped lightly. If the nock is too loose then the arrows may fall off when you are nocking rapidly or running. If it is too tight your arrow may wobble as it leaves the string. The plastic nocks can be made to fit correctly by heating them in boiling water for about thirty seconds and then fitting them to the string while still pliable. You should also be sure that you are using a string with the correct number of strands for your bow. If it has too few it may be weak and could break during shooting. Always carry a broken-in spare string with a properly placed nocking point to replace the one you are using if it shows signs of damage. Your bow string should also be kept waxed with either bees wax or a commercial string wax. If you wax your string whenever it begins to look "dull" or has a fuzzy appearance, you will greatly extend the life of your string. You should keep a piece of soft leather in your kit to rub the wax into the string. You should rub hard and fast so that the leather gets warm and helps to melt in the wax. Always check your string before shooting for signs of broken strands in the string or servings that are coming loose.

The next accessory for your bow will be an arrow rest. Most bows now have a built-in arrow rest or shelf. If you arrows are fletched with feathers, you may shoot off this shelf. You will find that it is faster to nock this way and that the arrows will stay on the shelf during rapid movement, unlike an arrow rest. But if you are using plastic fletches (vanes), you will need a simple arrow rest which will keep the vane from rubbing on the shelf. A rest that has a firm upturned plastic finger, such as that found on hunting style rests, helps to keep your arrow from falling off during rapid movement.

If you are using a bow with a deep built up riser (grip) with Markland type arrows, you will find that you can not draw the Markland as far as you could a Saunders, HTM or Lohac style blunt. This is because the base of the two inch wide head of the Markland will be stopped by the bow riser. This can make you loose from one to two inches of your twenty eight inch draw length and cause a reduction of both speed and range in shooting. However this does not happen with bows that do not have deep risers such as most solid fiberglass bows or most self laminate longbows. This is a point in favor of longbow over laminate recurves when deciding what bow you should buy for combat.

Once you have your bow, make sure you have a nocking point on your string. This is used to insure that your arrow is always at the same point on the string. You may buy one ready-made at any archery shop. Or you can make one out of dental floss and some glue. If you do not use a nocking point, then your arrows tend to hit either high or low, rather than on target. You will determine the correct placement of the nocking point during the tuning process.

## **TUNING**

This is one of many ways to tune your bow. First: be sure that you have arrows of the correct spine for your bow, (i.e., They are stiff enough for the bows draw weight.) Then remove the fletching from one shaft. Set up a target about twenty feet away at shoulder level. Mark your string with a piece of tape about 1\8 inch above where the top of the arrow rests when at a 90 degree angle with the string. Now using this as a starting point, shoot your fletchless arrow. If the arrow hits with the nock high, then lower the nocking point. If the arrow nock is low then raise the knocking point. Continue this process until the arrow hits straight into the target. Then attach your nocking point to your string.

Now that you have the correct nocking point you may adjust the brace height. If the brace height is too low it can cause the arrow to point either to the left or right of center (this can also be caused by the wrong spine or arrow rest), You should adjust the string by twisting it a few turns tighter. This will reduce the time that the arrow stays on the string. Staying on too long can cause poor arrow flight.

## **CROSSBOWS**

The crossbow is a very effective weapon despite its slower rate of fire. The rate of fire is not that much slower than the average longbow archer because of the light draw of our combat crossbows compared to the weight of a period war bow that required mechanical assistance or at least the placing of your foot in the stirrup to cock it. It is particularly effective when attacking or defending fixed positions, when the crossbowman has good cover such as a pavise or castle wall. The crossbow's ease of use and accuracy more than compensate for its somewhat slower rate of fire. Less training and practice is required to become a good crossbowman than to become a good archer. The crossbow can be steadied on the opening in the pavise or on the castle wall allowing highly accurate aiming. It can also be used in heavy brush or under low hanging branches, that would foul the upper limb of a regular bow. When shot from a prone position it is highly accurate and allows the opposing archers very little target for their arrows. It is an excellent weapon for sniping and ambush.

A combat crossbow should not exceed the power of a combat bow. A regular combat bow, recurve or longbow, has the force of approximately six hundred and thirty inch pounds. This is determined by multiplying the draw length at twenty eight inches (28 inches minus the brace height) times the pull at twenty eight inches in pounds. This gives the force in inch pounds. To determine the effective force of a crossbow (which is allowed only 600 inch pounds), measure the effective draw length (the distance from the string in an un-

cocked position to the nut or string release mechanism) and multiply it times the draw weight, e.g. 12 inches effective draw length times 50 pounds pull equals 600 inch pounds. Six hundred is under the limit and is legal. The head of the combat blunt should project over the front of the stock, but not rest upon it, in order to reduce drag and provide a smoother release.

Other methods of comparison are flight or penetration tests. Both use target arrows. The flight test compares the crossbow against a combat legal laminate recurve. Both bows are shot from the same line. You must assure that the arrows are level to the ground (This method requires less space than shooting for maximum range at a forty five degree angle). An assistant with a carpenters level can direct the bows to level fire. You then shoot five arrows and then average the distance for the recurve. You then shoot the same arrows from the crossbow, if the nocks fit the string. If the string is too large for the nock, cut the plastic nock of one arrow flat (It can be replaced afterwards). Then shoot this arrow five times and average its distance. The crossbow may equal but not exceed the recurve. You should also record the average distance of the recurve for future comparison tests. With the penetration test you need a target mat, such as ethafoam, with no soft areas in it. Then, from five yards, you shoot one arrow, five times from the recurve and average its penetration. Then shoot the same arrow (modifying its nock if needed) from the crossbow, at the same distance and average out its penetration. Again, it may equal but not exceed the recurve.

The easiest way to modify a crossbow that is too strong, is by reducing the draw length. This is done by moving the bow(prod) back toward the nut or release mechanism. This distance can be estimated by use of a spring scale to measure the draw weight at various distances. You then multiply the distance by the draw weight until you find the combination that equals six hundred inch pounds or less. However if the prod is too heavy you may find yourself trying to reduce the effective draw to less than about five inches. If this is the case you will need to find a lighter prod to use for combat.

## **ARROWS**

Now that you have your bow you will need combat arrows to make use of it. Make your arrows to the kingdoms's specifications and **ALWAYS BE SURE YOU REMOVE THE METAL POINTS BEFORE YOU MOUNT THE COMBAT BLUNT HEAD!** Combat arrows should be as well made and matched as the arrows you would use for a target competition. Be sure that the shafts are spined for the draw weight of your bow and that all are of the same weight. You may find it necessary to use a heavier spine to allow for the heavy weight of the combat blunt head. With a twenty five pound bow you should use twenty five to thirty pound spine arrows. And with a thirty pound bow you should use thirty to thirty five pound spine shafts. The wrong spine will cause misses to the side, while different weights will shoot high or low. With a right hander, too stiff a spine will cause the arrow to go to the left, while too weak a spine will cause it to go right.

Any differences between arrows in smoothness, diameter of head or size of fletching causes a different degree of drag on the arrow. The greater the drag, the slower the arrow. The slower the arrow the lower it will hit. And the higher you will have to aim to compensate.

You should find information on target arrow construction and build your arrows to these standards before adding the blunt and taping the shaft. You should be careful to tape your shafts as smoothly as possible and see that the blunt heads are smooth as well. For taping use the best quality tape you can buy, such as 3Mtm. Cheap tape will not go down smoothly, lacks proper stretch, will not stay secured and may break in cold weather.

The size and type of fletching you use is important as well. The heavy weight and drag of a combat blunt needs a large area of fletch to guide the arrow to its target. For the Saunders, HTM or Lohac styles of blunts you should use at least a three inch fletch. While with the larger Marklands, film can, Thistles and others you should use at least a four inch fletch. The Golftubes need a full feather (at least six inches) fletch. If you set the fletching on at a slight angle to the shaft rather than parallel it will cause the arrow to spin and become more stable in flight (this can help to correct a poor release), although it does cause a slight reduction in range. You should also be sure that the fletches are all of the same hand. You may wish to have some arrows in your quiver for use at long range, these should have smaller fletches to reduce drag and to be less affected by crosswinds.

For ease in nocking your arrow under the pressure of combat conditions the use of four fletches is very useful. When you use four fletches instead of three you do not need to have the nock aligned so that the cock feather faces away from the bow. If the four fletch arrow nocks onto the string, then it is correctly nocked. With four fletched arrows a smaller size fletch is used to provide the same surface area for guidance. For example a two and one half inch instead of a three inch.

There are two types of fletching, feather and plastic. The feather fletch is more forgiving of a bad release, which often happens in the heat of combat. It can also be shot from the shelf of the bow or off the back of the hand and does not need an finger type arrow rest. The plastic vanes require an arrow rest and will not fly well when shot from the shelf or the bow hand. However, they are very durable.

Since combat arrows get a great deal of hard use, it is important that you see that the fletching is well secured. Whether you make them or buy them ready made, you should glue them thoroughly to the shaft. In addition to the glue under the base of the fletch, you should run a bead of glue down both sides of the base of the fletch or vane and put a drop at each end. The economy grade of arrows from some stores have fletching that will often fall off when shot, unless additional gluing is done.

There are two major types of combat blunts. First, the handmade such as the Markland and film can styles. The Markland is built up around a section of one inch wooden dowel which is drilled to fit the shaft, glued and then covered with foam padding so that it forms a two inch diameter head. Foam pipe insulation is very useful for this, it has a one inch I.D. and a two inch O.D.. It is then carefully taped down. Many of the kingdoms use this style because it does not require that helms be screened for protection. The film can style uses a thirty five mm film can with a insert of 3/4 inch plywood in which the arrow shaft is inserted. The striking surface is covered with a half inch of foam and the remaining area of the film can is often filled with silicon caulking and then taped over..

The second are the commercial style blunts such as the Saunders, HTM or Lochoc These have greater range due to the reduced drag of their three quarter inch diameter heads. The Saunders blunts are no longer being produced. But they have been replaced in the West by the Lohac blunt which is a similar style and is made by SCA members in Australia. There is a streamlined modification of the Saunders using a cone of closed cell foam which is coated with plastic tool handle dip. This is called the "Peacemaker" after its inventor Lord Wolf Peacemaker. When shot from a good bow the reduced drag allows ranges of about one hundred and twenty yards or more. The Peacemakers do not fly faster than other arrows, they just do not slow down as fast due to the reduced drag. These smaller heads allow fifty or sixty arrows to be carried in a combat quiver and to be pulled with ease. But helmets MUST be screened for protection. The Thistle Missile is a commercially made blunt the size of a Markland blunt they have good impact due to their weight, but have a slower speed and less range.

There is a third type, the Golftube(sometimes called Gooftube by those that have used them). They are very safe and do not require helm screening. But they are of limited range, require a fifty pound bow to approach even Marklands in range, have very poor accuracy and are difficult to handle. Archers using them have little chance of hitting anyone. But they are used in some kingdoms where the heavy fighters have managed to stop the use of the other more accurate styles. The arrow consists of the plastic tube used to protect the shaft of a golf club, the head is made from a tennis ball or foam in the style of a thrusting tip. The golftube shaft can be stuffed with closed cell foam to make it stiffer and less inaccurate.

Well matched arrows allow you to consistently hit your target, before it hits you. Sometimes you have a few arrows in your quiver that constantly hit either high or low. Mark these arrows with colored tape just behind the blunt. Use one color for those that hit high and another for those that hit low. This will allow you to see the color and quickly adjust your aim as needed, before you release.

You should have twelve arrows at the very minimum, but twenty four is a more reasonable number. Most good combat archers can shoot twelve arrows in one minute if not prevented by incoming arrows or attacking fighters. Always mark your arrows between the fletches, using a fine point permanent marker, with your name and area for easy identification. And color code them with your colors using colored electrical tape. This allows lost arrows to, some day, find their way back to your quiver. It can also allow the fighter you killed at long range, to know who was good enough to take him out at sixty yards.

## QUIVERS

There are two basic types of quivers. The hip or belt quiver and the back or shoulder quiver. Most commercially made target quivers have too small a capacity to hold enough combat blunts for a war. If you make your own quiver be sure that it will hold as many arrows as you may carry in the future. Two to four dozen is a good minimum number for wars. A back quiver is less apt to get in your way when moving rapidly. However it is not very period for Western Europe, despite the movies and can hang up on low branches. But

a hip quiver is easier to refill or to search for a particular arrow. Be sure that your quiver is well secured to avoid losing arrows, or having it move to an awkward position, and trip you while running. The most period style of quiver for Western Europe is worn at the hip.

## **PROTECTIVE GEAR**

### **HEAD PROTECTION**

For combat helmets, either make your own or purchase one from a local armorer. Fencing masks can often be found at swapmeets for a few dollars. Another useful mask can be made from a catcher's mask. This is done either by adding additional bars for the (Markland style blunts), or by perforated metal not hardware cloth. The perforated metal has better visibility than a fencing mask. It will stop a broken and splintered shaft. Both masks require a heavy padded coif to fully protect the neck and unmasked areas of the head. The addition of full neck and throat protection made of closed cell foam and leather in the form of a fighter's collar is good idea.

Your helm should allow you full visibility. If you have a barred visor, you should be sure that the bars are not placed directly in your line of sight and interfere with your aim. The inside of the bars or perforated metal should be painted flat black to reduce glare. It should also allow easy breathing and still fit firmly. If it does not fit well and you anchor against the side of your helm, any shifting of the helm will change your anchor point and cause a miss. Put your screening on the outside of the bars so that it can not be pushed in. If you normally wear glasses or want to wear safety glasses for extra protection, make sure there is room behind your bars or screen to clear your glasses even when you get hit in the face with a javelin. Also the use of an antifogging compound on your lenses can prevent fogging up and having to shoot almost blind.

Your face protection can be attached to a brimmed civil defense helmet or a construction helmet and plate protection for the sides and back of the head can be added to give you full protection for mixed battles. The brimmed helm helps to identify you as a light fighter and also shades your eyes when shooting into the sun. A barred visor, versus a fencer's mask or perforated metal, has the advantage of allowing a drinking tube to pass through or the stream of water from a bota bag.

### **VISION**

Or if you can't see them you can't avoid them.

Missile weapons are used from a distance. If you wear glasses to see at a distance in the mundane world, you need to wear them in combat. If you can not see little pieces of colored tape on a helm, you will be unable to identify friend from foe. If you can not see clearly, you can not aim well. If you can not see the arrows coming toward you, you can not avoid them (this is a problem that some heavies have as well). You should have an elastic strap to hold your regular glasses securely in place or use sports glasses or contacts.

If they slide down your nose and you can not get to them to push them back up they are of little use.

## **BODY PROTECTION**

The main purpose of body protection is to reduce the impact of blunts and prevent the mischance of a broken shaft from penetrating the skin. There are several materials that provide good protection. They range from heavy denim to light leather or moving pads. A mid thigh gambeson of moving pad provides very good protection from impact as well as penetration. This is also an excellent material for coifs. Additional protection for the collar bones and kidneys can be constructed of closed cell foam, heavy leather or plate. This can provide additional protection in mixed heavy/light battles. The Fall 1993 issue of T.I. as an article on "Jupons, Jacks and Arming Coats". The full sleeves of the padded jupon would get in the way of your bow string but the padded jack is a good design for a light combat.

Your padding should fit you well. You must be able to run and to shoot in it with no binding and the string must not strike your arm padding or the bottom of your coif upon release. If your padding is very loose, baggy or flairs way out below the hips or under the arms, arrows may strike the hanging fabric and look like a good hit.

Whatever form of protective gear you choose, keep the final appearance of your outfit in mind. Your equipment should as good as any heavy fighters. One important point to keep in mind is that whatever style and degree of protective gear you wear, it should attractive and period in appearance as well as providing protection.

## **LIMBS**

Your arms and legs must be covered with at lest denim or a similar material. Additional protection for the knees and elbows is necessary. This can take the form of sports-type knee and elbow protection worn beneath the clothing (lacross style works well), or plate knee and elbow coups worn on the outside. The knee pads protect when kneeling on rocky ground and the elbow pads can keep you funny bone from being hit. Make sure that the wings of your elbow coups can not cut your string.

## **FOOTWEAR**

Proper footwear is also very important. Boots or shoes that give you good ankle support and have a good non-slip sole (cleated or lugs) are need for quick maneuverability in battle. Your best defense is rapid maneuver and one slip could be your last, for that battle.

## **ARMOUR**

Armour is in period for European archers. There are countless illustrations of archers wearing mail and great helms, body plate with open face helms, and sometimes even full

plate. If an archer could afford it or strip it off a body and keep it, he wore it, as long as it did not greatly interfere with his movement. If the rules for the war allow plate to be counted as arrow proof, it can be very worthwhile in fixed position battle where you have little need for rapid movement. You must always remember that an archer's best defense is mobility and speed. Armour may give you protection against arrows, but not against a heavy fighter's sword or pole arm. Heavy armour worn in a mixed open field battle may slow you down enough that you can not avoid the enemy heavy charging down on you. However if you are not fleet of foot, then the loss of speed may be of less consequence, and the protection from arrows more worthwhile. If you wish to have both protection and maneuverability, a good compromise is helm, breastplate (no back plate), taces and perhaps some upper arm armour. But you must make sure that your armour will not damage your bowstring or interfere with a proper draw.

Sometimes when plate is worn under tunics or surcotes it causes a problem, when it counts as arrow proof. An archer may hit an opponent with what looks like a good hit to the body, but it is ignored. What is often the case, is that his opponent was wearing concealed plate. One way to avoid this is, if the number of participants is small enough, to have those wearing concealed plate to identify themselves and the location of their plate before the battles during the "Listen Ups". When such a fighter or archer is hit with an arrow, they should indicate their plate by striking that spot with their knuckles or weapon, and by calling out "Plate!". This practice is not required, but it can help to make combat more enjoyable by lessening the causes of argument.

In addition to your regular padding which can be in your own or area's colors, you can make additional tunics or surcotes which will help you to blend into the terrain in which you will be fighting. However the use of contemporary camouflage clothing or fabric gives an unfair advantage over those using period materials and should not be used. But, inexpensive hunting plaids can blend well with many backgrounds (The Scots used this to great advantage) And there are many shades of green and brown to match any terrain. The use of dagged edges can also help to soften your outline and allow you to blend with your background. Patchwork, such as a fool's motley, in browns and greens can blend in well.

## **SHIELDS**

Another good defense against arrows is a shield. Shields were used by archers and varied from the small Arabic round shield on the bow arm to the large Assyrian wicker shields carried by a shield bearer or the pavise of the crossbowman.

The archer's arm shield is an excellent defense. You can use it to actively block arrows, and sometimes it will manage to block arrows you did not see. But in light battles(they are not allowed in mixed battles) it is limited to fifteen inches in diameter and must be marked with the light fighters device, so as not to be mistaken for a heavy's shield.

The pavise is a large rectangular shield about two by four feet, it has a hinged leg that allows it to stand by itself and provide cover for an archer kneeling or standing behind it. There is often a small opening in the top center, for the archer to shoot through. It also has

hand straps for ease in carrying and a guige(strap) to carry it slung over the back. It can be made taller, while adding little weight. This is done by bolting two legs to the bottom at the sides. This allows the opening to be located near eye level for the archer to shoot through. It is best when used for attacking or defending fixed positions. If you use it in an open field battle and you are about to be overrun, drop it and run! A shield is of no use to a dead archer, except for being carried off the field upon.

Crossbowmen can carry the pavise strapped to their backs. They can shoot, then turn, kneel and reload and then rise and shoot again. This provides protection for them when they are exposed while cocking and reloading.

Da Vinci designed an archers shield, about two feet in diameter, which was attached to the bow and had an opening in the center to aim and shoot through. However to use this you need a strong bow arm to hold the bow and shield steady while aiming and loosing.

A good combination of forces is archers with a group of lightly armed heavies with large shields. The heavies act as a moveable wall shielding the archers both form incoming arrows and javelins while protecting them from enemy heavies. The archers protect the heavies from other missile troops and provide support against other heavies. Another good combination is javeliners with tall narrow pavises and a supply of javelins carried on the back of the pavise and archers. This group is fast and mobile and has good protection from missiles. The javeliners provide a defense against plated heavies.

Light's shields and pavises should be of reasonable weight compared to heavies' shields to avoid an unfair advantage in mobility. you should use a minimum of half inch plywood as a good compromise. Besides, a shield of less than one half inch would never stop a real war arrow from an heavy war bow.

You must mark your shield, with the light combat device, to prevent it being mistaken for a heavy fighter's shield and having an enemy heavy mistake you for a heavy. This error can be painful.

## **JAVELINS AND DARTS**

All archers should learn to be proficient with javelins, darts or other projectile weapons. There are two main reasons for this. One: If you lose an arm you can still keep the offensive, rather than just becoming a shield for another archer. Two: In some battles arrows are not allowed, but javelins and other large projectiles are. This will allow you to fight in more battles. You can carry two or three darts in your belt or some javelins in a special quiver as back up weapons. A sling, with a supply tennis balls, is also a good backup weapon, but requires much practice. The javelins with fins, versus streamers, tend to be easier to throw with more accuracy and less tendency to turn sideways in flight.

## **LEARNING TO SHOOT**

Before you can compete in combat archery, you must be able to shoot a bow. If you do not know how or need more instruction, there are several courses open to you. First: Professional lessons at a bow shop or archery club. Second: Instruction from another archer either in or outside of the SCA. And third: If you do not have access to any of these, learning from a book. For the first, check the Yellow Pages. For the SCA, check with your Kingdom Archer or Seneschal. And for the books, check your library or "Books in Print" at your local book store. A good instruction book still in print is "Archery for Beginners" by John C. Williams.

You should not learn to shoot with sights or marked bow limbs if your main interest is in combat archery. It is better to learn an instinctive style, suitable for field archery or hunting. Although marked bow limbs are generally permitted for combat and are very useful at long ranges, the instinctive style tends to be faster and more suited to combat.

## **Individual Practice**

Once you have learned the basics of archery, it is time to practice for combat. You should always wear your head protection while practicing. It is better to wear both head and body protection together. This is important because your helm or mask will require a different anchor point than your bare face. And your padding may get in the way of your release. You should also wear your shooting glove or finger tab and bow hand protection as well. Secure your full quiver and you are ready to start.

You now need a practice area. The best is a large open space about one hundred yards on a side, but this is seldom available. More commonly at hand is a back yard or driveway. You can set this up for safe practice if you have some kind of backstop to prevent arrows from flying out of your yard. You can provide this by hanging an old blanket or section of used carpet or rug in front of or inside your garage, or against your house. You should leave about a foot of space behind it. This will prevent damage to your blunts that could be caused by striking a solid surface. You can secure targets on this surface, such as paper plates, cardboard fighters, orcs or even dragons. It also makes an effective backstop behind the plywood IKCAC fighter target. Which is an excellent practice target because it gets you used to shooting at a human size target.

You should make the backstop as high and wide as needed to stop any arrows that might leave your property and annoy your neighbors (Who, since you are in the SCA, may feel you are rather strange already).

This same system, called a "Carpet Butt", can be used for practice in an open area or at a tourney. It greatly reduces the time you spend in looking for arrows that miss the target. If two layers of carpet are used it will stop target arrows as well as blunts. It can be suspended from a one by four board and supported at either end by poles. The poles can either be set in holes in the ground or held up by guy ropes and stakes.

Now that you have a place to shoot and a target it is time to practice for combat. First you must learn to nock an arrow without taking your eyes off your target. In combat looking down at your bow is an invitation for an arrow in your chest.

Arrow nocks with a high indexing ridge, such as Mercury speed nocks, are much easier to nock rapidly, even while wearing a shooting glove. The nock should fit the string well and not fall off during rapid bow movement or while you are running. Another method that allows rapid nocking is the use of four fletches on your arrows. This way you do not have to worry about putting the cock feather away from the bow. If the nock slips on your string, then the arrow is correctly nocked.

Once you can nock and shoot without looking away from the target and hit your mark, you should practice for speed. You should learn to get off ten to twelve arrows per minute and have them hit the target at close range (about ten yards). When you have mastered this, you should practice shooting from different distances and positions: standing, kneeling, sitting, leaning around a pavise or other cover. For crossbows practice: sitting, prone and one handed as well. Learn to handle your bow, arrows and your self in different positions and still hit your mark.

## **AIMING**

When you are wearing a helm it is no longer possible to anchor in the same spot as when you are target shooting, the corner of the mouth or chin. The helm will cause your anchor to be further out from the side of your face. Therefore if you aim just using the tip of the arrow, your shots will tend to go to the left of the target (for right handed archers). This is because the nock end of the arrow is now further to the right than normal and this causes your arrow to point to the left.

One way to correct this is to aim by sighting down the length of the shaft, not just over the tip. To do this you need to tilt your head so that your right eye is over the shaft and then look down it towards your target. Rather like sighting down the barrel of a shotgun. You should practice this, from different positions, until you have learned the correct aim and anchor so that your shafts all hit on the vertical center line of the target. Then all you need to learn is to adjust your aim up or down for distance.

In order to keep an consistent anchor point on the surface of your helm or screen, you may find it necessary to attach something to use an anchor point that you can feel through your hand protection. This can be a leather thong knotted through the holes of your screen or on the bars of your face protection. However, you should note that most helms do not provide a solid anchor point. If you press your string hand against the side of the helm you find some degree of movement. The helm should be as solidly attached as possible to reduce this movement. If for your face protection you use a modified catchers mask in connection with your helm. It can provide a more secure and consistent anchor point. The mask being secured against your face does not move around like the screening attached to a helm. Do not just aim at the overall fighter. You must aim at a specific point on the fighter. For example, do not just aim at the torso, aim at a specific point in the middle of the torso such

as a buckle or rivet or link of mail. If you are aiming at a visor opening, aim at the tip of the nose. If you have a tight mental focus and aim at a small point, you will be more apt to hit.

Next, you must learn to all of this on the move. Nock at the walk. Stop, shoot and repeat. When you have learned this, you will do it at a run. Then you combine movement with different positions, e.g. Run and drop to a kneeling position, shoot, jump up and run away, nock and turn then shoot. As your skill increases you should increase your distance and your speed.

You should now set up a man sized target, such as the IKCAC TARGET. First you nock your arrow and while holding your bow horizontal, you draw your string hand back even with your bow arm armpit. You then run to within five or ten yards of the target and loose as you run past, without slowing or stopping. This is great for hitting groups of fighters without allowing them to hit you. This is best done from behind or from the side, but works from the front as well. You should aim for the back, if not arrow proof, and for the backs of the thighs if the back is proof. This is a good tactic for breaking up groups, they may try to follow. They will then be pulled out of formation where other archers can shoot them or your heavies can cut them down.

You can have several numbered or colored targets set up at different distances. This is excellent practice if you have someone call them off randomly for you to shoot.

Always remember: Never take your eyes off your opponent or he will kill you!

When you can find a large, safe area in which to practice, set up a fighter sized target. This can be a live archer or fighter in full gear or an IKCAC target. Now you can learn to estimate your distances and where you have to aim to hit at those distances. First you should learn your point blank range. This is the distance at which the tip of your arrow is centered on the point you want to hit. With a good laminate recurve and Peacemakered blunts this distance is about fifty yards or with Saunders (face tape or filled) it is about thirty five, depending on your anchor point.

Your point blank range can be increased, giving you more useful ranges. You can do this by lowering your anchor point to your chest (always use the same point), this gives you a long range point blank. By using a corner of the mouth anchor, an under the chin anchor and a chest anchor you can have a point blank distance for three different ranges.

Next you should learn the maximum range of your bow. First, put a rubber band around the lower limb of your bow. Then have someone tell you when you are aiming at a forty five degree angle. You now shoot several arrows at this angle and determine the maximum distance. Next set up a target at your maximum distance. You now come to full draw, with your bow again at forty five degrees and perpendicular, aiming at your target. You have the assistant move the rubber band so that is in line with your eye and the target. You shoot several more arrows and adjust the rubber band so that your arrows all strike close to your target while using the rubber band as a sighting mark. You now have an aiming mark on your lower limb for long range shooting. This rubber band should be replaced with a permanent mark such as tape or paint. However, your bow must be perpendicular when you

are using this mark or your arrows will miss far to the side of your target. You should now practice grouping your arrows at long range using this mark. You should be able to keep them within a five to ten yard circle.

Archers working as a unit should have a common long range mark on their bow limbs. To do this you need to determine the minimum long range of your unit's bows. Then you put a new mark above the maximum range mark on the other bow limbs, this will be the sighting mark for the unit's maximum range. If there is a great difference in the average maximum range of your unit's bows, try to replace the weaker bows. This will allow you to volley fire at long range as a unit, which is highly effective.

A form which does not allow you to sight on your target is called lofting. This is used when your target is behind a castle wall, shield wall or similar defense. It is a type of indirect fire which is shot high into the air to fall almost straight down upon your target. This can be practiced at a target or against another archer or group of archers. However do not try this on a windy day for your arrows will drift off target. When you have mastered the basic technique, then try shooting on windy days. You should set up target about twenty to forty yards away. Aim your bow in line with the target and at about a seventy to fifty degree angle. Now practice till you learn the correct angle for this distance, then change the distance and learn that angle. If you are doing this against another archer or group, you will note that the incoming arrows are almost impossible to dodge. In combat try to maneuver so that the sun is to your back and in your opponents eyes, this makes high angle arrows impossible to see. This is not a highly accurate method and works best against massed targets.

## **EXERCISE**

Combat archery is more strenuous than target archery. In target archery you may shoot more arrows in a competition than in some battles depending on how long you stay alive, but combat requires running. You must be able to run and then and then stop and shoot without gasping for breath so hard that you cannot hold your bow steady. Heavy breathing causes your bow arm to lift and drop as you breathe in and out.

To prevent this problem you need to get in shape. You should start off by walking briskly three or four times a week, for about half an hour. Then longer as you become more comfortable with it. Try running twenty to thirty yard sprints during your walk, then stop and pretend you are drawing and aiming your bow. Observe how steady you are holding on your mark. If you are lucky enough to live where you can carry your bow as you work out (without being stopped by the police), then draw and aim it at your mark, holding steady for a ten count and then slowly let it down.

It is not necessary to run or jog the whole time. A fast walk will do you as much good and have less chance of causing damage. But if you want more of a work out you can use wrist, ankle or waist weights. Or you can wear all or part of your armour.

You can develop your shooting muscles by just drawing your bow without shooting. This should be done twice a day. You bring your bow to full draw, hold for ten seconds, then slowly let it down. (DO NOT RELEASE THE STRING WITHOUT AN ARROW IN THE BOW). You should do this ten times at first and then increase as your muscles strengthen. This can be done with your combat bow or a heavier bow for more exercise. To avoid unbalanced development you should switch hands on the bow, holding with your string hand and drawing with your bow hand an equal number of times.

## **GROUP PRACTICE**

The best practice you can get is with other archers and fighters, both heavy and light. You should go to combat archery practices in your area. But if there are none, get some lights together and form your own.

Go to some fighter practices and observe how fighters move, hold their shields and weapons, what their armour covers and does not cover. Observe all this with the idea of learning where they are vulnerable. You can go through the motions, with empty hands, of drawing, aiming and shooting at their unprotected areas.

A good basic practice is to form two groups and stand about fifty yards apart in two lines. Start shooting, shoot six arrows; if you are hit, acknowledge it and continue. Then move five yards closer and repeat the process. This is good for learning to judge range as well as providing good practice in dodging arrows. First try this on a one on one basis. Then have all of your line concentrate on just one or a few adjacent archers in the other line.

Form two units. One unit forms up in a line and remains in position. The other unit starts at fifty or sixty yards and charges the fixed position, stopping only to shoot. If you are hit, stop shooting and kneel.

One armored, but unarmed, fighter or archer starts at fifty or sixty yards and runs toward to line of archers. This runner must zig-zag, change speed, dive to the ground and do everything possible to make him impossible to hit. The best strategy for the line of archers is to volley fire. This is a very important practice, for due to the slow speed of out blunt, moving targets are the most difficult to hit. Most SCA archers have a hard time hitting a moving target.

If you have the space, form two teams of fairly equal strength and have a battle. For this you should not just form lines. You should learn to maneuver, use flanking attacks, feints, concentrated fire, etc.

Set up small targets, about six inches in diameter of cardboard, plywood or styrofoam wig heads, on poles five and one half feet high. Practice shooting at these from five to ten yards. When you get good at this, reduce the size to that of a visor opening.

Try to encourage some heavy fighters to attend your light practices. This will give the heavies a chance to learn to block arrows and deal with lights. As well as allowing the

archers to learn how to handle heavies. Learn to work in units with the heavies. The heavies will give the lights close range protection from enemy heavies and shield them from long range missile fire. The archers support the heavies when they are engaged with other heavies at close range. It is similar to having pikemen behind them.

Your lights should practice rapid maneuvers with the heavies. Develop fast flanking attacks with the lights as a screen for the heavies and also with the heavies as a moving wall for the archers. Practice close in support of your heavies when they are engaged with the other side. You should learn to shoot through their line without hitting their shields or them in the back of the neck. You must learn to maintain your five yard minimum distance from the other side and avoid being hit by the weapons of you own heavies. A heavy who is trying to watch both the fighter he is engaged with and the archer that is aiming at his visor slot, is greatly distracted. Just bouncing an arrow off his helm may open him up to a killing blow from your own heavy.

In battles with large numbers of fighters you will often find it difficult, when the lines are engaged, to get a clean shot at opposing fighters through your own lines of heavies. A window may open for a moment and then snap closed. You must practice to learn to see and take advantage of these windows the moment they appear. The further you are behind the front of the line of combat the more obstacles there are between you and your target, but the more protection you have as well.

You should form permanent units of archers and fighters that are trained to work together. The combined effect of such units is much more than either by it self. An area that has heavies and lights trained to work together as units, will win against areas that do not make use of properly combined forces (other things being equal). And they may often win against larger forces that lack this important basic ability.

## **THEORY**

## **TACTICS**

Archery is most effective when archers make the most of their ability to strike from a distance and to move rapidly. The most effective uses of archery in history have been made by mounted archers, with the exceptions of the Assyrians and the English. In the case of the Assyrians they did not have nor were they faced by effective calvary. While the English were faced by forces that did not make proper use of their troops and let the English pick the battle sites. However, later in the Hundred Years War the French corrected their mistakes and the English, archers and all, lost. The Huns, Mongols, Parthians and other mounted archers had long lists of victories.

In our SCA wars we do not yet have the massed ranks of archers needed to make effective use of the English style of massed fire. Which was rather like a rolling artillery barrage. What can be used effectively is, units volley firing at selected targets at longer range and at closer ranges carefully aimed shots hitting visor slots, armpits and backs of thighs of plated fighters. This close in technique can be compared to the use of a twenty yard long pike.

Mobility and speed are the archer's primary defense. If they are placed so that they can not avoid a charge of heavies they will be cut down where they stand. One way to meet a charge of heavies is to charge back (this needs to be planned and practiced in advance). Split your archers into three groups. One unit falls back and the other two run past the heavies on their flanks. You should keep your distance and pin them between you as you shoot at the backs of the heavies facing away from you. When this can not be done, turn and run until you are out of their range, then turn and continue to shoot. Always maintain a safe distance between you and enemy fighters.

Fast moving lights can be effectively used to draw enemy forces out of a good position. If the lights move in close, they can often tempt the other side to try to close with them. Your lights only need to fall back, while keeping up an attack with their missiles. You should try to encourage the enemy to separate themselves from their main force. When you have managed this, charge and surround them, shooting at the backs of those facing away from you. With skill and some luck you may eliminate them before they can fight their way back. This tactic was used to good effect by the javelin throwing and lightly armored peltasts against the heavy armored hoplites in Greece.

All of the foregoing ideas depend on speed. If your archers carry too much weight in armour or shields, they can be run down by fighters that close with them, before the archers can get up speed enough to escape. You must not get caught standing still, move before they get too close.

In open field battles, missile troops depend upon their mobility or the protection of terrain or heavy fighters for their defense. They must be positioned where they are free to move. Or protection must be provided for them by the terrain, such as a steep slope, heavy brush, a stream or ravine, etc., that can not be overrun by enemy heavies. In most open field battles their protection is in the form of a line of their own heavies. But if this line is penetrated or flanked and they have no place to move they will be destroyed.

This line of heavies also functions as base or pivot for lights. A unit of lights that has attacked and been repelled can fall back to this solid defense and regroup.

You need to know the quality and quantity of your forces and their equipment. Such as: ability and experience. Approximate number of arrows and javelins. Range of bows and javelins. Types and amount of body armour. Number of pavises and shield wall shields. etc.

Your battle plan should be based on several factors: Your objectives for the battle. The strength and weakness of the enemy. The strength and weakness of your forces. The terrain. And any special rules or conditions for that battle. You must start each engagement with a plan of battle and alternate plans as well. All your lights should know the basic battle plan. When the battle starts, you should take the initiative and keep it. Make the enemy react to your actions, not you to theirs. If they find a counter to your action, then you should change your plan before they can develop their counterattack. You must keep the pressure on them at all times.

In open field battles, which often turn into a milling mob, it is important for lights to make certain that they remain protected by nearby friendly heavies. Often enemy heavies will flank your line and then can easily move in and take out any lights that are behind it. When you are concentrating on shooting and avoiding incoming missiles from the front it is often easy to not notice actions on your flanks. The heavy unit that you are behind may be too engaged to release any fighters to fall back and protect you or they may not see the danger in time.

You need to keep one or two heavies back on each of your flanks for protection or at least detail a light to watch for flanking actions by the enemy and give warning in time to avoid or counter them. Sometimes gaps will open in your own lines. When you see this happen you can stand back of the gap (five yards away from enemy fighters) where you have a clear shot at their lines without any of your own heavies standing in your way. But you must remember you no longer have any of your heavies between you and the other line and any enemy heavies within five yards could kill you. You should be prepared to fall back if the enemy charges the gap or your own troops move in to close it.

If you can not get a clear shot through your line, you can move to a flank. If your line is engaged, you can let the heavies in front of you know that you are behind them and ask them to leave a small gap between their shields through which you can shoot. You must let your heavies know that you are behind them and that you will be shooting past them, so that they will stand still and will not accidentally bump you or move in front of you when you are loosing. If you happen to shoot one of them in the back, he would be just as dead as if it was shot by an enemy archer and he will most likely have a rather low opinion of your ability in the future. If you happen to hit the back of a shield from two or three feet away, your arrow can either break or bounce back at you nock first. Always let the fighters right in front of you know that you are about to loose.

If the lines have not engaged, you can sometimes kneel and loose from between and behind two large shieldwall shields. If you do this, you may not be noticed by the other side and when they charge they may not be prepared to avoid your arrows. However you should be prepared scramble out of there before the lines meet.

If you have trained with a heavy unit, the shield wall can open a space for you to shoot through and then close or narrow it between shots. This will provide full cover for you and make it hard for you to be shot by opposing archers or javeliners.

It is important that you know who to shoot. Always try to eliminate the best lights, heavies and the commanders on the other side first. Get them out before they can do any damage. If you do not know who they are, then ask. If you do know, point them out to those that do not. However, you should not try to pick someone off just because of their rank. Dukes, counts, viscounts, etc are here to have fun too. Do not keep shooting them just because of their rank to keep them out of the game. Shoot them when they present a danger to you or to your side. Do not just shoot at a coronet because it is there.

During the pre-battle inspection you can estimate the number of arrows, javelins, shield wall shields, plated archers, siege engines, etc. the other side has. Conversation with enemy

troops can give information on their better lights, heavies, etc. While you do not give out that information. Before the war, the leaders of your units should check out the battle site or sites and locate cover, check terrain, determine ranges, etc.

When you are trying to judge the ability of archers on the other side you should observe the quality of their equipment and how well made and maintained it is. Better archers tend to use well made arrows that are matched and well maintained because they know that accuracy is dependent on good arrows. An archer with a random collection of arrows with different size fletching, different heads and tape that sticks up and fletches that are matted down, does not have accurate arrows.

If you are at a war where golftubes are used, you should observe the style of the GT. If they are of the tennis ball type and have no fletching and are bent, badly taped, have split nocks, etc. Then it is likely that the archers will tend to use them in volleys at selected targets or groups. This is because of their limited accuracy which can make them unsuitable for hitting individual targets at any but the shortest ranges. If possible you should also notice the poundage of the bows. If most of them are under forty pounds the GTs will be even slower and of less range than if the bows are in the forty to fifty pound range. If the GTs are of the thrusting tip style, fletched with three or four fletches and reinforced internally, with good nocks and well made and maintained in general, they are more accurate and can hit individual targets at moderate ranges.

The best unit leaders are not necessarily the best archers or javeliners (best shots). What is more important than weapon skill is knowledge of tactics, SCA combat experience and that hard to define quality of leadership ability. Often, the best lights are of more service devoting their full effort to shooting the other side.

## **TARGETS OF OPPORTUNITY**

Targets of opportunity are those targets that present the greatest chance of being hit. For example: Two heavies in padding and shields, both twenty yards away. One is watching you and the other is looking away from you. You will not be able to hit the one that is looking at you, for he will block or dodge your arrow. But the one that is not looking can be hit.

A general definition of targets of opportunity is as follows.

- 1) Not looking at you.
- 2) Too close to avoid your arrow (under fifteen yards).
- 3) Involved with another heavy or light and if he blocks your arrow the other fighter will get him.
- 4) If you are given a choice of targets that are not looking at you, pick the nearest first or that being equal the one that presents the most non-proof target surface.
- 5) If plate is proof then go for those in mail or padding and only aim for faceplates, armpits, buttocks and backs of legs on fully plated fighters.

- 6) Heavies using pole arms or two handed weapons, javeliners and other archers present good targets for they lack the defense of a shield.
- 7) Do not bother killing heavies that have lost a leg, for they present little danger.
- 8) As a general rule try to eliminate archers first, then javeliners next. If your side can remove all of the opposing missile troops first, you can concentrate on their heavies unhindered.
- 9) There is another consideration in picking targets and that is immediate threat. If an light is trying to hit you, avoid him or kill him first. If an light or heavy is attacking someone on your side, try to take him out. Even if you do not remove him from combat, your arrows bouncing off his armour or shield or flying past his face will distract him and allow his opponent a chance to get him.

## COMBAT BASICS

At longer ranges, unless your skill permits, stick to groups rather than individual targets. At long range individual targets are a unit project. Several archers can volley fire at the selected target. The target might dodge one or two arrows, but not several and while avoiding one he may move into another. While acting as a unit, maintain an open formation and do not bunch up, for this provides a good target for the other side.

Be sure of your range, do not waste arrows on targets you can not reach. However, if your unit has some laminate recurves and good arrows, you may be able to fool the archers on the other side into wasting their arrows. Stay at the maximum range of your good bows (Use the sighting mark on your lower bow limb for maximum range) and lob arrows into their ranks. Thinking they are in range, they may shoot back, but to little avail. Do not be tricked into doing this yourself.

One of the most effective uses of lights is in flanking attacks. Archers on one or both flanks run wide around the enemy line and then shoot into the backs of their rear lines of fighters. If you can do this first, the enemy will be under arrow attack from two or three different directions. When the enemy turns to face your flanking lights, your archers should then aim for the backs of the forces facing away from them, if within range.

Often in some battles there will no chance for maneuver and you will find yourself behind all of your heavies. When you are shooting from the rear ranks you must be careful not to hit your own fighters in the back or to distract them by bouncing an arrow off the back of their shield. If you are tall enough, you can shoot over the shoulders of the fighters and between their helms. If not, you need to move to the flanks.

If you are working with a unit that has practiced with archers, you may be able to move forward into the first line of pikes, behind the shield wall and sword and shield fighters. But you must still keep your five yard minimum distance from the other side. It takes practice to shoot from inside a a milling mass of heavy fighters, they have to learn not to jostle you or your bow and you need to learn not to shoot them and to avoid the butts of their pikes. However, before the two sides close and make contact, you can shoot from just behind the shield wall or the second rank and then fall back before the two sides meet.

You must not become so engrossed in selecting and hitting your target that you lose track of the flow of battle around you. For you must remain aware and prepared to fall back if the other side should start to break through your lines. An archer needs to maintain a wide focus, in order to avoid incoming missiles or to spot a target of opportunity. When you have picked a target, you may then narrow your focus as you aim, but as soon as you loose you must widen your focus. A tight focus works well for heavy fighters in a tourney, but often works against them in a war. This is because they are so intent on the opponent in front of them they lose awareness of most activity outside of a very small area. As a result, some of the better tourney fighters are often easily killed by missiles.

Often the fighters in front of you may be so closely packed that there is no opening to shoot through. You should then move to the flank or try to find a place to the rear of your lines that is high enough to allow you to have a clear shot over your fighters. If you are light(in weight) you might find a willing heavy(preferably with a full back plate) to act as a shooting platform for you, by kneeling on his hands and knees and letting you stand on his back. Two heavies can lift you on a large flat shield to their waist height. This will give you a clear field of fire, but will also make you a fine target for enemy lights, unless you duck back down after each shot and have your "platform" occasionally change its location. You should try to enfilade the line so that your missiles rake its length and an arrow missing one target will strike another.

To avoid being hit in battle you should never stand still for too long. You should keep moving and make use of cover. Most SCA archers have trouble hitting moving targets with combat blunts. And the slower the blunt, the harder it is to hit a moving target.

You should not remain in one place for too long. For this makes you an excellent target and gives an opponent a chance to find your range. You need to stop to shoot, but do not remain stopped for too long. Upon shooting, you should move again at once, but you should vary the direction in which you move. Do not always move just to the left or to the right, for this sets a pattern and a skilled archer trying to hit you will aim his arrow at the spot where you will be. Do not stay to observe where your arrow hits or misses, watch it as you move. You can use this same technique for eliminating other lights that have this bad habit moving in a set pattern.

If you are shooting from behind cover, you should duck down after each shot, renock and then come up in a different spot, if possible. You should hold your bow horizontal as you come up or your top bow limb will announce where you will arise. This also applies to pavises and castle walls. You should not let your bow signal your location and intent or you will be greeted by a volley when you arise.

You can sometimes manage a hit by deceiving the other side as to your intended target. While they are watching you, come to draw on fighter number one once or twice and then let down to show that you know that they are watching you. When you have established in their minds that you are after fighter number one, come to draw again. But quickly turn at the waist and shoot fighter number two, who is near number one and at the same range. You may catch him off guard.

If you should find yourself in an exchange of arrows with an archer who is better than you and beyond your accurate range, you can close with him until you are close enough to hit him. This advance should be rapid and in a zig-zag. This way you have a chance of hitting him, which you will not have if stay out of your range, but within his. The reverse of this holds true for the better archer. However, long range arrow duels are generally a waste of time and arrows. This is because, at more than twenty yards, it is very easy to dodge the combat blunts.

If you put a second nocking point about five eighths of an inch for three quarter inch blunts or about one inch for markland style, above your normal nocking point, it is possible to shoot two arrows at the same time. The Arabs often made effective use of this technique. The arrows will strike closer together if they have only two fletches. This is because the nock ends will lay closer together on the bow.

When shooting two arrows you will have to aim higher than you would with a single arrow at the same range. It is awkward, at first, to keep both arrows on the bow, but if you tip the bow toward the horizontal it will easier to do. At twenty yards the arrows will often strike within two feet of each other. This can be effective at single close target, for he will not know which arrow to dodge. And when shot at groups at medium range this can double the arrows in you unit's first volley. But it can take two or three times as long to nock double.

Shooting from a kneeling position lets you present a small target to the other side. But it is harder to dodge incoming arrows unless you throw yourself to the ground. Then when you are getting back up, you make an easy target. However, if you kneel behind a kneeling heavy, his shield will provide good cover for both of you. If you loose a leg, you can hop or crawl to a heavy with the same problem and he can provide good cover for you while you provide long range offense.

If you will be engaging in castle battles or other fixed position battles, a pavise is a very important item. Four pavises, four feet high by three wide, can provide good cover for ten to twelve archers. The first rank ( the shorter archers) should kneel and and shoot through the openings in the pavise faces or the gaps between them. The other two ranks should kneel and take turns rising and shooting over the top. But at long range the third rank can be hit by arrows coming in over the tops of the pavises on a descending trajectory. You should practice nocking and shooting as a unit in a confined space, so you will learn to avoid interfering with the archers around you. Pavises can also be used in an advancing attack by having them carried forward as your archers shoot through the gap between them and around the flanking edges.

You should avoid mixed battles involving bridges or ravines and sometimes fortifications. This is because any arrows that fall under the feet of the heavies or even the lights can be turned into kindling in this limited area. These battles are best for: javelins, slings, throwing axes and siege engines.

In attacking a fixed position you should use converging fire. If the site permits, you should locate archers all the way around. If not, then place them to provide fire from the widest

angle possible, including the center. This way the defending force will not be able to see all incoming arrows, while the attacking archers have only to watch in one direction.

You should move part of your force in close behind cover. While the remainder stay far enough out that they will have no problem dodging arrows. Your close-in group can either form a circle or an arc around the position or they can concentrate in one area to clear that section for an attack by heavies.

Depending on the arrangement of a fortified position, it is possible to set your outer ring of archers at such a range, so that their arrows which pass just over the top of the near wall (missing the head of a fighter there) may strike fighters in the back at the far. Each archer in the outer ring will need to determine their own range for this technique. For if they are too close the arrows that miss the near wall, will also pass over the far wall.

If your unit is confronted by an other unit of archers at mid to long range, do not bunch up, you should spread out. And then either avoid them and move out of range or keep them involved and wasting their arrows, while your unit shoots only enough to keep their interest (make this as few as possible). At mid to long range an archery duel will turn only into a dodging contest. This can be avoided by volley fire at single archers. Your unit should volley fire at the leader or best archer in their group. Then when he is taken out move your aim to the next. If this happens to your unit, the archer that sees all the bows aiming toward him, should wait until they release and then move very fast to one side. The counter to this is to have half of your unit shoot and two seconds later the remainder shoot at your targets new position.

It is a waste of time and arrows to just exchange arrows without achieving any other purpose. However, sometimes if a small number of archers can tie up a larger force and keep them out of action, it can be worthwhile. But do not turn away from your objective just to exchange arrows, do not be diverted from your objective.

One other way to break up this type of stalemate is to have part of your unit nock and then charge their flanks while zig-zaging. They should run in to close range and then shoot, you should be able to close before they can renock. While the remainder keep shooting from further out. If you have javeliners in your unit, have them charge the flanks, while your archers charge the center, stopping only to shoot. Having the javeliners charge their flanks removes them from your line of fire, while forcing the other side to split their fire in three directions as well as having to watch for incoming missiles from three directions.

You should practice shooting with different types of blunts, for in a war you will not always be shooting you own arrows. You will often be shooting back the arrows the other side has shot at you (after they have been inspected). There is a great difference in your aim when you shoot an Thistle Missile versus a film-can blunt. Their ranges are also different. Just because your maximum range with a solid fiberglass bow with a Saunders or Lohac Blunt is perhaps sixty yards and the nearest enemy archer is eighty yards away, does not mean that you are out of their range. For if the enemy archer has a good laminated recurve and Peacemakers or HTMs and some skill, he could reach out one hundred to one hundred and twenty yards.

Each unit should have an experienced archer in command and a second in command as well. Stay together and follow orders. Help out other units when possible.

As a general rule, try to eliminate archers, javelins and pikes first. If your side can remove all of the opposing missile troops, you can concentrate on their fighters unhindered and removing their pikes takes much pressure off your front line. It is in modern terms, like superiority in air power. NOTE, this does not always hold true and your objective depends both the battle plan as well as current conditions.

You should develop a simple system for communication of commands. Such as: Messengers. Hand or flag signals. Drums. Streamer arrows, etc. Make sure that all your unit leaders know the signals. Many times, good opportunities to damage the enemy are missed because commands take too long to reach a unit, or there is no way at all to communicate with them.

A useful way of directing massed arrow fire is with streamer arrows. These are combat blunts with narrow five foot ribbons attached. The commander decides where he wants the missile fire to concentrate, orders a streamer arrow shot into that area, and all or selected archers concentrate their arrows on that spot. This can be used for signaling movement and other commands as well. Concentrated arrow fire is very hard to dodge or block. With this method you can eliminate part of a line and then move your fire to another section picked by the commander.

The use of converging fire compensates for the ease of dodging combat arrow fire, by giving your target too many directions to watch for incoming missiles. In short, what you can not see, you cannot dodge. Wherever possible you should try to position your archers, so that their fire, either as units or individuals, converges on the target. This can be done either with a line which extends well past the flanks of your enemy. Or with separate units or individual archers are located to the front, sides, and when possible the rear.

Consider your archers to be on horseback. Have them move in fast and shoot. When the enemy tries to close with you, move out fast. Try to wear down their heavies by making them chase you. Then, when you have pulled them away from their main force, turn and surround them. Shoot at the best targets. When they rush one side, that side falls back and the others follow shooting.

In lights only battles, you can make good use of any heavies that wish to fight by having them use shield-wall shields, or large fighting shields and carry a javelin. They can also provide cover for a javelinier by carrying his pavise and spare javelins.

## **Acknowledging Hits**

In a mixed, heavy/light battle if you are killed by by missile weapon, acknowledge the hit by calling out "Good" or "Dead" and leave the field with your bow or javelin over your head. If you know who hit you, it is courteous to acknowledge their skill (or luck). Give them a nod or a wave indicate where they hit you and leave the field. If you are killed by a

heavy that gets within five yards of you, they will call out "Dead my Lord/Lady" (or something similar). Then you will call out "Dead" or "Good", give a friendly verbal acknowledgement as well and leave. This helps to improve the altitude of heavies toward lights.

On the other hand, if you are called dead by a heavy that is outside of the five yard distance, you should politely inform them that they are not in range. This is just like a heavy saying "Light" to a blow from another heavy. West Kingdom War Rules and Conventions. III: War conventions, B: Killing conventions, 5: Acknowledgement of being killed. "It is up to the opponent whether any kill (a blow, kill from behind, a missile weapon blow, or melee combatant "kill" of missile combatant) was good or not." But you must be very sure that the heavy is outside the five yard range. You must be careful not to develop a reputation for "Rhino Eyes" which is the light equivalent of "Rhino Hide".

If you take a light hit from an arrow it still counts, even if there is little impact to it. But if it is a glancing blow that just grazes you, it does not count (Unless you wish it to). W.K.W.R.A.C., II: Additions/Changes to the conventions of combat, C: Acknowledgement of blows, 3: "The convention that blows must strike squarely and with sufficient force applies to missile weapons as well. However, it is not to be interpreted that missile weapons must strike with the same force as melee weapons to constitute a "good"blow.".

Sometimes in battles, where plate counts as missile proof, you make what looks like a good hit, but the target does not acknowledge it. This can often be due to them wearing plate that you did not see. So do not get upset, just shoot them where they have no plate. If you are wearing hidden plate in a battle and take a hit to your plate, you may let the archer know of your plate by rapping hard on it with your fist and shaking your head no. Or if they are close enough to hear, you may call "Plate" as well.

If you should hit someone and they do not notice, sometimes, if they are looking in your direction, you can point at them with your bow, then indicate on yourself where you hit them and then point down to the ground where your arrow is laying. But if they do not acknowledge your hit, do not argue. It is their call and when you are involved with them, some other fighter may kill you.

You should learn about different types of armour, as to what is plate and proof and what is not. Learn with full plate where the non plate areas are located. e.g. visor slot, throat, armpits, backs of legs, buttocks, etc.

## **ARROW INSPECTION**

All projectile weapons must be inspected before the first battle and again before each following battle. The best way to do this is to have the lights inspect their own weapons under the supervision of a marshal. This marshal or marshals should have no other duties but the observation of the archers' inspection. The marshal should also be an archery marshal capable of inspecting arrows, bows and protective gear.

Arrow inspection by the lights rather than by the marshals saves much delay. For example, if there are fifty archers with about thirty arrows each, that is a total of one thousand five hundred arrows. At ten to fifteen seconds per arrow that is a total of about four to six hours for one marshal, or two to three for two, etc. This limits the number of battles that can be fought each day and makes resurrection battles difficult as well.

Before the first battle, all the archers should empty their quivers for inspection. The marshal should check each set for any that look too long. They can be checked against a legal length arrow carried by each marshal. All the arrows should be looked at to determine if any of them need a closer inspection. The marshal should ask each archer if the metal points have been removed from all the arrows. Then select half a dozen arrows for close inspection. The use of an inexpensive metal detector can verify the absence of metal points under the blunt heads. The marshal will also inspect the bow and protective gear to see that it passes kingdom standards. When each archer has passed inspection he should be marked. This can be done with colored tape. One piece on the front of the head protection, this indicated approved body protection. One piece on the quiver for arrow approval. And one on the back of the bow. Each marshal may sign or mark each piece. This taping makes it easy to spot an archer that has come on to the field without first being inspected.

To further avoid problems caused by archers coming on the field with equipment that has not been inspected, there should be an area by the battle field for each side where all equipment is held after being inspected. Archers must pick up their gear from there before entering or reentering the field. They must enter the field from those locations, any lights coming on from anywhere else will be stopped by the marshals and sent to those areas for inspection.

After each battle all lights pick up the arrows and return them to the inspection area. The arrows should be laid out in one or more rows. The archers then move down each row picking up their own arrows. When they have taken all their arrows from the pile, they inspect each arrow.

In resurrection battles the slain heavies should be encouraged to glean arrows from the field on their way back to the resurrection point. They will leave them there for the archers to inspect, this can help to insure that your archers do not run out of arrows. It also helps to reduce the amount of breakage caused by them being stepped on.

Each arrow should be inspected for: Any signs of the shaft punching through the blunt on Saunders type, or of the padding compressing over the base on the Markland types, check for loose heads. Look at the fletching to see if it is pulling loose. Check for broken or peeling tape, missing or damaged fletching or other obvious problems. You then hold each arrow by the blunt and the nock, then flex it at least three times in different directions, watching and listening for any breaks. You should dispose of any broken, punched through or compacted arrows, **DO NOT CARRY THEM IN YOUR QUIVER DURING BATTLE.** You may be removed from the field, the battle or the war for having damaged or dangerous arrows in your quiver.

If a marshal feels that an archer has not properly inspected some of his arrows, then the archer should reinspect ALL of them. Do not rush through your inspection, a defective arrow can injure the person you shoot. Also bent arrows, damaged fletching or a broken nock may cause you to miss the fighter charging down on you.

## **BOOKS**

There are several good books on archery that you should try to read. Check your library, if they do not have them, ask them to do a book search for you.

The Grey Goose Wing by E.G. Heath.  
Archery, A military History by E.G.Heath  
The Medieval Archer by Jim Bradbury  
Arrows Against Steel by Vic Hurley  
A Book of Five Rings by Musashi  
The Art of War by Sun Tzu  
The Double-Armed Man by William Neade  
A history of the Art of War by Charles Oman  
The Art of War in the Western World by Archer Jones  
Certain Discourses Military by sir John Smythe  
Toxophillus by Roger Ascham  
The Longbow by Robert Hardy  
Target archery by Robert Elmer  
The Bowyer's Bible, vols 1,2,3  
Bows and Arrows by James Duff  
The Archers Craft by Adrain Hodgkin  
Archery, from Golds to Big Game by Keith Schuyler.

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