

OZBOW GLOSSARY OF TRADITIONAL ARCHERY TERMS

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Through attendance at various traditional shoots we have come in contact with a lot of people. Some are new to the sport but many have been in it for a long time. During the ensuing conversations archery specific terminology will invariably be used. Quite often this terminology will be used incorrectly or misunderstood by those hearing it. Often, it is simply ignored or dismissed as either unimportant or unnecessary by self-proclaimed Traditional archers.

If we lose the use of our traditional archery terminology, we lose our connection to our archery past. Words are crucial to the preservation of a culture. Without the words, the culture disappears as has so often happened to the native peoples of the world overtaken by modern lifestyles and the overwhelming influence of the dominant culture and commercial pressures. Cultures only make sense through their language. That language preserves the way of thinking of those cultures because they preserve the cultural concepts unique to it. And so it is with Traditional archery. It is a way of living in the world, not just the shooting of bows and arrows.

It is for these reasons that we have compiled a Glossary of Traditional Archery terms on Ozbow and recommend that members familiarise themselves with them and use them at every opportunity. We will list as many Traditional archery related words as we can find which were in common use in the years before 1967, particularly those which we feel the Traditional Bowhunter/Archer is most likely to come in contact with via the written or spoken word.

AIM: To consciously direct an arrow by sight so it will hit the intended target.

ALLOWANCE: The shift of aim direction to correct for the arrow's drift due to windage.
Also, to allow for that correction.

AMO: Acronym for Archery Manufacturer's Organization (of the USA). In modern archery, the AMO terminology for the various items of archery equipment and the standards of measurement and performance levels of archery equipment are commonly

regarded as THE archery standard and often referred to by their AMO rating, ie, bow length of 68 inches AMO or draw weight of 50lbs at 28 inches AMO.

ANCHOR POINT: A fixed point to which the archer brings his drawing hand at full draw (usually at some point on the side of the face).

ARCHER: One who shoots with or is skilled in the use of the bow and arrow.

ARCHER'S PARADOX: The fact that an arrow that is correctly matched to a bow, when shot, will fly in the line of aim, even though the arrow, when on the rest, is pointed to the left (right handed shooter) or to the right (left handed shooter). Nowadays, it is also used to refer to the lateral flexing of the arrow as it leaves the bow, but this is not its correct or original meaning.

ARCHERY: The practice, art or skill of shooting using a bow and arrow.

ARMGUARD: A piece of leather, or other stiff material, worn on the forearm of the bow arm to protect it from injury by the bowstring. Also called Bracer.

ARMING: The material covering the bow's grip area.

ARROW: The missile designed to be shot from a bow.

ARROW GUIDE: A grooved contrivance attached either to the bow or the shooter's wrist in order to be able to shoot a short arrow from a longer draw. Also known from Turkish Archery as a Siper.

ARROW HAND: Synonymous with drawing hand, shaft hand or string hand.

ARROW-HEAD: The striking end of an arrow, usually of steel and fastened to the foremost tip of the shaft.

ARROW HORN: A wedge of horn, hardwood or pearl or other material set into the arrow to receive the string. Also known as the Nock.

ARROW PLATE: A piece of leather, shell, ivory bone or other hard material set just above the handle of the bow to protect the sidewall of the bow from the chafing of the

arrow as it passes. It is also used to indicate the position on a bow from which to shoot an arrow.

ARROW REST: A small ledge aligned with the arrow plate or cut into the side of the bow and upon which the arrow is laid before being drawn, allowing a consistent launching position of the arrow from the bow. (See arrow shelf below.)

ARROW SHAFT: A slender rod, traditionally of wood, used to make an arrow; the most basic part of the arrow. Also called a stele in earlier times. Also, that part of the arrow between the head and the nock and excluding the vanes.

ARROW SHELF: A shelf or ledge cut into the side of the bow just above the handle upon which the arrow can be laid in order to be drawn.

ARROWSMITH: The METALWORKER who manufactures metal arrowheads which are supplied to the fletcher. An arrowsmith does NOT make arrows.

ARROW STAVE: A square billet of wood from which the round stele is formed.

ARTILLERY: The Archers (or the bows and arrows used by them) classified as an artillery arm of the military forces in ancient and mediaeval times along with the arbalesters, slingers and missile throwing engines.

ASCHAM: A carrying case or stationary cabinet for the storage of archery equipment named after Roger Ascham, author of Toxophilus, the first textbook on Archery in English.

BACK (of the bow): That side of a bow that faces the target when the archer shoots.

BACK (to): To attach a strip of material, that responds well to tension, to the back of a bow for added strength or performance.

BACKING: The material (wood, sinew, rawhide, fiberglass, etc.) with which the back of the bow is reinforced.

BALLOON FEATHER: Synonymous with parabolic feather.

BARBED ARROW: An arrow for war or the hunt, the head of which has barbs to prevent easy removal of the arrow, presumable to maximise internal tissue damage.

BARBS: 1. The two rearward wings of a barbed arrow head (see above); 2. The thin bristles which comprise the vane of the feather.

BARREL-TAPERED ARROW: An arrow that is larger in diameter in its middle than at its ends.

BEARDED ARROW: Same as barbed arrow.

BELLY: That side of a bow which faces the shooter and string. Also called the Face of the bow.

BEND: 1. To brace or string a bow; 2. The distance between the bow and the string when braced. Synonymous with brace height.

BILLET: A half bow length piece of wood used in making a self bow. Billets are commonly split from a side by side position within the same log. They are then spliced in the handle section to make a full length bow. When joined, they are then referred to as a stave.

BLUNT: An arrow having a blunt head. Usually used for hunting small game which kills by concussion as well as haemorrhage.

BOB-TAILED ARROW: An arrow that tapers in thickness from the point to the nock. The usual shape of arrow shaft used by Mediaeval English military archers.

BOIS D'ARC: (pronounced bwah-dark) French - literally means "wood of the bow" and the French name for 'Osage Orange'.

BOW: A weapon made of a long piece of wood or, other material, with a string that connects the two ends so that it can be held in a bent position to form an arc. When the string is 'drawn' or pulled in the middle, it is the means by which energy is stored by the elastic properties of the bow material such that when the string is then released, an arrow can be propelled.

BOW ARM: The arm in the hand of which the bow is grasped.

BOW BLANK: In modern bowery, it refers to the glued-up laminates as removed from the gluing form which will be reduced to a final bow.

BOW (or Running) FEATHERS: On a three-vaned arrow, the two feathers that lie next to the bow when the arrow is correctly placed on the string. Also known as 'shaft' feathers. (and often incorrectly called hen feathers in opposition to the cock feather which term has nothing to do with the gender of the bird from whom the feather derives).

BOW HAND: The hand that grasps the bow.

BOWHUNTER: A person who hunts using a bow and arrow.

BOW LENGTH: The length of a bow commonly measured from string nock to string nock, along the back surface of the bow whilst it is unstrung.

BOW RIBBON: The string-keeper. The loop of ribbon, cord, thong etc, that keeps the bowstring straight and trim when the bow is unbraced.

BOW STAVE: A roughly trimmed length of wood from which a bow will be made. The term includes a pair of joined billets.

BOWSTRING: The string of the bow which allows the bow to be held in the bent position for shooting. There are two basic string types; the endless loop and the Flemish twist strings.

BOW STRINGER: Usually a loosely fitting length of cord with leather cups or loops on its ends which fit over the tips of a bow to aid in stringing and unstringing.

BOW TIP(S): The extreme ends of the bow.

BOWYER: Any person who makes bows.

BOWYER'S KNOT: Archer's name for the Timber Hitch knot.

BRACE (to): To bend a bow and put the string in place for shooting. Often called 'stringing' a bow which is not traditionally correct. By English tradition, to string a bow is to make a string for a specific bow.

BRACER: Traditional English term for an armguard (See armguard above.).

BRACE HEIGHT: The distance between the bow handle and the string at the nocking point after it is braced. Traditionally, it is the height taken from the bottom of the clenched fist to the top of the outstretched thumb. However, this distance will vary depending on the design and length of the bow. The traditional rule of thumb is 1 inch for every 1 foot of bow length.

BRASH: Brittle (said of arrow or bow wood) Unresilient.

BREAST: That part of the arrow (roughly) that rests against the bow when it is nocked. Also called Chest.

BREASTED ARROW: A form of breasted arrow whose widest diameter is at the breast.

BROADHEAD: Originally a flat triangular shaped arrowhead with sharp cutting edges used for bowhunting. Today, any bladed head used for bowhunting.

BUCHANAN DIPS: Slightly concave downward shaping from the belly side of the handle somewhat bulkier proportionately than the rest of the bow: designed to make the mid-section static and improve the action of the bow (From Buchanan, the bowyer who first made bows in this fashion.).

BUTT: A mound upon which a shooting mark or target face is placed.

CANT: To hold or tilt the bow at any angle from the vertical while drawing and shooting.

CARRIAGE BOW: An older name for a take down bow. It was jointed in the handle section so it could be taken down into two parts for easier transport.

CAST: 1.The velocity which a bow can impart to an arrow. 2.Traditionally, the furthest distance a given bow will shoot an arrow. 3. A sideways twist or warp in the limbs of a bow.

CENTRE SHOT BOW: A bow which has its sight window and/or arrow shelf cut to a depth that allows the arrow to sit at or very near the centre line of the bow when on its arrow rest or shelf.

CHAMFER: The chevrons showing on the belly of a wood bow or the upper and lower sides of a wood arrow when properly made. (See also Rift and Reed)

CHECK: A longitudinal crack in the wood of a bow usually the result of too rapid drying out of the split log. Also called a Shake.

CHRYSALE (to): The development of many raised transverse fractures (frets) in the belly or sidewalls of a wooden bow caused by excessive compression of the longitudinal wood fibres resulting in rupture. A bow whose limbs have chrysaled is a lost cause and will soon break. Chrysaing results from poor tillering or the use of wood having poor properties of compression resistance.

CLOSE ON: Of an arrow head filled tightly all about the shaft.

CLOTH YARD: The statutory length of the English War arrow of 27 ½" or 28". Not reliable after the Mary Rose finds.

COCK FEATHER: The feather placed at right angles to the arrow nock. It is the feather which stands at right angles to and away from the bow in the majority of arrows which are fletched with three vanes placed evenly around the arrow shaft at 120 degrees apart. The other two feathers or 'vanes' are correctly termed the 'running' or 'bow' or 'shaft' feathers (see Ascham). They are NOT 'hen' feathers, which is a common misuse. To 'cock' in the original older English means to stand upright.

COME (to): Said of a bow where there is a too pronounced bend at any point along the limb.

COME COMPASS, COME ROUND, COME ROUND COMPASS: Said of a bow which bends with correct balance and desired tiller at full draw.

COMPOSITE BOW: Strictly speaking, a bow made from more than one material as opposed to a selfbow. Also known as a compound bow. Not related to the modern Compound bow invented by Allen in 1967.

COMPOUND BOW: A mechanical pulley device designed to imitate the function of a bow. Invented in the USA in 1967 and used for propelling arrows, it utilizes a system of eccentric or concentric pulley wheels and cables to control the bending forces between levers attached to fulcra. Propulsive energy is stored by holding the levers in a bent position until released and the levers can resume their resting state.

CORE: The material between the backing and belly laminates of the limbs of a laminated bow.

CRESTING: Coloured bands painted around the arrow shaft forward of the feathers as a form of identification or decoration.

CRESTING JIG: A device used to rotate an arrow shaft to assist in applying the cresting.

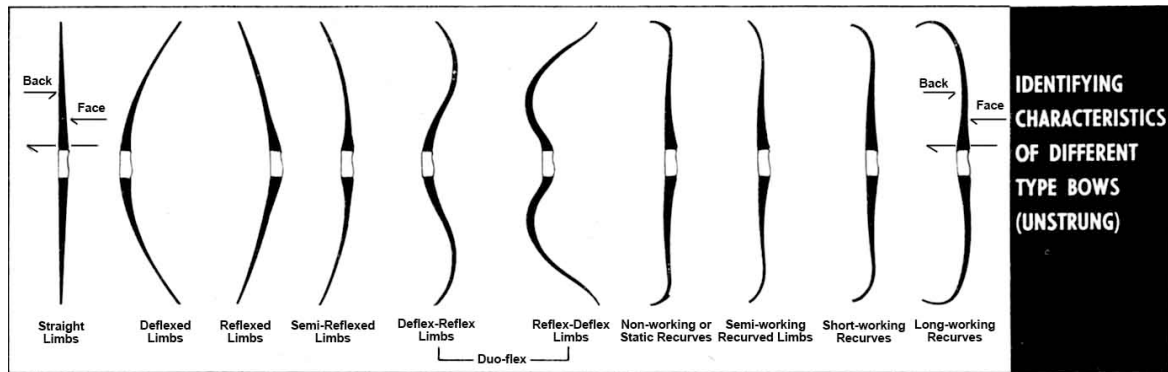
DEFLEX: A bow design where the unbraced limbs curve toward the belly of the bow from the fadeouts, or from immediately above the handle.

DEFLEX-REFLEX: A bow designation where the unbraced limbs curve toward the belly of the bow then reverse direction about mid-limb, reflexing away from the shooter. Reflexing replaces the braced limb stress lost by deflexing.

It has become a very common bow design in recent times with much hype surrounding its supposedly superior performance to other tradbow designs, but is really quite old. It became common in the 1950s and 1960s, and was quite definitely and specifically known as the semi-recurve design. It was never regarded as a longbow, and the advertising of those times made a point of distinguishing this design from the 'old-fashioned' straight-ended longbow.

Later in the 1960s, it was largely superseded by the clearly superior full recurved bows and faded from common use until recently when it has regained some popularity and novelty.

Despite some beneficial handling characteristics, shoot-testing of this design has not demonstrated any clearly provable superior performance characteristics over other traditional bow designs despite many claims to the contrary.



Source: Ben Pearson catalogue No.33, pp8 1961.

DEMOUNTABLE BOW: Same as carriage bow.

DIP (the): Is the descending slope from the belly side of the raised handle down to the limbs ending at the fadeouts (see below). The term was first coined by Thomas Buchanan, an English bowmaker from the 19th Century. They were devised to help to stiffen the centre section of the English pattern long bows in common use then and to help remove some of the handshock in bows which bent through the handle area. They were originally known as Buchanan's dips. Today, the dips are often incorrectly called 'fades' or 'fadeouts'.

DRAW (to): To pull the bow string back so as to bend the bow limbs.

DRAW A FEATHER: To strip the feather's vane from the quill.

DRAWING ARM: The arm that draws the bow string back.

DRAW LENGTH: The length, to which an archer can draw back an arrow on a bow. Traditionally, it is measured from the **back** of the bow to the bow string in his fingers when he has drawn the bow back to his anchor point.

DRAW WEIGHT: The force required (usually measured in pounds) to draw the bow back to the archer's draw length.

DRY LOOSE: To release the drawn bow string without an arrow. It can cause serious damage to a bow, even causing it to break.

ELBOW: Of a reflexed bow, the part of the limb that bends sharply away from the string.
Also known as static recurve.

EYES: Another term for the loops at either end of a bowstring.

FACE: 1. The side of the bow which faces the archer. Also called the belly. 2. Also the name given to the target placed on a butt.

FAST!: Ancient warning given to bystanders by English archery during practice. Calling out 'FAST!' legally absolved archery from responsibility to persons so warned.
Similar to 'fore!' in golf.

FADEOUT: The finely tapered endpoints of the riser of a bow where they are enveloped by the limb composites. If done well, they appear to gradually disappear or 'fade' into the limbs. Done badly, they cause a 'hinge' effect where an unreasonable amount of compression occurs which can cause even fibreglass laminate to collapse like a fret in a wood bow.

On selfbows or bows with glued on risers, the fadeout is the area of around 2 inches over which the wood of the riser gradually 'fades' or blends into the limb proper *without any visible end point*. Where there is a glued-on riser block, the fadeout does NOT occur where the riser block feathers into the bow limb. Properly made, the fadeout of such a bow ends further out and forms part of the limb. It can be found by laying a straight edge along the belly of the bow and sliding it toward the handle area. Where the straight edge begins to lift away from full contact with the limb, is where the fadeout ends.

FEATHER: 1. A whole feather comprised of 2 principal parts – the central stiff 'quill' and the 'vaness' on each side of it, or one of it's sections used on an arrow.

FEATHER (to): To drive an arrow into a target to the level of the feathers.

FEET PER SECOND (fps): The unit of measurement of the velocity of an arrow. How many feet an arrow will travel in one second.

FERRULE: The female socket portion of an arrowhead into which the arrow shaft is fitted and secured in position for use.

FISHTAILING: The wobbling left and right of an arrow during its flight.

FISH, FISH JOINT or FISH-TAIL JOINT: A V-shaped joint the length of the bow's handle for grafting billets or staves, as in the making of a yew bow. Hence Double Fish, Double Fish Joint, etc., - a W-shaped joint made in the same way and for the same purpose.

FIELD TIP: Term commonly given to the specialised head of an arrow intended for target shooting. Usually of about the same diameter as the arrow shaft and having parallel sides and a moderate point. Also traditionally referred to as a 'pile', which name derives from the Latin word '*pilum*', the name of the ancient Roman infantry javelin which had a small lozenge shaped head at the end of a thin metal shaft socketed onto a wooden shaft by means of a ferrule.

The purpose of the small head was to facilitate penetration of shields so the long thin shaft could bend. Several of these in a shield would make it nearly impossible to hold it in position because of the huge leverage effect of the long javelins sticking out of it and a shield wall could then be broken through. The head of the Roman pilum became the model for use on the heads of the English armour piercing arrows of the Middle Ages.

FISTMELE: The brace height of an old English longbow. The clenched fist, with thumb extended, is placed on the handle. If the tip of the thumb just touches the string of the braced longbow, then the distance is correct. For the average man this distance is about six inches. In old English law bows were required to be braced at least this high. (Similar to brace height but has a more specific meaning). Mele is the older English word for a measurement, thus fistmele is the measurement of a fist.

FIVE POINTS OF ARCHERY: From Ascham's Toxophilus – Standing, Nocking, Drawing, Holding and Loosing.

FLATBOW: A straight-limbed bow whose limbs are wide but relatively thin.

FLEMISH DRAW: The two-fingered draw using the index and middle fingers only. It is often seen in Mediaeval scenes involving English military archers, and prompts a possible/probable explanation for the origins of the defiant two finger V-sign well

known of the English archers of that time, and still used today. It is believed that it was these two fingers which were amputated from captured English archers to prevent their re-employment for military service. Also Flemish loose.

FLETCH or FLEDGE: To fit an arrow shaft with feathers/vanes.

FLETCHER: A person who assembles the complete arrow.

FLETCHING: The feathers/vanes once they have been fitted to the arrow shaft.

FLETCHING JIG: A jig used to hold a feather/vane in the correct position on the arrow shaft while the glue sets.

FLIGHT: Many arrows flying together. Also shooting for distance.

FLIGHT ARROW: A short arrow usually shot from a siper or long arrow specifically designed for long distance.

FLIGHT BOW: A bow specifically designed for long distance shooting.

FLU-FLU: An arrow fitted with exaggeratedly high fletching commonly used for aerial shooting. The large fletching slows the arrow down so it won't travel far. Originally used by some American Indians for hunting tree dwelling animals and birds.

FORCE-DRAW TEST: Where a bow is tested for the amount of increase in the force required to draw it as draw length increases. Traditionally, it is expressed as lbs/inch of draw length.

FRET: A raised crack in the belly and/or sidewalls of a wooden bow resulting from localised excessive compression of wood fibres. Also 'to fret' – the development of a fret. If uncorrected, the fret will deepen completely through the full thickness of the bow limb and destroy the bow. See 'chrysal' above.

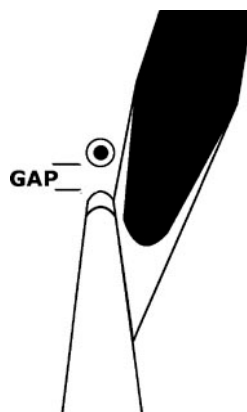
FOOTED ARROW: A wooden arrow whose point end has had a hardwood piece spliced onto the main part of the shaft. This was commonly done to strengthen the tip area and to better balance the arrow. In mediaeval English times it was also termed a 'pieced' arrow and the process of footing an arrow was termed a piecing

a shaft. It was originally a means of recycling damaged military arrows which were very expensive to manufacture. The method was later used to both strengthen the front of the arrow against breakage and possibly to shift the balance of the arrow more forward for more stable flight.

FORESHAFT: The method of inserting a hardened point inside a hollow tube such as bamboo or river cane which formed the arrow shaft proper. They were designed to strike game and deliver a poisoned tip into an animal or enemy and have the main portion of the shaft fall away from the wound and be recoverable for re-use.

FORK: The crescent moon shaped head often used by oriental archer and was thought to be used also in naval engagements to sever rigging by English mediaeval naval archers. This use has not been verified.

GAP SHOOTING: A method of aiming an arrow where allowance for the fall of the arrow over any distance is made by visualising a vertical separation gap between the tip of the arrow and the intended point of arrow strike or mark. The amount of the gap correlates with distance - less for greater distance and more for closer distance. It is useless at any point further than where elevation of the arrow point rises above the mark and obscures it from sight.



GRAFTED BOW: A bow which has been made from half length billets.

GRAINS: The standard unit of measure used to record the weight of an arrow.

15.4323584 grains = 1 gram.

GRIP: The specific place where the bow hand is located to hold the bow when shooting, or the way in which the handle is gripped.

HANDSHOCK: A jar or kick felt through the bow arm upon releasing the bow string.

HANDLE: The middle section of a bow to which the limbs are attached and includes the grip.

HINGED BOW: A bow which has been built so as to be able to be broken down into two parts suitable for transport. Also called a 'carriage bow'.

HIP: That middle 1/3 part of a bow above and below the handle. Also known as the '**knee**'.

HORN: A bow tip of that material.

HOYLE: A short distance mark in Rovers. Also said as shooting at Hoyles.

INSTINCTIVE SHOOTING: Shooting without the aid of any form of sighting device. Using only the abilities of hand eye coordination and instinctive memory. Ideally suited to hunting.

JOINTED BOW: Another term for a carriage bow.

KEEPING A LENGTH: (After Ascham) To ensure that a shaft is drawn to the head of the arrow (different meaning to 'Keep a Length' below).

KEEP A LENGTH: To shoot with the bow at a consistent elevation so that all arrows travel to the same distance.

KINETIC ENERGY: It is a measurement of force in foot/pounds. It gives the result of a relationship between the mass and velocity of a projectile - in our case the arrow.

The formula for finding this result is: (Energy Kinetic) $E_k = \frac{W_a \times V^2}{450,240}$

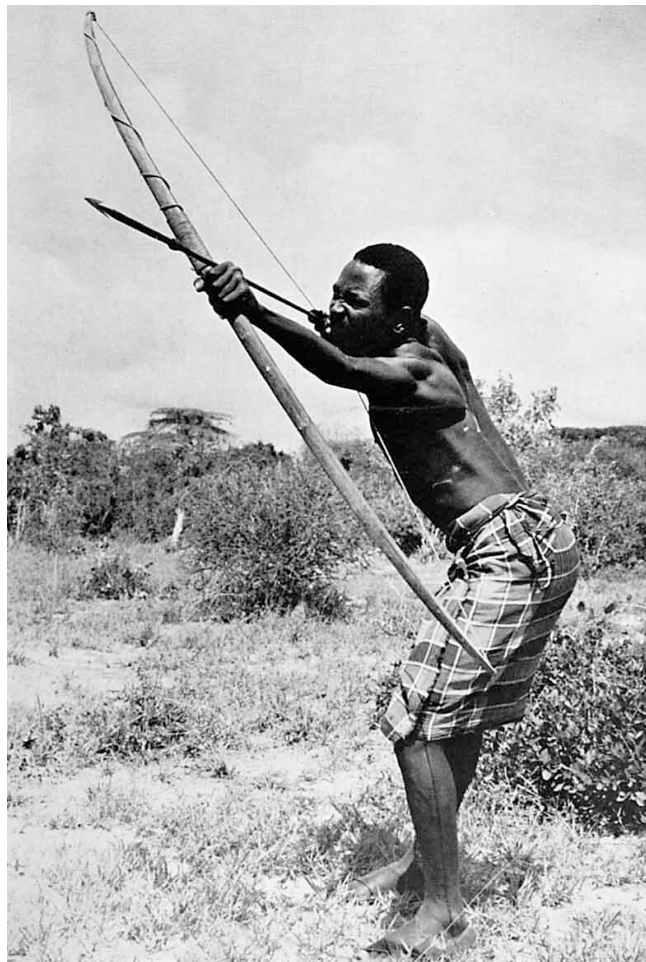
W_a stands for weight of the arrow in grains and the **V** for the velocity of the arrow in feet per second (fps). This formula considers only the weight and velocity of your arrow upon release.

LAMELLAE: Layers of wood grain.

LAMINATED BOW: A modern term for a bow whose limbs are constructed by using strips of wood (laminates) and/or other materials glued together. Most, if not all, modern traditional bows are made in this manner.

LAPPING: (1) The close thread wrapping around a bowstring to protect it from wear by the arrow nock and drawing fingers, also known as serving or (2) wrapping around the limbs of a bow as protection against breakage.

LAYING THE BODY INTO THE BOW: To use the whole body in drawing. In the deep draw to the ear as used by Mediaeval English archers the archer did get inside the arc of the bow, exerting and pushing with shoulders, chest and arms in order to draw a very heavy bow. Below is a picture of a Lliangulu hunter laying his body into the bow.



A Lliangulu hunter

LAYING A BOW STRAIGHT: To straighten a bow artificially by heat or pressure.

LIMB: The flexible parts of the bow from the handle to the tips which store energy by virtue of the elastic properties of the bow limb materials when bent.

LINE OF SIGHT: When aiming at a target, the imaginary direct line between the aiming eye and the aiming point.

LIVERY ARROW: Battle arrow supplied to the English military archers.

LONG BOW: 1. Traditional type of English bow usually made from a single stave of wood, whose limb configuration is almost as thick as it is wide, and at least as long as its user. Distinguished by having pieces of cattle horn fixed to the limb tips into which string nocks were carved. 2. Generally any modern straight limbed bow of five feet or over with the sight window (if any) not cut to centre shot.

LOOSE (to): Traditional term applying to the act of releasing the drawn bowstring. Synonymous with 'release'.

LOOSE (the): Traditional term applied to the above act of releasing the drawn bowstring. Often described as good, poor, clean, etc. One of the single most important aspects of good shooting with the bow. Sometimes referred to as 'the release'.

MARK: The intended target at which an archer shoots.

MEDITERRANEAN DRAW: The three finger draw of the bow string with index finger above the arrow and second and third fingers below it. Sometimes referred to as 'split-finger draw' to contrast with the '3-under' draw.

MID RIB: The quill of a feather.

MOMENTUM: It is a measurement of force in pounds/second (Lbs/Sec). Momentum is the correct formula to measure the directional impulse of a body in motion. The physics definition - the force exerted over a period of time in one specific direction by a body in motion – is the better measure of the penetrating ability of an arrow in motion. It is the measure of the forward force exerted by the arrow over the time it is penetrating the target.

The formula for momentum:
$$\text{Momentum} = \frac{(Wa/7,000) \times V}{32}$$

Wa stands for weight of the arrow in grains and the **V** for the velocity of the arrow in feet per second (fps). The arrow weight is firstly divided by 7,000 to convert the

weight of the arrow from grains into pounds. The quotient figure is then multiplied by the velocity and the result is then divided by 32 (the force of gravity). The resulting momentum figure is the comparative indicator of the penetrating ability of a given arrow in **Lbs/Sec**.

MONGOLIAN LOOSE: A thumb draw with finger lock employed by most Eastern archers.

NOCK (to): To place the arrow on the bowstring.

NOCK (arrow): The slotted end of the arrow that fits onto the bowstring. Can be a slot cut into the arrow shaft but now it is more commonly a moulded piece of plastic which is glued onto the arrow shaft.

NOCK (bow): Retaining notches cut into the bow tips to allow the string to be drawn and bend the limbs for shooting.

NOCK (self): On primitive-styled arrows, the groove for the string cut into the end of an arrow shaft. As with selfbows, there is no other material used in its construction, other than perhaps some reinforcing at the bottom of the throat in the form of some kind of thread binding to help prevent splitting and to support the 'ears' of the nock.

NOCK (reinforced): A self nock which has been strengthened with the use of any material inserted into a thin groove cut perpendicular to the string nock. Insertion of the reinforcing material is usually done before the groove for the string is cut, and the string groove is NEVER cut to the full depth of the reinforce material.

NOCKING POINT: The place on the string where the arrow should be positioned for shooting. It is usually marked with some kind of raised wrapping or other locating device.

OVERBOWED: Said of an archer shooting a bow that is too strong to draw back to full draw length with any genuine control. It is the cause of poor shooting habits, inaccuracy and physical injuries.

PARABOLIC FEATHER: See balloon feather above. Feather of parabolic shape. English Mediaeval 'swine-backed' feather.

PIECE or PIECING: The jointing of a separate piece of usually harder wood to the front end of an arrow. Also called 'footing'. This kind of arrow was referred to by Ascham in 1545

PIKE (to): 1. To thin and/or taper the limbs of a bow toward a point at the tips so as to make them bend more. 2. To strategically remove wood locally on a bow during tillering so as to allow for stress points and around knots. (See Elmer's 'Target Archery'). It does NOT mean to shorten a bow as more recently thought.

PIN: Very small but solid knot in surface of a wooden bow or bow stave.

PINCH: Raised faint superficial line of crushed wood fibres running crosswise on the belly of a bow. (See Fret/Chrysal). The term goes back to Ascham and before.

POINT BLANK DISTANCE: The maximum distance from which an archer can shoot where the trajectory of the arrow will not rise or fall outside the killing/scoring area of a game animal or target. It is also the maximum distance from which the archer can shoot where the arrow does not fall below the line-of-sight.

POINT ON SHOOTING: Using the arrow tip as a front sight to align with the target (see point of aim below), by placing it at strategic points above or below the mark to allow for the trajectory of the arrow at different distances.

POINT OF AIM: To use an object other than the mark with which to align the arrow tip to achieve the correct elevation of aim (see 'point on shooting' above).

POPPINJAY: A wooden figure, usually a bird, set on top of a pole as a target.

PORPOISE: Said of an arrow whose tail wobbles up and down during flight.

POWER STROKE: The actual distance travelled by the bowstring from draw length till brace height. There is evidence that the string remains in contact with the arrow past the level of brace height, but it is not certain what effect or to what degree this remaining contact has in continuing any propulsive force on the arrow, and therefore, is not included in the definition.

PRIMARY RELEASE: The basic thumb and forefinger pinch draw.

QUIVER: A container to hold arrows while hunting and shooting. Among the different types there is the bow quiver, which attaches to the bow and normally holds up to six arrows. The side quiver, hung from a belt. The back quiver, which hangs off the shoulder and is popular with hunters. The ground quiver, which is a ring at the top of a rod placed in the ground and is used by some target archers.

RAISING A PIN or KNOT: To leave a little swelling around a pin or fault in the making of a wooden bow to compensate for the weakness of the wood at that point.

RECURVE: The designation of a bow with a limb design in which the unbraced limbs bend in a reflexed arc of about one quarter of an arc of circle or greater away from the shooter, and when braced the string usually rests against the belly side of the limbs below the tip for some distance. It is a more exaggerated version of the deflex-reflex design but often shorter. Recurved bows are traditionally categorized as –

- (a) **working recurve** – where the recurve in the limbs actually unwinds its curve as the bow is drawn and works with a cam action when the string is loosed. Highly efficient storage and use of energy in the limbs.
- (b) **static recurve** – is a more severe bend in the outer quarter of a limb to the point that it is rigid and cannot unwind at all. The bend can be almost 45 degrees to the main limb and applies considerable leverage and cam effect to the inner limb. Highly efficient storage and use of energy in the limbs but not usually as smooth to draw.
- (c) **semi-recurve** – also known as the deflex-reflex design, it has only slightly more curvature in the limbs than the reflexed straight ended longbow design but a much smaller degree of recurve in the limbs than working or static recurves. When braced, the curve is often barely evident or not at all. It has only a marginal performance advantage over a straight-laid limb design and not demonstrably better than a reflexed limb design. Its main advantage is a smooth/soft draw. (See diagram under deflex-reflex.)

REFLEX: A bow is said to have reflex when the backs of its two limbs form continuous shallow arcs away from the shooter when unbraced.

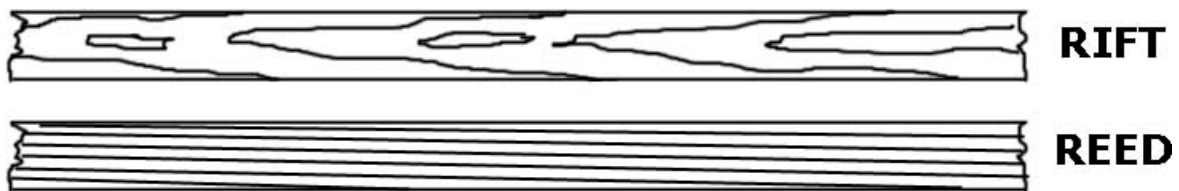
RELEASE: Same as LOOSE. Modern term thought to originate from the USA.

REPOSE: Said of a bow which is braced but not in use. Such a bow is said to be 'in repose'. This is a term peculiar to traditional target archery.

RIFT and REED: A fletcher's term referring to the two different views of the lay of the growth rings or grain in an arrow shaft.

The RIFT view refers to the view which shows a series of 'V's pointing to one end of the arrow shaft and usually in the reverse direction on the side 180° opposite.

The REED view refers to the 'edge' grain showing on both sides at 90° to the rift grain, and is usually the stiffest side of the shaft where spine stiffness readings are taken and which is laid against the bow for shooting.



Sometimes the stiffest spine readings do not occur across the reed, but it is preferable always to align the arrow as above for the safety reasons discussed below.

The rift should always point forwards on the upper side of the arrow and rearwards on the underside. When viewed on a spine tester, the rift should point to the left for a right-handed shooter, and for a left-handed shooter, to the right. This is because the growth rings represent lines of possible sheer fracture and breakage and consequent penetrating injury from the rear portion of the shaft if it is pushed under the forward portion by the bowstring and down into the bowarm/hand.

If correctly aligned, the rear section will ride up over the forward section and help prevent or minimise injury.

RISER: 1. Originally a short piece of wood glued to the belly of the handle of a wooden bow to give a better fit to the hand. 2. Same as HANDLE. 3. In modern usage includes the whole handle section extending to the fadeouts.

SADDLE-BACKED FEATHER: The concaved shape that a triangular feather takes on the straight upper edge when cut using scissors.

SECONDARY RELEASE: The primary release assisted by placing both the second and third fingers on the string.

SELF: Descriptor applied to a bow or arrow which is made from one piece of wood. The term derives from the expression 'by itself'.

SELFBOW: A bow made entirely from one homogenous material, usually of wood. This bow can be made from a single stave or a joined pair of billets.

SEMI-RECURVE: see 'deflex-reflex' and 'recurve' above.

SERVING: The binding or wrapping of thread around the centre of the bowstring to protect it from wear.

SET: The permanent curvature of the limbs of a bow toward its belly. See 'string follow' below.

SHAFTMENT: That part of the arrow from the string nock to the forward-most part of the feathers.

SHOOT (to): The original English word used to describe the discharge of a projectile, esp. an arrow. It derives from the Anglo Saxon word(s) – scutan, scotan or scuten – pronounced 'SHOE-ten'. Hence, a bow is shot and guns are fired, but bows are NEVER fired because no combustible materials are involved in the discharge of an arrow. Historically, the command to 'FIRE!' was first applied to the lighted saltpetre match applied to the charge in the barrel of early 'matchlock' guns in the same way that English archers were commanded to 'LOOSE!'.

SHOOTING GLOVE: A leather glove worn to protect the drawing fingers from the chafing of the bow string upon release.

SIGHT WINDOW: The cut out portion of the handle above the arrow shelf.

SINK (to): To reduce the draw weight of a bow by any means.

SMITH: A worker of metals. Recently, this term has been misused to indicate any kind of craftsman of any material such as 'leather smiths', 'wood smiths', etc.. The term has traditionally always had the quite precise meaning of a worker in metals.

SNAP SHOOTING: Drawing and releasing quickly, sometimes not even coming to full draw.

SPELL: A splinter of wood which rises on the back of a wooden bow. It usually lifts from the point of a rift of the grain due to excess tension at that place.

SPINE (STATIC): The rigidity, resilience and return of an arrow shaft which is related to its ability to recover to straight flight from a bow. It is measured statically by measuring the degree of bend at the centre of the shaft when a 2lb weight is suspended from it when supported between supports at 26 inches apart.

SPINE (DYNAMIC): The manner in which an arrow behaves when the force of the bowstring is applied to it after the loose. Most of the understanding of this behaviour is derived from high speed photography and is affected significantly by the centre of balance of the arrow as well as the effect of degree of centre-shot of the bow used.

STAND IN A BOW (to): Said of an arrow which is stiff enough to be shot from a bow and get good flight.

STRING-FOLLOW: When the limbs of a bow take a permanent bend or curve towards the belly. Has several causes ranging from abuse to long use, bad tillering or protracted periods of being left in repose - mostly the last.

STRING SILENCER: Any device, ie, strands of material (often wool) fluffed up and attached to the bow string to stop it from vibrating, thus eliminating string noise. More common on recurve bows.

SPINE: The degree of stiffness or springiness of an arrow. You test the spine of an arrow by use of a spine tester which measures the amount of bend in the middle of an arrow shaft (in thousandths of an inch) when a 2 lb weight is suspended from it whilst the arrow is suspended between 2 supports which are 26 inches apart (AMO standard). The less the amount of deflection, the heavier draw weight bow from which it may be shot, and the reverse.

STACK: A bow is said to stack, when near the end of your draw, the weight feels to gain rapidly and abruptly, thus it is not smooth. This is a very undesirable attribute in a bow.

It can be demonstrated in a graph of a force-draw test where, the more the bow is drawn back, the rate of increase appears to increase at an increasingly greater rate, eg. the bow may increase at 2lbs/inch of draw, but as the draw length increases, it may suddenly begin to increase to 4lbs/inch or more. In graph form, the force-draw curve will suddenly take an decided upwards hook.

A bow which stacks is uncomfortable/difficult to shoot and applies its stored energy inefficiently to the arrow upon loose.

TAB: A flat piece of leather worn to protect the drawing fingers from the chafing of the bow string upon release.

TAKE-DOWN BOW: A design adopted for many modern bows, allowing the two limbs to be removed from the central riser. These can be either two or three piece bows. A modern adaption of the carriage bow.

TARGET PANIC: An archer's inability to aim at the target due to involuntary muscular tensions. This physiological phenomenon often causes premature loosing of the bow string.

TILLER (to): To work the limbs of a bow so that they bend properly in reference to each other. The primary purpose of tillering a bow is to cause both limbs to exert an equally applied propulsive force to the arrow upon loose. The degree of bend symmetry between the limbs is of secondary importance to this primary purpose. Symmetry of bend can indicate, but is not proof of a well-tillered bow, eg. the long asymmetrical Japanese Yumi. A symmetrical bend is simply the easiest way to achieve the primary purpose of tillering.

TILLER: The difference between the upper limb and lower limbs measurements from the bow string to the belly at the fadeouts or the difference in the amount of bend between the two limbs which should be marginally greater in the upper limb. This difference is usually around one eighth of an inch.

TIP OVERLAYS: Any material glued to the back of the limb tip for added strength and appearance. Also results in a thickening of the tips into which string nocks are often cut.

TOXOPHILITE: A lover, student and practitioner of archery.

TRAJECTORY: The curved flight path of an arrow.

UNBRACED: Said of a bow that has not had its bowstring applied. Also referred to as being unstrung (see brace (to) above).

UPSHOT: The winning shot of a contest.

VANE: A general term for the feathers on the rear of an arrow. Today, a "vane" also refers to fletching made of plastic.

WAND: A stick placed in the ground, usually 2 inches wide x 6 feet long and used for a target or 'mark'.

WHIP (TO): To apply serving thread to a bowstring or the limbs of a wooden bow.

WHIPPING: Term given to serving thread applied a bowstring or wooden bow.

There are certainly many more terms that could be added to the above and we are sure you can think of a few yourselves. If there is a particular term, or terms, you feel should be added, post your recommendation. We are sure others will be interested in them as well.

We trust that you have found this glossary of traditional archery terms of interest and hopefully you will have gained some benefit from it.

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