

## Posture for Archers – Foundation Unit

*2<sup>nd</sup> Part of a series of articles produced by Andrew Knight during the COVID -19 pandemic*

Following on from part 1 this part starts to detail the various subsections of the posture and stance when relating to Archery. I would particularly draw your attention to the work of Ray Axford whose book goes into much more technical detail than this article.

### Foundation Unit

This is the solid base that provides the foundation for the strength of the power unit above. In this article I will look first at the level ground example and then look at how this can be modified to incorporate sloping terrain.

The power unit is considered to be the legs, pelvis, spine, ribcage and abdomen. The muscles inherent to these areas work to maintain the posture, this does not include the large movers of the arm or the muscles between the shoulder blade and spine.

Consideration of this unit begins with the feet. Make sure the feet adopt a straightforward facing position, meaning avoidance of the 10 to 2 placement. This will not only place the feet so that the forward lean to minimise the upper triangle can be judged most effectively but it will also maintain a good foot arch system.

This foot arch system consists of 3 arches organised to make up a tripod, so when standing with weight evenly on both feet you will be standing securely on 2 tripods. If the 10 to 2 position is adopted, this flattens the medial long arch and leads to issues with knee, hip and pelvis and will make it harder to control these other areas efficiently.

With the feet in the recommended position it will be easier to “tuck the tail under” and draw up the abdomen to provide midriff stability. The advantage here is that the forces then applied to this system are evenly distributed within the whole system – known as tensegrity. This is muscularly efficient and reduces fatigue, injury to lower back and excess thrusting out of the chest with its subsequent upper triangle influence.

Try this out - Exercise 4 is an extension of Exercise 2 from the 1<sup>st</sup> article. Start by standing and place the feet as indicated about shoulder width apart – allow your attention to be aware of each of the elements, feet first, tail tucking under (abdominal upward draw), placement of shoulder over hip and ear over shoulder, add the lean forward. Maintain this and be aware of how that feels. Allow the arms to hang relaxed at the sides whilst doing this.

On flat ground that is your optimal foundation and onto this the drawing of the bow and the aiming occurs.

### Adapting to, elevated / depressed targets, long casts and slopes

To allow the power unit to work in a balance of forces the spine needs to be set perpendicular to the sacral base. The Sacral base is visible on someone’s back as the line between the 2 dimples, one either side of the spine at the belt line. See fig 1 which points them out. This is the line of the base of the sacrum – see fig 2 for the bony example.

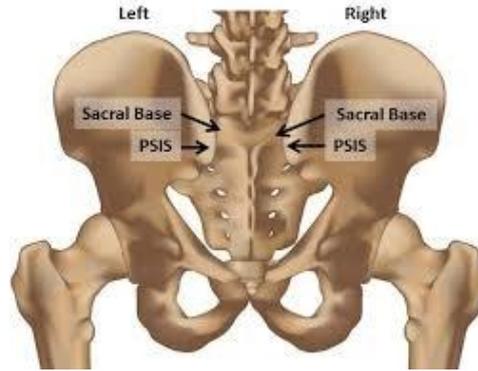


Fig 1 – note the dimples – tight attachment of PSIS Fig 2 – the PSIS locates the dimple on the bone.

In order to maintain the sacral base and spine attitude whilst adapting for the slope of the ground one is required to shift the centre of the dimples over the front foot (try it and keep the legs straight while you do and you will find the level of the side you move toward will rise).

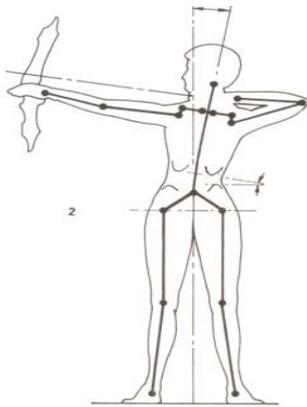


Fig 3

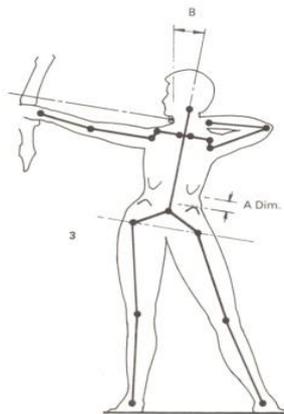


Fig 4

Fig 3 & 4 shows 2 different solutions to elevation. Fig 3 shows a bent spine and pinching of low rib to pelvis, all introducing fatigue, pain and inequalities in muscle pull; note also the centre of gravity falling toward the back leg. Fig 4 shows the “hip shift” maintaining a good foundation, even muscle pull and good centre of gravity.

This shift allows for elevation and depression of the shot while maintaining the perpendicular nature of spine to sacral base. There are added benefits in that the lower rib to pelvis distance is not then squashed (becoming painful) and any lean that becomes necessary will be reduced. The even forces applied on either side of the spine make for more efficient shooting and a familiarity of control consistent with flat ground shooting.

This example describes the flat ground and elevated or depressed elevation to target as well as shots requiring a long cast from Archer to target.

If standing on a slope the same method is used to make the sacral base parallel to the ground to reduce the bend and maintain a consistency of muscle use whilst drawing the bow; all providing more control of your technique.

In the next article we will cover the power and aiming units.

Andrew Knight 28/8/2020