



# Gloucester Junior Project

Talent Confirmation: Helping the Ambitious Archer





# Context



- Archery GB was approached by Roger Crang from Gloucestershire Archery Society to find a high performance coach for a junior pilot programme
- The aim was to develop some of the county's best junior archers to a higher standard and develop coaching skills at the same time in line with the 2012 legacy work

# Context

- Proposal submitted for consideration which was accepted, containing the following elements:
  - Pre-session preparation, selection and profiling
  - Pre-season training October – March
  - Early season training
  - Competitive season monitoring
  - Post season training and review



# Archer profiles

- 13 archers selected through a rigorous process
- Very diverse range of experience and ability falling into 2 main groups
  - More experienced and higher performing compound archers
  - Mix of very young and inexperienced recurves with older recurves generally not at same level as compounds

# Coaching profiles

- Archers from different Gloucestershire clubs with input from different coaching systems and people
- Deer Park has a very structured coaching system in place unlike some other clubs but are supporting their development
- Difference also in access to facilities, coaching, competition

# Planned programme content

- Core elements of technique, mental approach, fitness, understanding the anatomy and bio-mechanics of the shot (at differentiated levels)
- Individual support
- Coach support and CPD
- Knowledge and theory e.g. equipment set up, tuning
- Fun! Developing social skills and team rapport
- Planned training and competition

# 3 sessions in....

- Early impact not expected but..
  - Significant benefits reported to County junior Team
    - Morale raised
    - Parental engagement and support increased – e.g. Cleve Archers Junior Facebook page started by one of the parents following the example of the project facebook page I set up
    - New ideas going back into other clubs having impact on their practice

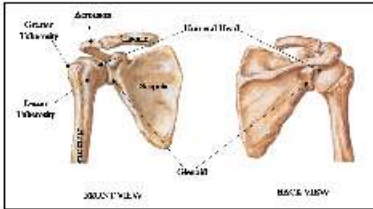


## Shoulder Anatomy

The shoulder is one of the most complicated joints of the human body:

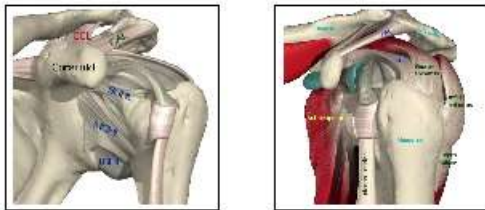
- It has the greatest range of movement of any joint in the body allowing you to position the hand anywhere in space.
- The coordinated activity of a number of different muscles working together in set patterns is needed to produce this range of movement
- It is made up of FOUR joints and FIVE linked bone groups which are related and work together.
- To allow so much movement the joints need to be 'free' to move, therefore the shoulder should be unstable; However a series of complex **ligaments** and **muscle** keep it in joint - if not your joints could dislocate - which is very painful!

The diagram shows the bones of the shoulder and upper arm - you can see how complicated it is. The shoulder blades and how they move are critical to developing good archery technique.



### Bones and Joints

The bones of the shoulder are the **humerus** (the upper arm bone), the **scapula** (the shoulder blade), and the **clavicle** (the collar bone). The roof of the shoulder is formed by a part of the scapula called the **acromion**. You can feel this point on top of your shoulder - it feels knobby, and has tendons running through the space under it that help to raise the arm, move the shoulder blade and draw the bow.



These two illustrations show the way the bones fit together - like a 3D jigsaw puzzle, and the way that the tendons and ligaments work to stabilise the whole joint. (the red sections are tendons and muscle)

### Shot sequence recording

During each shot there are a number of "checkpoints" that you develop to make sure you are setting the shot up the same every time. When you make any change in technique, this is disrupted and you have to make these checks consciously. When your technique is established, you will not be consciously checking, but will know when one element is not right - start the shot again.

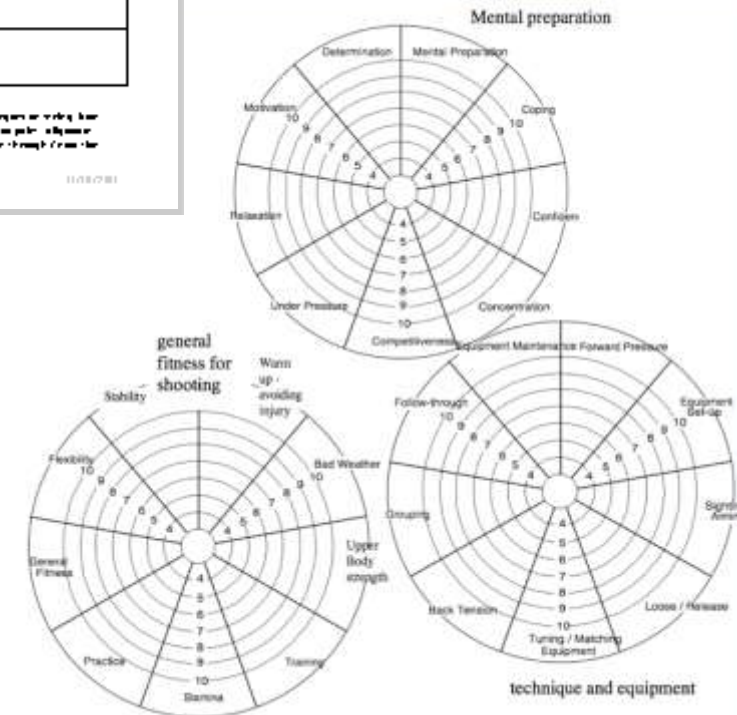
To help this process, whenever you make a change, record what you should be doing and the new checkpoint. Try using the table below to help you start on this. To start you off, a few suggestions of elements of the shot where you can check are included - but feel free to change or add as suits your technique. The first row is an example.

Element of the shot	Actions	Checkpoint
Draw	Take up posture - balance - posture - stance / bow holding	Balance of weight on feet
Stance / balance		
Bow hand, arm, shoulder		
Hooking the string / release aid set		
Preparation - physical (e.g. pre draw) mental - focus, concentration		
Addressing the target - bow lift and settle		
Draw and anchor		
Alignment		
Back pressure/expansion		
Release / triggering		
Clicker use ( <b>clicker</b> )		
Follow through		

Draw - take up posture - balance - posture - stance / bow holding - posture - bow hand / arm / shoulder - hooking the string / release aid set - preparation - physical (e.g. pre draw) mental - focus, concentration - addressing the target - bow lift and settle - draw and anchor - alignment - back pressure/expansion - release / triggering - clicker use (**clicker**) - follow through

Self-analysis, performance profiling, goal setting sheets provided differentiated for age and stage of development

Technical input to develop knowledge and understanding of what happens in the body and the muscles and joints used during the shot  
 Practical exercises with clinibands were used to reinforce learning and enable archers to adjust body position and improve alignment



# Developing form resources



Straight stance  
Spine straight, relaxed



Wide open stance  
Body turned at knees



Semi-open stance  
Body turned from hips

**Set the fingers** – hook the string – consistent position and pressure / set the release aid onto the string or d-loop – straight, consistent  
Set body position in **preparing for the draw** – balance, relaxation, neutral spine, shoulders relaxed and low, ribcage low, diaphragm relaxed



as draw hand (not high)



**Set position** – head turned to target, vision is focussed on the gold; lift the bow/arm unit as one keeping shoulders relaxed and ribcage low; keep back of drawing hand straight, draw elbow same level

**Draw the bow to anchor point; recurve** – extend into the draw at the front as you draw the string back – use the movement of your shoulder blade to pull the string into your face and firmly reference your index finger along and under the jawline;



**Alignment** – make sure you have brought your draw hand fully into your anchor point and keep the pressure of the rear shoulder blade towards the centre of the back all the time; the draw elbow should be as close to in line with the bow hand as you can – this line from the rear elbow to the pressure point is called the **draw-force line**.



Develop the power – **expansion** stage; focus on aiming while increasing the tension in your back muscles – keep the back shoulder blade pressing towards the middle of your spine; maintain the front arm position and pressure without letting your arm lock out. Feel the pressure of your hand in the bow as if pushing it into the gold.





## **Juniors from different clubs now mixing freely**

Initially didn't mix much but now mix easily – games and team shoots have helped to achieve this, breaking down barriers between archers from different clubs and archery cultures



## **Compound shooters in practice session**

Input has focussed on refining basics that have been well taught – firming up bow hand/arm unit, ensuring draw length and reference are working correctly, increasing dynamics of back tension and controlling release and follow through.



## **Recurve archers in practice session**

Initial focus on understanding how the body works in developing the shot; stance/balance/body position, alignment, bow hand/arm unit and now working on release

# Impacts on performance

- It's early days yet, and many successes are on the back of solid coaching at clubs and practice regimes which have been enhanced rather than developed from scratch
- 2 more archers involved separately – Lisa now added into the programme and one of the most rapidly improved; Callum Fraser coached separately and one of most improved technically

# Impacts on performance

- James Howse age 12 – first junior to score over 1400
- Lucy Mason age 11 – perfect score on Bristol round
- Rebecca Hutchings age 15 – selected for Gloucester County Senior Team
- All archers set goals for the summer season – only 2 didn't achieve them all.

# Impact of Talent Identification at early stages

- Deer Park Archers have had notable achievements due to their participation and development programmes based around solid start and coaching as the norm for new archers
  - 6 outdoor Junior titles / medals after session 1
  - 16 National records
  - Top County Compound Team at Nationals – all Deer Park
  - 7 JMBs this season

# Additional benefits

- One participating club has realised its own shortcomings in supporting junior archers and is taking action to address this
  - Just received £7500 from Sport England for funding to raise number and level of coaches in the club and develop a junior programme with schools
- Parents and some of older juniors taking the L1 coach course with Kath this winter

# Next phase in the training

- All archers being seen 1-1 with their coach
  - Technical assessment with the coach / parent
  - Coach development and education
  - Engaging personal coaches in programme support
  - Developing structured practice and training regimes for the winter period

# Next phase in the training

- Group programmes for future sessions
  - Smaller groups by ability level
  - Individual archer development programmes developed with personal coaches

# Next phase in the programme

- Upskilling coaches to support talent identification and confirmation
  - Working with personal coaches
  - Mentoring support for County Coach candidates
    - Steph and Dan Gill to run future performance programmes using this model
  - Expanding coaching numbers in other participating clubs through L1 initially – 3 courses booked including one funded course for 15-18 year olds