

Approximate plans of Moshcheveya Balka Bow
in St. Petersburg Hetmitage (Kz6730)

Drawn by Andrew Hall

(The grip to limb asymmetry in the original has been omitted for simplicity)

Thicknesses not to scale

Core, horn and bone plates shown, sinew backing and bindings omitted.

Alternate "Magyar"-style
siyah plate

Original has bone or antler plates at sides
and belly of siyah. Magyar style bows were
normally only fitted with side plates.
Note the cross-sections with triangular
shape of core.

Original bow has no visible splices at siyah, probably
steam bent with strengthening peice glued to back.
Construction can be simpler with spliced in siyahs.

Limb thickness only partially known for originals - 6 to 8mm without
horn.
A starting point for a sensible weight approximation could be core and
horn each tapering from 3.5 to 3mm down the length of the bending
limb.

Core construction in grip:
Steam bend continuous core strip and
glue "riser" peice onto back.

Limbs can be made longer and wider for lower stresses.
Reflexes can also be reduced, but ratio of grip-limb and
limb-siyah should remain roughly the same to avoid
problems with strung geometry.

Optional 2" splice to siyah (difficult to get
a longer splice due to limb-siyah angle).

Width in grip 1"
including bone plates

Exact profile of original not known (probably more elegant taper
than this though).Shape here has full width for most of length
to maximise limb area.
Max width 1.5", but can be increased to 1.75 or even 2" to
reduce stress and increase stability.

Stop thickness
taper here.

Limb width at base of siyah ~1".
Siyah tapers in width so that
bone plates touch at tip

