

Join edge to same flap on opposite skull profile piece

*Struthiomimus* was a long legged theropod dinosaurs, in a group of bird-like dinosaurs called ornithomimids. Ornithomimid means "bird mimic" because *Struthiomimus* and its closest relatives looked a lot like modern ratite birds, such as ostriches and emus, but the ornithomimids evolved this body plan separately, possibly as much as 80 million years before ratite birds did!

*Struthiomimus* grew up to around 4m long and 2m tall. The skull this puppet is based on would have been attached to the top a long flexible neck. It had no teeth, but instead would have had a beak just like modern birds. Its thought that it lived a similar lifestyle to ostriches and emus as well, running around on its long legs to avoid predators, while gulping down any small thing it can with its simple beak.

When these dinosaurs went extinct, ratite birds evolved a similar body plan, and likely fill a similar role in our modern ecology.



*Struthiomimus* skull puppet pattern by Brian Engh  
**DONTMESSWITHDINOSAURS.COM**

Based on a skull cast by Triebold Paleontology Inc.  
TrieboldPaleontology.com

Skull profile Left

Fold toward midline

Tape protruding eye brow attachment from top of skull piece to here

Orbit AKA eye socket

Antorbital fenestra - a windown into the sinuses which lightens the skull by reducing bone

Dorsotemporal fenestra (jaw muscle attachment)

Temporal Fenestra (near jaw muscles)

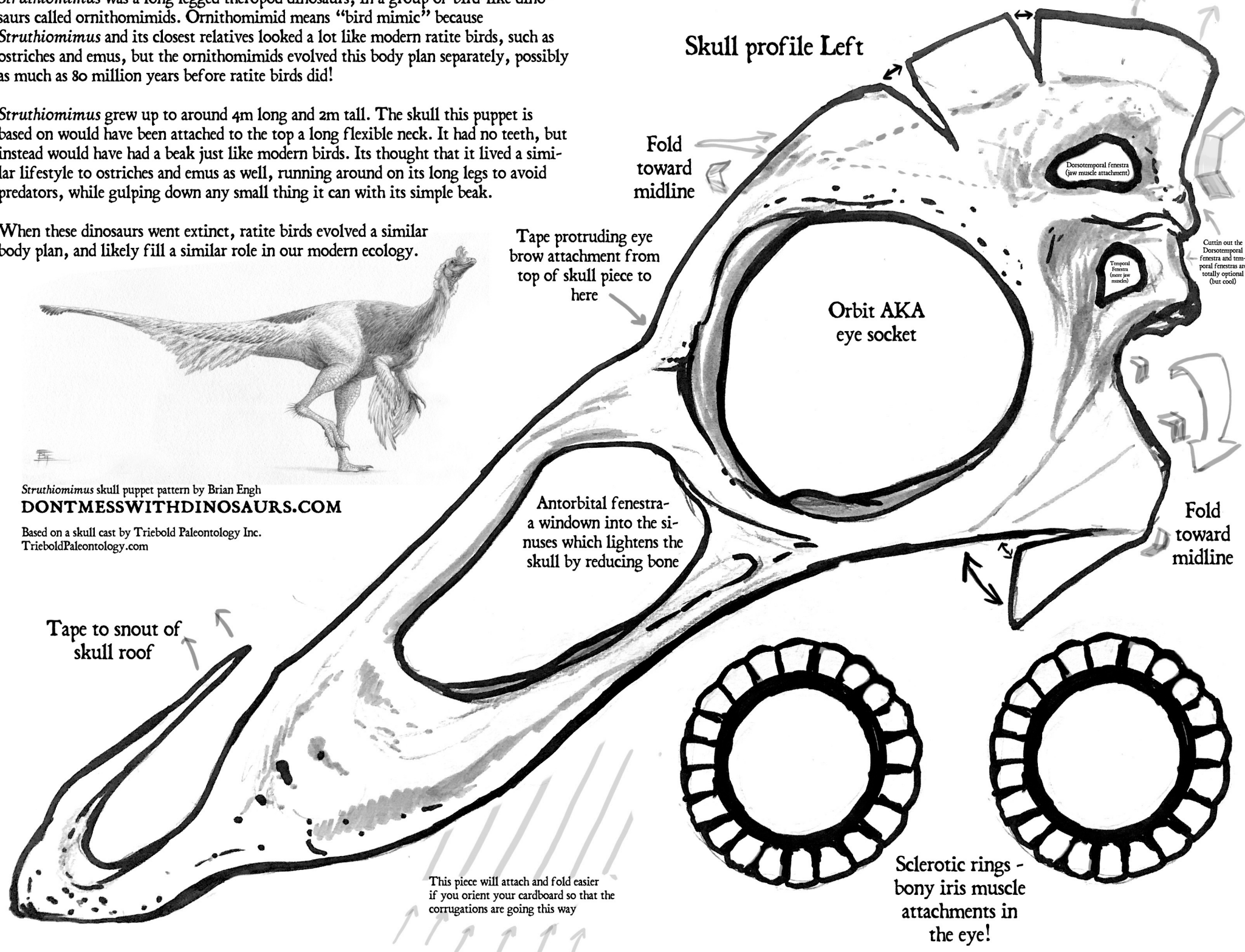
Cut in the Dorsotemporal fenestra and temporal fenestra are totally optional (but cool)

Fold toward midline

Tape to snout of skull roof

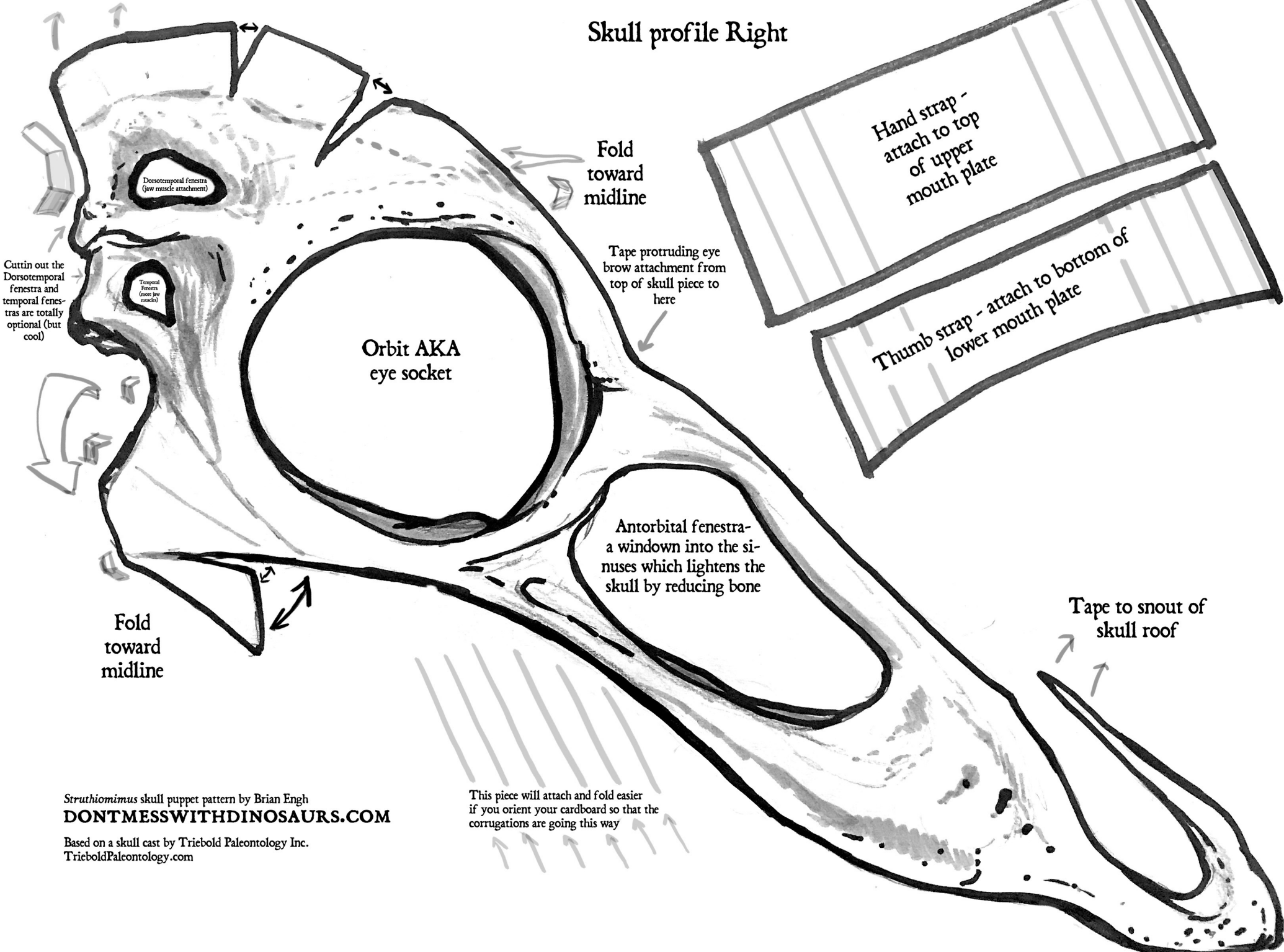
This piece will attach and fold easier if you orient your cardboard so that the corrugations are going this way

Sclerotic rings - bony iris muscle attachments in the eye!



Join edge to same flap on opposite skull profile piece

### Skull profile Right



Fold toward midline

Tape protruding eye brow attachment from top of skull piece to here

Hand strap - attach to top of upper mouth plate

Thumb strap - attach to bottom of lower mouth plate

Orbit AKA eye socket

Antorbital fenestra - a window into the sinuses which lightens the skull by reducing bone

Tape to snout of skull roof

Fold toward midline

Cuttin out the Dorsotemporal fenestra and temporal fenestras are totally optional (but cool)

This piece will attach and fold easier if you orient your cardboard so that the corrugations are going this way

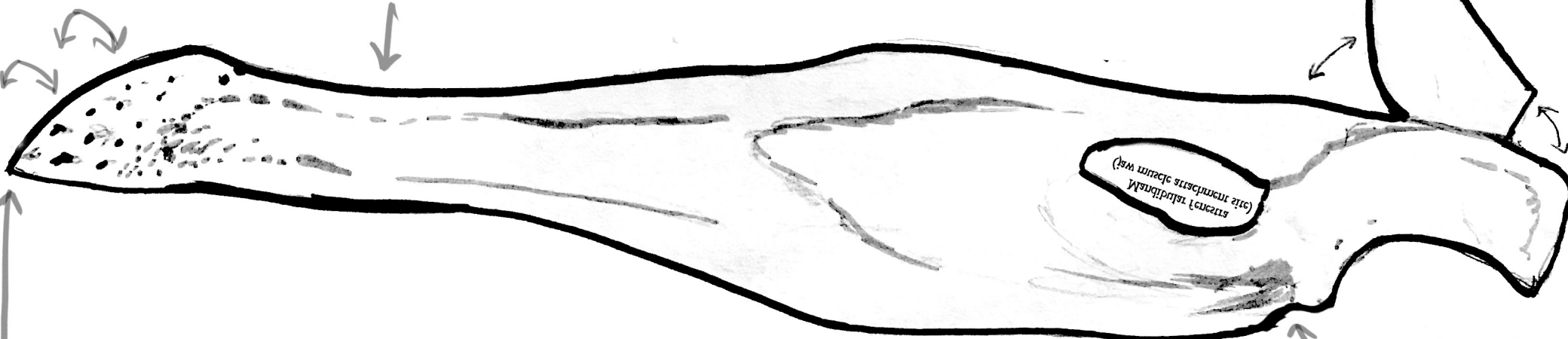
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Lower Jaw Left

This is the front lower edge. Tape this edge to that it joined with the same edge on the opposite side of the jaw (below)

Lower edge (it's just fliepped to fit on the page)



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Very important!  
This is the jaw joint that connects to the skull!

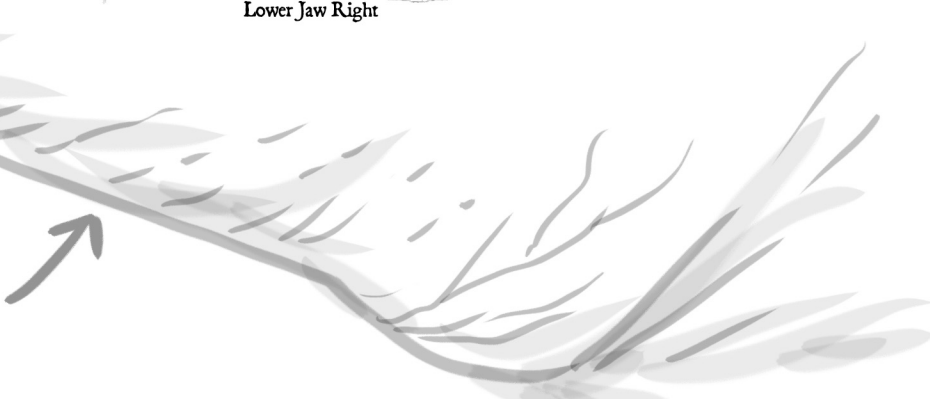
This is the upper edge



Lower Jaw Right

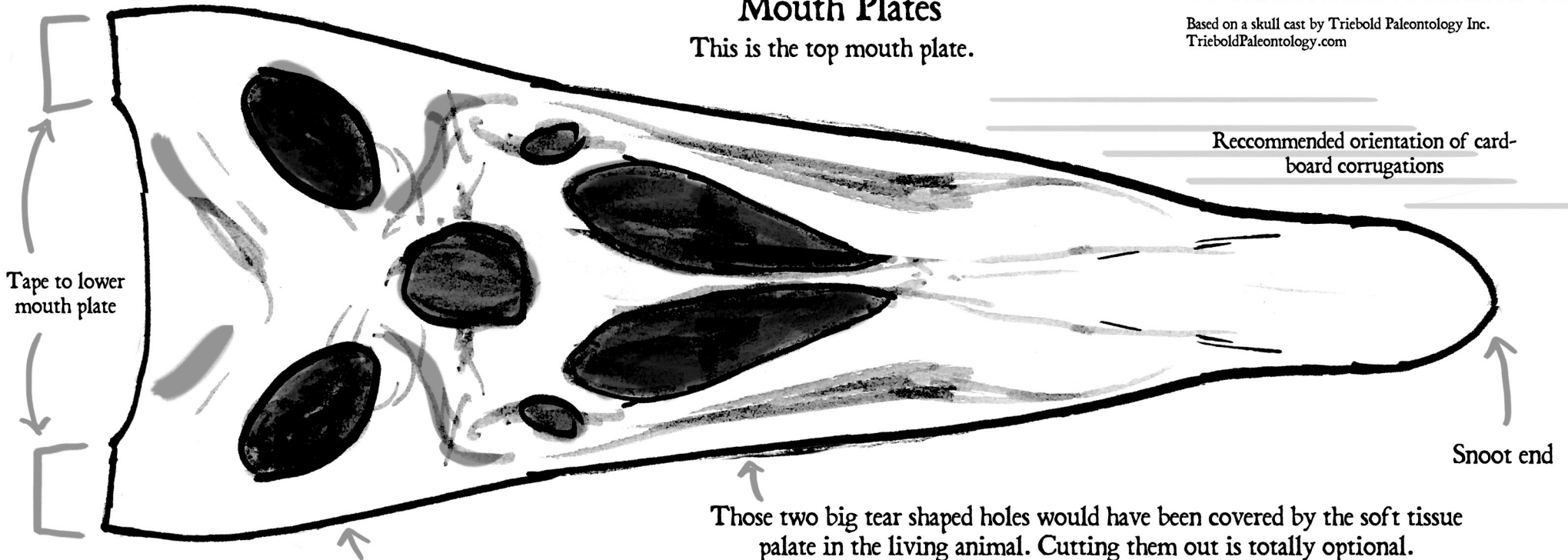
Those little holes are where blood vessels ran through the bone to nourish the Struthiomimus' beak!

Fossils preserving skin impressions suggest ornithomimosaur dinosaurs like struthiomimus had a throat sac here. This is consistent with what we can observe in the anatomy of modern birds too!



# Mouth Plates

This is the top mouth plate.



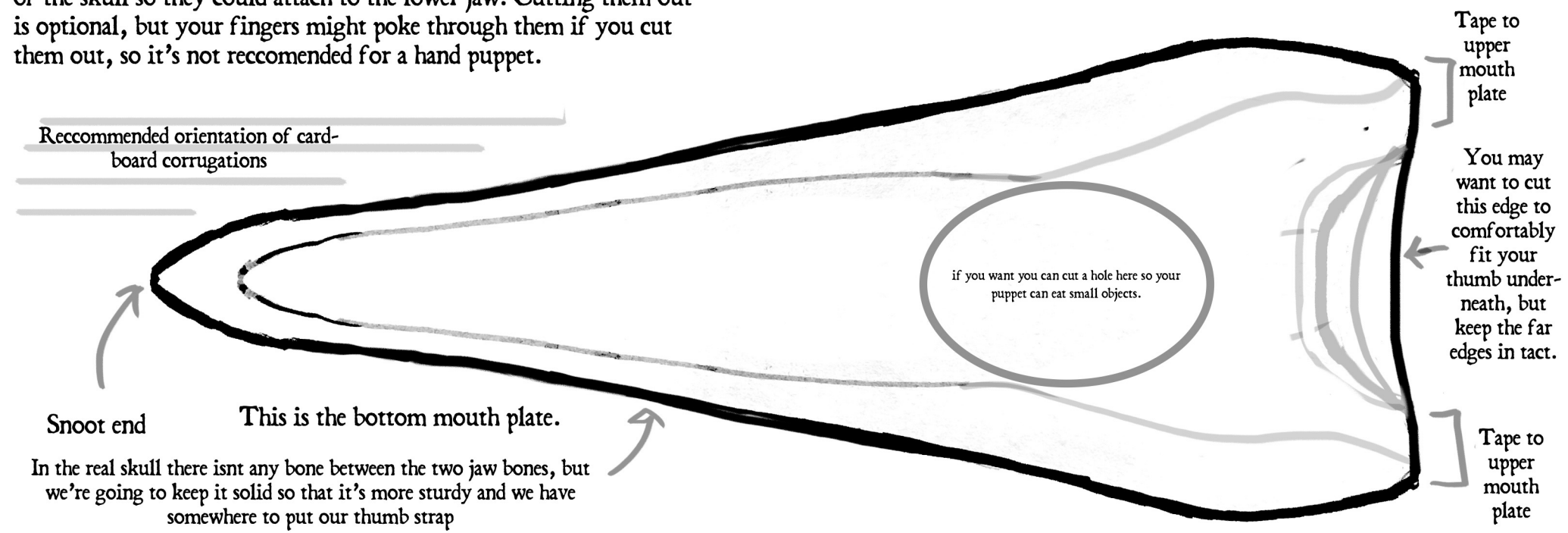
Tape to lower mouth plate

Reccomended orientation of card-board corrugations

Snoot end

Those two big tear shaped holes would have been covered by the soft tissue palate in the living animal. Cutting them out is totally optional.

Those two big holes are where jaw muscles came down from the top of the skull so they could attach to the lower jaw. Cutting them out is optional, but your fingers might poke through them if you cut them out, so it's not reccomended for a hand puppet.



Reccomended orientation of card-board corrugations

Tape to upper mouth plate

Snoot end

This is the bottom mouth plate.

You may want to cut this edge to comfortably fit your thumb underneath, but keep the far edges in tact.

if you want you can cut a hole here so your puppet can eat small objects.

Tape to upper mouth plate

In the real skull there isnt any bone between the two jaw bones, but we're going to keep it solid so that it's more sturdy and we have somewhere to put our thumb strap

# Top of skull Pattern

Top of naris  
(bony nose hole)

Protruding eyebrow - tape in  
front of orbit  
(see profile pattern for where  
to attach)

This tab is going to fold  
down and attach at the back  
of the orbit

Recommended orientation of card-  
board corrugations

Top of antorbital  
fenestra

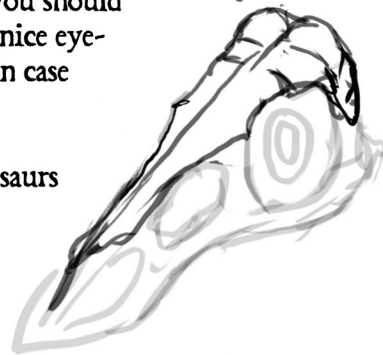
Brain Case

Big ol brain!

Protruding eyebrow - tape in  
front of orbit  
(see profile pattern for where  
to attach)

Brain Case

This is the trickiest part of  
the puppet, but if you take  
your time with it, you should  
be able to get really nice eye-  
brows and a big brain case  
popping up off the  
top of your skull.  
Ornithomimid dinosaurs  
like *Struthiomimus*  
had some of the



This is the top of  
the orbit

The sides of  
the skull will  
fold down and  
forward

This tab is going to fold  
down and attach at the back  
of the orbit

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