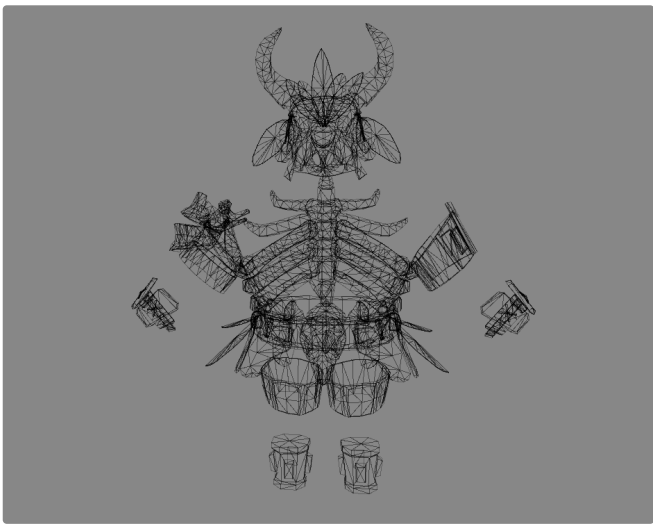
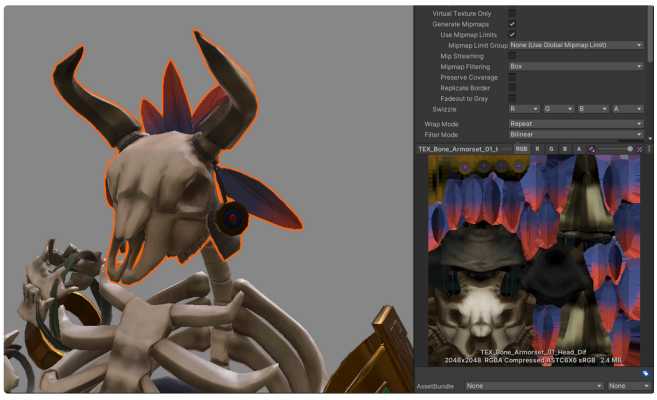
Creating Armor - Art Guidelines

The armor set consist of a number of parts using mesh renderer (I.e not skinned mesh renderer) this means that the armor is not skinned and can not be bent or stretched, it's always stiff. This need to be taken into account when built, so that the character wearing it still can bend the body without intersecting with the armor to much.

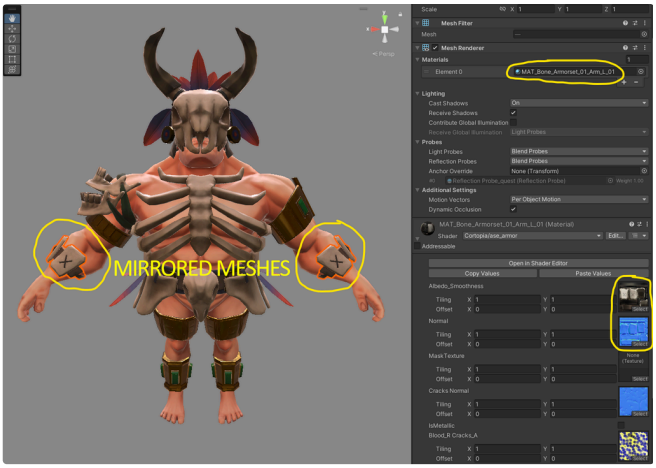
- A full armor set is at around 10 000 triangles



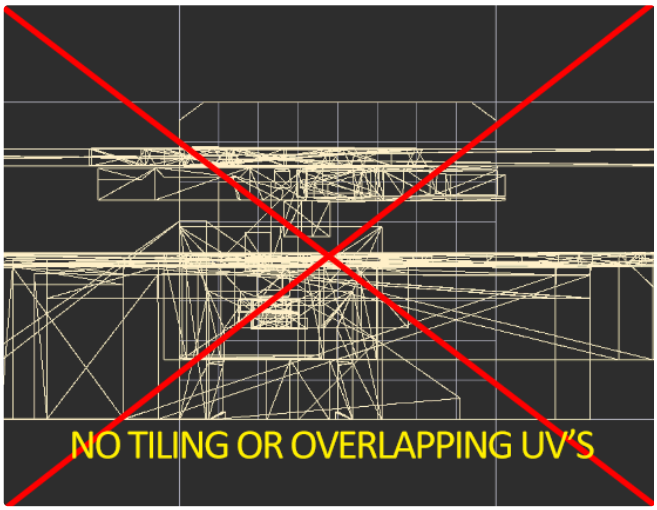
- Each armor piece should be its own mesh
- Each armor piece should have its own albedo and normal map texture (if normal maps are used), where albedo also holds the smoothness texture in the alpha channel



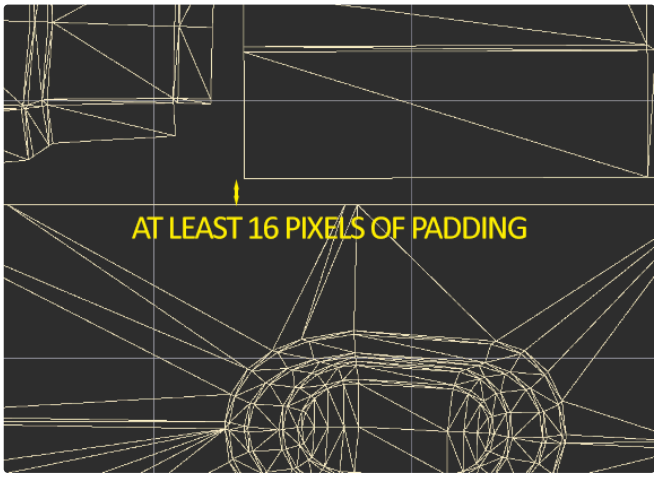
- Mirrored meshes can use the same texture sheet and material, the blood splatter will still work since at runtime every part will create its own instanced material
- Each armor piece have only one material assigned



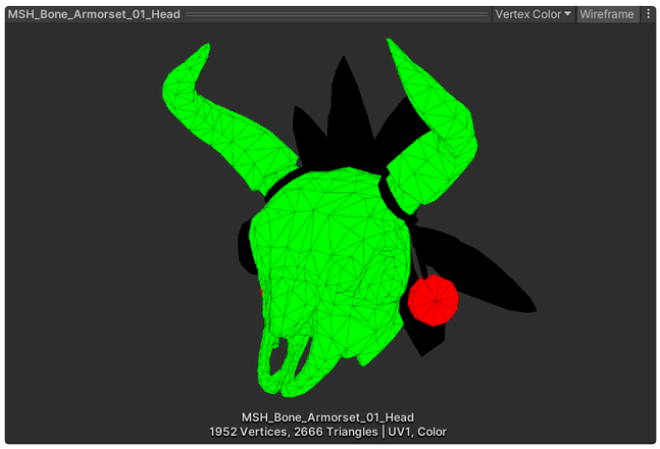
- Blood splatter and cracks are painted to uv0, this means no overlapping or tiling uv's will work within the mesh (however if albedo and normal map are setup in uv2 you could have tiling or overlapping uv's but this requires a custom shader)
- All uv's within the same mesh must have its own 0-1 uv layout. (mirrored meshes are 2 separate meshes so those can share the same uv space)



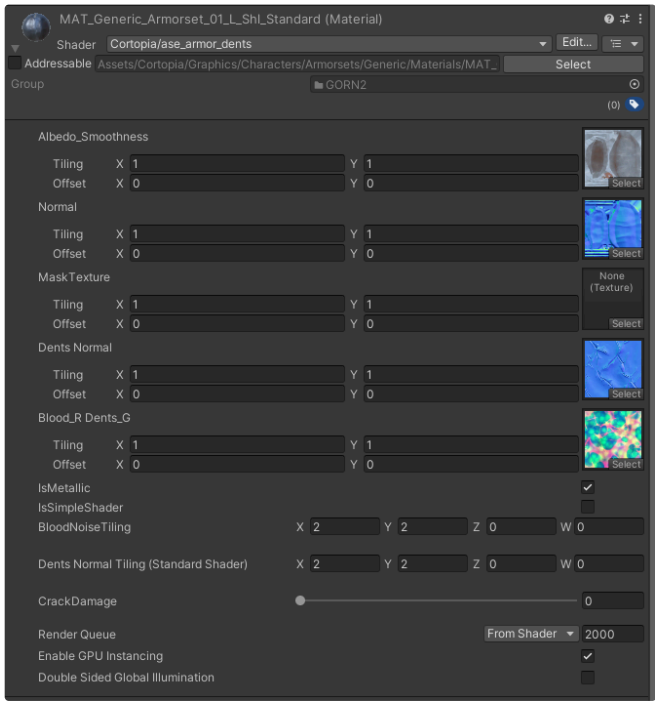
- There need to be at least 16 pixels of padding between uv shells on a 2k texture since the paint mask is so small (<=64 pxls) and it uses uv0 to paint to (8 pixels of padding on a 1k texture)



- Metallic parts should be fully painted with red vertex color. Green vertex color is used for where cracks should appear in case the armor_cracks shader is used (used on bone for example), everything else should be painted fully black.
- Enable “IsMetallic” on the material for metallic surfaces to kick in



- If the armor_dents shader is used, there is a texture slot for a break-up mask (Blood_R Dents_G) to give the blood edge some detail, Red channel in that texture is used to break up the blood, Green channel is not used. Alpha channel is used to add cracks in the albedo
- The Mask texture is created at game play startup per armor piece, it holds wet and dry blood + bruises and cuts (only used on characters skin
- There is also a normal map texture slot for dents, Dents Normal



- For blood splatter on the armor to work the game object holding the mesh renderer for the armor piece should also hold the Paint Surface script, set the Texture Size to something small like 64 or 32 pixels depending of the size of the armor piece

- Add the game object holding the Rigidbody component to the Paintable colliders Element, that game object also need to be parent to the colliders of the armor piece, also add the Paintable script to that game object
- The blood splatter paint particle will hit the collider and paint to the visual mesh. This means that the render mesh and the colliders must match pretty close, the smaller the paint radius the closer it need to match