



<https://www.youtube.com/watch?v=wdZOSD1eT6k>

3D Scanning and Characterization Process



To start things off I wanted to just talk a little bit about our process and lessons we learned in trying to create a cast of compelling, lifelike characters.

I don't think there will be anything here that will be incredibly novel from a technical perspective, but the end result is a process we felt works very well for us.

I think it will also really paint a picture of how much we had to learn and grow as a team, in a very short amount time, considering we were coming from older generation portable development directly to PS4.

Early Mistakes



Initial Concept

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READY AT DAWN.



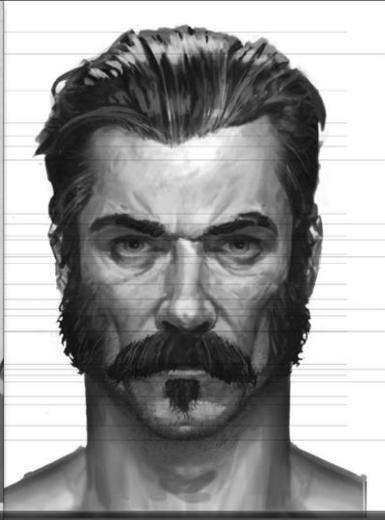
So first I'm going to walk you guys through our initial attempt at developing our main protagonist. This might be more amusing than informative, but probably anyone else coming from older school techniques of game art can commiserate with us.

What you see here is one of the first concept sketches of Galahad. I still really love this older sketch by Joe, our concept lead on The Order, and it's cool to see that so much of this initial feeling ended up in the final Galahad.

Early Mistakes



Initial Concept



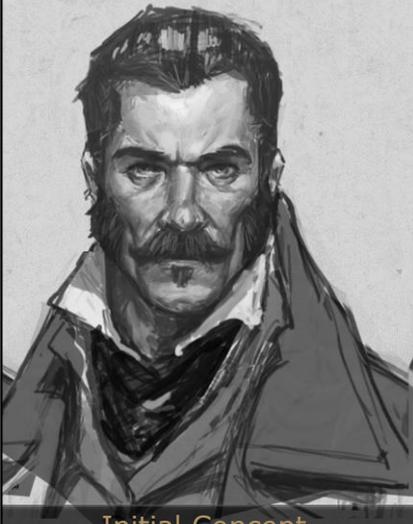
Ortho

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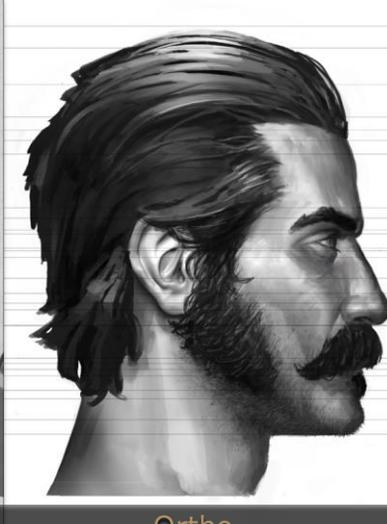
READY AT DAWN. 

So following our established concept process from our PSP games, we moved on to producing orthos for modeling. Initially the front view still seems to be holding up to the spirit of the concept, although certain elements are already starting to drift a little bit

Early Mistakes



Initial Concept



Ortho

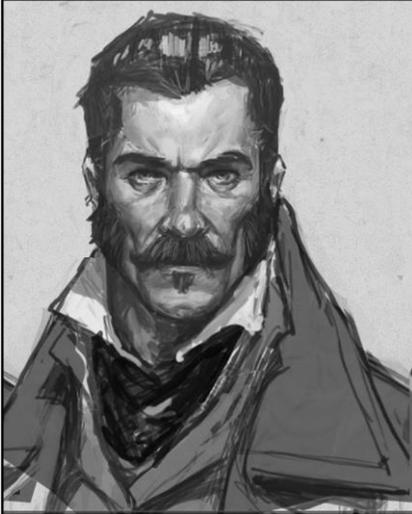
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READY AT DAWN. 

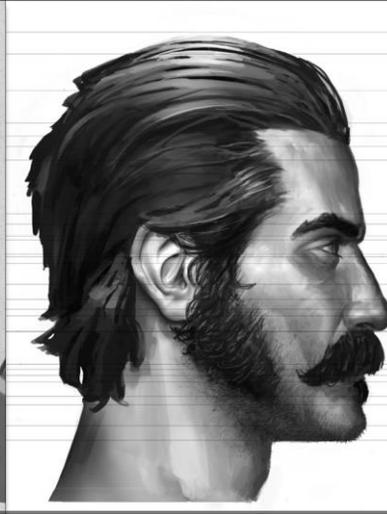
And now looking at the side view we start to see an even bigger disconnect from the initial sketch. There are also a number of small facial anatomy and proportion issues that are start to drift even further.

Still, we felt we really liked the tone of the character, and chose to move on to modeling, hoping to try to resolve the issues along the way.

Early Mistakes



Initial Concept



Ortho



3D Model

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And not so much...

So without engine materials and lighting, and a with a flat, Chubby Face camera FOV, this image is more unflattering than it actually was, but it still shows we had a lot of work ahead of us.

Considering the artists involved are incredibly talented, we also knew this wasn't an issue of skill, but more that of our process.

So while we used this version of Galahad for the first year of the project, we realized we needed to go back to the drawing board on our concept and character art pipeline.

Concept Characterization Process



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So here are the end results of our second, and (mostly) final attempt with Galahad.

With this attempt we wanted to decouple two really challenging things:
Precise anatomical realism, and strong conceptual design.

Trying to achieve both of these with hand drawn orthos is incredibly difficult, and not realistically scalable.

We felt that 3D scanning, but with a strong concept and 3D characterization process would be the best fit of both worlds

Concept Characterization Process



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So earlier in development, we didn't even have our main cast of actors, so for the revised model of Galahad we weren't looking to scan a digital double.

Instead we wanted to blend the process of casting with concept art, by simply searching for models that we felt had the basic underlying facial structure we were looking for, but not necessarily match the overall tone and tertiary details.

Our concept lead would then do very quick comps over candid photos to confirm the casting test. On later characters, we would skip directly to this process, going from casting sheet, to concept test, without even an initial sketch of the head.

Concept Characterization Process



With the scan back, we wanted to make sure we didn't run into the same trouble as before, in translating from 2D to 3D. So instead of making alterations in photoshop, we cross trained out concept artists in zbrush.

Our rule was that they could go to town in 2D when it came to tertiary details, hair, and skin tone, but any primary or secondary form alterations had to be done directly on the 3D model

Concept Characterization Process



This next image shows the initial zbrush characterization. All of these revisions are done loosely in Zbrush by the concept artist himself, as the first step in our portrait concept process.

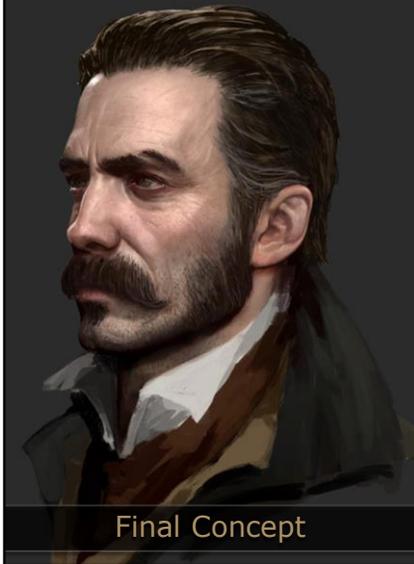
Concept Characterization Process



With the alterations approved, the finished portrait illustration is done directly over the ZBrush model. This allowed the concept artist to focus all of his efforts on the tone and personality of the character design, without having to reinvent the wheel in terms of the underlying anatomy.

Given that the painting was on top of the concept altered 3d model, we knew any proportional interpretation issues in the modeling phase would be minimal

Concept Characterization Process



Final Concept



Polished Sculpt



Base Texture Pass

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From here we could move on through the rest of the process with a lot more confidence. Between the concept illustration, and all of the hand crafted tertiary details to Galahad's final face model, he looks great, and almost nothing like the initial scan.

This process allowed us to merge the best of both worlds, between scanning and concept art, with each playing to their own strengths.

Before I pass things over the Scot to talk in detail about our hair creation process, I'll just flip through a few more characters demonstrating the process

Concept Characterization Process



You can see with later characters we refined the process even more, and ended up not only with great in-game characters, but really beautiful portrait illustrations of each. Pictured here is Isabeau

Concept Characterization Process



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READY AT DAWN. 

And here is Lakshmi

Concept Characterization Process



And Augustus.