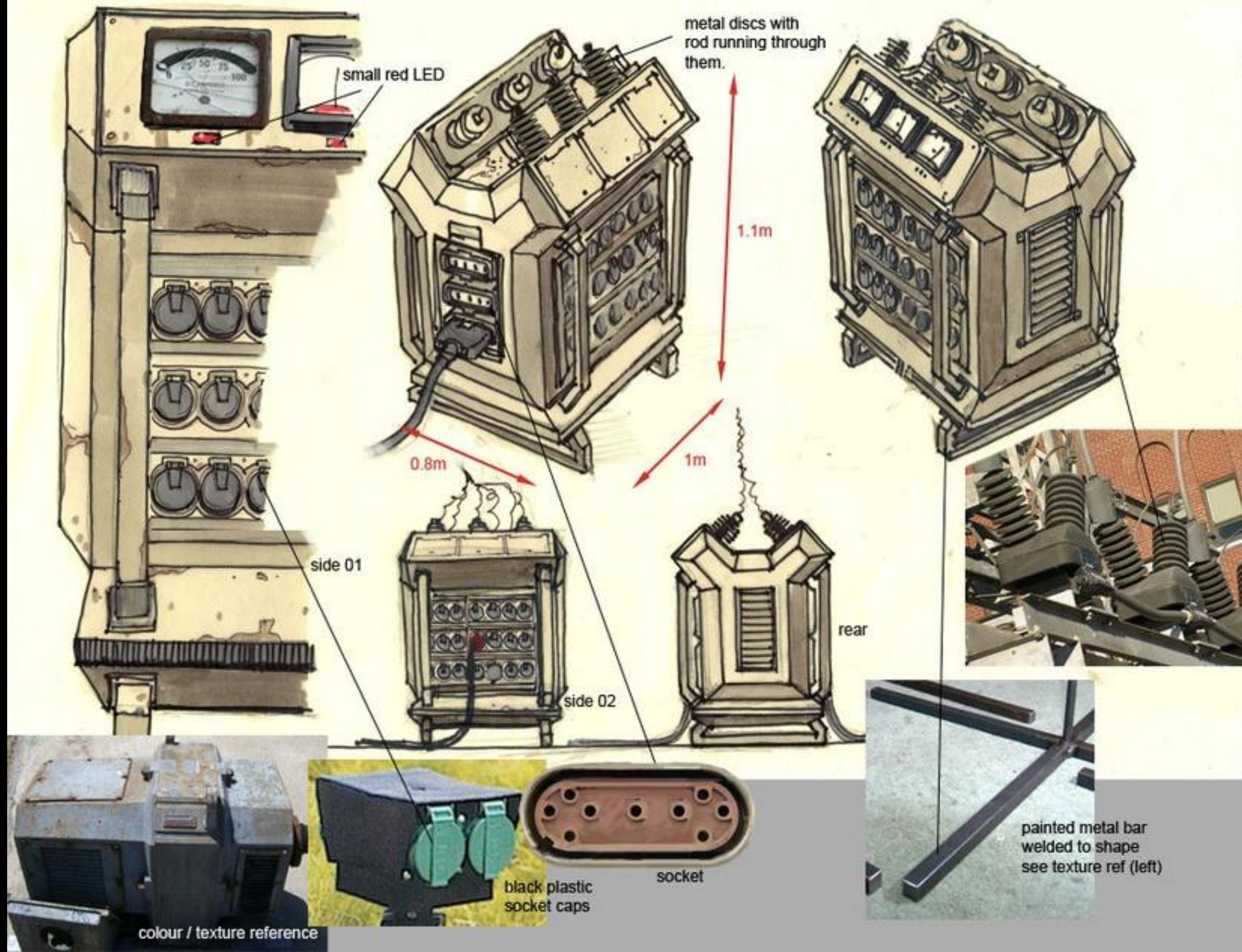


Guerrilla Games' Approach To Asset Art

GDC 2016
Maarten van der Gaag
Guerrilla Games

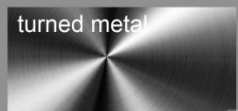




Drill_HighTech_b001

TYPE: BB
DATE:
OWNER: Ewoud
ENV:

ART BUDGETS
Triangles:
Textures:
UV:
Shaders:



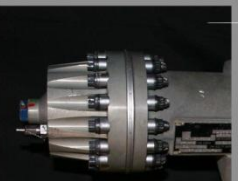
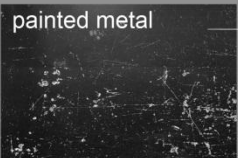
milled metal anodized



scratched metal warm



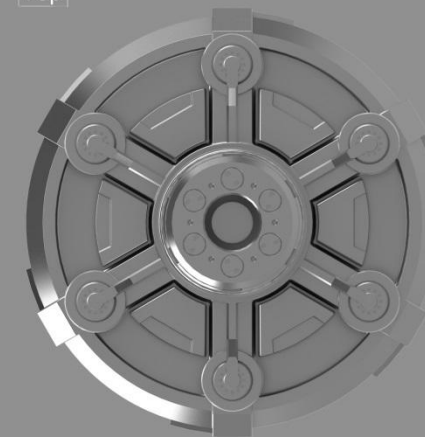
brushed stainless steel



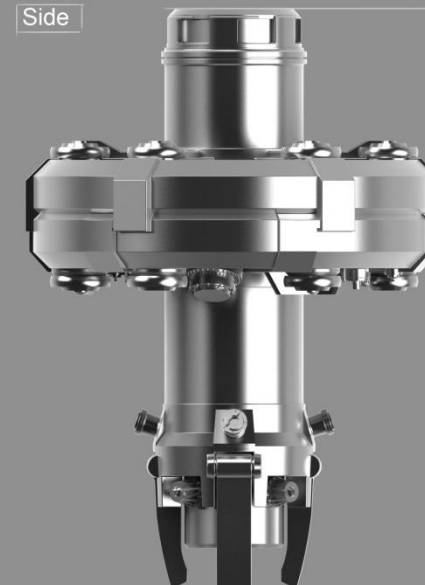
dirty/rusty metal



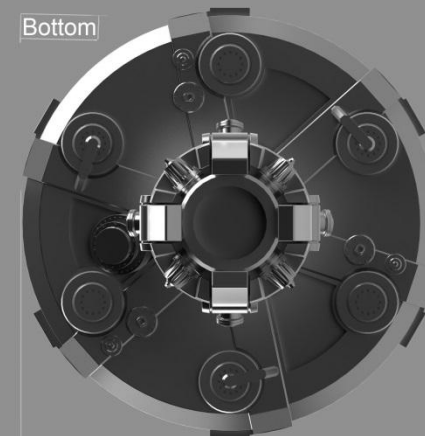
Top



Side



Bottom



2160 mm



The Scope of Killzone Shadowfall

- 14000 individual assets
- Almost all outsourced
- 25000 days of outsourcing
- Over 100 artists at several vendors

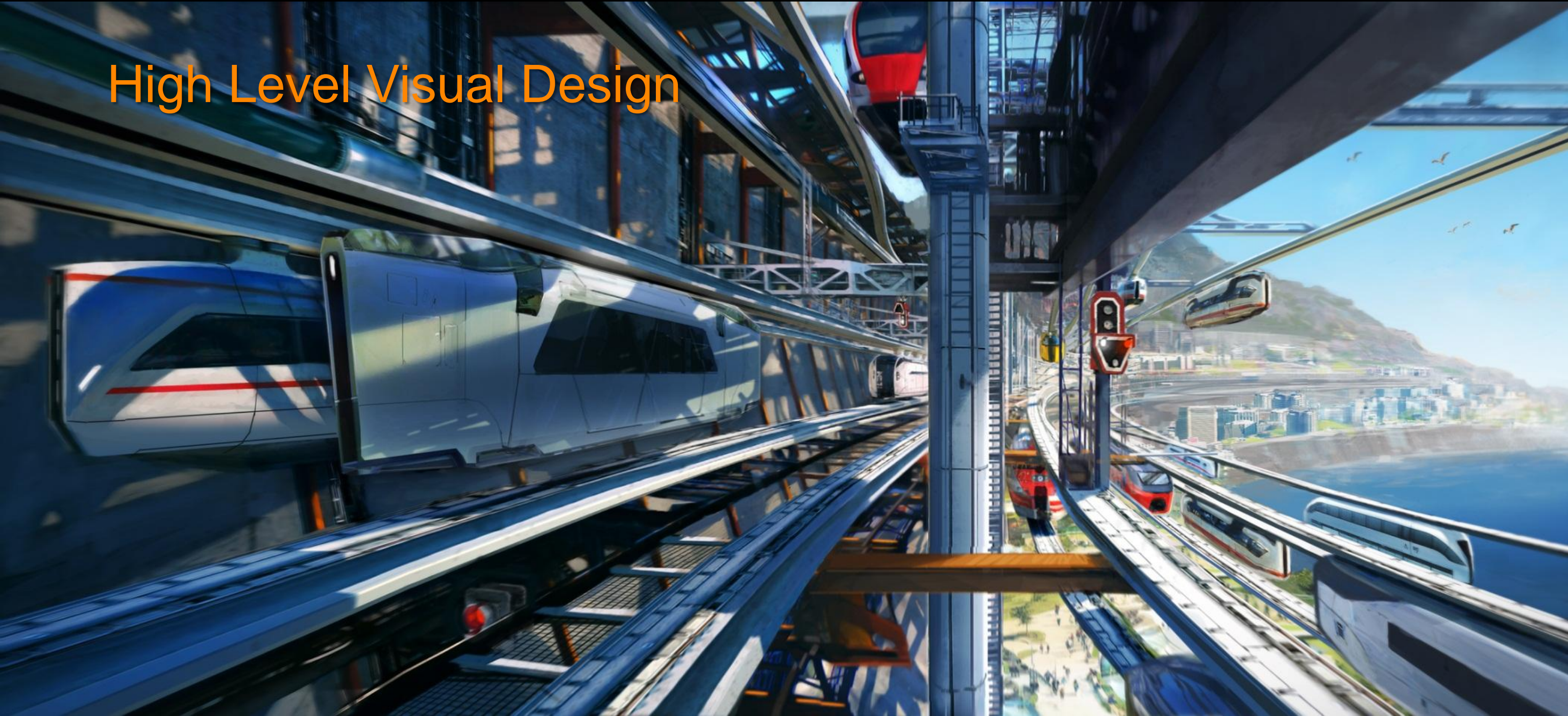
Why do it?

- Our core business is making games, not assets
- Asset art production is seasonal
- Playing to our strengths

How we do it?



High Level Visual Design





Building Block Briefs

Set_Dressing_Vekta_ISA_Train_Cockpit_b001

TYPE: Building Block
DATE: Maarten, Koen, Ewoud
ENV:

ART BUDGETS

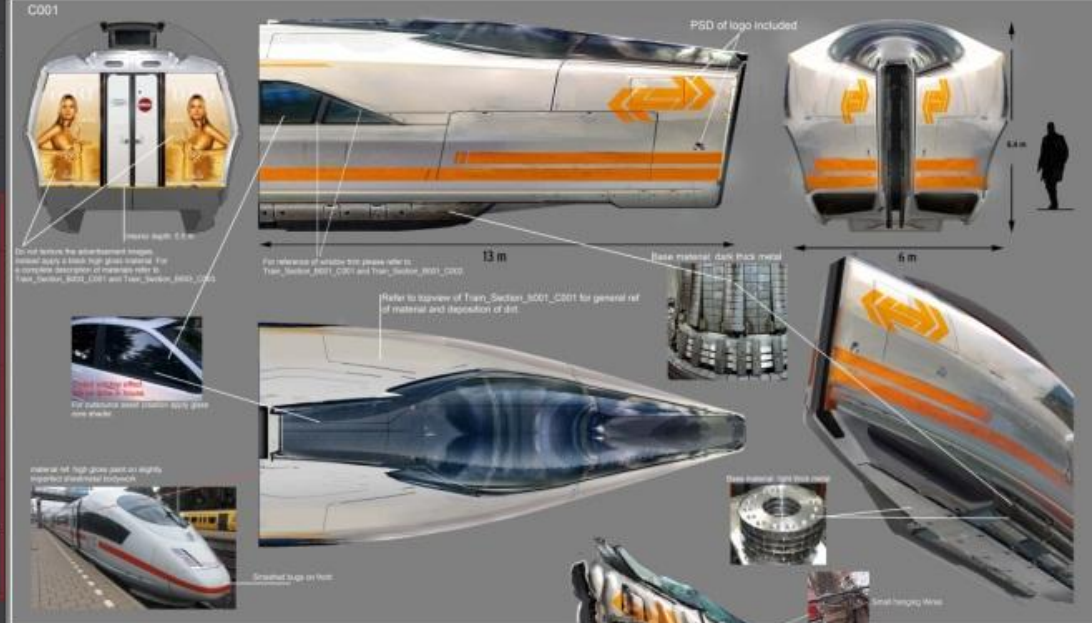
Triangles:
Textures:
UV:
Shaders:

Considerations and use of materials:
- Use of materials: all materials are in the set dressing budget for the train.
- Use of materials: all materials are in the set dressing budget for the train.
- Use of materials: all materials are in the set dressing budget for the train.
- Use of materials: all materials are in the set dressing budget for the train.

Example of a possible configuration:



Sony Computer
Entertainment Europe



Set_Dressing_Vekta_ISA_Train_Cockpit_b001

TYPE: Building Block
DATE:
OWNER: Maarten, Koen, Ewoud
ENV:

ART BUDGETS

Triangles:
Textures:
UV:
Shaders:

Components are part of several briefs working together, make sure all components in the following basefiles fit seamlessly:
Train_Section_b001
Train_Section_b002
Train_Cockpit_b001
Train_Suspension_b001

Example of a possible configuration:



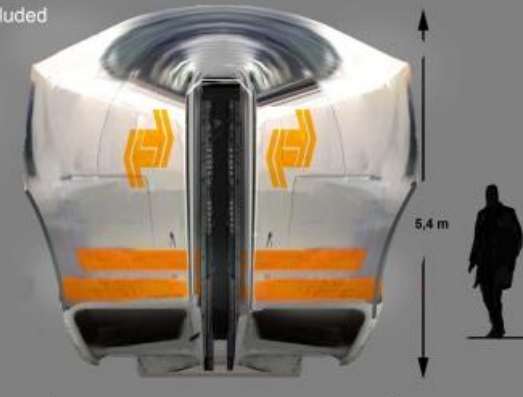
C001



Do not texture the advertisement images, instead apply a black high gloss material. For a complete description of materials refer to Train_Section_B003_C001 and Train_Section_B003_C003.



For reference of window trim please refer to Train_Section_B001_C001 and Train_Section_B001_C002.

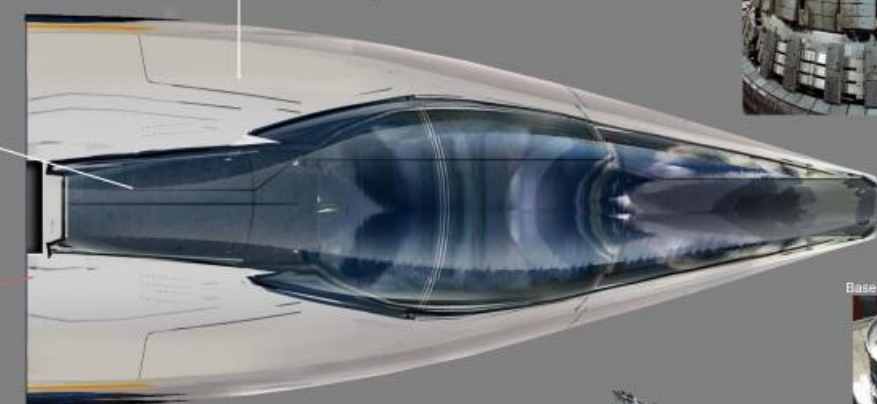


Base material: dark thick metal

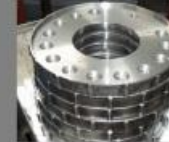
Refer to topview of Train_Section_b001_C001 for general ref of material and deposition of dirt.



material ref: high gloss paint on slightly imperfect sheetmetal bodywork.



Base material: light thick metal



Small hanging Wires

C002

Base C002 on C001, also include interior in the same way as in C001.

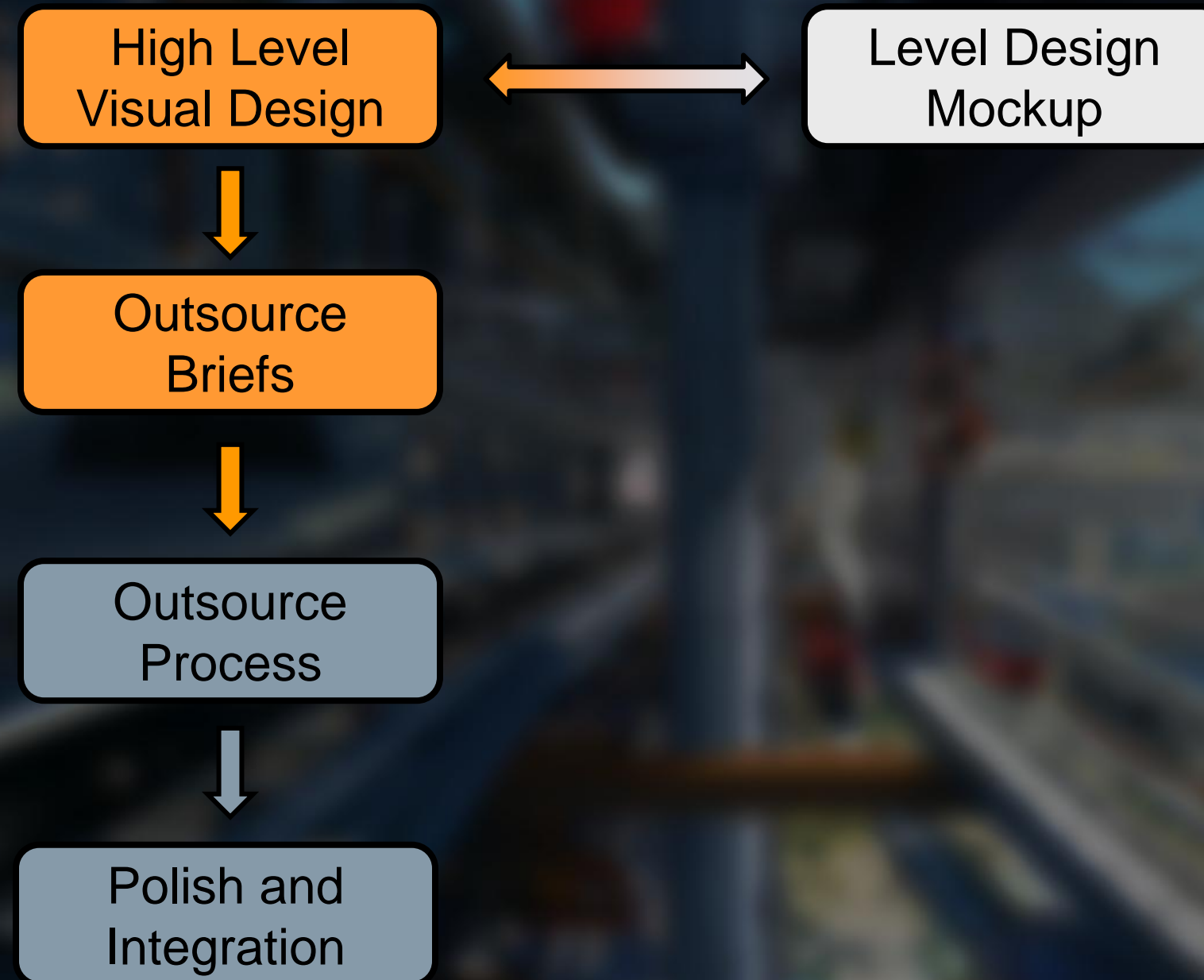


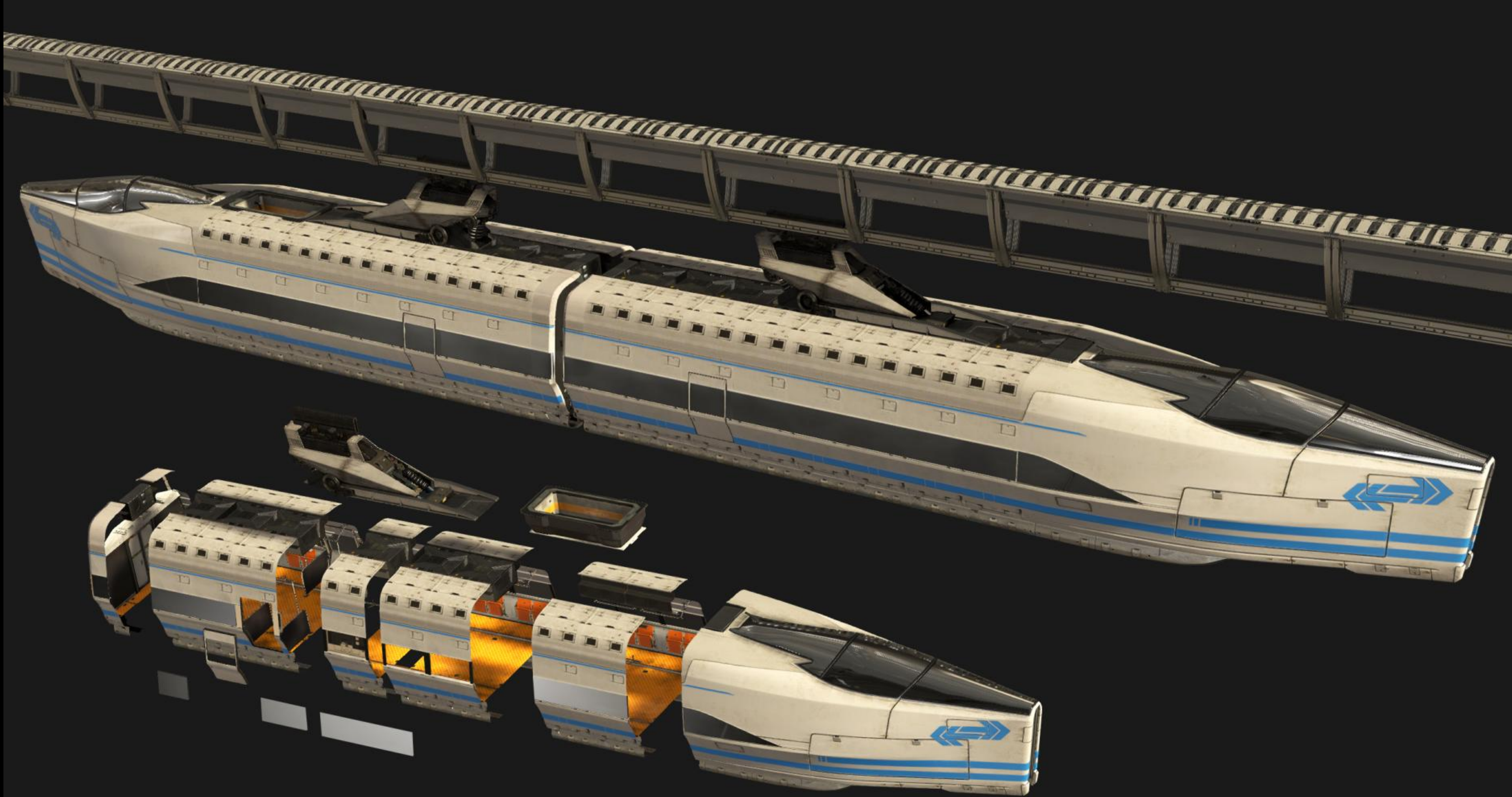
insulation materials

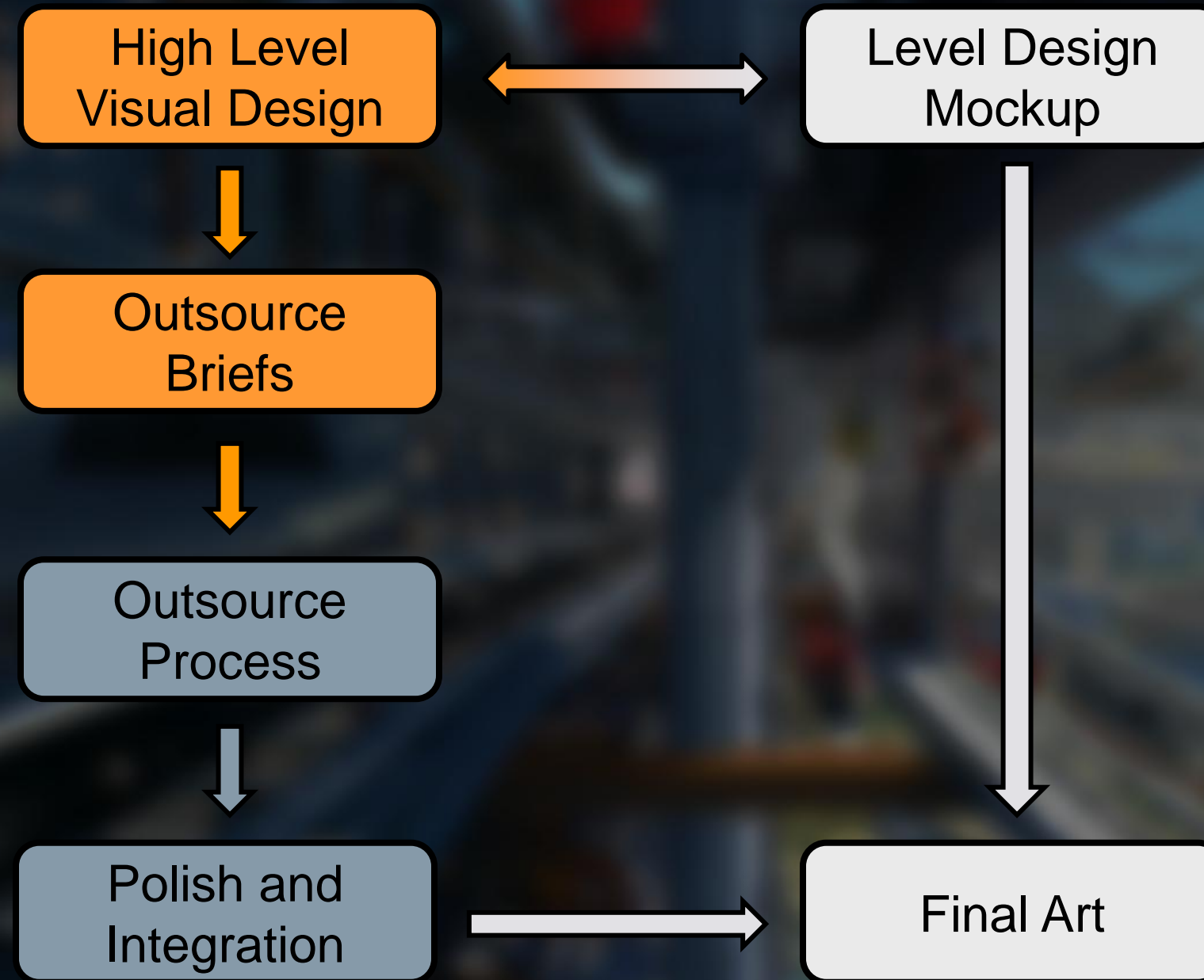


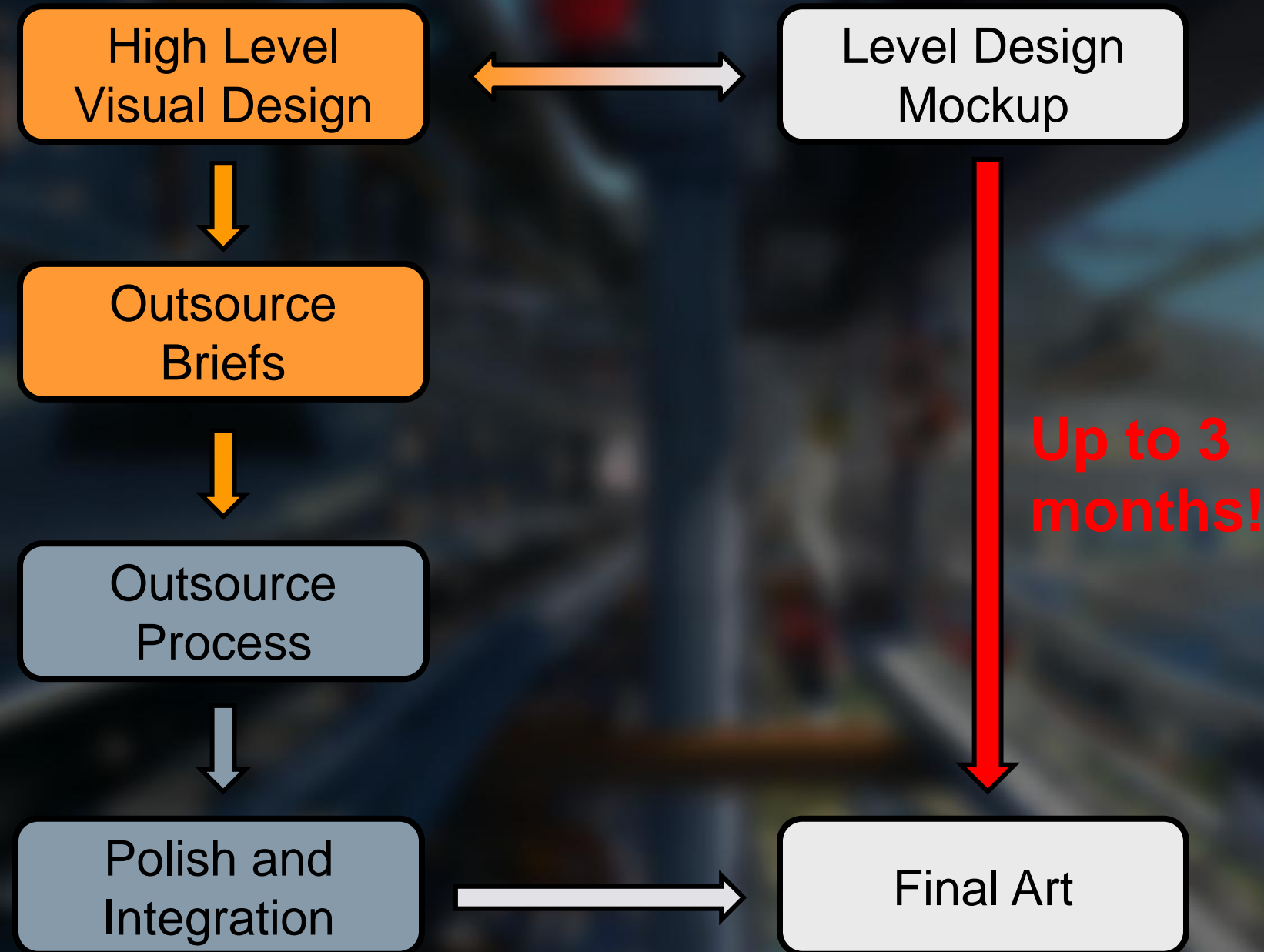
Ref: do not model











Pros and Cons

Pros

- Look development in parallel with level design
- Very high quality assets
- Flexible workforce

Cons

- Environments longer in mockup phase
- Underuse of assets
- Requires lots of concept artists
- Inflexibility due to volume

An aerial, slightly blurred photograph of a complex multi-level highway interchange. The image shows several overpasses, ramps, and lanes of traffic. The colors are muted, with a lot of greys and blues from the asphalt and concrete, and some hints of green from grass or trees in the distance. The perspective is from a high angle, looking down at the intersection of the roads.

Lessons learned

Lack of quality is usually your own fault

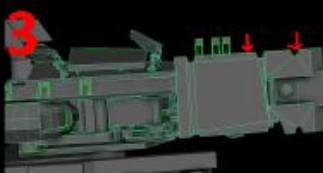
- Vendors have very skilled artists when it comes to execution
- But you cannot expect vendors to do your visual design or art direction
- Preparation is key



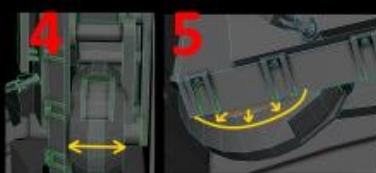
Please make sure to optimize and clean up unused/intersected faces to lower the tri count down to be around 60.000 tris in total. One recurring issue on the entire model is that all paneling looks too thick and chunky. Please make sure these panel thickness is reduced and/or detailed.



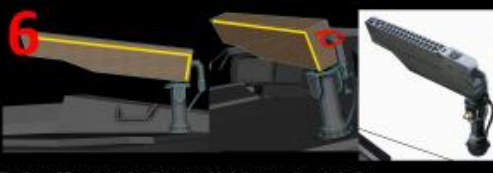
Please use this provided rimging as the base for the miniguns on the Dropship and maintain all of the shapes of the weapon. Don't actually use this weapon, but use it for size and volumes and for normal map baking the details onto the game mesh. Make all 3 weapons an even size based on the current measurements of the front weapon.



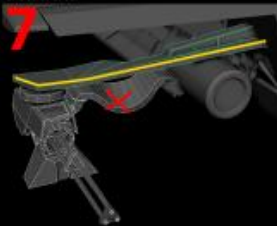
Please make the foot less wide.



Increase the width for the Rotation element and make the highlighted sides of the element bigger, resulting in a smaller bevel on the sides.



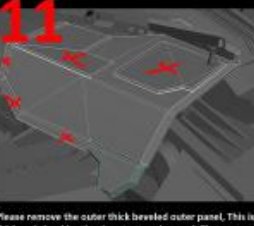
Give the small flaps an angled position and model a better connection point for the cylindrical base and increase the diameter of the cable, and correct the placement of the cable due to the angle shift.



Please give the arm holding the minigun the same detailed beveled shapes on the outer edge as seen on the brief, so it won't look too angular.

Please make the Ammo belt be more human size and not too wide and big. Right now the ammo belt would fire arrows instead of bullets.

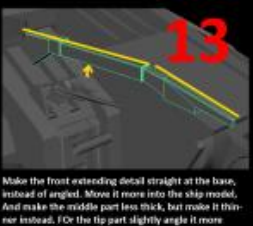
Please let the ammo belt be intersected with the cylindrical rotation drum holding the weapon instead of on the side of the weapon. Please model out a nice intersection part to the cylinder and give the cylinder modeled detail as seen on the front weapon.



Please remove the outer thick beveled outer panel. This is too thick and should either be a textured panel. The same goes for the modeled panels on the top of the surface. These need to be textured instead of modeled out.



Make the edge of the flap have an angle and make the front part slightly thinner. Once changed adjust the handle.



Make the front extending detail straight at the base, instead of angled. Move it more into the ship model. And make the middle part less thick, but make it thinner instead. For the tip part slightly angle it more downward to match the brief better.



As seen on the brief intersect the square metal detail more with the surface by moving it more into the surface plane and make the brackets on top from the same size and thickness.



To optimize the surface the inner plating detail can be normal mapped instead of being modeled.

Apply rotation cylinder here and drag back the handle.



The base of the gun needs to be able to move up and down and rotate below the Dropship.

To start with:

- The ammo belt needs to be moved/ modeled into the cylindrical rotation point and model out a proper intersection part on it.

- Move the Cylinder holding the weapon to the back.

- The part connected to the ship needs to have also a rotation cylinder and not a modeled L shape.

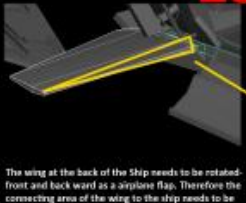
- Make sure the drum/cylinder of the minigun is placed in front of the weapon's holding bracket.



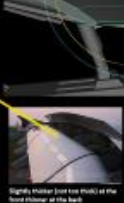
Because the front gun needs to be able to go lower the front rail part needs to go lower as well.



The modeled radar sensor head are not matching. These parts need to be the exact same models as seen on the brief. Please use the image below for more close up shapes and volumes.



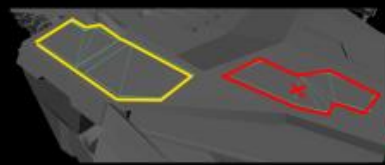
The wing at the back of the ship needs to be rotated front and back ward as a airplane flap. Therefore the connecting area of the wing to the ship needs to be more detailed and less blocky and cannot be integrated within the fuselage of the ship.



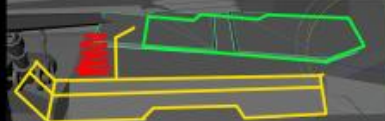
Significantly reduced (more like model) at the front (bottom) of the back.



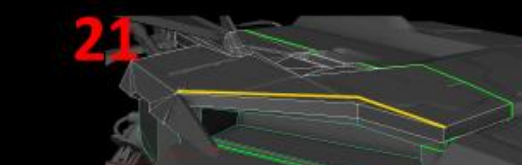
Too heavy detail.



Yellow highlighted Modeled detail on the top needs to one large flap, and needs to have modeled in are underneath following the shape of the large flap. The Red highlighted are needs to be textured in.

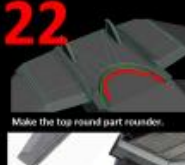


When looked from the side, the large flap needs to be a bit shorter so it will not intersect with the Back wing part. Please Study the brief much better, right now the modeled shapes are too chunky and not following the detail properly seen on the brief. As you can see on the brief the outer (beveled) line continues to go under the Back wing part but the surface holding the flap ends before reaching the Back wing area:



The paneling flow of the Top Air intake is too bulky and chunky and does not follow the shapes seen on the brief too well. The top part lacks a bevel on the outer edge and needs to follow the 2 plate angles better.

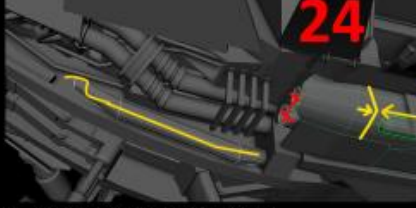
Please make the small extending wing thinner at the pointy tip.



Make the top round part rounder.



Please follow the shapes of the Mechanicle Arm parts thinner and less chunky so they follow the constructional details seen on the brief better.



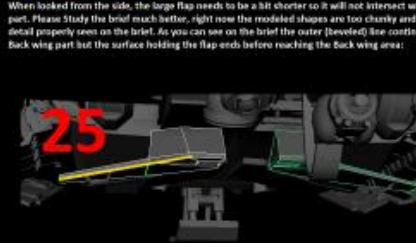
- Please remove the 2 exhaust like pipes underneath the ship
- The longer highlighted plate needs to end not like an exhaust but needs to be bend in back into the surface of the inner part of the ship. This Dropship cannot have Car like Exhaust pipes
- The rounded plate cannot look as round as it currently is. It needs to look like a flat surface, a pitched rounded bevel and a flat surface again:



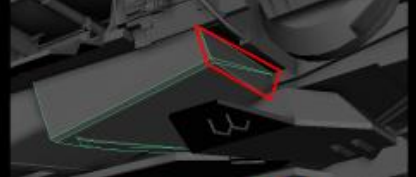
The position of the flap is not correct, it needs to be placed on top of the side front panel.



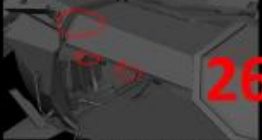
The panel needs to be a flap which moves.



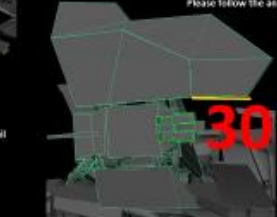
Like the Mockup the front lower panels need to be wing like shapes pointing downwards. Because they change in shape the front of the Air intakes behind it need to have modeled detail to them.



The flap at the front needs to have an opening between the front plate.



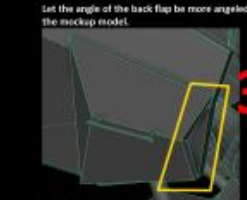
Please follow the angles and the 2 extending modeled brackets better as seen on the brief.



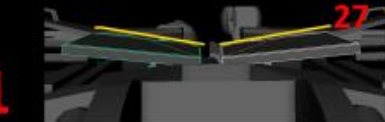
Let the angle of the back flap be more angled like the mockup model.



Let the highlighted shapes match the brief better. Make them a bit bigger and closer to each other.



The flap at the front needs to have an opening between the front plate.



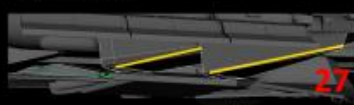
Not flat but angled.



Please make sure to follow the incorrectness and not aligned shapes as seen on the brief for the bottom of the ship. I've adjusted the shapes in the example image above. Please try to replicate these adjustments by following the brief more closely.

For the interior Please push the highlighted plane forward, this needs to be interior padding which sticks out then the frame beam above it. Please place a game character into the interior of the ship and lower the floor and ceiling elements so they were intersect too much with the character. Especially the ceiling elements, frame beams need to be pushed little ceiling more.

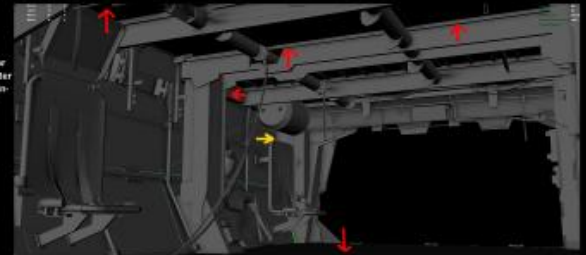
Try to make the straps less angular.



From the side the panel shapes need to go inward, these are not sliding panels but they are Air intakes for the engines.

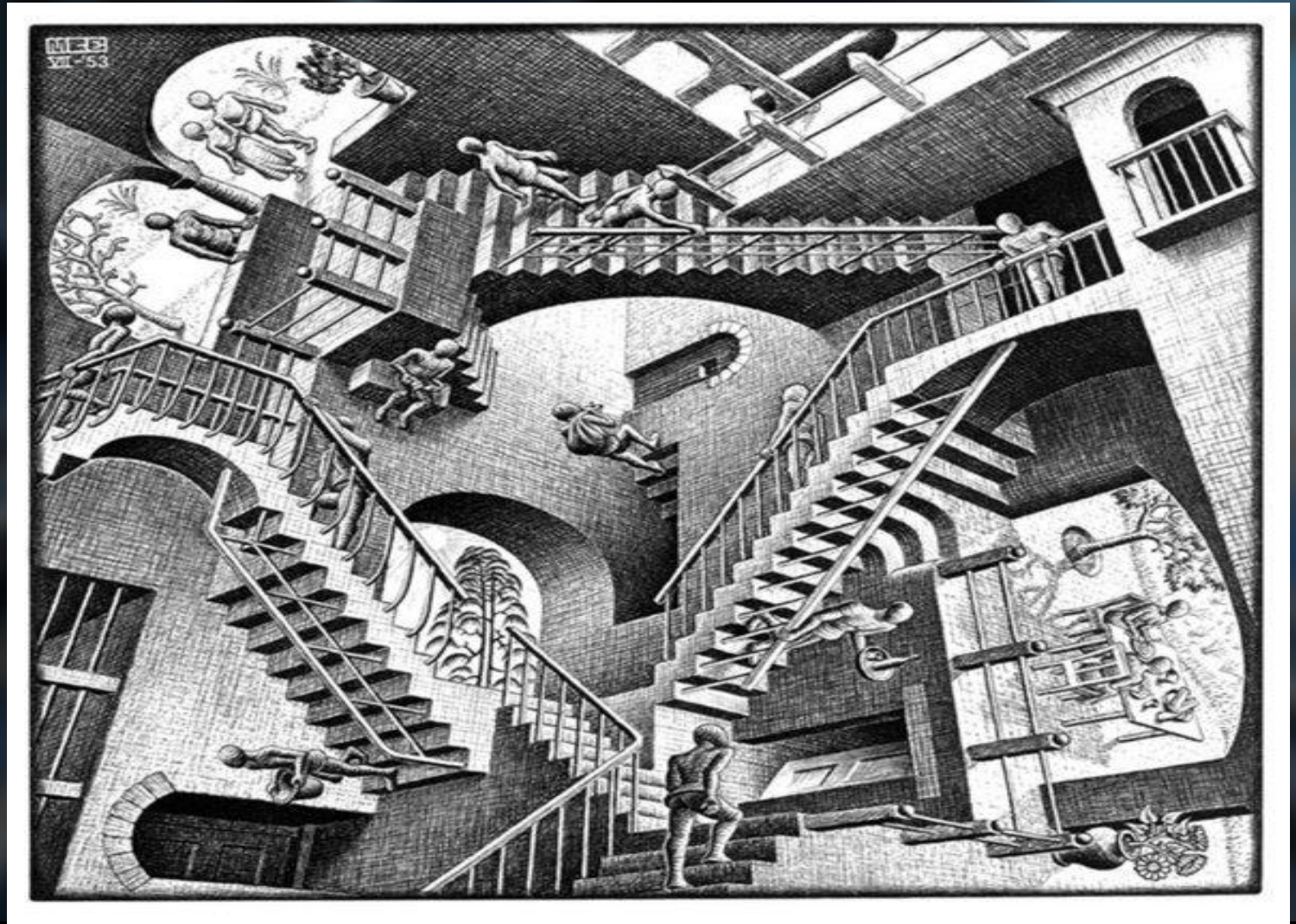


Make sure to maintain the angular stability shapes in all surfaces of the bottom. They don't need to be aligned but they need to have purpose in their angles as seen on fighter jet planes.



Complete, accurate but simple briefs

- No room for interpretation
- Avoid redundant info
- Avoid (localized) text



KIN ASSET

NAME: Airco Unit
TYPE: Destructible Prop
DATE: 20060309
VERSION: 1.0
OWNER: Erik
ENV: URBAN

ART BUDGETS

Triangles: 400-800
Textures: 256 Kb
Equivalent: 512 x 256
UV:
Shaders:

GAMEPLAY INFO

Cover: N
Physics: Y (shoot off)
Destructible: Y (3 states)
Interactive: N

EFFECTS INFO

On Hit: particles
On Destroy: particles

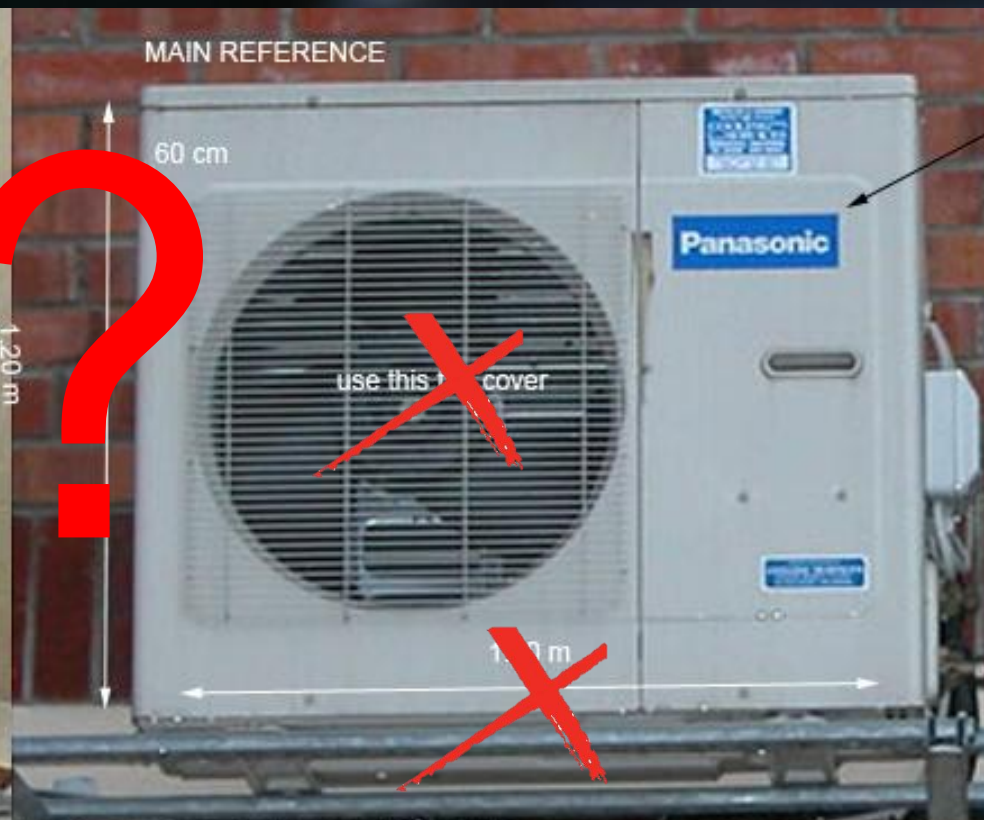
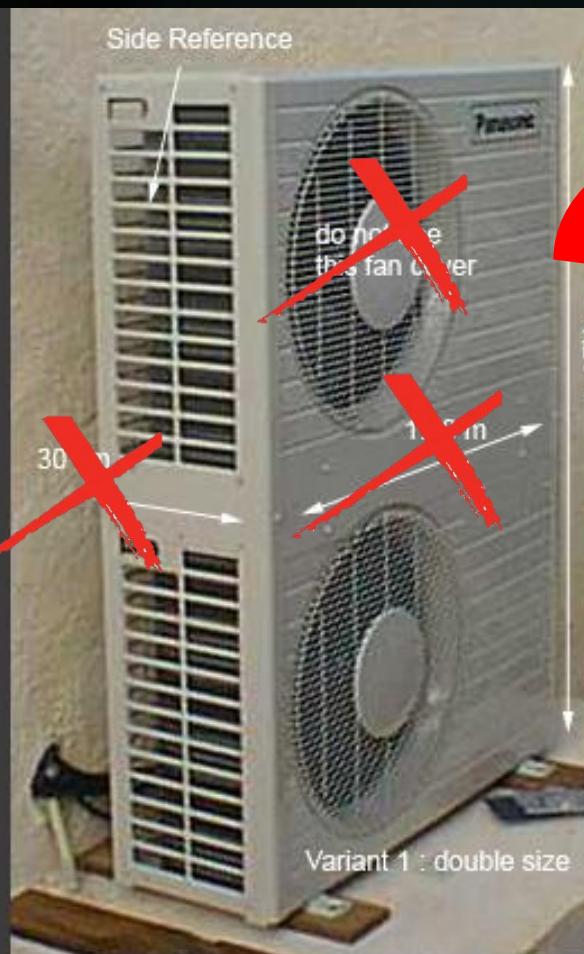
SOUND INFO

Airco Blowing Sound
Impact Sound
Break Sound

VISUAL DESIGN INFO

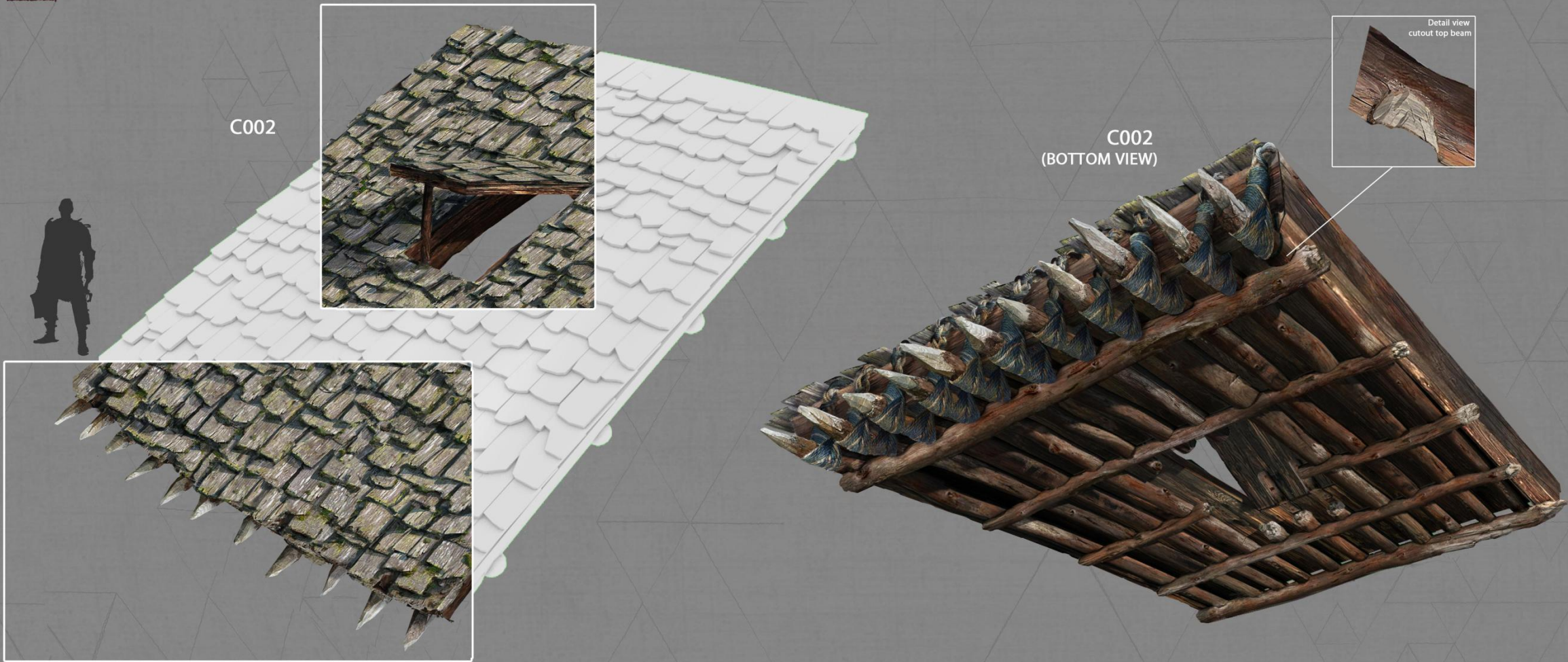
Variations: single and double unit
Mini props: connection braces for wall mounting of units.

COLORS

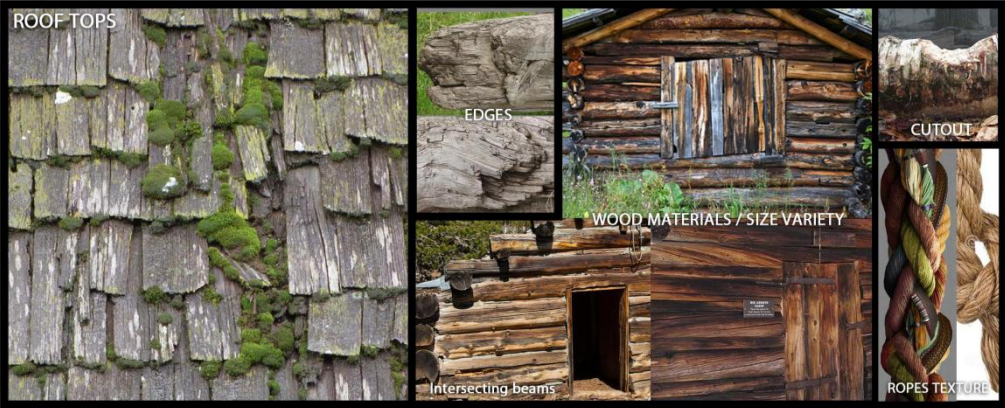


Roof_b012

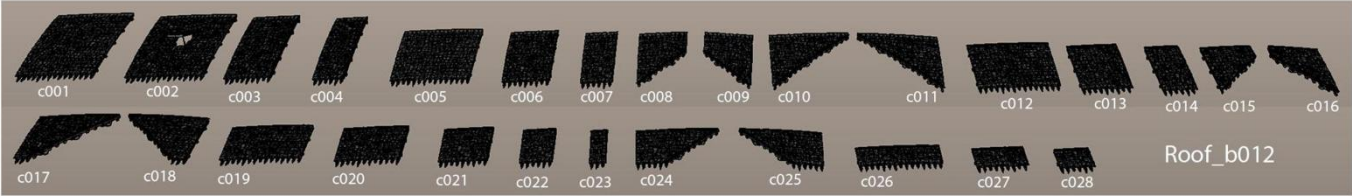
For internal use only
Basefile: //depot/HRZ/NIP/Assets/work_files/Models/Building_Blocks/Nora/Roof/base/Roof_b012.mb
Locale: Nora
Vis artist: Alanay Cekic



Refs



Component overview



A large outsource track is unwieldy

- Takes time to ramp up
- Hard to change course
- Once going, it needs to be fed

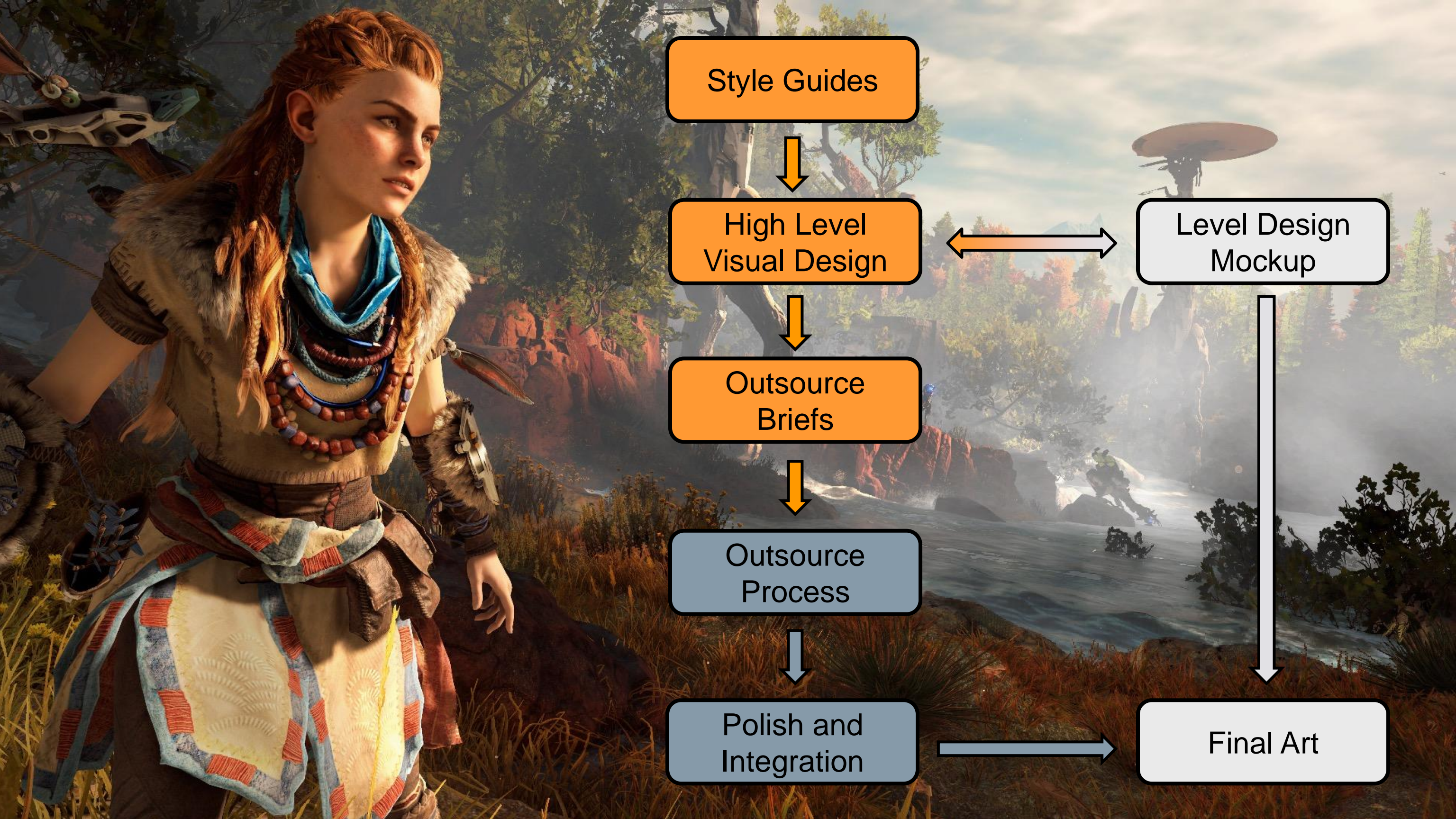


A large concept team is required

- Preparation of briefs takes a lot of time and effort
- Currently 17 concept artists of which 7 permanent staff
- With the right preparation and attention junior staff can make high quality briefs

Outsource pipelines are longer than they appear

Style Guide	2 months
Briefs	1 month/batch
Touchups	1 week/batch
Outsourcing	2 months
Integration	1 or 2 weeks
<hr/>	
Total	~6 months



Style Guides



High Level
Visual Design



Outsource
Briefs



Outsource
Process



Polish and
Integration



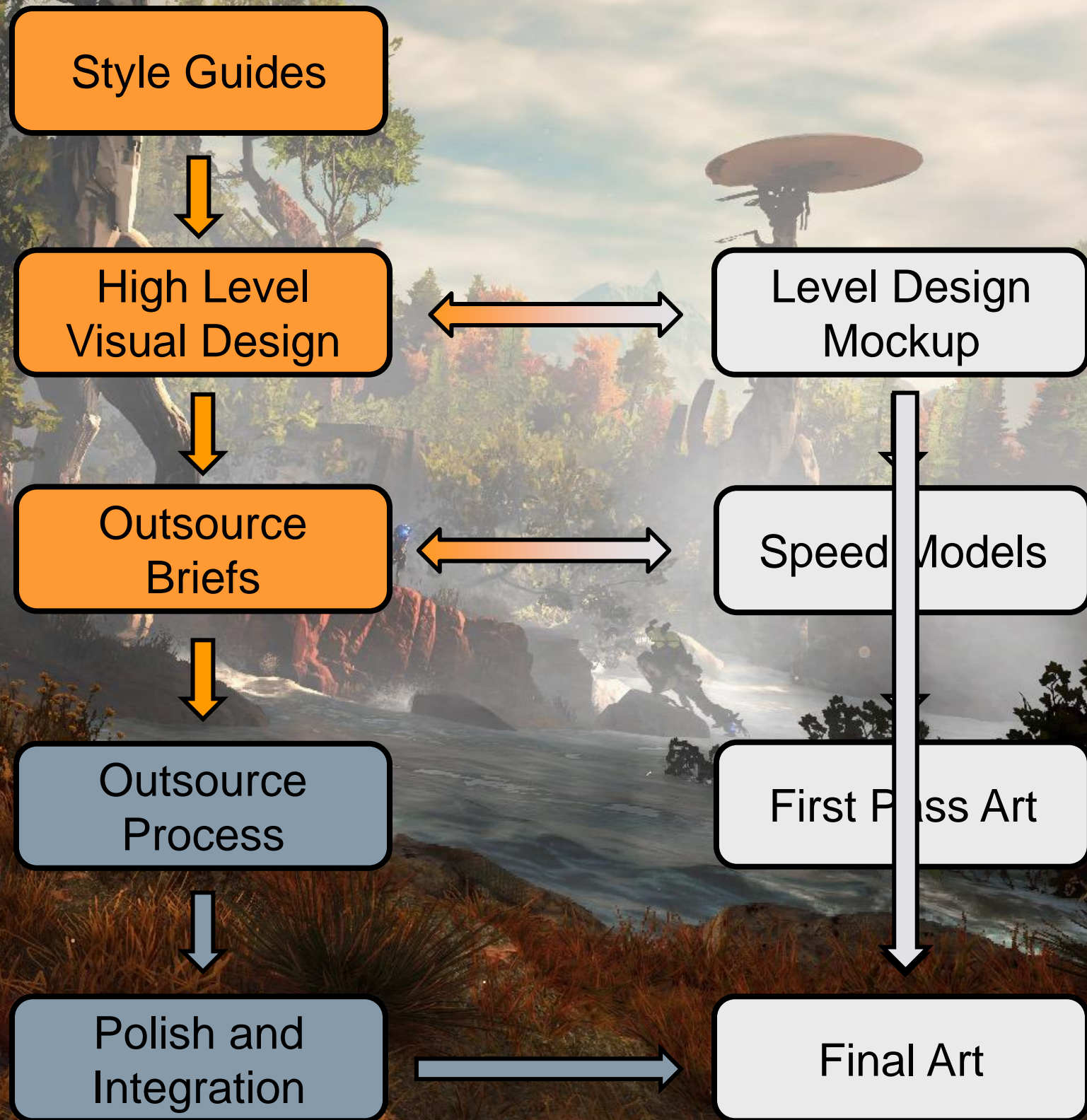
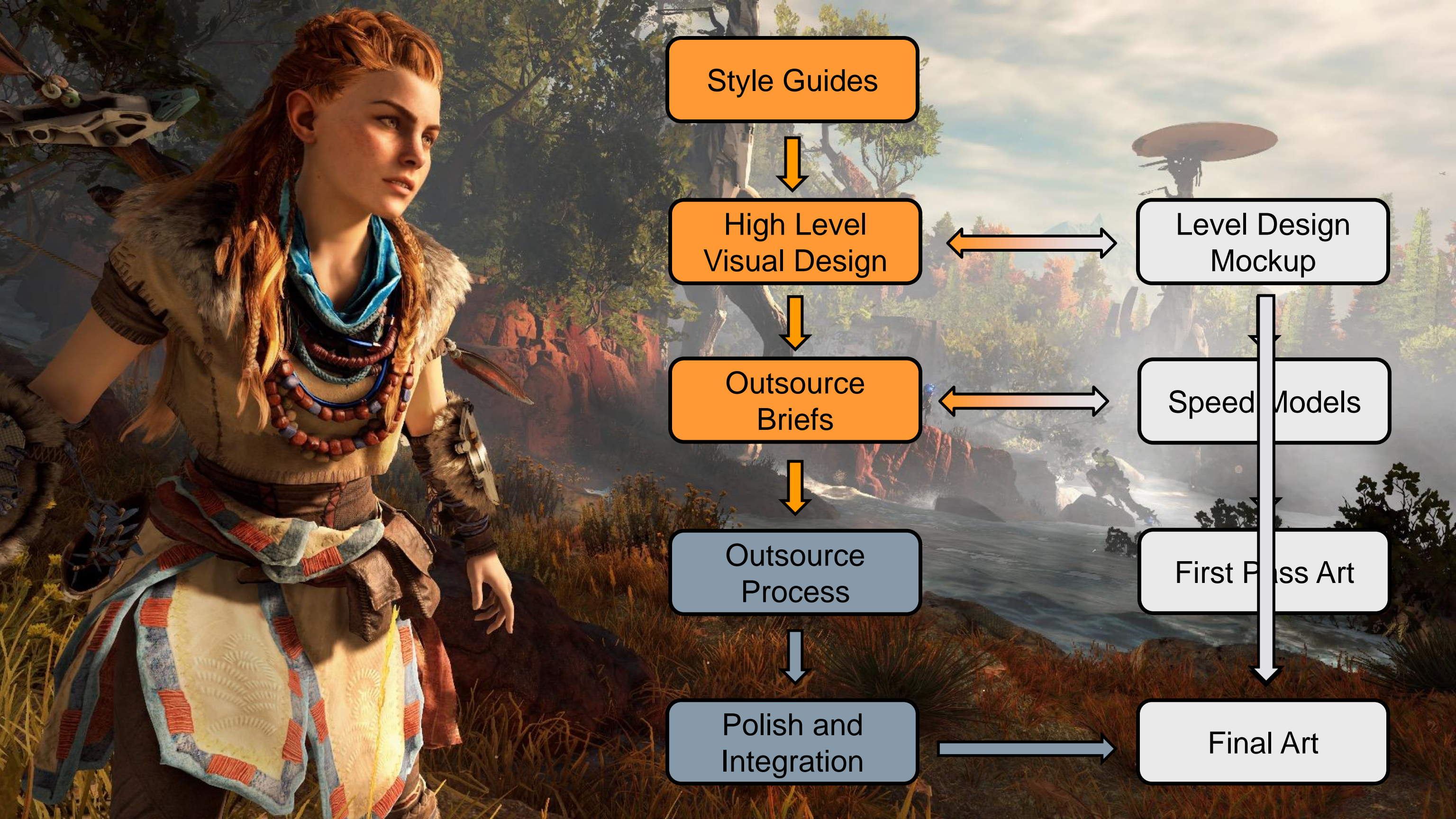
Level Design
Mockup



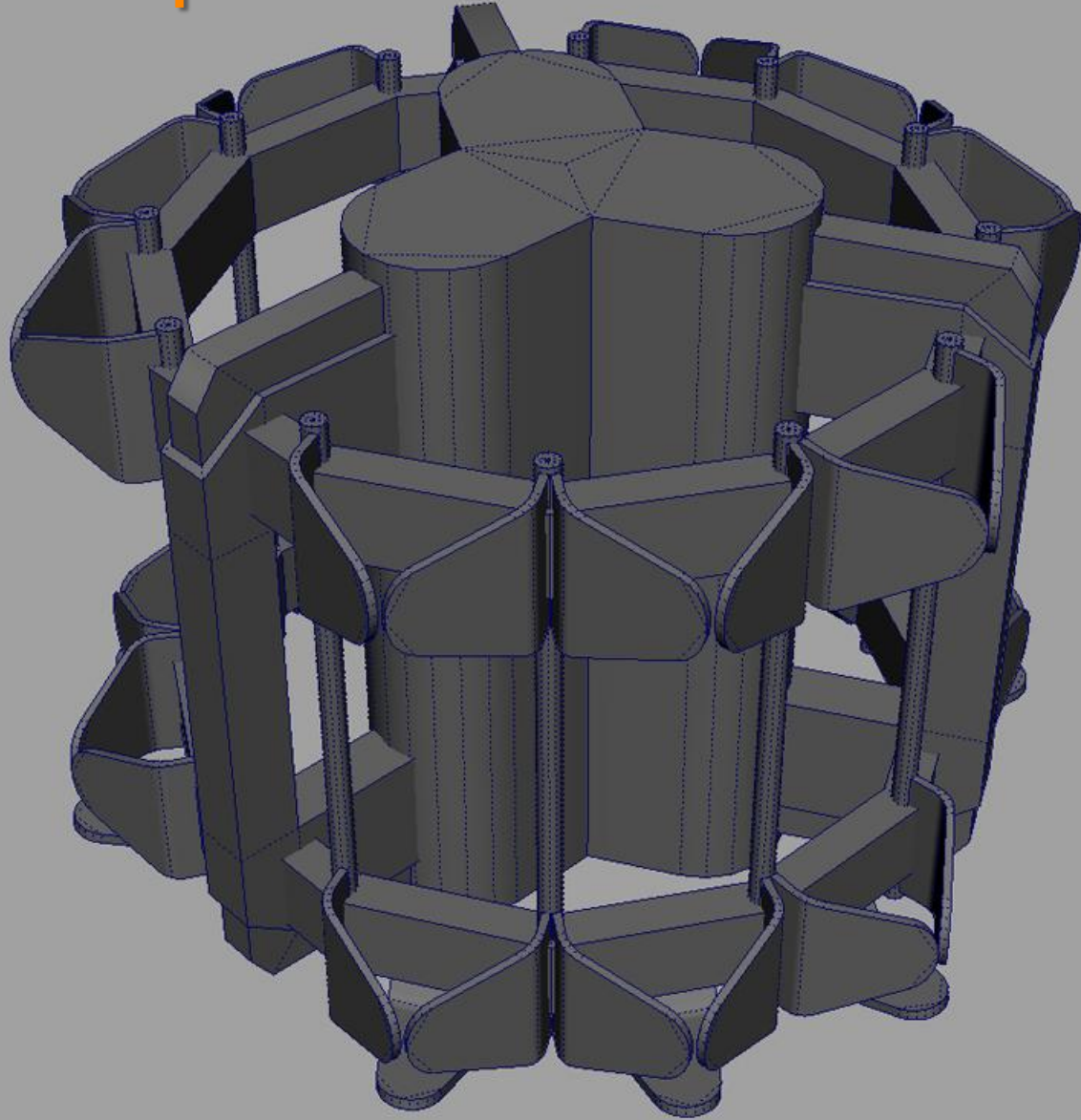
Final Art

Comprehensive style guides

- More important with new IP
 - IP less understood within studio
- Multiple disciplines involved
 - Concept design
 - Narrative design
 - Game design
- Split ideation from production
 - Explore ideas during creation of style guide
 - Style guide sacred during production
- Anthropology
 - Culture and history
 - Natural environment
 - Symbolism and art
 - Beliefs and religion
 - Manufacturing techniques and materials
 - Etc...



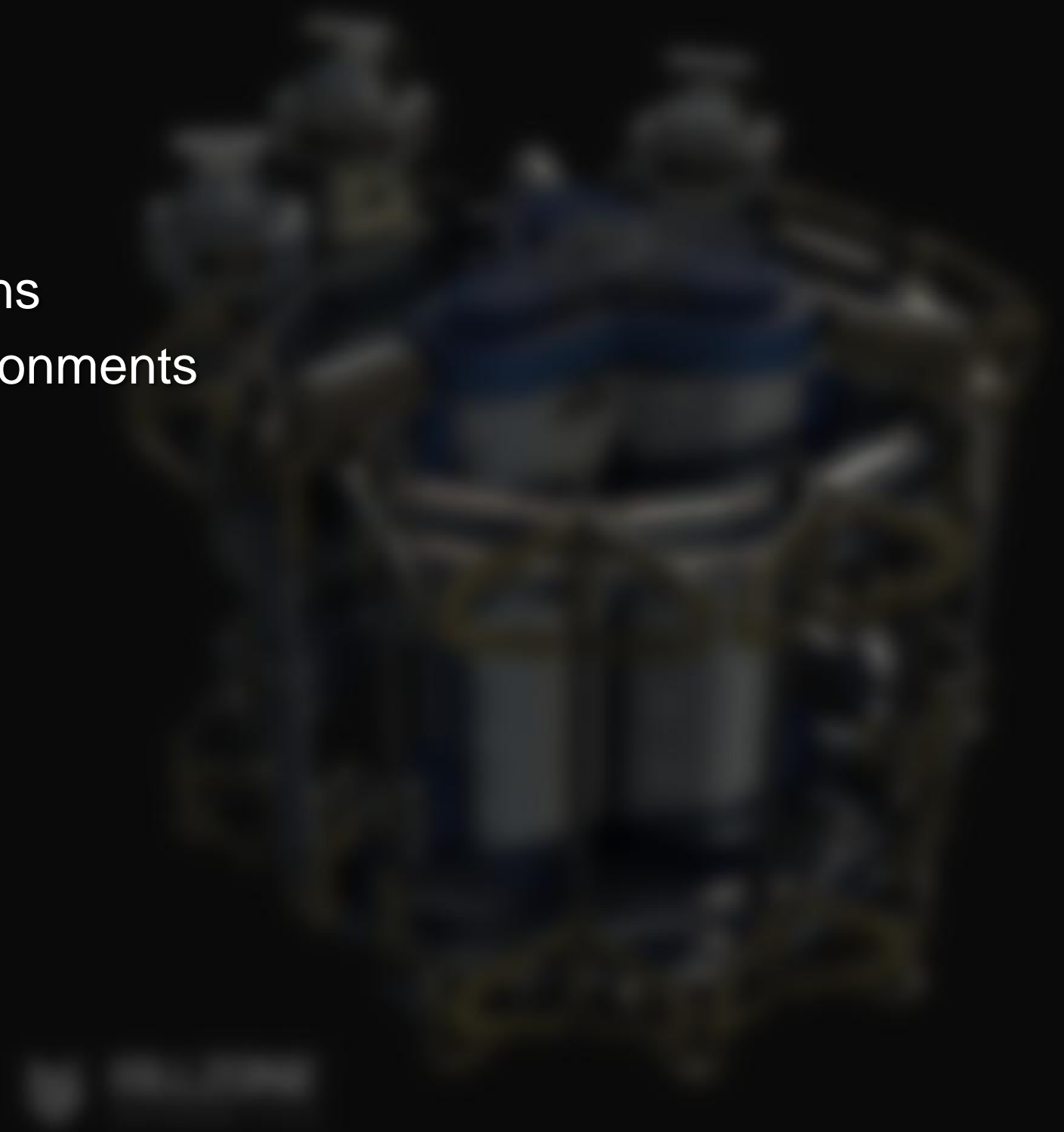
Speed-models



KILLZONE
SHADOW FALL

Speed-models

- For briefing of overall shape and dimensions
- Environment artists can start building environments
- Environment artists can influence assets
- Performance and budgets.
- Hopefully reduces waste
- Potential bottleneck



Summary

Lessons learned

- Lack of quality is usually your own fault
- Briefs need to be complete, accurate but simple
- A large outsource track is unwieldy
- A large concept team is required
- Outsource pipelines are longer than they appear
- Comprehensive style guides split high level ideation from production
- Speed-models help both in-house environment art and outsource briefing

Questions?

