How can a 3D Character Artist translate and adapt the style and design of the concept art to that of a project?

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Abstract

The topic of this thesis is the translation of 2D concept art to 3D final asset and what the process of such a workflow, especially in the case of unclear or inconsistent concept art in terms of design and style. The concept art provided for the Fortnite project isn’t always as clear as it preferably should be, so this thesis explores some of the ways to improve this workflow as the individual artist.

Through interviews with some game industry people as well as a survey for colleagues working on the Fortnite project, some light is shed on a 3D artist’s perspective on concept art and what makes it good or bad. Using the answers to these interviews and surveys, a couple of methods and solutions to dealing with these inconsistencies in concept art will be applied to a practical research that points out a couple of things.

The final conclusion of this thesis is that, whilst it’s a good idea to apply some of these methods – such as finding extra references and redrawing certain unclear aspects – the most important part of successfully going through the process and workflow is through proper communication with lead artists within the company and the client.
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Introduction

Quickly after researching the topic of this thesis regarding the 3D artist’s perspective on concept art and how to properly translate style from 2D to 3D, it quickly became apparent that there are hardly any resources on this specific topic. As such, it became an interesting topic to research and see if there was a possibility to create my own resource, or see if there were answers to be found. As such, the topic of this thesis is translating 2D concepts to 3D, and how to translate both style and design to that of the project, in case the concept art doesn’t properly portray the style.

Specifically, the research will be based on the experience on 3D artists in the industry, some of the new-found colleagues at Airborn Studios and will focus on 3D Character Art. In particular, the topic of this thesis was sparked by one concept of a skin for Fortnite that went through many iterations and ended up looking like an entirely different character from the concept. The practical research will be the creation of a Fortnite skin based on a piece of concept art that wasn’t meant for that project, to see if I’m capable of properly translating the 2D style of the concept to that of the project, as well as deal with some of the design issues the concept art might portray.

The objective of this thesis is to find some methods and solutions that could be applied to this workflow to reduce the amount of feedback loops between the artist and the lead artist or client.
Problem definition

A frequent issue that appears in the work of a 3D artist is that the concept art they must work with doesn’t adhere to the style of the actual project or game. For example, by changing the proportions of the character drastically, causing the design to not work once made in 3D. Besides concept art being stylistically inaccurate, it also often happens that the design isn’t clear: where there should be tiny details, there instead are scribbles that don’t tell the 3D artist anything and make it frustrating to work with. Other examples of badly visualized design are fully rendered art pieces that neglect to properly visualize material or shape and form, or designs that don’t make sense, functionally in 3D.

This appears to be an issue at Airborn Studios as well, specifically within the Fortnite project. There has been at least one case where the concept art was so far off (stylistically and in design), that the final in-game model might as well have been from a completely different concept. As much of a frustrating case that was for everyone involved, usually the issues with the concept art are on a much smaller scale.

The problem with these inconsistencies in the concept art, is that it causes many issues down the line that costs the 3D artist at Airborn a lot of frustration and time and costs the client (Epic Games) a lot more resources; time and money. Probably a lot more than it would’ve cost to make the concept artist fix the inconsistencies in their concept art.

Another big factor that can cause some frustrations for the 3D artist is that there isn’t any direct communication between them and the concept artist. When the concept artist works in-house, or at least works for the same company, there’s some room to ask for clarification. However, in this case it appears that the concept art is also outsourced, meaning that there is more than one wall between the 3D artist fulfilling the task and the artist that created the concept art. This appears to become a bit of a guessing game for all parties, feedback sometimes coming across as vague. Sometimes it’s “too stylized”, other times it “doesn’t look “Fortnite” enough”, or “should be more like the concept”, which turns to be very unlike Fortnite. This causes an internal battle for the 3D artist where they are unsure whether to lean more towards the concept art, or to lean more towards what’s understood as the “Fortnite style”.

It’s fair to say that the core problem to these issues is the fact that Fortnite simply is a game that needs to put out content frequently to make up for the fact that the game is free and allow for a steady income, causing certain parts of the process to be rushed. Sadly, it appears like the wrong parts of the process are rushed, causing more issues and time spent down the line.

The purpose of this thesis is to find a couple of solutions that should put some of these frustrations to ease and create options for the 3D artist to explore to try and minimize the amount of feedback loops that occur.
Method

To help answer the main and sub questions of this thesis, along with building a proper foundation in terms of theoretical background, there are some method that will be applied and explored in order to do so.

Naturally, one of the main sources that information will be pulled from will be personal experience and based on the experience of working at Airborn Studios. However, since I still am a beginner with only a year of experience working at two different studios, it’s important to pull thoughts, opinions and experience outside myself. In order to do this, Twitter will be used as the way to reach out to 3D artists in the gaming industry, this because the game development community on that platform is large and highly active. Once you’ve found one person, it’s easy to find many more. The topic of these interviews will center around the struggles that they face with concept art, and the process of communication and receiving feedback has been for these artists. Besides some of those experiences, they will be asked what their personal process is when concept art is unclear and how they resolve that problem, or otherwise, deal with it.

Besides interviewing and discussing with 3D artists through Twitter, it’s also important to seize the opportunity to interview some of the people within Airborn. Specifically those that work on Fortnite as well, to see if they have had similar experiences to the ones that I’ve experienced and noticed. Similarly to the interviews conducted through Twitter, these questions will center around working with concept art supplied, the process of communication and receiving feedback. However, these questions will go a little more indepth and ask more specific questions. Regarding whether the feedback is useful, if there’s any specific kind of concept art of feedback they received that they had a hard time working with. This should shed some light on whether or not the things that I have experienced, others experience as well. Much more focused around a particular project, situation and client. They will be interviewed through a Google Forms Poll which will be posted through slack in a fitting channel, this makes it much easier for people to answer and also allows for some of the freelancers to give their input.

Lastly, and the part of the methods and process that will include some of the created products for this thesis, will be the practical research. There’s two goals with this practical research; the first goal is to prove to Airborn that I am capable of creating a character that could fit in the Fortnite universe while adhering to their workflow and technical guidelines. The second goal, and the more important one to this thesis, is to find ways of dealing with the inaccuracies and inconsistencies within concept art. The idea is to apply some of the methods that industry artists describe in the interviews and to test them, to see if they’re as efficient of effective as you would want them to be. The final product for this will be a finished character that adheres to the style of Fortnite.

All of these things should help shed a light on the problem statement and hopefully help come up with a couple of solutions, or at least be able to help answer the main and sub questions.
Theory

Finding theory on this specific topic (translating 2D concept art to 3D art and the style and design adaptation that comes with it) appears to be a bit tricky. One reason for this could be that games that release content on a weekly basis are still relatively new, meaning that resources on this particular topic are currently much scarcer than it could potentially be in the future. Not only that, workflows vary from studio to studio. Some studios might not participate in outsourcing at all, meaning that cuts out the needs for a middle man and would allow for more direct communication.

There is however some theory to be found regarding creating concept art that a 3D artist can work with and a lot of resources that explain style adaptation, but within the 2D medium rather than between the 2D and 3D medium.

One article written by Baj Singh, Character Art Lead at “The Creative Assembly”, wrote the article “What makes concept art useful from a 3D Character Artist’s point of view” (Singh, 2017) explaining how to create concept art that is useful to the 3D artist. Within this article he starts off describing some of the problems that 3D artists quickly run into when a concept artist isn’t aware of in-game functionality and important design details.

Singh (2017) explains the following in this article:

*Issues such as how practical a character was in terms of functionality (e.g. how a joint functioned or how well a character’s attire allowed them to move) and legibility of a final design (where important details were illustrated with very loose strokes/paintwork). Issues and obscurities such as these can make it very difficult to translate a design into a final 3D character.*

It appears that sometimes the concept artist forgets about some of the key factors of what’s important in a design. Sadly, this causes a chain reaction further in the process, leaving 3D artists unsure of what a design is trying to convey. This then has the potential to lead to a lot of back-and-forth with quality assurance and feedback loops. This is especially true for freelancers and outsourcing companies since the contact between the 3D artist and the client isn’t constant. This is one of the things that has personally been experienced by me and is something a few people have mentioned during the Twitter interviews that were conducted. Celeste Gamble states that “occasionally she has encountered bureaucratic delays which left her waiting without direction or a clear plan for a few days”.

Although, as mentioned previously, there aren’t a lot of resources that describe this “hardship” that 3D artists deal with, there certainly are many different resources written by 2D concept artists, for people looking to become (better) 2D concept artists. Many videos explaining how to improve their portfolio, which immediately also ties in with how to present your work better and make it more useful to the person (and team) that uses it: the 3D artist.

An example of such a resource is a video by Trent Kaniuga called “Concept Artist portfolio mistake #1 – No Character Breakdowns!”, in which he explains the importance of having multiple angles to your character, as well as extra breakdowns of certain items the character wears, weapons, or anything else that requires any more clarification so that the 3D artist can work smoothly to replicate the design in 3D space. As well as multiple views of the character to make sure that there’s no guessing work on for example, what the back of the character should look like based on the front view.

So, these resources are certainly helpful for (beginner) 2D concept artists, to learn it’s important to keep in mind that things that make sense to them in the design, should also make sense to outsiders.
However, as I research into this topic, trying to look for any input of 3D artists on what a concept artist should look for, and what is especially important from the perspective of a 3D artist, appears to be lacking. Meaning that Baj Singh’s article is especially refreshing to find, and finally delivers some 3D artist’s perspective on the situation.

**Concept Art**

So, what is concept art exactly, and what is it not? How do we define good concept art, or otherwise, not useful? One of the most important things to remember that, as much that in theory concept art is a form of illustration, it is not meant to be an illustration. One of the distinct differences between “concept art” and “illustration” is that both have different uses. Whilst illustration exists in many different forms, in the end that illustration serves as the final product, whilst concept art often serves as a starting point to get to a final product. To clarify the definition of concept art even further, the purpose of concept art is to convey an idea, or ideas, even.

Baj Singh talks about a couple of different art types used and created within the gaming industry in his article, these are important to note since they give a clearer idea on which is which, and where we draw the line as to what we consider helpful concept art as 3D artists.

**Mood paintings**  
Visual representation of the mood a game is supposed to have, use of colour and lighting are incredibly important. These are not meant as a reference for a 3D Character or Prop artist to use per say, but very useful for Lighting and Visual Effects artists.

**Marketing Art/Splash Screens**  
These are the illustrations you often see when gaming studios try to promote and market their games. They are polished and rendered on purpose to create the most appealing look to users and potential buyers, these illustrations are a marketing tool.

**Concept Art**  
With actual concept art, the purpose is to clearly visualize and show the functionality of assets. The goal here isn’t to create a fully rendered piece, this would resemble an illustration or marketing art more than it would be useful to 3D Artists. Clarity of design is of utmost importance, meaning multiple angles of a prop or character and clear material definition and shape language.

Now that there is a better understanding of what concept art is, let’s go through some of the points that Baj Singh makes in his article, about the different key factors in concept art that are important to him.

**Functionality**  
This is about the way that elements of the design function. For example, the way armour is portrayed on a character design, it needs to be functional and allow the character to still move and be able to perform animations properly, without looking dysfunctional or illogical.

**Material Breakup**  
Contrast in design through material and colour break up, this is important especially for strategy games where it should be easy to tell certain groups of character apart from one another. Another use for this is to make sure a character looks visually interesting and draws the eye of the viewer to certain important aspects of a character.

**Breaking up features, details and different views**  
To make concept art useful for a 3D artist, it’s important that the concept artist visualizes their design from different angles, and emphasizes some key elements or complex aspects of the design. All of this with the purpose of clearly conveying the design and the idea to the 3D artist, this allows for seamless translation from 2D to 3D.
Simple highlights/shadows vs full rendering  This ties in very well with the distinction made earlier between illustrations/marketing art and concept art. Rather than presenting an image that is visually appealing to potential customers, it’s much more about clarity. Fully rendering concept art is not only a waste of time, it’s also unnecessary and can cause unnecessary confusion for the 3D artist when something isn’t rendered accurately. For example, shapes can look different than intended.

Character Poses  Baj Singh emphasized that it’s important for character design the poses be kept neutral. This makes it easier for the 3D artist to seamlessly convert the design. Using dynamic poses within your concept art will cause confusion and create scenarios where certain aspects of the design simply aren’t clear or can be misunderstood.

Scale  Especially when an object or creature isn’t clearly drawn from real life a human silhouette is added to convey the size of the object or character. This helps us better relate to the scale of the prop/character/creature.

Materials used  With material breakup being a very important aspect, with that comes a clear representation the materials used. Supplying real life photos of the material meant to be portrayed or otherwise a clear description helps the 3D artist immensely. Not only when texturing, but also when giving an object a certain texture during the sculpting phase.

Now, what would happen if the concept art failed to adhere to some of these points? It is safe to say that it would cause confusion and cost time and resources trying to resolve the issues at hand. Depending on the situation the artists are in (both in-house, freelancers, outsourcing) these issues could go from being easily resolved, to being a frustrating process of waiting and communicating until it is resolved.

Style  The next topic to discuss to clearly substantiate the topics of this thesis is style. What is style, what is it made up of? How do we make sure it stays consistent, how do we solve inconsistencies in the process? Some of the aforementioned questions require the practical research later on discussed in this thesis, so instead we’ll start with the basics.

The style, art style, of a game or project can be split up in different aspects of design. The main gist of “style” are the combined stylistic choices in terms of lighting, colour, shape, line and texture, to name a few examples. When looking to a game with a distinct art style, such as Borderlands, it’s immediately clear what makes that style. It is, for example, the obvious use of comic book-inspired lines on all the assets, the cell-shaded lighting and use of muted colours. Not only does that point to a specific kind of style, also in terms of shapes and the proportions used for characters and objects in the world is distinct and all fits together and remains stylistically consistent.

To combat the possibility of inconsistency in style, Style Guides are a helpful tool for a studio of any size to make sure that the style stays consistent throughout the duration of the project. Just like we know the purpose of game design documents in making sure that game design elements stay consistent and accurate, we know style guides to help us keep the style consistent. A Style Guide is a document in which all design choices are documented and lots of reference images are used to clearly portray the style of the project. This all to make sure that there’s the least amount of hassle possible when it comes to inconsistency, and this helps to keep all producing artists in check when creating the final in-game assets.
Within Style Guides, things like colour choices and palettes are defined and pictured, making sure that artists don’t stray from this defined colour palette. Other aspects like shape language in the style, sharp or rounded edges, specific proportions for specific assets, these all make up the style of a project. The way that lighting is used, whether it’s dark and grim, or bright and light. The way textures are handled; whether they are highly detailed and realistic or otherwise simplified and cartoony. It’s incredibly important that these aspects are clearly communicated to all participating artists through, for example, a style guide.

An amazing example of a well-crafted style guide is the Visual Effects style guide for League of Legends that was released to the public. It described all the important aspects of the Visual Effects style to any artists working on said effects. It talks about specific hues and values used and the colour palettes for allies and enemies. Not only that, it also talks about the way these visual effects should be animated; the speed of the animation and what the animation curve should look like. As you can imagine, these aspects are incredibly convenient for the producing artist to know, as it takes away any confusion as to what the style is and how assets should be executed. In turn, style guides like these (although take time to create) saves a company a lot of time in resolving issues with style consistency.

One thing that I have noticed is – and have asked a supervisor about – is whether Fortnite has a style guide. He suggested that Fortnite once had something along the lines of a style guide but hasn’t since a long time. Not only that, but certain skin design philosophies have changed since then, such as “a skin is never just a person in clothing, it always has a distinct theme”. This has since been completely overturned and we now see many skin designs that are, as mentioned, “a person in clothing”.

Communication

Whilst interviewing both people from the industry through people and some of my colleagues, it quickly became clear the communication between team members and lead artists is incredibly important. Of course, the communication between the artist or company and the client is most important and, in the end, is the one that approves the stages of the product. However, as mentioned previously, working in an outsourcing company means that there is a limited amount of contact between the artist/company and the client, in terms of asking for feedback and approval of assets.

The way that it is currently set up within Airborn on the Fortnite project is that, for the character art team (character skins, backpack skins and weapon skins) there is a daily meeting (“The Daily”) between Airborn’s project manager and a team of lead artists and producers at Epic (client) through a Google Hangout call. Within this meeting, Epic goes through all of the submissions of assets (in differing stages of completion) and will either receive feedback or otherwise get approved by their team to move onto the next step in the workflow.

This way of providing feedback is a great way of dealing with the fact that there is no physical contact between the two companies (Airborn being in Berlin, Germany whilst Epic Games being in North Carolina, USA). Currently the artists receive the feedback through a recording of the video call about their asset along with written down feedback points/tasks by the project manager. However, this was introduced only shortly after I had arrived at Airborn. Previously artists had to do without those recordings and it was much harder to gauge what was meant with certain feedback points or what the reason for the adjustment was. This is echoed by some of the employees who agree that these video recordings have greatly improved receiving clear feedback.
Main and sub questions

Main Question

How can a 3D Character Artist translate and adapt the style and design of the concept art to that of a project?
Answering the sub-questions and creating a full character should help to shed some light on this issue and answer the question, or at the very least, be able to give some recommendations to get to a definite answer to this question.

Sub Questions

In terms of style consistency and design language, what are the different varieties of concept art that are produced?
The point here is to discuss a few different kinds of concept art that 3D artists often run into, either being the kind of concept art that’s highly useful, or otherwise, lacks a lot of direction and makes it harder to navigate the design or style.

What are the common problems that arise from inconsistency in style and unclear design?
To get a clear idea of what kind of solutions would be useful, it’s good to know what problems are caused by inconsistencies in the concept art. Through interviews and personal experience, this question should be answered quickly.

What are common solutions of 3D artists in the industry to aid the process of translating concept art to a 3D model? What are common issues regarding this process?
From personal experience, and by interviewing 3D artists in the industry as well as within the company, certain solutions and methods should become apparent that could deal with and help diffuse the endless feedback loops that are caused by inconsistencies in concept art. Understanding these common issues helps create potential solutions.

Which of these solutions of translating style and design from 2D and 3D are the most efficient and effective ones?
After the practical research has taken place and these solutions have been put to the test, it should become clear which of these solutions is efficient (time-efficient, easy to perform) and/or effective (gives good results, minimizes the amount of feedback loops).
Results

The structure of the results section of this thesis will be done through answering the sub questions as well as showing some general results based on the practical research.

**In terms of style consistency and design language, what are the different varieties of concept art that are produced?**

Based on personal experience working on the Fortnite project, as well as the experience of co-workers and people from the industry, there’s a variety of different types of concept art.

One example of variety is the type of concept art that simply does not show the design well. It either shows to be more of an illustration rather than concept art, and is thus likely to be rendered more carefully, but the design be thought-out less. Another issue with these types of concept art is that certain parts of the design are scribbled in. This leaves the 3D artist questioning what the design is actually meant to be:

> Designs that are drawn quickly to look good, but that had little thought put into it. Sometimes it’s hard to make those designs work in 3D. They can be illogical, contain floating objects that defy gravity or lack information on the materials.
> – Marie-Michelle Pepin, Freelance Character Artist

> Often what happens is, I receive a really nice illustration but something like the shoes will be roughly painted in so I can’t tell if it’s a boot, a sneaker or a shoe. Belts are the worst offender: you receive a brown or grey rough paint stroke and then it’s up to you to design and figure out what that piece is.
> – Shayleen Hulbert, Freelance Character Artist

> Environment concepts are often just flat colours. The amount of dirt and weathering sometimes can be guesswork.
> - Jonas Kunert, 3D Artist at Airborn Studios

> Sometimes tattoos, accessories and details on the back parts of the characters are hard to understand.
> - Karina Bastos, Character Artist at Airborn Studios

One of the main varieties of concept art for characters people seem to talk about if the type where the different types of views either simply aren’t present, or otherwise don’t match up with one another. Meaning that with some concepts, the concept artist created on only one view of the character (often front, 3/4th view) or in other cases, did create a back view. However, this back view doesn’t match up with the front view. As you can imagine, this creates a whole lot of problems for the 3D artist. Deciding whether to stick to the front or back view in terms of “sticking to a the concept”, how certain shapes actually look when they vary depending on the view. Marie-Michelle Pepin, a freelance Character Artist, makes this point quite clearly:

> Front and side views that don’t match (pointy nose on side view and low tip of nose in front), shape of things/details that aren’t consistent in both views can be contradicting each other.
This statement is echoed by some colleagues at Airborn Studios:

*Sometimes, some details don’t match between different views or don’t carry on. Incoherence between front and back views.*
– Andrea Orioli, Lead Character Artist at Airborn Studios

*Front and back views don’t match entirely with each other, which we can resolve, however, it’s always a game of back and forth with the client.*
– Sandro Silva, Character Artist at Airborn Studios

*Sometimes I found some details a bit unclear to understand specially in the back part of the characters.*
- Karina Bastos, Character Artist at Airborn Studios

One other variety I would like to discuss is the variety where the style simply doesn’t match up with that of the project, this is one “variety” that has been discussed in this thesis before. Some colleagues at Airborn Studios are mentioning that this is especially an issue when it comes to the proportions of the concept art not matching up with the proportions of Fortnite characters. When speaking of this issue, they also mention that it would be great if the concept artists could (instead of drawing up their own base) use an existing image of the actual 3D in-game character body to avoid these issues.

*They could be a bit more "respective" to the base bodies in terms of proportions and silhouette. They always either exaggerate or diminish shapes, sizes and volumes.*
- Alex Polovov, Character Artist at Airborn Studios

*Concepts sometimes aren’t based on the base bodies we’re provided with so proportions don’t match well*
- Andrea Orioli, Lead Character Artist at Airborn Studios

Personally I have experienced this on a much smaller scale, since I have yet to work on a character for Fortnite. However, working on props, specifically backpacks, can get a little bit confusing. When it comes to backpacks there will only be a single 3/4th view of the object. Granted, these backpacks aren’t nearly as complex as characters are, and don’t need to have anything on the back (since this is against the character’s back). However, it is still easy to run into some issue with unclear shape definition or even material definition.

**What are the common problems that arise from inconsistency in style and unclear design?**

From personal experience and from what I’ve been seeing on the process of certain skins, is that in generally these issues just cause an increase in time spent on a skin or a prop. This appears to be the biggest problem, along with the 3D artist simply feeling frustrated. However, as we know, time is money, meaning that in the end it will cost the client more money.

Other issues caused by these inconsistencies is noticeable when receiving feedback. Sometimes, the case happens where the concept is fairly unclear and so it’s clear that it also confuses some of the lead artists/outsourcing managers on the client’s end. There’s often a debate (within the 3D Artist’s mind, as well as appears to be on the client’s end) whether to follow the concept closely, or follow what we are familiar with as the “Fortnite style”.
Shayleen Hulbert states the following about her experiences with these kinds of concept:

*More commonly we receive a 3/4 view illustration that’s a bit rough and vague, so then it’s up to us (the 3D artists) to fill in the gaps and make informed decisions on how we will design and build the missing parts. This takes time and a little bit of trial and error with the client.*

Marie-Michelle Pepin makes a similar statement when answering the question of how inconsistencies stand in the way of a smooth workflow:

*Sometimes there’s not a lot of time to send the concept back to the concept artist for corrections, so it will instead fall into the hands of the 3D artist to find creative solutions and try to make it work. This can definitely cause delays and issues, because while iterations and redesign can be quite quick in 2D, it’s not the case in 3D.*

The most common problem that arises from unclear concept art, is the fact that more time is spent on an asset than there would be if the concept art was consistent from the get-go.

**What are common solutions of 3D artists in the industry to aid the process of translating concept art to a 3D model? What are common issues regarding this process?**

There’s a varying amount of answers to this question when asked to 3D artists. Depending on their current job and role within a team, it seems to vary. On the one hand, a lot of the freelancers are keen to offer some more “adventurous” options when it comes to solving their problems. The reason for this is most likely the lack of direct contact with the team, physically. It’s much easier to go over to a colleague and ask them a question than it is to try and get someone’s attention through other means (E-mail, Slack, Discord, Skype). This situation could potentially be worsened by time zones, where the freelancer might be an opposite time zone from the client.

A couple of suggestions were given through the Twitter interviews, based on each individual’s personal experience. There’s a few suggestions that are echoed by different people. Often, when concept art is unclear their go-to method is to find more references online based on what they think the object in the concept is (in case it’s not clear what the object is, or parts of the object).

For example, Celeste Gamble talks in-depth about some of the methods that she applies when there is a lack of communication and something is unclear.

*When concept art is unclear and there is no further information or references, I am often invited to “wing it”, and model out the asset with my own details as I deem fit. Generate my own concept art or gather additional photo reference to flesh out the details. Then we can discuss my concepts/research, make choices and proceed with modelling.*

Marie-Michelle Pepin states that she too used to apply more creative methods to solving issues of unclear concept art, this however meant that she spent more time doing 3D concepting work than simply doing the 3D artist work that she was hired for. Mentioning that she now more quickly turns to communication to get a clear solution or feedback. Another thing she mentioned is that she often, when concept art isn’t clear, asks for additional sketches.
The biggest problem with these types of solutions to the problem is that, often, the 3D artist spends more time (and might potentially go out of budget) trying to fix things according to their ideas. As much as some clients might appreciate that, it could also go sideways and the asset could end up going in the completely wrong direction. This, again, costs time and money.

In regards adaptation in terms of style, Shayleen Hulbert talks about it in short, pretty much mentioning that there is mainly one way to go about it:

> It’s down to the 3D artist and the leads/art director to have a strong understanding of the art style they are trying to achieve. We then adapt what we have to fit through the help of feedback or style guides.

This somewhat echoes and mentions the importance of simply being experienced with the translation process. That it’s important to understand how a specific style is made up in order to properly create assets that fit that particular style. It pretty much comes down to the experience and skill of the 3D artist, or their lead artist/art director/client. However, if they’re not in agreement on what the style is, this could cause weird feedback loops where nobody agrees. Based on some things mentioned in the interviews with colleagues, there seemed to be a small complaint about there being multiple people to provide feedback, which sometimes contradict one another.

Which of these solutions of translating style and design from 2D and 3D are the most efficient and effective ones?

As a quick reminder, the practical research consisted of taking a piece of character concept art that has nothing to do with Fortnite and translating it to a Fortnite character skin.

Based on some of the survey and interview responses, there were a couple of methods that I was looking to attempt. I wanted to try and find reference images online of things that could help clarify some unclear portions of the concept art. As a backup, if things were still unclear, there would be the option of redrawing some aspects of the concept art to make it clearer. These are the two steps to apply to the concept art before even starting 3D production.

When starting the actual 3D process, it becomes a much more natural process of trial and error. Just attempting things, and seeing what works. Now, this concept art wasn’t mean to fit the Fortnite style and so that is the main chunk of the challenge. To get it to look like it could fit that universe anyway. A lot of this is done by comparing it to actual in-game assets to make sure that it’s on the right track. Checking to see what some of the style-defining aspects are of certain skins.

One thing that stood out was that the two lead artists I interviewed through Twitter seemed to immediately start talking about the importance of communication versus coming up with your own personal techniques. In an attempt to try and get some techniques out of them anyway, I questioned them some more. However, they stuck by their initial statements about the importance of communication between all parties, and the way in which to potentially better communicate and provide feedback.

> I’ll try to make sense of the concept, I’ll huddle with the director or others who need input on it and from there focus on trying to define those things I can’t in the concept. ... Asking questions that the concept cannot answer but should is a good one, making it more about direct problems.
> – Ryan Benno, Senior Environment Artist at Insomnia Games
Practical Research

Initially, I had all the intention to create multiple characters with varying degrees of clarity in design, however time was scarce and I ran out of it. So instead, I focused on this one character design by Harumi Namba.

I picked it since it seemed to fit the Fortnite universe well – in terms of theming, with this skin being centred around candy. It seemed like a fun design to attempt to translate.

Right away there were a couple of challenges, most specifically the fact that there are quite a few transparent materials in there that, sadly, Fortnite’s materials don’t allow for. However, there was the option to give everything a gummy look and make it very shiny.

To start this character off, I looked up reference images for all the distinct parts in her design, making sure that when starting the 3D process everything would’ve mostly been cleared up beforehand.

In the case of this concept, there wasn’t much there to be redesigned by hand, in 2D. So instead, from here, Block-Out phase started: modelling all the parts that are able to be modelled, creating basic shapes to get the proportions down, and translate those proportions from the concept to that of the 3D character. As you can see, their torso’s are quite different in terms of proportions:
One thing to note is that the breasts are originally much lower on the torso on the original Fortnite base body, so to match the concept more, those were moved up a bit. That’s one thing I learned: Although general proportions should stay the same, there is room to make small adjustments to certain parts of the character to make sure it matches the design in the concept more, though it took a little while to understand the extent of which this is allowed.

Whilst working on the Block-Out/High-Poly stage of this character, I made sure to ask for feedback every now and then. I fairly quickly got some valuable feedback from the lead artists that helped me see where the character was off in terms of looking similar to the concept and Fortnite. They often provide overpaints on top of the screenshots I provide to more clearly demonstrate what they would suggest in terms of changes. This is incredibly helpful and gets the point across very quickly.

Now, where I got into trouble was when I started working on the hair, after creating a simple sculpted base shape for it. The base shape went really well, it looked nicely stylized, however, it looked like straight hair. One of the reasons this concept was picked, was because the hair seemed like an interesting challenge – and boy was it interesting. It was one of the things that caused the most issues, since it’s such a big, detailed part of the concept. After researching a little and looking at existing Fortnite skins, I quickly realized that there aren’t really any characters with long hair. Generally, female characters wear buns or a ponytail, probably for easier animation and reducing the chance of hair clipping through the character.

Needless to say, the hair went through a couple iterations from very detailed and complex, to somewhat less complex, to much less complex. This was in an attempt to reduce the complexity of the hair to match the style of Fortnite more, but still trying to stick true to the concept.

Figure 3 Iterations on the hairstyle
Another important aspect of the character that should nail down the Fortnite style, but at the same time showcase a distinct personality, is the face.

![Figure 4 comparison face](image)

Keeping in mind that the face in the concept art nudges slightly more towards a realistic representation of a face, the challenge is to preserve certain features while leaving some exaggerated as you’d expect with the Fortnite style. Sticking to the facial features – the lips, the protruding cheekbones, specific chin shape and the nose. The eyes were adjusted a little bit to make sure the eye shape is somewhat similar, though these do remain quite a bit like the standard eyes for animation purposes.

![Figure 5 elbow protector comparison](image)

One suggestion, one motto to design by I received, was that all aspects on the character should be readable from a reasonable distance. For that reason, these elbow protectors – especially in the gummy pad – were massively simplified to make sure the readability is there and fits the style. The same goes for the frosting-type white bands around the elbow wrap. Finally, there’s one important step within the high poly stage, and that’s to add stylized folds to the fabric parts of the character.
These folds are a staple when making anything for Fortnite, and are very obvious on all the skins. They're rather sharp and to the point, not causing too much noise and the overall look of the piece.

![Figure 6 Folds, folds folds.](image)

After the High poly stuff is done, comes the Low Poly part of the process. What’s important here is to keep the vertex-count of the body and head to a certain maximum, as well as sticking to proper retopology, the kind that stays intact with the main body. For example, doing retopology on the elbow protectors, I kept following the edge loops on the arm below when creating the topology. This to make sure that when the character bends their arm, the protector moves with that motion properly. Same thing for other parts of the character that are in especially bendy places, like the knees.

Once the low poly is done, next step is to unwrap the model. This is a fairly straightforward process where, preferably, if certain UV islands can be straightened out, you straighten them out. This to make maximum use of the available space within the UV map.

Then, onto baking using Marmoset Toolbag. There’s a specific way to bake all the maps, the high poly onto the low poly using this software. However, this is fairly straightforward. We simply want most of the maps that can be plugged into Substance Painter’s Texture Set Settings.

Once baking is done and successful, it's time to set up a Substance Painter file. Within this file, there’s a specific set up of layers that Fortnite uses. Within these layers there’s at least a gradient mapping layer, this makes it so that you, as the 3D artist, can fairly procedurally texture your assets by picking three different colours to function as the highlight, neutral and shadow colour for each portion of the texturing. This “gradient mapping” is based on the bakes and mostly resembles the ambient occlusion map. It automatically puts the darkest colours into all the creases and the lighter colour where the highlights are. This makes it so that the basic colours are laid in quickly and immediately make sure there’s dimension to everything.

![Figure 7 low poly](image)

![Figure 8 Gradient mapping](image)
When all of the colours have been laid out, it’s time for specific fixes where necessary. Painting over the GMap (gradient map) in case there are any errors, or certain parts – the face for example – are too dark, or certain edge too obvious.

But then, after adjustments you’re already so close to being done with the process. Some other steps in the process include some roughness breakup, adding a certain pattern to flat surfaces to make it look a little more interesting and not just like a smooth bit of plastic. Adding a gradient is also much appreciate across objects of the same material, this to create a little more dimension and separation between the different groups of colour.

Throughout all of these steps, feedback was frequently asked for from the lead artists within Airborn to make sure I was on the right track with this character.

One of the final steps here is to add patches of dirt. This dirt is places using a brush and a muted brown colour at the bottom of certain meshes, to show that the character has been active in a real, dirty, world. Adding small marks to edges to make it look like the object has been used, also often helps bring this across.

After the textures are done (and throughout the process of working on the textures), we frequently import and reimport the textures into Unreal to make sure the final product looks the way it should, since it tends to look massively different in Substance Painter’s viewport. It tends to look much more saturated in Unreal Engine, so the colours (and often the Roughness) needs to be toned down by quite a bit to get the result required.

But then, after all that is done, the character is done and ready to be submitted to the Epic team.
Conclusion and Discussion

After conducting surveys, interviews and going through the practical research portion of this thesis by creating a character that belongs in the Fortnite universe, a couple have things become much clearer to me since starting this research.

When starting this research, I was very much under the impression that inconsistent and unclear concept art could easily be solved by an individual. Granted, if necessary, it could be solved by a single person. However, the situation just happens to be one where many more people than just the 3D artist and the client are involved. Meaning that, as much as the 3D artist can and will make certain calls, that does not always mean that these are the right calls. Or otherwise, that these are the preferred calls by all parties involved.

There are however a few methods that are certainly helpful and that will help the artist figure some things out before they start working on a new asset. Finding extra reference images of objects that resemble the ones in the concept art can be incredibly helpful for the 3D artist to get a better understanding of said objects, and so this option should definitely be explored.

Besides that, I also think that there is strength in redrawing some aspects of the concept art that seem unclear to you. By taking the time to draw some parts out again, you gain a better understanding of the shapes and how an object works or functions, how it’s attached and, for example, how something works mechanically – like a clip or a zipper.

Other than that though, as much as I initially was looking forward to find that to be true, the fact that these types of things are simply solvable by the individual by applying some smart techniques, I am now after all of this finding that to be very unlikely.

Throughout interviewing people on Twitter and colleagues answers to my survey, it becomes very clear that communication is the very foundation of making sure that these processes and workflows go over as smoothly as possible. The whole system is designed on receiving feedback frequently and making sure that there’s a proper opportunity to make the entire process go over as smoothly as possible. Granted, sometimes concepts just aren’t up to a certain standard, but luckily there’s an entire team of people (even just in-house!) that can help one another out trying to sort out what the best solution is to the problem.

The thing said when I just got to Airborn was to “ask questions”, if you’re unsure about something, ask them about it and they will gladly answer you. My guess is that one of the main reasons I was looking for a proper answer outside of communication is because of my own personal tendency to keep things to myself and try to solve things on my own, however, it’s clear that this simply isn’t the best solution and that nothing beats that proper communication and feedback loop, even the kind that just happens inhouse between the artists and the leads.

Of course, things could always go over smoother, especially when it comes to communication from the client to the 3D artist. However, improvements to that system are being made when there is an opportunity, like with the added feedback in video footage, which immediately improve everyone’s ability to receive feedback and understand it much more quickly than through regurgitated text.

One other thing I’ve learned that a very important aspect of being able to go about properly translating a concept from 2D to 3D, is that a lot of it comes down to experience and the skill that comes with that. Sadly, Fortnite has not given out a Style Guide that specifically points out all the things that makes Fortnite, Fortnite. I am definitely of the opinion that something like that could greatly improve the workflow, since I am convinced that this would be an easy thing to point at and look through to make
sure the asset is created according to it. I can however also see how something like a very tight style
guide could inhibit creativity from flowing, since you’re stuck to a specific document.

One statement that stuck with me that was made by one of my colleague, Alex Polovov, in response
to the question of “how concept art could be improved on the Fortnite project”. He said the
following:

*As a person who worked in the Dota workshop with very unskilled concept artists,
I’ve gotten used to the “3d interpretation and improvising” and working with
"dirty" shapes and angles :) At the end of the day, maybe it is the difference
between 3d artist and 3d modeler? ;)*

This statement clicked for some reason. It makes sense. Our entire job is to translate these concepts
to a different dimension, improvisation and finding creative solutions is a part of the job even when
it doesn’t always reward itself and it makes it more frustrating. Our job is to do as much as we can
and as good a job as we can, and then we pass it along to the client for feedback or approval.
However, we’re allowed to come up with our own solutions to the problem and see for ourselves (in
collaboration with the lead artists) whether it’s a successful attempt as solving the problem at hand,
or not, before sending it out for official feedback.

So, to answer the question

*How can a 3D Character Artist translate and adapt the style and design of the
concept art to that of a project?*

I would say that in the end, it’s done by the 3D artist taking initiative in attempting new, creative
solutions and building a library of creative solutions to certain problems through experience, and
building up that skill to keep finding better solutions to increasingly difficult problems. And to,
besides that, keep communication going steadily. It’s such an important part of the workflow for the
game and communicating and asking other artists and leads for their opinion and their personal
solutions, helps build that personal library.

As much as I was initially looking for a very cut-and-dry answer to this question, where I could point
out an objective way of solving an issue 100% of the time, the fact of the matter is that this simply is
a much more abstract problem than that. This isn’t a process that can be solved by math or a logical
equivalent. The problems and solutions change all the time, but the important part is to discuss,
communicate, ask for feedback, and simply attempt solutions and see if they work or not, to ask if
they work or not.
Recommendation

My personal recommendation for artists, especially beginner artists and artist that are new to a certain company is to not shy away from asking questions and communicating. It’s an easy thing to try and avoid in order to not come across as inexperienced or unknowing of what you’re doing, but it’s so important to the growth and the improvement of the workflow and process.

My personal recommendation to the company (Airborn Studios) would honestly be to keep going the way they are going. I’m of the opinion that they’re very well aware of when something could use improving and when there is something that could be improved, they do everything in their power to improve said situation. Some of the issues with the character concepts not portraying the proper proportions or example, and them suggesting/requesting the concept artists use the base bodies for the 3D character, would be a massive improvement. The fact that they started posting video feedback to make it easier on artists to understand Epic’s feedback was also a massive improvement, as mentioned by some colleagues as well.

My recommendation to the client, Epic, although this would never reach them, I think it wouldn’t be a bad idea for them to develop a proper (updated) style guide for them to use in-house and for them to distribute it to all of their outsourcing companies to improve the rate that assets are approved. I think that if there was a style guide that documents all of these things that, according to them, make something “Fortnite-y”. There seems to be confusion from all parties on that sometimes, making it harder for people to decide when something is “Fortnite-y enough”. Basically, a little consistency on their end, both in their feedback (their understanding of the style) and for them to make sure that they concept art they send out is of certain, specific standards to avoid further confusion and extra unnecessary time spent trying to fix things.
Resources


Appendices

Twitter Interviews

Celeste Gamble (@SandboxAlchemy) – Environment Artist at SanzaruGames

Hello, nice to meet you! Thanks for connecting with me.

I've been making games for 10+ years. I've worked as a freelancer for indie games, and on a wide assortment of other 3D projects. I've been a contractor for Triple A. And now I'm full-time at a mid-sized studio.

Depending on the project and the people, sometimes there is very detailed, well-considered concept art, and sometimes a flimsy idea on a napkin. Sometimes research and photo ref exists, and sometimes nothing at all.

Different studios function differently. They have their own rhythm and culture, expectations and priorities. They may have different takes on how you, as a 3D artist, should function in their studio system. Some studios value collaboration, communication, and engagement. Some just want you to go off into a corner and make something awesome without much oversight or input. Asking too many questions will be viewed as annoying and "hand-holdy". Some studios have NO IDEA what they want, and will run hot or cold depending on the day. :/ You kind of have to just stay sharp, learn fast, and try to figure out how things work, while minding different comfort zones.

I have definitely found myself in situations where there was poor concept art, little concept art, and no concept art. I think it’s always worth pursuing any communication channel available to get more information. Sometimes, however, there just won’t be any further information or images provided. Usually, though, I am invited to:

A) "Wing it", and model out the model with my own details as I deem fit

B) Generate my own concept art, or gather additional photo reference to flesh out the details. Then we can discuss my concepts/research, make choices, and proceed with modelling.

Occasionally I have encountered bureaucratic delays which have left me waiting, without direction, without a clear plan, for a few days. I prefer to keep busy, so even if I haven’t been told to make concept art, I will go ahead and do so, just in case.

HOWEVER, I imagine this is not typical for most 3D artists. I'm unusual in that I can also draw and paint, and have experience doing concept work as well.

But you can always gather additional photo reference, and if you feel more comfortable in 3D, you can "concept" in 3D, trying out different silhouettes and shape language options, which can also serve as a starting point for discussion.
Thank you so much for the lengthy response! :) It’s what I’ve been looking for, haha.
I’ve been discussing with a few other people mostly in lead roles, however the most common answer I’ve gotten is about communication, which, is entirely the way it should be done, however as you’ve mentioned, that’s not always possible and you’re left to solve it on your own.

I’m glad I could be of help! If you find yourself in a situation where communication is really poor on an ongoing basis, it’s probably a bad sign, a kind of employee abuse or neglect, and if you aren’t in a financially desperate situation, I would urge you and anyone else to consider moving on to a more respectful situation. Don’t waste your time with folks that don’t know what they are doing, or consider you, your time, and your work as not worth the effort of regular or consistent communication. Best wishes!

Ryan Benno (@BryanRenno) – Senior Environment Artist at Insomnia Games

Cool! Yeah so I’ve also had that feeling about concept art. I kind of see it like there are two types of concept art. There’s production ready and there’s show pieces. The show piece stuff is what can be troublesome if you’re trying to build new geometry off of it. It’s great if you want to illustrate a point to people and show "here is what we want it to feel like"

But it’s usually impressionistic in nature. Which means it doesn’t have well defined shapes and edges. Production ready concept art though should have this. You should be able to clearly read the shapes and forms within the piece.

Defined lines and edges are super important. And if it can define what the material types are in the piece that’s even better.

I had another student ask me something similar and she had to make one of each type of concept art and I think that really helped her to understand.

You can work off of show piece concept art but usually it requires a lot of talking between the concept and modelling artists to get all the answers right. The only time I’ve had it be useful without this was when the artist who made a show piece had reference images for every object he made.

Those images had the well-defined shapes, forms and material definitions.

But yeah that’s mostly my take on it.

Ah yeah this all makes sense! :) I was reading an article that Baj Singh wrote that’s in LinkedIn that actually mentions some of the different “art” that are made. One of them indeed being more impressionistic and more meant to give the viewer an idea of the mood, lighting, setting and feel of the place rather than to be taken as a one on one for a 3D artist to translate.

If there isn’t a possibility for proper communication though (for whatever reason that might be), what method do you generally try to apply, if there is any? Is there ever a time where you jump into Photoshop to mock up your own interpretation of the concept art (or a part of it), for example? Or anything like that?
Yeah I’ll try to make sense of the concept. I’ll huddle with the director or others who need input on it and from there focus on trying to define those things I can’t in the concept

Ideally you don’t want that to happen

I can only think of one instance in a studio where that happened

And it was a bit of a nightmare lol

Hahah yeah I can imagine

Yeah I think that might be kind of the hurdle of being an outsourcing company.. I’m not entirely sure, I haven’t had a lot of experience working at different companies. But I’ve seen a few examples that were the biggest hassle to get done

Partially because the concept art wasn’t accurate, or otherwise the client would decide to go a different route than the concept

What I’m kind of trying to do with my research is finding ways of solving certain problems yourselves and minimizing the amount of “feedback loops” there are, however, since art is subjective and opinions change, I’m not entirely sure how.. applicable any of it would be to the “real world”

Yeah in same way that’s the fault of the client. I work with our outsourcing partners a lot on feedback and unless you know exactly what you need the concept for I can see someone being like “oh this looks pretty. Were done”

I think there’s ways to figure stuff out in the rigid format of art creation. It’ll just be different from studio to studio

Hmm yeah, and probably from concept to concept and artist to artist, haha.

Yeah it can!

It’s like casting in a way

Yeah, having been here for two months now I’ve seen a lot of inconsistency in even just style that’s messing things up a bit. Proportions not matching up, causing shifts in the entire design

One theory I’ve heard is that it’s probably because Fortnite grew so big so fast they’re pretty much taking in any concepts for the sake of making content asap

I’m kind of stuck with this kinda _knowing_ that the best solution to this is to solve it at the root, aka having the client actually set certain standards. However, me being either A) the 3D artist or B) actually an intern, me going over and telling them how it’s not isn’t really plausible I don’t think, haha.

Yeah that’s super frustrating! There’s always ways to address issues like that though.

Asking questions that the concept cannot answer but should is a good one. Making it more about the direct problems than the process

Its one way to work around it. It’s not directly addressing the issue but if there’s a pattern it’s something you could bring up after
Although some places and people are weird about entitlement shit like that so who knows

Honestly the amount of ego bruising some people can’t handle when things aren’t working is kind of gross.

Oh yeah, I’m honestly not sure what the client would do with this kind of information, though the solutions to the problem I’ve heard many times within the company (i.e. draw on top of the 3D model to keep proportions), but I guess.. that’s just not happening haha.

Ack yeah that’s a problem

The teacher that’s currently helping coach me with this thesis kind of suggested that it might be nice for beginner artists to have some sort of guide through my final thesis that could help them deal with such problems, or something. Potentially.

I usually ask OS [outsource] concept to do that too. It helps a lot

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Toby Hynes (@TheRedbranch) – Character Lead at Sony WWS

My advice would be to have some kind of guidelines set up for whoever is delivering the concepts (Epic?). We tend to use ‘1 sheets’ for Outsource that give concepts 3/4 front, back, side, reference images and a margin down the side which gives notes on anything we call out on the images or concepts that needs additional info or clarification. Even then I will be available to speak to OS artists so they can ask me questions over Skype or Jira comments. So if you don’t have direct contact with the concept artist, I would expect there is some kind of Lead Artist or Art Manager at Epic who should be able to answer questions or provide better visual guides. Ultimately the more info they provide - the faster and higher quality the work will come back.

Ah, yes! As far as I’m aware there’s definitely contact between leads at Epic, daily. Just that as non-lead artist or otherwise project manager, there isn’t that direct contact or option to contact them “24/7”, which often leaves enough time to get stuck on something.

So with that being the situation, I’m mostly looking for potential solutions to the problem or methods that an artist themselves could apply to dismantling concept art that might not be as useful as you’d like it to be, or should be.

If you get a one to one or daily catch up with your Lead or project manager I’d collate a list of common questions or issues you have with the current concepts. Maybe speak to the other artists on your team to see if they are also having the same issues. You could put it too your manager that for example the current concepts are too vague of detail so open to interpretation which you can do, but thus can lead to lost time if your interpretation isn’t what the Lead at Epic had in mind. If you have a list of additional info that would be really helpful to clarify in future concepts then this is something your manager can go back to them with. If he doesn’t want to do that, then I suggest you have some kind of team stand-up or quick meeting to discuss new concepts, so you have a soundboard to help you interpret concepts. That way the Lead can potentially collate all the teams questions/ideas and can go back to Epic and say ‘we are thinking this item on the concept of this character is ☑️. Is that ok?’
Shayleen Hulbert (@UnicornDevGames) – Freelance Character Artist

How can a 3D Character Artist translate and adapt the style and design of the concept art to that of a project? (this was actually the main question I supplied to paint a better picture)

Not really sure how to answer this question as I don’t fully understand it. I’m sorry! I think when it comes down to translating concept art successfully it is down to practice. You learn how to break down a design and understand its key visual language so that you can create that yourself. It just a skill that needs a little bit of development.

What is most often the issue with the concept art you get to work with, when it comes to translating it to 3D?

The most common problem is you aren’t sent concepts, you are given illustrations. Concepts explain the elements in the design, keep rendering to a complete minimum and have nice clean line art so I can see the design clearly. Often what happens is I receive a really nice illustration but something like the shoes will be roughly painted so I can see if it’s a boot, sneaker or shoe. Belts are the worst offender; you receive a brown or grey rough paint stroke and then it’s up to me to design and figure out what that piece is.

How do those issues affect your workflow, what kind of problems does it cause?

Concepts should answer any questions I have about the design but more commonly we just receive a 3/4 view illustration that is a bit rough and vague, so then it’s up to us to fill in the gaps and make informed decisions on how we will design and build the missing parts. This takes time and a little bit of a trial and error with the client. How I will interpret a concept is different to how another artist may so misunderstandings have been made about how a shirt is constructed or if these are pants or tights.

How do you deal with these problems? Are there any specific methods or solutions you apply to try and resolve it?

I just try to ask questions but mainly I have learnt to adapt and break down concepts quickly so I can reference and research what they have given me. A lot of updates and feedback loops with clients to make sure I’m on the right track is important to find mistakes early.

The first question is my main question that I will answer through other questions, though to elaborate on that: one of the problems I’m seeing is that we get concept art delivered that doesn’t really adhere to the style of the project we work on (Fortnite). Meaning proportions are off, specific defined stylistic choices that you see in Fortnite aren’t present, etc. So besides looking for a way to deal with unclear design (such as shoes you can’t tell are boots are sneakers), I also want to see if there’s any “methods” I could apply to adapting/translating that style present in the 2D concept art to the 3D art to fit the project: Fortnite in this case.

So I might have worded that a little weird, but that’s my ~main question~ that should be answered in my thesis based on all the other questions as well as practical research, haha.

I don’t know if you’ve ever had projects where the concept art didn’t really fit what the rest of the project looked like or anything?
Oh for sure, it happens all the time.

At that point it's down to the 3D artist and the leads/art director to have a strong understanding of the art style they are trying to achieve. We then adapt what we have to fit through the help of feedback or style guides.

I guess on the concept art side they should be doing the same on their end. If it doesn't fully fit the art style feedback is always going to save them. What I find though is that concept art is just about selling an idea, they don't need to be perfect because that's why the rest of the team exists. we work together to achieve the result we need.

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Marie-Michelle Pepin (@Marie_M_P) – Freelance Character Artist

What have you found is most often the problem with concept art that's delivered to you? (style inconsistency, unclear design, etc)

There is a wide variety of issues, the ones I come across the most are.

Inconsistency, So for example, front and side views that doesn't match (pointy nose on side view and low tip of nose in front) shape of things/details that aren't consistent in both view, can be contradicting each other's.

Unclear designs, design that are drawn quickly to look good, but that had little thought put into it. Sometimes it's hard to make those designs work in 3d, they can be illogical, or floating objects that defies gravity or just lack of information about the materials.

Design that doesn't consider how things will move/be animated. If you design for games, you need to think about how things will move and be animated with the constraint of our tools.

That means avoiding certain design choices when you know they won't animated well or will cause rigging issue or interpenetration for example. Huge shoulder pads that would definitely intersect with the head when the arms are moved for example.

Making cool looking robots without considering how the joints will bend. Using hard surface materials on joint or area that WILL deform in game and look weird.

How do those problems stand in the way of a smooth workflow/production?

Sometimes it's hard for people to identify those concept issue until very late in production. For example a design can be approved and look great, but once passed down to the 3d artist we realize that the concept is inconsistent, that there is some info missing about certain parts or that the joints on concept don't actually work in real life. In some case the design can be sent back to concept art for more information, but sometimes the times are short and it will fall into the hands of the 3d artist to try and find creative solution and try to make this work. This can definitely cause delays and issue because while iterations and redesign can be quite quick in 2d, it's not the case in 3d. Also the 3d artist might not be the most fitted to find those solution, depending how comfortable he is with making design decisions (for example I am not).
What are some of your own methods and solutions you like to apply when this happens? (do you ever go as far as to redesign the 2D concept art, for example?)

I am unfortunately someone that feels very uncomfortable making big design decisions as a 3d artist.

Usually overcoming small inconsistencies is not a big problem, as long as the client understand the concept art is inconsistent and that I will have to interpret the design in 3d to make it work.

When it comes to very vague concept and missing information/details I always prefer to request for additional sketches (even if only doodles), usually its quite fast to get one of those from the concept artist and make the design clear and easy to follow.

With vague and unclear concept I used to be a bit more “creative” and try to come up with the missing information myself a bit more, but often it now becomes a 3d concepting job and things are changed over and over again with way slower turn around and higher cost than just waiting one day for a small sketch and doing things right on the first try.

When it comes to things that will be hard to animate, it really depends of the specific issue at hand. Sometimes its very small stuff and I take care of it myself/bring it up, (this accessories at the front of the hips might deform super badly once the leg is raised, mind if I push it a bit to the side where it will look better?) But for bigger issue I prefer to raise a flag so we can send it back into the concept art department if needed.
Survey responses

Name

I will remain anonymous! (Steffen Unger)

What’s your current role/position within Airborn?

Owner, shit... I am not anonymous anymore

What are some problems you’ve had or often have with concept art Epic delivers for Fortnite skins and props?

that they do not match the actual body they are supposed to be fore

Do you find the concept art to be stylistically inconsistent with the "Fortnite style" often?

It can certainly happen, which makes direct production harder. on the other end, it also gives more freedom to apply yourself

Do you have any experience with the Fortnite concept art provided being unclear in terms of design (i.e. scribbly details, unclear shape language)?

all of this can happen, dependent on the concept artist, the timeframe involved and many other reasons

How could the concept art that we receive for Fortnite be improved? What would make it easier to work with?

making sure they are designed onto the right body templates would be a good start.

In terms of communication and feedback, what’s your opinion(/experiences) on the way you currently receive feedback from Epic? (i.e. frequency, clear/vague language)

I’d say, the daily frequency is pretty nice. With the videos it is pretty clear by now what they want to see in this specific round. But things can change dependent on who reviews it.

How could feedback and communication be improved?

Making sure the feedback comes from one person

How do you deal with unclear concept art? What are the steps you take, solutions, methods?

First step ask internally how to handle it. Second step ask the client how to handle it, maybe give solutions. Then it should be somewhat clear how to proceed

How do you deal with unclear feedback? What are the steps you take, solutions, methods?

Ask questions, internally, if needed externally. I never ask too few questions in that case. I bug them until its clear.

Do you have any other thoughts, experiences or opinions regarding these topics that didn’t fit in with any of the other questions?

Don’t be afraid to ask questions :D
Name
Andrea Orioli

What’s your current role/position within Airborn?
Lead Character Artist

What are some problems you've had or often have with concept art Epic delivers for Fortnite skins and props?
  Incoherence between front and back views/ Concepts sometimes not based on the base bodies we’re provided with so proportions don’t match well/ Painted materials sometimes are hard to understand without having also a photographic reference of what they’re going for.

Do you find the concept art to be stylistically inconsistent with the "Fortnite style" often?
  No I would say it’s usually spot on with the style of the game.

Do you have any experience with the Fortnite concept art provided being unclear in terms of design (i.e. scribbly details, unclear shape language)?
  Sometimes yeah, some details don't match between different views or don't carry on, so the 3d artist has to find a viable solution to make it work.

How could the concept art that we receive for Fortnite be improved? What would make it easier to work with?
  Using standard proportions based on the skeleton joints, define materials with some photo references of the material properties if possible.

In terms of communication and feedback, what's your opinion//experiences) on the way you currently receive feedback from Epic? (i.e. frequency, clear/vague language)
  Feedback is understandable and spot on in most cases, other times it’s all based on subjective interpretation of the concept and that can be confusing.

How could feedback and communication be improved?
  //

How do you deal with unclear concept art? What are the steps you take, solutions, methods?
  Depending on the issue, I try to find a creative solution to make things work, or if it's extremely unclear I’ll just show the client the problem and ask them on how they'd want me to fix it.

How do you deal with unclear feedback? What are the steps you take, solutions, methods?
  Same as above.
  Do you have any other thoughts, experiences or opinions regarding these topics that didn't fit in with any of the other questions?
Name
Sandro Silva

What’s your current role/position within Airborn?

Character Artist

What are some problems you’ve had or often have with concept art Epic delivers for Fortnite skins and props?

The biggest gripe we’ve had with the concepts, is how unclear sometimes they can be (urban Scavenger, Rhino Squad). Some other times, front and back views don’t match entirely with each other, which we can clearly resolve, but it’s always a game of back and forth with epic and us.

Do you find the concept art to be stylistically inconsistent with the "Fortnite style" often?

They don’t always reflect what Fortnite is, and the more time passes I don’t think Epic sometimes even knows what Fortnite as a style is, and with such a huge company growing more every day, I guess consistency can be a hard thing to maintain, when you’ve over a dozen character artists, to guide and get their part done, so they can send it to the respective studios to realize the 3D model.

Do you have any experience with the Fortnite concept art provided being unclear in terms of design (i.e. scribbly details, unclear shape language)?

Well, I guess we could pick all of them and just go with it, obviously some are worse than others, the worst case scenario concept I’ve particularly had, was the Urban Scavenger one, and the Rhino Squad, the Urban Scavenger, "shaded concept" was just, awful to use as a reference, the colours didn’t give you any indications of depth or shape, the little we could see, still wasn’t enough to get an idea of what Epic wanted. So yeah, a lot had to be guessed. Sometimes we’ve more drastic scenarios that have only happened once so far, where 3 weeks prior to the delivery date, the entire skin changed. That was a funny one.

How could the concept art that we receive for Fortnite be improved? What would make it easier to work with?

One of the things we’ve suggested, was, using their own 3D base meshes, (we also use to sculpt the skins on) as their base to render skins, it would just make everything unbelievably easier on all of us.

In terms of communication and feedback, what’s your opinion/experiences on the way you currently receive feedback from Epic? (i.e. frequency, clear/vague language)

Their most contradictory thing, for me at least is, how they want the 3D to look like the concept, and once you do that, they steer away from it. Then on the next skin, you take all of that in account and keep the main stuff from the concept but also, try to give it a different steer, and they shut you down, by telling you to stick completely to the concept. There’s a lot of contradiction every now and then, especially with folds as well. But with this said, all of this is understandable.
How could feedback and communication be improved?
   I don't think it will be that improved from here on out, we're talking about a huge
   game, that has a huge social impact, that keeps spitting content at an incredibly rate, never
   seen before, there's not a lot of time to tinker with certain things and get a more Concrete
   path. Which ends up being Wild and fun in a way.

How do you deal with unclear concept art? What are the steps you take, solutions, methods?
   As I've stated before, There's a lot of guessing here , the whole thing ends up being a
   game of who is who, and what is what .

How do you deal with unclear feedback? What are the steps you take, solutions, methods?
   This used to be a worst case scenario, before we had access to the Dailies , now that
   we have that, a few things became clear, also their tone when giving us feedback, as for
   Solutions , we usually consult with each other on Slack, and try to guess what they wanted,
   most of the time we get it right, otherwise , we'll be told so on the Dailies.

Do you have any other thoughts, experiences or opinions regarding these topics that didn't fit
in with any of the other questions?
   As I stated above, for me at least, even though the whole feedback, and concepts can
be a mess, we're still working on the top game of the moment right now, with an outstanding
player count, it's a huge gratification to be part of this Success Story, and provide us with so
much, even though we all have our own gripes, We've managed to do so much in this past
year, Heck, even Collaborating with Nike. I've nothing but gratitude to both Airborn and Epic
games , thanks to this entire game, I can provide myself and my own family, and have a
Stable life, doing all sort of crazy characters.

Name
Victor Pancrazi

What's your current role/position within Airborn?
   3D Character artist

What are some problems you've had or often have with concept art Epic delivers for Fortnite
skins and props?
   Perspective issues, only a 3/4 view (but not always)

Do you find the concept art to be stylistically inconsistent with the "Fortnite style" often?
   No. Not for the characters I've been working on so far

Do you have any experience with the Fortnite concept art provided being unclear in terms of
design (i.e. scribbly details, unclear shape language)?
   Sometimes shading problems or unclear details as mentioned

How could the concept art that we receive for Fortnite be improved? What would make it
easier to work with?
   Better Model sheet I guess
In terms of communication and feedback, what’s your opinion on the way you currently receive feedback from Epic? (i.e. frequency, clear/vague language)

The problems I had sometimes is the feedback they give is different from what you actually have on the concept (colour correction from example), or at the last minute you have to change something and therefore redo some of your previous work.

How could feedback and communication be improved?

Maybe having 1 or 2 person giving feedbacks instead of a whole group of people.

How do you deal with unclear concept art? What are the steps you take, solutions, methods?

If it really is unclear (for example no back view), I could ask for a paint over I guess but most of the time I ask one of the lead character artist his opinion.

How do you deal with unclear feedback? What are the steps you take, solutions, methods?

Do you have any other thoughts, experiences or opinions regarding these topics that didn’t fit in with any of the other questions?

Nope, all clear.

Name
Tim Moreels

What’s your current role/position within Airborn?
Character artist

What are some problems you’ve had or often have with concept art Epic delivers for Fortnite skins and props?

Finding a balance between matching the concept perfectly and to some extent ignoring the concept to make it fit the style.

Do you find the concept art to be stylistically inconsistent with the "Fortnite style" often?

Sometimes.

Do you have any experience with the Fortnite concept art provided being unclear in terms of design (i.e. scribbly details, unclear shape language)?

Yes, but nothing crazy.

How could the concept art that we receive for Fortnite be improved? What would make it easier to work with?

If it was a bit more consistent in terms of artstyle. But this is not always possible.

In terms of communication and feedback, what’s your opinion on the way you currently receive feedback from Epic? (i.e. frequency, clear/vague language)

The feedback comes pretty frequent and is usually pretty clear IMO. But it can sometimes be quite a bit of back and forth until everyone at Epic likes the work.
How could feedback and communication be improved?
   It might be nice if they internally settle on exactly what it is they want first, before giving feedback. But they want to go for a more iterative process, which also has its pros. It's more work, but it's easier for them to see what works and what doesn't work.

How do you deal with unclear concept art? What are the steps you take, solutions, methods?
   I just try to make it match the style. If it's THAT unclear that I don't know what I'm looking at, then I just ask them. But that honestly doesn't really happen a lot.

How do you deal with unclear feedback? What are the steps you take, solutions, methods?
   If it's actually unclear, then just ask them. But if it's more of a vague direction, then I just try to see what is the underlying problem that they are pointing out. Often times, feedback isn't as literal as it seems. Example: "Part A is too contrasty and light" even though maybe part A is maybe not contrasty and actually quite dark already. Maybe there's other means of applying this feedback... On top of making it a bit less contrasty and light, you could also make a part next to it more contrasty and light. So that it looks more in balance. Often times it's more important to look at the given problem than to look at the given solution for it.

Do you have any other thoughts, experiences or opinions regarding these topics that didn't fit in with any of the other questions?

Name
   Jonas Kunert

What's your current role/position within Airborn?
   3D Artist

What are some problems you've had or often have with concept art Epic delivers for Fortnite skins and props?
   It is not that big of a problem, but environment concepts are often just flat colours. The amount of dirt and weathering sometimes can be guesswork. I think we have a pretty good feeling for what works by now. Sometimes concepts don't come with scale reference, although that has not happened in a while. In general the Concepts are good though. Some prop concepts are flippin ace.

Do you find the concept art to be stylistically inconsistent with the "Fortnite style" often?
   No. BUT it has happened before that the asset had to undergo late changes because the legal team decided to remove a skull-symbol (no-go for Chinese market) or similar. IMO the legal department should approve concepts before they go into production.
Do you have any experience with the Fortnite concept art provided being unclear in terms of design (i.e. scribbly details, unclear shape language)?

   Experienced scribbly details, but that is mostly fine because those often just serve to define the material. Shape language is more important and here the concepts deliver.

How could the concept art that we receive for Fortnite be improved? What would make it easier to work with?

   Matching orthographic views

In terms of communication and feedback, what's your opinion/experiences on the way you currently receive feedback from Epic? (i.e. frequency, clear/vague language)

   Environment department is not picky like character department. one or two feedback iterations (sometimes same-day feedback). Language is clear.

How could feedback and communication be improved?

   //

   How do you deal with unclear concept art? What are the steps you take, solutions, methods?

   When in doubt, ask my leads, they evaluate and if necessary clarify with epic. In most cases this is just a bit more creative freedom and space to make something up (like a back view not being defined by a concept)

   How do you deal with unclear feedback? What are the steps you take, solutions, methods?

   Ask co-workers and leads what that is supposed to mean. or how they would interpret this. If needed ask them to clarify with epic.

Do you have any other thoughts, experiences or opinions regarding these topics that didn't fit in with any of the other questions?

   //

Name
Karina Bastos

What's your current role/position within Airborn?
3d Character artist

What are some problems you've had or often have with concept art Epic delivers for Fortnite skins and props?
Sometimes I found some details a bit unclear to understand specially in the back part of the characters.

Do you find the concept art to be stylistically inconsistent with the "Fortnite style" often?
No
Do you have any experience with the Fortnite concept art provided being unclear in terms of design (i.e. scribbly details, unclear shape language)?

Yes. Sometimes tattoos, accessories and details on the back parts of the characters are hard to understand.

How could the concept art that we receive for Fortnite be improved? What would make it easier to work with?

I personally like when the concept comes with some of the references that they use to create it. It’s easier to fill some of the gaps if you understand what they were thinking in the concept process.

In terms of communication and feedback, what’s your opinion/experiences on the way you currently receive feedback from Epic? (i.e. frequency, clear/vague language)

In the beginning was kind a crazy, but it has improved a lot with the video feedback its much clear to understand their opinions on the piece.

How could feedback and communication be improved?

For me feedback had improved a lot lately, the only thing it’s that sometimes some parts of the audio are hard to understand (too low, or noise). So if we could to something with the sound quality would be nice.

How do you deal with unclear concept art? What are the steps you take, solutions, methods?

I usually ask for help of my colleges and look for more references online.

How do you deal with unclear feedback? What are the steps you take, solutions, methods?

It depends on the feedback, usually I ask for help of my leads if it’s really unclear.

Do you have any other thoughts, experiences or opinions regarding these topics that didn't fit in with any of the other questions?

No.

Name

Alex Polovov

What's your current role/position within Airborn?

Character Artist

What are some problems you've had or often have with concept art Epic delivers for Fortnite skins and props?

They could've been a bit more "respective" to the base bodies in terms of proportions and silhouette. They always either exaggerate or diminish shapes, sizes and volumes.

Do you find the concept art to be stylistically inconsistent with the "Fortnite style" often?
Nope, from what I've had (Evil Bunny, Bone Wasp and Red Riding Remix skins) all fit to the YOLO-style they have. I'm glad that they tend to "slow down" with the skins complexity for the latest seasons.

Do you have any experience with the Fortnite concept art provided being unclear in terms of design (i.e. scribbly details, unclear shape language)?

Yes, sometimes it's even simply about picture resolution. And I'm not fan of bumping my leads, Julian or any other superiors for each small thing, so sometimes I have to trace out the shapes in photoshop before I start modelling them.

How could the concept art that we receive for Fortnite be improved? What would make it easier to work with?

Well, maybe some sort of clean orthros could help us potentially? Example: https://piortumble.tumblr.com/post/185521859683/freshening-up-some-old-stuff But hey, as a person who worked in the Dota workshop with very unskilled concept artists, I've got used to the "3d interpretation and improvising" and working with "dirty" shapes and angles :)

At the end of the day, maybe it is the difference between 3d artist and 3d modeler? ;)

In terms of communication and feedback, what's your opinion(/experiences) on the way you currently receive feedback from Epic? (i.e. frequency, clear/vague language)

Ooh that's a whole other story. It's like black and white from week to week. They ask to remove shapes and then ask why are you missing them in your turntable. They tell they like the material, and next week they ask why it feels so bad? I even thought if it could work like this: you submit stuff, get feedback, make zero fixes or edits, submit it in 3 days and get approval :D

How could feedback and communication be improved?

Reading your previous feedback before providing fresh one. Simple as that.

How do you deal with unclear concept art? What are the steps you take, solutions, methods? Intuition, piece of mind and imagination. Haha.

How do you deal with unclear feedback? What are the steps you take, solutions, methods?

My English sucks so I try to ask my superiors to explain me uncertain points in feedback while offering my own interpretation of things to them.

Do you have any other thoughts, experiences or opinions regarding these topics that didn't fit in with any of the other questions?

Your questions were great, it could've been super-nice if Epic asked something like this.
Figures