



TAMPEREEN
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THE ROLE OF CONCEPT ART IN GAME DESIGN

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Option of Game Production

ABSTRACT

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Great games come from thorough planning and the best method of planning graphical aspects is concept art. This thesis examines the fields of concept art and their uses in the industry. Concept art can be created with many different ways, most famously drawing and photobashing. Skills like photography, 3D-modeling and even arts and crafts are also heavily involved with creating concept art, as the finished concept art piece is often a mix of multiple methods.

A piece of concept art has a goal to visually demonstrate the look and feel of a specific area, a character or an item in a game. Concept art can be split into three different subject areas: environments, characters and props. Many concept artists choose to specialize in one subject area.

The creative process of concept art includes wide ranging research, photo references, art knowledge and even storytelling. The concept artist needs to conduct in-depth research on the area and era they are working on, and then communicate this with colleagues on the project. By having the artist co-operate with level designers, 3D-modellers and others involved, the concept art will have a clear objective and help all of the parties in the development of the game. During development concept art offers a guideline to the art style and graphical choices, which helps to unite the vision.

Concept art is often one of the first things created for a game design, and concept artists will be extremely busy at the beginning of game development. With speed being an important factor in working as a concept artist, there are many methods concept artists can use to “cheat” in their creative progress. The use of photobashing, photo textures and high influence references have been argued about in the art communities, but for concept art, these methods greatly speed up the process and allow for better quality concept art. If concept art is well made and proven to be useful, it will follow the development of the game all the way to the conclusion.

I have created all of the used pictures myself, using various different methods discussed in the chapters. The concept art pieces serve as examples of the methods described and to demonstrate different objectives and subject areas of concept art. By creating them and researching all the best ways to do so, I learned a lot about concept art and what it takes to work as a concept artist.

Key words: concept art, environment design, character design, photobashing

TIIVISTELMÄ

Tampereen ammattikorkeakoulu
Tietojenkäsittely
Pelituotanto

HEIKKINEN, SIIRI:
KONSEPTITAITEEN ROOLI PELITUOTANNOSSA

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Loistavat pelit syntyvät perusteellisesta suunnittelusta, ja paras tapa suunnitella peligrafiikkaa on konseptitaide. Tämä opinnäytetyö tutkii konseptitaiteen eri alalajeja ja niiden käyttöä pelituotannossa. Konseptitaidetta toteutetaan monilla eri tavoilla, kuuluisimmin piirtämällä ja photobash-menetelmällä. Valokuvaus, 3D-mallinnus ja kaikenlaiset käsityöt ovat myös vahvasti mukana konseptitaiteen luomisessa, ja valmis konseptikuva on usein yhdistelmä monia eri metodeja.

Konseptikuvalla on aina tavoitteena demonstroida pelialueen, hahmon tai yksittäisen esineen ulkonäköä ja tunnelmaa. Konseptitaide voidaan jakaa kolmeen eri aihealueeseen: ympäristöt, hahmot ja esineet. Monet konseptitaiteilijat erikoistuvat yhteen aihealueeseen.

Konseptitaiteen luova prosessi sisältää paljon taustatutkimusta, valokuvareferenssejä, taiteen ymmärrystä ja jopa tarinankerrontaa. Konseptitaiteilijan täytyy osata tehdä perusteellista tutkimusta alueesta ja aikakaudesta, jonka kanssa hän työskentelee. Kommunikointi muiden projektiin osallistuvien henkilöiden kanssa on tärkeää. Jos konseptitaiteilija onnistuu kommunikoidaan tasosuunnittelijoiden, 3D-mallintajien ja muiden osallisten kanssa hyvin, konseptitaiteelle saadaan selkeä tarkoitus ja se hyödyntää kaikkia osapuolia pelin tuotantoprosessissa. Pelin tuotannon aikana konseptitaide tarjoaa ohjeen pelin tyyllille ja graafisille valinnoille, mikä auttaa luomaan yhteisen näkemyksen.

Konseptitaide on usein pelituotannon ensimmäisiä askelia ja konseptitaiteilijat ovat todella kiireisiä projektin alussa. Nopeuden ollessa tärkeä asia konseptitaiteilijan työssä, on olemassa monia tapoja joilla he voivat "huijata" luomisprosessissaan. Photobash – metodi, valokuvien käyttö ja referenssit ovat suuri väittelyn aihe taiteilijoiden piireissä, mutta konseptitaiteessa nämä menetelmät nopeuttavat prosessia huomattavasti ja usein auttavat luomaan hyödyllisempää konseptitaidetta. Jos konseptitaide on hyvin tehty ja todettu hyödylliseksi, se on pelin tuotannossa mukana loppuun saakka.

Loin kaikki opinnäytetyössä käytetyt kuvat itse, käyttäen työssä mainittuja eri metodeja. Kuvat toimivat esimerkkeinä eri tavoista tehdä konseptitaidetta, sekä demonstroivat eri tarkoituksia ja aihealueita konseptitaiteelle. Tutkiessani konseptitaidetta sekä luodessani omia konseptikuviani, opin paljon konseptitaiteilijana työskentelystä.

Asiasanat: konseptitaide, ympäristösuunnittelu, hahmosuunnittelu, photobashing

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1 INTRODUCTION

All the game projects I have been part of, which usually involve a team of two to six people, have always followed the same pattern: Project launches quickly. We start with no idea, no greater drive and little confidence. In some cases the only guideline we had, was to make a game into a certain mold, an ordered math game or a game for kids, which at the time felt more like a restriction than anything helpful. One thing is still certain, there is a deadline.

It always took a significant amount of time to generate an initial concept to get everyone on board. When the idea finally came, whether it was enough to spark interest or just good enough that it has to do for a lack of alternatives, at least one member panics about the looming deadline. The first reaction is to jump right into work on the very first day the idea is formed, resulting, too often, in most of the planning time being spent brainstorming potential ideas whilst the majority of the actual planning occurred while the coders are already hard at work building major parts of the game and with half the graphics being created on the sidelines, without supervision

This scenario obviously results in a huge amount of issues. However, in my thesis I want to focus on one aspect that occurred whilst working with graphics in small projects that of the impact of a lack of concept art and the effect this would have on the final product and the overall workflow as a graphics artist. Simply put, concept art in amateur projects is often viewed as an aspect that can be skipped, due to time constraints, with a reluctance to set aside time for ideas to be drawn and imagined for a week.

In my experience however, when multiple artists start working on different parts of the graphical elements without a well-defined and clear guide, it easily turns into a mush of different styles and people's own visions of how something should look and feel like. Even when there is effort in defining a single scope to follow, just talking about it or showing professional work with Google search rarely works. Quick talks over a cup of coffee are easy to forget, and it is difficult for novices to follow a professional's methods and style. Concepts like pretty princesses, cute animals or pompous villains mean more different things to people than one would imagine, before asking four different artists to draw them.

This is where concept art comes in to play. Concept art is a form of illustration used to present an idea. It is the predecessor to a lot of visual media and is used by creative artists to develop the work. When taking the extra time to plan out the style, look and feel the game is going to have, the artists now have a vision to follow. Concept art, especially in small projects, does not need to be grand or polished, serving with the purpose of only getting the idea out to the collective colleagues to establish a common consensus during the creation phase.

2 METHODS OF CONCEPT ART

In this chapter I want to shed light on some of the methods of creating concept art. These are by far not the only ones, but perhaps the more preferred techniques. These methods are not intended to be taken as a singular way of creating art, but more as some of the techniques that people in the industry employ to create it. Concept art is quite often a combination of drawing, renders, photo textures and a lot of photo editing. Photoshop skills are of utmost importance as a concept artist, as artists will save quite a lot of time and be able to create larger and more complex pieces easier, after learning how to take advantage of all the existing resources, while working on a picture.

2.1 Drawing

Drawing might be the most well-known method of creating concept art. To most people who do not deal with concept art in their daily lives, when they hear concept art, they think of drawing. Being able to draw, to some extent, is very important with concept art as even though a lot of it can be done in different ways, creating brand new designs and shapes will almost always require some form of drawing.

Concept drawings can be just fast sketches with pen and paper (picture 1), but especially in game industry it is very common to use digital drawing programs and tools. Traditional drawing on paper is a quick and easy method for those who have done it a lot and already have methods of getting their ideas out quickly on paper, however, with new and increasingly more sophisticated software and hardware most new artists start working with digital drawing right away. Modern drawing tablets can be set to behave very much like a normal pen, along with all the benefits of customization. Digital drawing has many advantages when it comes to concept art, as when working with a deadline, time cannot really be spent detailing some specific pose or trying to get the perspective of a building right.



PICTURE 1. A hand drawn sketch.

Digital art can offer advantages of numerous drawing programs, which provide helpful tools for creating perspectives easily, generating textures for objects or drawing terrains with repeated patterns. Creating a template for a whole city by just stacking up block shapes in Photoshop can happen in moments, whereas sketching it on paper would take hours. With digital art tools the artist can move any piece they want however many times it takes to get it just right.

Most digital drawing programs also have the option of custom brushes, which makes styling and detail work a lot faster. Drawing everything by hand without photobashing, custom brushes or other tools can take a while to do and will often not end up looking realistic or detailed. Digital drawing programs do not remove the sketching process of the drawing completely. (picture 2)



PICTURE 2. A river bar at night, drawn without photo textures or custom brushes

2.2 Photobashing

Along with drawing, photo editing is an essential skill for concept artists. A method called photobashing has become highly popular among concept artists who work with strict deadlines and realistic graphic style. It is a method involving the use of 3D-models, photographs and painting, blended together to create a concept image. Photobashing is an extremely fast method of creating big pictures and is often used for rendering images like cityscapes, for example. Along with the speed, it also allows artists to create realistic looking pieces. Making a completely hand drawn image of a busy city street, while keeping the art style realistic, can take days or weeks even for experienced artists. When speed is paramount, it is no surprise photobashing, and the use of Photoshop, in general has become an important part of working as a concept artist.

Using this style does not mean anyone with a photo editing program can suddenly be an artist. The ability to use resources smartly and being able to keep the image consistent, instead of looking like a scrap book, is a skill on its own and needs to be learned from experience. Merging pre-existing images into a compatible composition is not as easy as

it may seem from the first glance. Concept artists using this technique need a lot of understanding and expertise in composition, lighting and form. (Heginbotham, C. N.d.)

The work with photobashing does not end in simply merging pictures together. It still requires drawing skills, but in a different meaning than that of drawing a character from scratch. Editing images, painting over them or hiding seams is all drawing in its core. Photobashing will always have the work of painting lights and shadows on the images to make them appear to be in the same scene. (picture 3)



PICTURE 3. Restricted access house. A photobashed image.

The artist also needs to establish what can and what should not be used in art. Finding all the images needed for the piece is a time consuming process, and if one goes into it with no plan for where to even start looking, the photobashed image might take as long to produce as when drawn from scratch. Concept artists need to know how to research and use search engines to be as efficient as possible. Any found image cannot be used for the art, as it will need to be high enough quality to fit the realistic nature of the artwork without becoming pixelated in the final product. The use of copy-righted materials for photobashing is plagiarism and therefore cannot be used.

2.3 Photography

Knowing the basics of photography and having a camera around at all times is a useful tool for a concept artists. More often than not, payment does not come from providing pictures of existing environment. Game graphics are often based on real environments, but have something distinctive about them. It might be a fantasy element or a dystopian look. Sometimes just some photo editing is enough to get the result that is desired for the image.

Some games are based on real environments and instead of having concept art made, the developers may visit the areas and take photographs to use as a point of reference. Sometimes graphic artists have no specific area as a reference and are left with pictures of real life objects as reference. Despite this, there is always a need for good image references and photos can contribute to this effectively.

Taking photographs of objects and sceneries seen in the world that might be relevant for the work can prove to be a great resource for photobashing. The internet is full of material, but if the kind of photo needed already exists for free, it saves a lot of time that would otherwise go into researching.

Photography is more of a skill that complements being a concept artist, than something every artist must do to create good concept art. Taking pictures of objects and textures that could be useful and keeping them around is probably a better approach than trying to go out and find the required photography target every time something new is needed.

Photography is a great way to learn image composition and understanding of scenarios. The artist has to think of how to take a good photograph of what they are seeing, the angles to use and how the light affects the scenario. These are all concepts the artist has to think of when editing the pictures, but thinking about it already in photography and paying attention to how the real scenario works, can make it easier to comprehend for the final product.

A good use for photography skills is staging poses and setups. If the artist is has willing models, they can stage their own character pose for the concept piece. Taking their own

reference pictures lets the artist use the kind of fabrics and light directions that they want to aid the editing process. Staging clothing can be done with simple fabric pieces or existing clothes. Thinking through and staging major lines and fabric choices of clothing leads to insight on how the material behaves and falls on the pose. This can help with clothing design later on. In some situations posing for a photoshoot can be a lot faster way to try out light directions and poses than 3D-modeling the characters. (Saffadi, S. 2018)

2.4 Sculptures

Clay sculpting and other real life modelling work is perhaps a lesser known and less frequently used as a technique. This technique does not have much use when designing top downs, or other types of games where characters are only shown from one angle throughout the game. Sculptures do however have the huge benefit of the graphic artist being able to view the character or creature from any angle, making recreation in 3D and animating a lot easier. Studios with the resources to do so may also use physical models directly by 3D scanning them.

There are countless methods of making sculptures, however most will instantly think of clay sculpting when presented with the idea. Sculpting useful models often involves more techniques than simply clay; clay does not stand on its own very well and will often require a support structure to work with. Artists will often use materials like iron wire as skeleton-like support for the model. Simply a skeleton of a creature made from iron wire, without all the fancy detail, may turn out to be extremely useful when modeling and animating the final product.

When building a physical sculpture of a game character the artist has to plan every side of it. (picture 4) With sculptures it is not possible to simply hide a part the artist does not want to draw or design. While making sculptures the artist will end up thinking about the way it would move and behave, regardless of if it was the intention or not and if the sculpture cannot stand on its own the creature probably could not either. Wrapping one's head around the movement and anatomy of fantasy creatures like a six legged dog or a two headed snake makes a lot more sense to most people when the creature is something the viewer can handle, turn and even touch instead of a picture on a screen.



PICTURE 4. A sculpture of a demon dog.

It is perhaps more of a finished design method, and takes a lot more time than a simple sketch. Creating physical models of characters is not for everyone, and often not even needed. Forcing sculpting into concept art without the skills or experience to do it efficiently will most likely be costly and time consuming without any benefits. It does however have its benefits when used right, as a real life model allows the viewer to get a complete picture of the character and often has more impact than a drawing.

2.5 3D-modeling

3D-modeling is a highly appreciated and very important skill in game design, and it also has a big role in concept art. 3D-models provide a fantastic base for the artist to paint over, without having to worry about drawing perspective correctly. 3D-modeling as a base for concept art is a great way to learn digital painting and image composition without the need to be great at drawing. 3D-models can be just basic shapes or more detailed structures (picture 5), depending on the situation and the artist's preference.



PICTURE 5. A 3D-model of a weapon with some detail.

Models can be used to pose big fight scenes or busy cities while easily keeping the perspectives on spot. They also work well for outfit design as it removes the need to draw the character base, making it a great option for artists on a deadline. A lot of professional concept artists use 3D characters and objects to stage the scene in their art before getting into drawing. All of this still involves lots of editing and drawing over the rendered images. 3D-model usage can also offer realistic textures for the objects, which helps to keep a realistic look to the art. (Feghali, W. N.d.)

A way to make the process of 3D-modeling faster is to use kits and pieces other people have already made and shared online. The method is called kitbashing, a method of gathering resources from different kits and pieces of 3D-models to create a new model. It works extremely well for concept art, because the pieces do not need to be a perfect match, as they can get edited later in Photoshop. Selling 3D-models is common and it is very likely someone else has already made most of the pieces a concept artist will need. (Saffadi, S. 2018)

3 CONCEPT ART SUBJECT AREAS

It would be hard to find a concept artist who has mastered multiple components of the process, due to its wide ranging areas, so often artists will have to specialize in one area in order to excel at it. Essentially, the split for the primary subject areas is character designs, environment designs and prop designs. Specializing does not mean being able to do only one type of concept art, but choosing what interests the individual the most. Being able to build skills in one particular subject matter allows the artist to do fantastic work in their specialization and get hired to positions, where they get to design what they enjoy creating the most. (Concept Art Empire. N.d.)

3.1 Characters and creatures

Every story needs characters and there is always a character designer behind it all. Even games without any dialogue or storytelling need visual designs for every character and monster in the game. A universe where every character looks and acts the same will easily become boring, and bringing life to a game world often requires multiple interesting characters with personalities and roles for the player to interact with.

A big part of character design is the environment, where they live and what they do in the world. It is really important to pay attention to the surroundings of the character especially if working on someone else's world that has already been established. An essential goal in character design is to create characters that fit into the world they live in and merge in with other characters and creatures, while still seeming unique in some way. Knowing the world and how it works is the first step in reaching this goal. (Bowler, M. 2015)

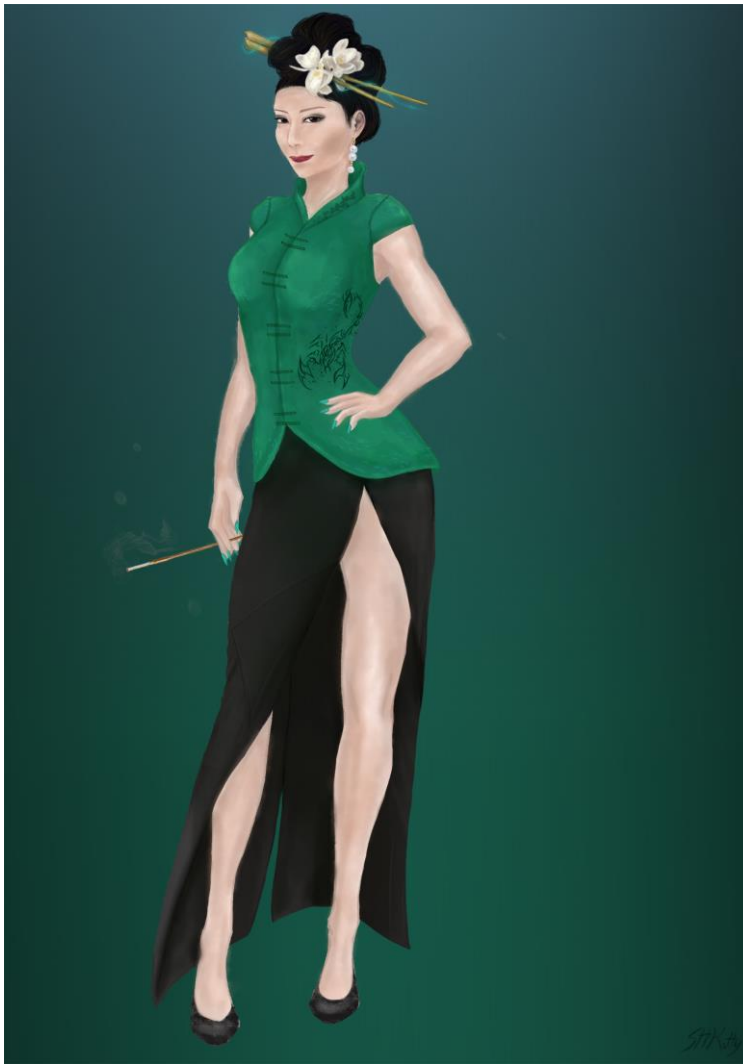
In some situations a character designer can get a readymade description of a character to create a visual representation of, and sometimes they get free hands to design the character fully, including their personality and behavior. When facing a situation where the artist needs to design the character fully from description to appearance, the artist will also need some storytelling skills on top of designing skills. Establishing a good starting place will often start with acquiring a character outline or profile, through either writing personally or receiving it from a narrative writer.

The outline serves the purpose of defining all relevant details of the character and what their role is in the world. It should explain what the character does, what equipment and clothing they can have and what they need to fulfil their role in the world. It is also good to think about how they got there and whether their back-story shows in their appearance. It is crucial to do research on the environment and time period the character will be in. Collecting different clothing photos, portraits, pictures from museums and art galleries can work as excellent inspiration for creating an accurate representation of a character in a specific era. (Bowler, M. 2015)

Having completed the research the natural progression is to try to create something, create a lot of something. Making multiple thumbnail pictures is a good way to get quick low effort designs and see what looks visually good. Being bold in the designs, trying things that have not been done before and pushing for new ideas is the only way to get original ideas to incorporate in the final design. A single drawing of a character is simply one possibility of what a character may look like. Doing a lot of versions with various poses, ages, expressions and outfits will always result in a more rounded and well thought out character. (Pluralsight, 2014)

When designing multiple versions of a game character or outfits for the characters, it is not efficient to start over with posing the character every time when starting with another design. Creating a set of templates early on and having them ready for reuse can improve efficiency, as drawing on top of already thought out poses for the characters speeds up the process. This lets the focus be more on the design itself rather than precious time being spent doing the technical stuff of getting the anatomy right.

When the final creative choices have been decided for the character, the artist can make a final full picture to use as a reference. In some cases this is not even needed, and the best thumbnail art will simply be enough to work with. Often the final design is a combination of different elements, and will be more helpful, if it is combined into a new version. The goal of the final work is to communicate all the small details, colors and materials that will be used for the character in the game. (picture 6)



PICTURE 6. Glamorous Chinese lady. A character design.

3.2 Environments

In modern games it has become a trend to show off beautiful environment design and the world the graphics team has put into the game. The players might be thrown into a big open area where they can roam freely or the level takes the player through a scenic route. Some might even stop at an especially stunning place and makes the player unable to miss the view by approaching it directly, changing the camera angle or even a vista point. In games like these environment designers really get to shine, and concept pieces can get replicated fully into the game world. This way, graphic artists do not need to rethink the composition and focus points again when creating the scene.

In environment concepts the point is not to just show off singular objects in a neat pile, for showing off a specific type of a car or a trash can the concept artist should just make

an image with only that as the focus point. Environment concepts are there to let the team in on the general look and feel of the game and to show what kind of emotions the scene or place in game wants to convey. Environment concepts are useful with making level design and environment graphics work together.

Out of all concept art types environment design relies on art knowledge the most. Knowing and utilizing different compositions and focal points shapes the viewer's experience and creates a mood for the picture. In games the rules of how the viewer's eye gets guided along the images still apply; it is just not limited to a still image. Designing the environment thoroughly and paying attention to focus points is very important when making graphics focused games. It is always important to establish how the environment will be used. If the area involves a lot of vertical or layered travelling, it will need a lot more detail than a run through corridor area.

Perspective and scale play a big role in environment design and need to be communicated to the viewer somehow. Some artists like to use humans as scale, but that is not always possible for all projects. Birds are a surprisingly effective way of showing the scale of an environment. Environment designers need to be able to create many different kinds of elements like people, plants and animals to make the environment seem lived in and possible, even if it is an alien planet. (Concept Art Empire. N.d.)

Composition is one of the main skills an environment concept artist has to use in their work. Composition is essentially where you put the elements in your picture. It is the vital component of environment concepts and can change the way people see the image. Symmetrical compositions are often calming to the viewer, where asymmetrical compositions are more dynamic and place emphasis on one side of the piece. (Sawyer, M. N.d.)

In game design concepts it can be highly valuable to be able to portray the mood and the focus of the picture to the viewer. Not only can this put deliberate emphasis on some elements, which can be important story or gameplay assets, but can also highlight the areas the player will be looking at whilst playing. Composition happens in every art piece regardless if the artist pays attention to it, but knowing how to direct the viewer's eye can help the graphics team put effort and detail in the right places. (picture 7)



PICTURE 7. A boat approaching the open sea gate, with a fairly calm atmosphere.

3.3 Props

Concept artists specializing in prop design are responsible for all the objects found in the game world. The specialization includes everything from guns (picture 8) and vehicles to streetlamps and stoves. Props can change heavily from project to project, and the objects found in different game worlds even within the same project can be completely varied. All the objects seen in the game still need to be appropriate to the environment they are in. A big part of prop designer's work is to create concept art of objects from different angles, giving 3D-modellers a fully pre-designed object and good references to work from. (Concept Art Empire. N.d.)



SHKaty

PICTURE 8. A gun design.

Prop concept art has a bigger impact than it may first seem. All the weapons the characters wield and the artifacts they find are part of prop designer's work. A big part of what makes a game environment unique is the well thought out individual objects, which represent the area they are in. A game world can have a completely unique set of household objects, weapons and vehicles with new ways to function. Everything about these objects needs to be designed from their look and textures to moveable parts and mechanics.

Prop designers often end up drawing multiple pieces of art showing the same object, from all different sides and modes of it. To be able to design functioning objects, the artist needs to know how the possible real world equivalent works. Most objects in game worlds draw inspiration from the real world, or have similar functions as real world objects. A prop designer can benefit from a visual library consisting of breakdowns of objects like guns or cars, including how their appearance changed over the time. This helps understanding how the objects function and how to make them appear capable of functioning in the concept art.

4 CONCEPT ART IN DEVELOPMENT

Concept art follows the production through the project. It starts from the first basis of the game graphics, turns to being a reference for graphic artists to fall back to when unsure what to do, serves as a reminder of the goals for the environments and characters and can be repurposed after the project is finished for advertisement purposes. Many game studios like to do booklets of the most prestige concept art that has been used for the game and sell it alongside the finished game.

4.1 Brainstorming

A lot of early stage concept art is just simple drawings, because exploring different options and aesthetics is much easier and less time consuming with simple sketching. Professional artists can make a lot of small sketches of buildings, characters and assets very quickly, and will often include variations with small differences to consider. Making versions of an asset with small differences might sound like a lot of wasted effort at first, but it is very helpful in setting the art direction for the project. All the small decisions made by the team in the brainstorming phase help to create a guideline that can be followed through the whole project. When all the creative decisions are made, the 3D artist only has to focus on how to make a model and not on what to make. (Sherrill, A. 2017.)

When brainstorming the details of a game idea with the development team, it is good to always have some surface to draw on. As concept artist, it can be really helpful to be able to draw quick sketches right away to show the plan so far. (picture 9) Getting the basic ideas through the team right away can really help smooth the graphic design process along. Nobody wants to do wasted work, not even concept artists, so starting to visualize right away and showing it to others will help the team align the art direction faster. To be helpful with visualizations, the artist has to be able to show unfinished work and ask for opinions on design choices.



PICTURE 9. A quick hand drawn sketch of a ship .

4.2 Art style

Adapting someone to a game project whose art style badly clashes with the other artists in the project is going to be disastrous, if art style and rules are not set early on. One important purpose of concept art is to set the rules of the art style. Does the art style have vibrant colors or earth tones? Does it have visible outlines? What kind of proportions do the characters have? All of these will have wildly different results if multiple artists get to freely create without any limitations, and in a finished game it will look conflicting and messy.

Having an art director usually solves the issues with art style and graphics related decisions, but it is often not possible to have someone go through all the art related things in small projects. Just having one or two people set aside doing concept art while the rest

of the graphics artists wait around is also not possible when working on tight and limited schedules, like in school projects. In small, quick projects just few images of concept art done together with the team in a day or two can be highly effective, when all the graphics artists have something to use as reference when making the graphics.

Having a few concept art pieces showing the art style, proportions and unique visuals in characters (picture 10), the type of nature or other environments, and the color palette of the game can really help the development. Having concept art at hand when needed will speed up the process of creating assets for the game, as there is always something to refer to for things that will be needed and for example texture styles. Concept art does not remove the need for the art department to communicate, but something like art style can be hard to articulate to people, and works better when shown.

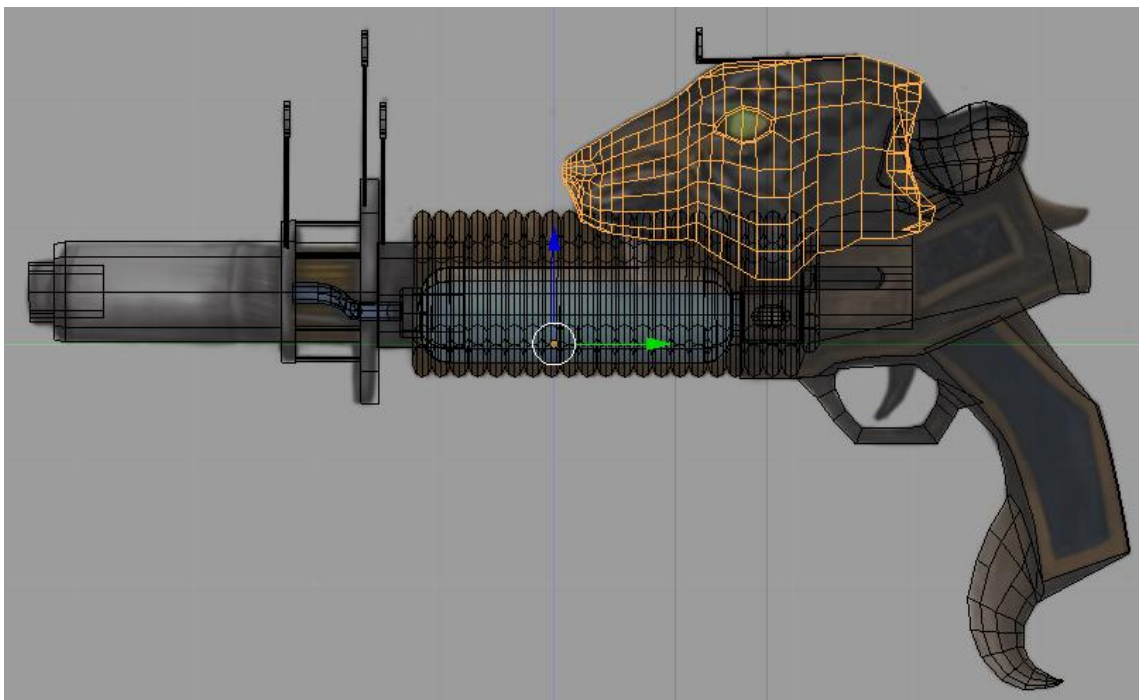


PICTURE 10. A character design of an old cat monk.

4.3 References

Everything in a game needs to be designed and regardless of whether the environment was designed by a concept artist or is a replication of a real world location, 3D-modellers and level designers rarely have the time or possibility to think through every cosmetic detail or object placement. Making artistic choices and designing creatures while 3D-modeling is more difficult and time consuming than designing something first and then 3D-modeling from reference.

Concept art can serve as a reference for a level designer, showing for example a well-planned out city, where the level will be placed in. The concept art will help keep the level consistent with the era or area the game is set in and give the level designer a basis to work on. For 3D-modellers the concept art can serve as a direct reference to replicate into a 3D-model (picture 11), or a general reference of textures and shapes to use. In 2D-graphics the concept art can be the basic idea of what the game will require and be a reference to all the graphics yet to come, helping to keep style consistent.



PICTURE 11. Prop concept as a reference for 3D-modeling.

Concept artists can feature important details and mechanics in their designs, showing how pieces move in an object or how a creature would walk. Attention to important detail can help 3D-modellers create all the aspects needed for making the animations

work and help animators create them. Designing moving pieces on static drawings can be challenging, but thinking all the moving aspects through in the design can help the creation process later on. Concept art can have highlighted areas or separate pictures of small details to help 3D-modellers get all the important parts of the design right.

Making the massive amounts of graphical assets required for a game has enough challenges and time consuming aspects in itself. The use of references someone else has already researched and picked out will relieve a lot of extra work from the graphics artists, who can then focus on doing the best possible quality assets.

4.4 Ancillary uses

Concept art works as a good method of convincing people who are not part of the creative team to stay on board the project and to show progress in designing. Concept art is easy to show and often looks good to producers and project managers, and it does not cost as much money and time to produce as a 3D equivalent would. With concept art it is also often easier to show the bigger picture of a game. Concept art can show a whole map that will be playable in a game or combine multiple important aspects of the game into a single image. (Pickthall, J. 2012)

Some studios like to use concept art as a method of getting attention for an upcoming game by releasing concept designs to the public. It can be a risky move as a lot of concept designs that get made during the development get scrapped for a better design, and releasing unconfirmed concept art can give the wrong impression of the finished game. (Ngo, J. 2017) Concept art can become promotion art, but it often gets modified and polished a lot. The process is highly different from designing concepts and can be done by a completely different department, like marketing.

5 WORKING AS A CONCEPT ARTIST

Concept art is a highly competitive career and the people wanting to work in it have to be ready to prove themselves. Concept artists can learn everything they need by teaching themselves, but not everyone has the focus for independent learning. Art schools and game designing schools can help with learning the fundamentals of being a good concept artist, but there is no pipeline school or skill set that will land a concept artist job. In the industry the biggest things that help with getting hired are being able to create quality art quickly, being versatile and being an approachable person to work with. (Concept Art Empire. N.d.)

5.1 Developing skills as a concept artist

Every artist has their own art style and their own taste in visuals and that is really what art is about. People are often afraid to copy other's style, but finding two people who manage to make the exact same style is not possible. Because of this taking inspiration from the style of skilled artists should not be something for amateurs to fear. Raw drawing talent is rare in people, but concept art techniques and good working methods are something that can be learnt with enough dedication. When studying to be a concept artist, finding mentors to look up to and to learn from who are doing appealing concept art is an important step. Not just appealing in a sense that it looks good, but also in sense of their artistic style and the subject area they work in. (Saffadi, S. 2018)

Analyzing another artist's work and trying to create art in the same way they do it is a quick way to learn concept art. Copying the best and innovative people the artist has found can help the aspiring concept artist develop their own style in the long term. Exploration can be fun and beneficial but might not go anywhere when it comes to learning fundamentals and good practices. The essences of exploring and changing art style are important, but should be done after the artist has a solid foundation of an already working system of creating concept art. (Saffadi, S. 2018)

5.2 As a profession

Concept artists are often not static jobs in a game development company, like a coder might be. A lot of concept artists work as freelancers and get hired for specific projects

or tasks. Concept artists, like any kind of artists, will all develop their own style and preferred methods over time. All methods and styles might not suit all projects, so a lot of concept artists get hired for a specific project for their expertise and specialization that suits the project's vision.

Some studios do not always even need or want to use a concept artist for their game's art. Sometimes all the graphics team will use is real life pictures of objects and environments. This is more common with projects that aim for an extremely realistic style, as there is little need to pay an artist outside the company to redraw already existing objects for reference. Using real life pictures does not mean nothing in the game is designed, and projects that use photographs still need creative decision-making done and for someone to go out and take the photographs.

The most valuable employees in the ever growing, competitive game development industry are the ones with multiple talents and expertise. Often the selected applicants are not the best at drawing, but people with skills in 3D-modeling, photography, effect work and publishing programs, who are interested in expanding their field and knowledge. The more programs the artist has in their tool belt, the more valuable they will be to the employer. (Bay, J. N.d.)

When planning to make a living as a concept artist, it is rare to get hired for projects where the concept artists gets completely free hand in creation and can choose what they want to design. A professional concept artist needs to be comfortable with everything and has to be able to adapt to a different style or subject area. It might seem like a lot to have to be able to create new designs in completely different scenarios and subject areas, but on the other hand there will never be two projects that ask the concept artist for the exactly same thing, keeping the job interesting and varied.

If the artist has specialized in a certain subject area, for example at designing vehicles, they can be hired mostly for that job, but this is not always the case and in realistic settings it is hard to find positions where one could only work with their preferred subject area. Specializing does have its benefits however, since all projects will not require all fields of concept art. Being an expert in a subject area can really shine when getting to work in a project that requires a lot of designs in that area. To get the kind of work they specialize in, artists should always proudly present what they are best at when advertis-

ing their work. Matching the right artists for projects is always a challenge with great rewards.

5.3 Research

Concept artists can rarely come up with new and unique ideas, but rather design ideas they already know of to fit a specific narrative for the project they are working on. Creativity comes from what a person has seen or experienced and how they can comprehend it. To be able to always create something that feels new and fresh, concept artist needs a huge visual library. To achieve this, an artist should simply look at a wide variety of objects, and whilst a simple concept, this can actually be harder to achieve.

A visual library of inspiring things that can be used as reference can be gathered from anywhere: nature, museums, art galleries, the Internet or just in the everyday life. It is often good to take photographs and save images that seem like they would be helpful in the future. Just looking at pictures from an area or an era where the game will take place in can help spark inspiration for concept art, even if they do not show the objects or types of characters the artist is creating. (Bowler, M. 2015)

5.4 Objective of the art

Anything is possible in the game industry and artistic opportunities are only limited by the artist's imagination. When working with so many possibilities and often multiple artists, concept art exists as a way of grounding the creativity to a single artistic vision. A common mistake to make is to see concept art as illustration. Concept artist's objective is to explore ideas and quick possible concepts as fast as possible, where an illustrator's objective is to create highly polished advertisement style artwork. (Pickthall, J. 2012)

A piece of art without an objective is not concept art. Concept art exists to design and quickly visualize something that will be created in higher detail or in different methods. Concept artists cannot draw whatever sparks the first inspiration, but have to always make pieces that will be useful in the development. This may mean having to draw areas the artist finds boring, or characters the artist does not like. If those images are needed for the development of the game, the concept artist will have to put effort into ren-

dering them. Concept art that cannot be used as a reference is not goal oriented and will not help the development. In the picture below, the objective is to showcase the outfit, and everything else, including the character wearing it, are lacking detail. (picture 12)



PICTURE 12. A quick outfit design.

Drawing something that comes up from a quick Google search is not worth it, but doing a search of the subject matter is a good way to start a concept art piece. The results of the Google search can shed a lot of light on how to approach the design and can work well as a basis for the concept art. Simply redrawing the image found from Google is not going to be worth the effort either, if it does not offer anything new. (Saffadi, S. 2018)

A big part of working as a creative person in any role is enjoying the process of creating and not just the finished creation. In a team with a common goal, nobody can make pieces only for their own enjoyment. It is common in the industry that not all designs, regardless of how much effort the artist put into it, will end up in the finished game. There are multiple other factors that can cause a design to be cut, lack of time or a part of the game being cut for various different reasons as examples, and the artist cannot be heartbroken over every dropped design. When working as a concept artist the best way

to do so is to learn to love the whole process of creating designs from the blank paper and research phase to the finished design. “Love what you do, not what you make” (Pluralsight. 2014)

5.5 Cooperation

Game development will always be a team effort, regardless of all the different departments of it. The game will never be a fully tied together and consistent product, if all of the departments do not communicate well. Like in everything, in concept art it is very important to communicate with everyone involved in the development. With good communication the concept artist can be able to provide more helpful concept art with less time spent on reworking it.

Conversations with 3D-modellers and art directors should be a daily part of working as a concept artist. If anything about the task or the objective of the art is unclear, it is always better to ask for clarification. The best use out of concept art comes when the artist has gone through the design process with the rest of the team. 3D-modellers and art directors can provide valuable insight on the designs and the artist will get helpful second opinions on the design process. When the artist is ready with the final design, it is helpful to be able to explain the thought process behind it and the choices made in it, when passing it on to the graphics team. (Yu, D. 2018)

Art directors can give guidelines on what type of designs would work best, level designers can provide valuable information on what kind of areas will be needed and how much the player is going to be able to see, 3D-modellers and animators can help with what kind of reference images are useful for them and with the limits of the design, lighting department can help with knowing the limits of artistic freedom with time of day or light sources in the concepts and the effects team can help with all kinds of smokes, fires and steams that might show up in the environment.

Asking for feedback on the work from other concept artists and professionals who are more experienced in the field is something that may be hard to do, but that is where the best advice comes from. The field is competitive by nature, and often artists have a mindset that every other person working in the field is an enemy and if someone does a great piece, some artists can get bitter instead of inspired. Friendly competition is good

for improvement, but creating art should always be about everyone getting better at it. Receiving and giving feedback are the best ways to improve and help others improve. (Saffadi, S. 2018)

5.6 Speed

Concept art is a tool among many other tools of game development. It is not going to be the finished product and does not need to be perfect. Concept artists need to learn when to stop and move on, instead of polishing the concept art. (Yu, D. 2018) The amount of artwork required for any project or production can be overwhelming, and the time the artists have to make it all happen is never as much as they would want it to be. A good way to speed up the process of concept art is to use photobashing as much as possible, instead of hand drawing every aspect of the picture. (Heginbotham, C. N.d.)

For example, when working on a flying saucer as the main focus of the concept art, digitally painting the whole grass field in the background and researching the anatomy of a cow well enough to draw one, is not going to be time well spent. In this example it would be way faster and easier to use nature photographs and edit pieces of them into the background in a fitting manner. If the flying saucer is a simple object with mostly hard edges, and the artist spends most of the time trying to get it symmetrical and fitting to the perspective, it could be easier to create the base of it as a 3D model first. After learning the best and fastest ways of making each part of the image, creating big scenes with lots of detail on a strict deadline will not be such an impossible sounding task anymore.

Using 3D-models for the basis of concept art is a good way to save some time that would otherwise go into posing and sketching. 3D-models should especially be used when working with multiple characters in the same image, it allows for changing the angle of the image and editing small details, like where a character looks, without much effort. A useful shortcut in staging scenes in 3D-programs for concept art is to search for premade models online. Making an anatomically correct human to be used for every situation will take a very long time, and it has been done multiple times before. A lot of people share and sell their 3D-models online. Many concept artists use Daz 3D as a resource for their work. (Saffadi, S. 2018)

Even outside of 3D-modeling, it is very likely, that some other artist has already needed the assets for all pieces of concept art. It is a huge amount of time saved, when the resources are already available online, instead of every artist needing to cut them out of photographs or draw them themselves. Sharing tools and resources can be helpful for everyone, and let all artists focus more on designing, instead of doing photo editing tasks. (Yu, D. 2018) Simply saving assets from old works can be really helpful in the future, especially with vegetation and textures, which can be easily reused.

Concept art is often done at the beginning stages of game development, meaning concept artists are the busiest at the beginning, while other departments might not have anything to do yet. Concept artists will probably never get as much time as they would like to have to design freely, and inspiration often does not come out of thin air. Concept art still has deadlines like all kinds of work, and missing a deadline will affect everyone involved with the project. When working as a concept artist, it is extremely important for the whole project to stay on schedule and let others know as soon as possible if the deadline will be missed. (Yu, D. 2018)

5.7 What is cheating?

The pure artistic vision is a very subjective concept and it is seen very differently by different people. It is the desire to keep art free from stock images, photobashing and even references. Some people, who have a very pure artistic vision, often call photobashing cheating. The artistic community of the Internet often debates what is cheating in art, but when working as a concept artist cheating should not be the primary concern and avoiding it should not be the objective of the art.

It is necessary to always remember that concept art is about presenting an idea, not about making an artsy, beautiful picture in the most pure way. Game projects have strict deadlines and concept art needs to happen fast, it still has to keep a realistic style and look engaging, it can be a lot for new concept artists and forcing art can be difficult. Sometimes the concept artist has to use so many photo textures and so many references, that it feels like cheating. (Saffadi, S. 2018)

Picture references save time from researching subjects and learning how to draw every animal and anomaly on earth. The concept artist can never be enough of an expert in

every single subject matter they end up drawing to be able to know how to portray for example anomalies in nature without a reference. A good method to cheat in image composition is to use Google earth. It allows for a quick way to get good images of real cities and mountain formations to use as a basis for the concept art. Setting up compositions in Google earth is so quick and easy the artist can try many different things without wasting too much time. (Saffadi, S. 2018)

All professional concept artists use references and most do almost all of their work with photobashing, merging multiple stock images into their work. The skill is in being able to do the quick method of using photo textures without making the image look like it has parts of a photograph in it. Some of the fine lines between expert and novice concept artists are in being able to shamelessly use resources in the art and blend them in just right, so they fit together and do not look like photographs, yet keep the realistic style and detail. (Saffadi, S. 2018)

With photobashing techniques copyrights in the used images are something to always look out for. When taking pictures off the internet, using something without permission is a copyright violation, and might cause a lot of trouble. Using professional stock photo websites is a great resource when looking for photos on a deadline. When using sites that already combine only royalty free images, it removes the need to go through the extra effort of finding out if the gathered images can be used. (Heginbotham, C. N.d.)

6 CONCLUSION

I hope this read has convinced you of the importance of concept art and how it can help along the development process. I wish you luck with all your future projects and hope you will put some time aside from the busy planning phase in your next projects to do a few concept art pieces to help guide the graphics along the way.

This thesis has more character concepts than anything else, because I mostly draw humans and humanoids in my spare time. It is not my recommendation to do mostly characters, but just something I personally prefer. Art is very subjective and this thesis is merely my work and research. What works for one person, does not necessarily work for another, which is why it is so important to always continue researching, checking out other people's work and trying out new things.

I moved from pen and paper to digital drawing only a few years ago and I still have not been able to shake off the issue of never being done. The digital paper never breaks and it can be zoomed in so there is always more detail to add and something to fix. Reading a lot about concept art and having to do art that has to be done on a deadline for this thesis taught me a lot. I ended up using methods I had never used before, and moved more pieces from in progress folder to done folder than in years. Shamelessly photo-bashing felt better than I expected and I will certainly learn more about it in the future.

I have personally been inspired by Disney concept art many times. In recent years, Disney has released more and more concept art from their older films, and some of the newer films even have the artist's commentary on why they went with the changes they did. A lot of the concept art designs are very different from the finished product and often have a good reasoning behind it, reasons nobody would have even thought about before making all the concept art to try it with. You can even find some really rough looking impromptu thumbnail sketches, which were used to create the very first drafts. Disney has also done a lot of detailed sculptures of famous characters, even back in the old days. I know Disney's production does not have much to do with games, but the concept artist commentaries are a great read, if looking for more knowledge of the power of concept art or for inspiration for any kind of art.

Game studios often only release few extremely polished concept art pieces of their game to create interest, or release a reworked and polished book of concept art to sell along the game. It is really rare to see the raw drafts and the versions that got discarded first getting out to the public. I guess that is part of the reason why beginner artists think concept art takes too long and should not be used in school projects. With small school projects I would not even spend as much time as I did on some of the pieces I made for this thesis. Keeping it rough and cheating as much as you want is probably the best way to go, when having to get it done quickly. You should not worry about it not looking pretty enough, that is not the point here. The point is to just get a quick rough guideline and an idea for your team.

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