CHALLENGING AESTHETICS

A Look at the Field of 3D Graphics.

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INTRODUCTION

3D graphics has in the recent years become a solid and important part of the graphic designers tool box, but as it is still in its teenage years, it has a tendency to look and feel similar in many cases. This made me wonder if, and how the aesthetics of 3D graphics could be challenged. I therefor aim to do an exploratory thesis project that can push the field and spark conversation and awareness on aesthetics in 3D graphics, to make it an even stronger part of the graphic designers tool box.

Even though 3D design is a new tool for graphic designers, it has long been used by architects and industrial designers for various processes, with the intent to replicate reality. Where as in the hands of the graphic designer it has become a tool of play, and exploration. My goal with this project is to see if and how I can push 3D graphics further, and better the attention graphic designers pay when working with it.

To understand how to push 3D graphics I need to understand where it comes from, what it looks like now, and how it ended up looking like it does. Then to try and push it further I will put myself in the place of a designer/artist from specific historical art movement, such as Bauhaus, Surrealism, Minimalism etc. To try and imagine how a designer of the specific movement would use the tool of 3D design, which art movements to explore first is something I will get back to later on.

This leads to the condensed problem statement of: How can I, as a graphic designer work with the tool of 3D software to challenge the dominant aesthetic of 3D graphics and spark debate on the use of design tools?

A BRIEF HISTORY

The 70's brought the first 3D animation with computer scientist Edwin Catmull creating an all 3D animation of his hand opening and closing, a fellow student of his created an animation of his wife's face. A lot of techniques for rendering depth and uneven surfaces were also created in this decade[1].

That moves us on to the 80's which saw the home computer becoming more available to more people, which then helped computer graphics become something regular people could begin to dabble with, which in turn helped speed up the development of it. The 80's were also known as the golden age of video games, where Atari, Nintendo and Sega sold millions of video game systems that ended in the hands of a young impressionable audience. These helped the 3D computer graphics reach a wider audience. The last mentionable event from the 80's was the release of the motion picture Tron, which pioneered the use of Computer Generated Imagery, or CGI[2], in movies.
The 90's saw the personal computers become even more powerful and able to do 3D renderings, which had previously only been doable on extremely expensive workstations. In 1995 the first feature film, fully made with 3D graphics, was released by Pixar, the much beloved Toy Story[3].

A rise in popularity for the video game console also happened in the 90's with the Sony Playstation, Sega Saturn and Nintendo 64, which helped populize 3D graphics among its users[4].

In the 2000's the graphics used in video games and films were improved upon to the point of them entering the uncanny valley[5]. Films using 3D saw a huge spike in popularity with productions like Ice Age and Finding Nemo.

The point of 3D In most fields have been to emulate reality, because it has been used by fields that creates objects and or other products that end up in a physical form. It was only when the tool was picked up by graphic designers that it changed purpose. Graphic Designers end product has through the years been physical as well, but this was back before the internet took off, back then graphic designers mostly produced posters, logos, typefaces and the likes, but with the introduction of

1 Utterson, A., (????). A Computer Animated Hand.
2 Carlson, W. E. (2017). Computer Graphics and Computer Animation: A Retrospective Overview. 415-420
3 Carlson, W. E. (2017). Computer Graphics and Computer Animation: A Retrospective Overview. 468-472
4 Carlson, W. E. (2017). Computer Graphics and Computer Animation: A Retrospective Overview. 426
5 Mori, M., MacDorman, K. F., & Kageki, N. (2012). The uncanny valley [from the field]. IEEE Robotics & Automation Magazine, 19(2), 98-100.

computers, the product catalogue of the graphic designer expanded. As of today, the role of the graphic designer is more fluid, not only do they take on the tasks of producing posters, logos, fonts etc. they now also do animation and 3D work. One of the reasons why 3D design has gained traction is something I will touch upon in the next section.

UNCANNY

As mentioned earlier, the idea and use of 3D design has for many years and in most fields of work been about emulating reality as closely as possible. As of today, computer graphics are at a level of quality that often times puts it right in the uncanny valley. There are of course a lot of examples of stylistic graphics for games that follows Masahiro Mori's advice of producing things that only in some aspects resembles the real world. Masahiro Mori was a japanese robotics professor from Tokyo, and he was the first person to describe what he called the uncanny valley[5]. I hypothesise that the effect of the uncanny valley plays a role in the popularity and use of 3D graphics that has risen in the last years. The uncanny valley was originally used to describe robots, but since it mainly deals with familiarity it can also be used to describe 3D graphics.

When you are trying to emulate reality in any sort of way you will at some point have to consider wether or not your design falls into the uncanny valley, and I would argue that a lot of 3D graphics have their place in the valley, because of their realism, and are better because of it.

According to James Augar familiarity is an important factor when designing, he states that if a design is too familiar 'it is easily assimilated into the normative progression of products and would pass unnoticed'[6]. Combining this with a study from the Rotman Research Institute of Baycrest Centre and Department of Psychology[7], stating that images are easier to remember than words due to their resemblance to real life and that humans are better at remembering visually, tells us that 3D design that resembles reality but clearly isn't reality is very good at grabbing attention because it is intriguing. Therefor the uncanniness works in favour of 3D graphics increasing its impact and therefor popularity.

3D DESIGNER/ GRAPHIC DESIGNER

It is worth noting that with the rise of 3D graphics the fields of work that use it has evolved, and new ones have emerged as well. We see the classic evolution of a field when new technologies arrive in the fields of film and animation. They have been some of the first to adopt new technologies that would help them create interesting and more distinct looking projects. Then we have the case of the graphic designer adopting 3D graphics, in order to incorporate them into their designs, this is one of the newer tendencies.

Graphic designers have always been good at adopting and experimenting with new technologies to create unique looking visuals. Mostly, this is because of the graphic designers main job, which is essentially to understand other fields of work. Graphic designers are, because of this, more keen on experimenting with work methods that are more unconventional to their own field. Not to say that 3D software is completely different to what graphic designers work with, but it is still the same mentality that is at play.
What has happened is that a new type of designer has arisen, the pure 3D designer. They are a cross breed between graphic designers, motion designers and animators. Prominent examples of these are the scandinavian duo Wang & Söderström[8] and the Japanese studio One Sal[9]. They call themselves design studio and animation studios, but for the sake of clarification I have chosen to categorise them as 3D studios.

5 Mori, M., MacDorman, K. F., & Kageki, N. (2012). The uncanny valley [from the field]. IEEE Robotics & Automation Magazine, 19(2), 98-100.
6 Auger, J. (2013). Speculative design: crafting the speculation. Digital Creativity, 24(1), 11-35.
7 Grady, C. L., McIntosh, A. R., Rajah, M. N., & Craik, F. I. (1998). Neural correlates of the episodic encoding of pictures and words. Proceedings of the National Academy of Sciences, 95(5), 2703-2708.
8 https://wangsoderstrom.com/
9 http://www.onesal.com/

The distinction between the 3D designer and the graphic designer using 3D as a tool is an important one to keep in mind. I hypothesise that you will find many a more interesting and original projects when you look at the pure 3D designers, this is because 3D is the only tool they work with, and then the tool becomes second to the idea, because it becomes an extension of the designer. Understanding how and why it is important to make the tool of 3D design an extension of the designer and thereby not having it dictate the design, as is the case for much 3D design done by graphic designers at the moment, is an important part of this project. I will begin by analysing examples of 3D work.

ANALYSING 3D WORK.

To get a better understanding of 3D graphics and why they look like they do, I have collected visuals that are either all 3D or 3D graphics together with traditional flat 2D design. I have then sorted them into different categories based on their aesthetic values[10].
Aesthetics in 3D design are mainly determined by the materials and textures applied to the 3D objects and how they are lit. Materials and textures can have a high or low amount of detail and thereby seem more or less real. There are many options to consider when creating materials and textures including but not limited to: colour, reflection, deformation. Furthermore the light can be set in many different ways, emulating natural light or a studio setting.
I mapped out all the different examples that I have gathered. The map contains different clusters of categories that contain different pieces of design with similar aesthetic values. Some pieces are then placed in between clusters because they combine some of these values[10].

It is important to note where the projects I have gathered are from. Most of the projects are gathered from Pinterest, Itsnicethat and Instagram. The work I have gathered from Instagram and Pinterest is in many ways determined by the algorithms that make these services. Where as the work gathered from Itsnicethat might be more directed towards their users demographics. All this is to say that the projects I have gathered can not be representative of all work out there. It is also important to note that the projects I was able to find in some ways are what was readily available, algorithm or not, gathering enough of these projects from the 3 different platforms can create an accurate enough picture of what a lot of users will be exposed to.

I sorted the work into the different categories, that I then labelled with a name I found fitted the content, these are presented below.

PROFFESIONAL REALISM
The first being professional realism, which encompasses most work produced by the 3D design studios. This category is defined by the uncanny realness of the work. In many cases people will not be able to tell that it is produced on a computer. A lot of the work here is video work for companies showcasing their products in ways that would not be possible, or at least extremely difficult, without the use of 3D graphics.

SPATIAL REALISM
This would technically house two types of work. The first being the 3D work done by architects, which I have chosen not to include in this project because it doesn't have much to do with the work of 3D designers. The type I have chosen to include is uncanny spatial projects that portrays a world that in many aspects looks real, but isn't when you take a closer look. The materiality and light of these works are often very accurate to reality.

HIGHLY DIGITAL
Here we see a lot of work that is clearly produced digitally and has no resemblance to real life.
A lot of this work is technically very simple, and the material and lighting setup is also very simple. Most of this work is very quickly rendered. Work in this category is often very playfull.

SURREAL DIGITALISM
Uncanny valley is peaking here. The work here is mainly defined by the materialism of it, which in many ways lean towards something real, but clearly has something off about it. There is often a lot of shiny reflections and a bit of an oily look to it. It saw a rise in popularity with the new ugly movement a few years ago. A lot of humanlike characters are present in this category as well.

10 Appendix 1, Page 12

MIXED REALITY

Mixed reality is very aptly named. Most commonly it sees the mix between photo or film, and 3D graphics. It is often used in conjunction with augmented reality. The aesthetic values of the 3D part of it varies a lot, but it shares a visual language in the combination of the real footage with the 3D graphics.

EYE CANDY

Here we find a ton of work. The category is defined by its unnatural polished look and the strong appealing colours. The materiality of it is uncanny in the sense that it looks a lot like something real but with an undefinable quality to it. Here we see a lot of materials emulating marble or other stone materials with texture, we see a lot of metal, mainly gold copper and silver, and a bit of fur.
The colours vary, but are mostly very bright and saturated. When gathering examples this was by far the easiest to find, and I only saved half of what I found in this category, so as you can see it is within this category where we will find most of 3D work that exists online. This most likely has something to do with te algorithms mentioned earlier.

AMATEUR SPRINKLES

This is a category where I found a lot of examples as well, they were the least complex when it comes to the 3D work. Here we find a lot of very simple 3D work used in conjunction with flat 2D material, often for posters and the likes. The 3D work is often generative and something you can learn quickly and it is here used to make the design “pop” more by adding some depth.

FLAT AND SIMPLE

The last category is where we find 3D work that is rendered flat. Usually with cell shading, meaning that shadows are not gradients, but flat. The only materiality found here is in the colours. Essentially it is 2D made in 3D, and when it isn’t animated it might as well be made in adobe illustrator. On the other hand, when it is animated it can create some interesting and unique looking visuals.

RESULT

So what all this sorting biols down to is that work produced by what I call 3D designers looks closer to reality and have a higher tendency to be indistinguishable from a photo. I hypothesise that this is due to the fact that these 3D designers spend all their time with the software, and that they therefor have a bigger production budget when it comes to rendering and production. This factor of money buying computing power and computing power being important for the quality of the work explains why a lot of 3D graphics look similar and have a certain style. Since not everyone can put that much money into computing power there is bound to be a limitation on the quality of a lot of work put out. Another factor that plays in here, is that in order to be original in design you need to master the tools that a designer uses, because as long as you don’t master these they will limit the design you do. When you are at a beginner level with a tool you often look to others too get inspiration, which means that aesthetics produced at a beginners level have a tendency to be very similar because it feeds off of itself. So how do we break the cycle of similar looking 3D graphics?

In some ways this is already happening. Like with all things design and art there are trends, and to understand how to challenge a trend and thereby a certain aesthetic in order to move the field forward, we need to have an understanding of how trends work. Following is a description of the eco system of trends.

TRENDS

When people talk about trends they are most commonly talking about it in the context of fashion, but what is true about trends in fashion is also true about other trends, the underlying structure of it at least. What can vary are the speeds and intervals at which they happens.
According to Jonathan Openshaw trends are made by people, and the sub groups of people that adopt the trend at different stages of its life cycle[11].

The first group we encounter are the Innovators, this is by far the smallest group. This is the group where all trends originate. The Innovators don't concern themselves with what is already there, they constantly try to stay ahead of the curve by coming up with new ideas. Many of the ideas are dismissed by others as being too radical, but the ones that make it through generate trends.

The next group are the ones that help the Innovators ideas flourish, these are the Early Adopters. This group is also fairly small, but the people within it are the main drivers that make a trend. They keep tabs on what the innovators are doing through various media, and are quick at adopting it. When they have adopted something and it starts a trend they are quick to look for something new in order to stay ahead of the curve.

When the trend starts and becomes more mainstream it is because it is adopted by the next group, which is the Early Majority. Which, as the name indicates, is a bigger group than the previous two. The people that make up this part of the system are eager to adopt new trends, but they aren't actively seeking them like the early adopters are. The other part of the big middle group are the Late Majority, who needs a lot more reassurance than the other groups. They operate with a sort of pack mentality, and therefor they need the Early Adopters to inhabit a trend in order for them to try it out as well.

Lastly we have the Laggards. Which is the end station for trends. The people of this group are the least prone to change in many aspects and as soon as a trend is adopted by one of these people, it looses all credibility in the eyes of the rest[11].

In order to produce 3D graphics that transcend the current major trend I will need to position myself in the first Innovator group.

Everything builds on what came before it, either by completely discarding it or further developing it, but in either case it is influenced by it. Therefor I chose to take on the perspectives of historic art movements, as to use their teachings and ideas to further develop 3D design.

PRODUCT/FORMAT

As the aim was to purely focus on aesthetics I decided to create a framework where I wouldn't be distracted by other factors. Therefor I decided that the product was going to be a music video, produced multiple times, each time with a different mindset based in an historic art movement.

Next I will go through the art movements considered for the project.

ART MOVEMENTS

I chose to make a quick study of each of the art movements and draw out the ones that I thought could contribute with something interesting to the world of 3D design. Next I will give a short description of each of the ones I chose, and what they could bring aesthetically to the project.

11 Openshaw, J., (2015). How Do Trends Happen?, MR Porter

SURREALISM

Surrealism sprung from the Dada movement, and started for real in 1917. It was all about liberating the individual and reinventing the world order. Based on the work of Sigmund Freud they believed that we as humans have an untapped potential stemming from our unconscious selves. They believed that this part of us were suppressed by our rational minds moulded by the society that we have created, and that tapping into this unconscious self was possible through different experimental techniques. I will now go over a few of them.

AUTOMATISM

Automatism is defined as an action performed unconsciously or involuntary. A well known example of this is sleepwalking. The Surrealists used this as a method of drawing and painting, where the artists tried to have their hand guided by the unconsciousness, both with colour, line and form. This process can be translated to 3D graphics, but I hypothesise that true automatism is almost impossible to achieve, since the act of consciously evoking it contradicts the very nature of what it means to do something unconsciously.

CHANCE OPERATIONS

Chance operations is, as the name implies, about outsourcing the decision making of the creative process to something or someone else. One could spin a wheel to determine colour, or base the composition off of the movings of insect on a piece of paper. The method of outsourcing some of the creative process to others is apparent in the drawing method “exquisite corpse” where a paper is folded and one person starts the drawing, for the next person to continue it on the next fold, in that way Chance operations can have a collaborative nature.

The process of chance is in some ways already present in 3D design, there are many options for creating generative design in 3D software, and if a designer knows coding as well the options are endless.

FOUND OBJECTS

Found objects is a method of surrealism that is directly descendant from the Dada movements way of working. Where you with chance encounters with objects take them and recontextualize them to give them new meaning, either by themselves or with other objects. This can be done in many ways and often results in sculpture or model works, but it can also be done with painting. A great example of this is the Elephant of Celebes by Max Ernst, seen below.

Found object

Oil painting

This method is interesting to work as well, and can very well be adapted to 3D design, but since it stems from the Dada movement I will work with it when I try to adapt the mindset of that.

Based on the information i have gathered i can conclude that Surrealism in many ways already is present in the 3D graphics scene. It isn’t something that is explored by graphic designers utilising 3D but it is present with the more digitally based artists. If they consciously produce surrealistic 3D work, or if they are just adopting the surrealistic elements that have bled into mainstream culture since the end of surrealism is debatable. Therefor I find it interesting to work with the mindset of surrealism.

For the process of producing 3D graphics in the spirit of surrealism I aimed to focus on automatism and chance operations. I tried to create a space where I could put myself, like the surrealists did, so that I could try and access my unconscious self to paint a dream like surreal scene. I will base my acting on the guides put forth by André Breton, in the Surrealist Manifesto[12].

THE DADA MOVEMENT

The Dada movement arose around 1916, multiple places in Europe but was officially founded in Zürich by Hugo Ball and Emmy Hennings. It emerged as a counter reaction to the horrors of the first world war.

12 Breton, A. (2001). Manifesto do surrealismo.

It was an anti art movement that revolutionised the idea of what an artwork is, this is especially obvious with Marcel Duchamp's found objects[13], which are also referred to as readymades.
Following is a small walkthrough of the techniques used by the Dada movement. It is important thing to note is that the Dada movement was very anti traditional and therefor most of the art produced in this movement was based in the use of existing objects, that carried a meaning of their own, in combination with other objects of different meaning, to create something new, often commenting on politics and the state of the world.

FOUND OBJECTS / REDYMADES

See page 6, first column: FOUND OBJECTS

COLLAGE

Collages are the foundation for most of the other techniques used by the dadaist. The technique was invented by Pablo Picasso and Georges Braque, and saw the use of flat 2D material cut out and glued in compositions to create a bigger image. This technique levelled the art world with everyday life, and made art-making more accessible. Which is still the case today, as it is a technique that has persisted and is for many people their first encounter with art. Important to note is that the dadaist did not refer to themselves as artists, because of their anti art mentality. Instead many of them chose to call them selves Monteurs, which in dutch means Mechanics.

CUT-UP

Along with art, poetry was one of the main products of the dadaist movement, and the technique of cut-up is similar to that of collaging, but where collaging mainly uses pictures and 2D material as its source material, cut-up is meant for text. Next you will find a short guide to making a dadaist poem, by Tristan Tzara, which is a workflow that could prove interesting to adopt in the world of 3D graphics.

TO MAKE A DADAIST POEM

Take a newspaper.

Take some scissors.

Choose from this paper an article of the length you want to make your poem.

Cut out the article.

Next carefully cut out each of the words that makes up this article and put them all in a bag.

Shake gently.

Next take out each cutting one after the other.

Copy conscientiously in the order in which they left the bag.

The poem will resemble you.

And there you are – an infinitely original author of charming sensibility, even though unappreciated by the vulgar herd.

ASSEMBLAGE

Where all the other techniques took flat material, the technique of assemblage took 3 dimensional objects, again often related to war, and created sculptures that were glued and nailed together. This is probably the technique that comes closest to the 3D graphics of today.

Therefor In order to produce 3D graphics as a true dadaist I decided not to produce any materials or textures myself, all elements for the animation were produced by others. I used a modern tool that is very much in the mindset of the Dada movement, which is 3D scanning. The only part of the animation that I created myself was the animation of the elements.

ROMANTICISM

For the next artistic movement we go further back, all the way to the late 18th century, where the modern world drew its first breaths, and with it came industrialisation, consumerism, urbanisation and the likes.
As it goes for many art movements romanticism was born as a counter reaction to the birth of the modern world, and the previous historic period of the enlightenment.

13 Goldsmith, S. (1983). The readymades of Marcel Duchamp: The ambiguities of an aesthetic revolution. The Journal of Aesthetics and Art Criticism, 42(2), 197-208.

In 1762 Jean-Jacques Rousseau published a book on raising children called “Emile”. It praised the natural goodness and spontaneity of little children. Which was not commonplace. At the time the world was growing increasingly more logical and technology based, and children were viewed as little adults that just needed to grow up quickly. Rousseau turns this view on its head and elevates children to be pure, creative rebels, not yet spoiled by adult self control.

In 1774 another one of the founding ideas of romanticism is published as a book by German author Johann Wolfgang von Goethe, The Sorrows of Young Werther which sees the protagonist, a young and art loving man, falling hopelessly in love. The subject of his love is already married, so it is doomed from the get-go. This doesn’t stop him from dreaming, and eventually killing himself due to the misery he is suffering. Goethe directs our sympathies towards this totally irrational behaviour. This book was at the time a bestseller and changed the view people at the time had on love.

At the centre of people with important ideas that shaped romanticism we have British poet and writer William Wordsworth. His poetry celebrates the natural world, which at the time was very much under siege by the industrialisation. He created the idea of taking the side of nature, celebrating it and seeing it as being above man.

Different to the other art movements I have worked with, romanticism is more of an idea than a specific way of working. There are no specific guidelines, which both makes it more forgiving to work with but also more difficult because it opens up more possibilities. Interestingly there is an inherent flaw of working with romanticism in the realm of 3D design, as 3D design and computers in general is probably the furthest you can get from the ideas of the romantics, because they are what drives todays industrialism.

The story is more important here than in the other two art movements, and it will be based on the idea of returning to nature that is essential to the romantic ideals. They believed that man had become corrupted by the industrialisation, and that a return to the natural world was the way to regain innocence and be cleansed of corruption.

POST WORK ANALYSIS

SURREALISM

I tried to put myself in a state where my unconsciousness could act freely while writing. But as I am not a trained surrealist it was hard to do and hard to stay in. I managed to write a few paragraphs, but every time I tried I would get out of the zone after a while, definitely not an easy thing to practice. In the same vein I worked with creating the scenes that make up the video.
The process was as following:
Even though it contradicts the very spirit of Surrealism I set up guidelines based on the Surrealist Manifest, these were:

- Work as unconsciously as possible
- Base the work on random parameters
- Do not revisit and correct the work
- Outsource some of the decision making to other sources

I began with trying out the guide put forth by André Breton on how to write as a surrealist. I then used used the website randomwordgenerator.com to produce sentences and words that I then curated and based some of the scenes on. I mainly tried to not question the decisions I made and to have the software and the parameters do most of the design for for me.
So the idea for the scenes that make up the surrealist video is mainly based on random sentences and words generated by a computer. The next component was the colour palette, which was chosen on adobe color by someone other than myself. Lastly the two main components for the animations, which where a pig and a crab was chosen by asking two people not connected to the project, which animal they thought I should incorporate.

Again from randomwordgenerator I found that 12 scenes where what was needed for the video, so i designed them with the elements given. They were all of equal length and then arranged randomly to make the video.

This way of working has proven to be very different to the more traditional approach of 3D designers. According to Kristoffer Moth[14], most 3D designers work very thoroughly and precisely with their projects. They spend a lot of time on small tweaks to get the perfect results, where as the more explosive and intuitive workflow shaped by the surrealist mindset produces very different and interesting results.

DADA

Dada proved difficult to work with compared to surrealism. The main reason for that was that in surrealism, I couldn't do anything wrong, and there was no need for a deeper meaning. With the dadaists being born out of the horrors of the First World War, their art or anti-art, was often criticising the war and the capitalist ideas that fuelled it. Therefor I needed to have something to critique, and since the dadaist were critical of the times they lived in, so I decided that I would be too. I chose to criticise the male world leaders, their lack of compassion and ability to look inward and take responsibility. In many ways the same tendencies criticised by the dadaists. I hypothesise that capitalism still rules many parts of the world, if not all of it.

As stated in the previous Dada section, they worked a lot with found objects, and rarely produced something themselves, they most often contextualised already existing objects. Furthermore they were fascinated by the use of chance, and lastly collage/assemblage.
With this in mind I set up the following rules:

- I could only use premade assets and materials.
- I had to use chance to determine the framing of the elements in the animation.
- I had to use collage to assemble the different clips to a video.

I started out by setting the framework for the story, and decided to create a story containing three scenarios, that would depict horrific situations. These three scenarios would make up the main story, but they would continually throughout the video have their spotlight stolen by capitalism, in this case, embodied by a golden pigs head. The aim is to create a story that says that no matter what horrific situations are going on in the world, some of the men in power will always find a way to make it about themselves and avoid taking responsibility for the part that they are playing in it. Then I started creating three scenarios that I thought could communicate the notion of capitalism controlling the world, and I ended up with a burning forrest, a city drowning in oil and a fish tank filled with plastic.
Something was missing that could tie them together, so I decided to take it to a more personal level as to involve the spectator more and put them in the story. I therefor 3D scanned my bedroom, as it is the most intimate and vulnerable room in any persons home. I then used this 3D scanned room as the main scene where the three scenarios all take place.

ROMANTICISM

Compared to the previous two art movements, romanticism was very different to work with in the sense that it, in many ways, is more a feeling than it is a concrete way of working with art and design. Where with Dada and surrealism I had straight up formulas that I could work with to create what is considered surrealist and dadaist art I here had to think and work a lot very differently to achieve a good result. I had to ask myself, how do you convey a feeling, and what is this feeling. Firstly I decided to show the city and the human, as a product of industrialism, in attempt to convey sadness and boredom with the repetitive and bland expression of pure industrialism. As a stark contrast to this I tried to portray nature as the romantics did it, as this awe inducing wonder that is in all ways above man.

I attempted to be as detailed as possible with every scene for the video, this involved some studying of what the actual real world looks like in order to convey it properly. What I quickly learned was that it is all about the details and the small imperfections, which is hard to recreate in a digital world. It proved most difficult to work with in the city environment I created for the beginning of the video, creating an environment like that is a lot less forgiving than creating something from the natural world. This is because nature in itself is very wild and uncontrollable, therefor the generative tools of the 3D software goes a long way when it comes to creating something believable. But when it comes the the city and the more urban environments it is another story. These environments are man made,

14 https://www.kristoffermoth.com/

and therefore more strict and straight, but if you only create something that is strict and straight it will not look real. This is due to the fact that nothing real is ever with out its own flaws and imperfections. This knowledge is one of the fundamentals of creating believable real looking 3D graphics.
Another important factor when it comes to creating something that looks real in a digital scenario is that you need to keep in mind that a lot of people of this age experience the world through screens, they take pictures of nature and their surroundings. And other people then experience these places not through their own eyes, but through the lense of a camera. The difference between the two is big. Pictures and video have almost always gone through a lot of editing, contrast is adjusted and maybe they have been saturated a bit more. And since the format of video is also viewed on a screen it should be treated in the same way that a picture would be.

The most important rule I set up for this version of the video was that I needed to create something that looked believable and as real as I possibly could.

REFLECTIONS

There has been many back and forths and pitfalls with a project like this. Since there, unlike many other design tasks wasn't a concrete problem to solve, and that the project is set up in a way that it, in theory, could go on and on. Each new video proved to be a challenge, in the sense that it had to differ from the other videos and bring its own unique aesthetic. With the beginning of each video I found it important to remind myself that the aim was to challenge aesthetics, what would otherwise happen was that I would get lost in the story or the technical aspects of the software. But this wasn't all bad, because when you perceive a piece of visual communication, all of the aspects of it that communicate to you are important. If the story of the video makes no sense at all it is likely that the viewer will have a harder time focusing on it, and will therefor be less likely to pay prober attention to the aesthetics of it. With that in mind I quickly decided that all aspects of the video were important and that even the story in some way could contribute to the overall expression of the aesthetics.

I set out to challenge and push one of the tools of the graphic designer. Earlier I made the distinction between a graphic designer and a 3D designer, and there I hypothesised that interesting work is easier to find when you look at pure 3D designers. After working with the project, especifically the first parts, which was surrealism, I am not sure that this holds true. There is also something to be said about a fresh pair of eyes with a piece of software that is uncharted. When you work with a new piece of software like that, the experimental part of the project is not something you need to think about, the very act of working with something new is in of itself experimental. Something to question about where the project ended up is how much it falls into the category of 3D graphics made by a graphic designer, or if it is more of straight 3D designed project. Considerations should have been made as to what constitutes the work that could be classified as 3D graphics by a graphic designer. Should it contain something flat in combination with the 3D elements, or is it simply enough that it is made by the graphic designer?

Questions about the graphic designers role and when the designer steps too far into other territories and becomes something else, has risen, but as stated earlier the role of the graphic designer has long been to put him or herself in the place of the client, so maybe this adaptability is an essential part of what it means to be a graphic designer.Maybe the different designer roles could be dissolved with time.

Another dilemma is how much the videos should be linked, and how the project could function in a cohesive way. It was important to keep in mind that this was not about tying all the videos together through a clear artists signature, because that would ruin the premise of aesthetics first. But how many factors of each video should be used to bind them all together? I mainly used everything around the video, the music, title screens and so on. Was that enough? If they are viewed in the context of each other, definitely, but maybe not if they were viewed secluded from the others. Is this at all important for the purpose of the project which was to challenge aesthetics and tools, I'm not so sure.

Lastly, if viewing this project as a separate unit, the art movements chosen for the three videos I managed to produce in the time given could have been chosen differently. Since Surrealism builds on Dadaism there might not have been a big gap between the mentalities of the two, it might have been more interesting to go with an art movement with ideals further from the two.

CONCLUSION

I can first and foremost conclude that the tool of 3D graphics is something worth while adding to the toolkit of the graphic designer. Even at entry level it can quickly add some interesting depth to otherwise flat material. This is not to say that flat graphic design doesn't work on its own, but that adding depth can easily go a long way to creating a more interesting look.

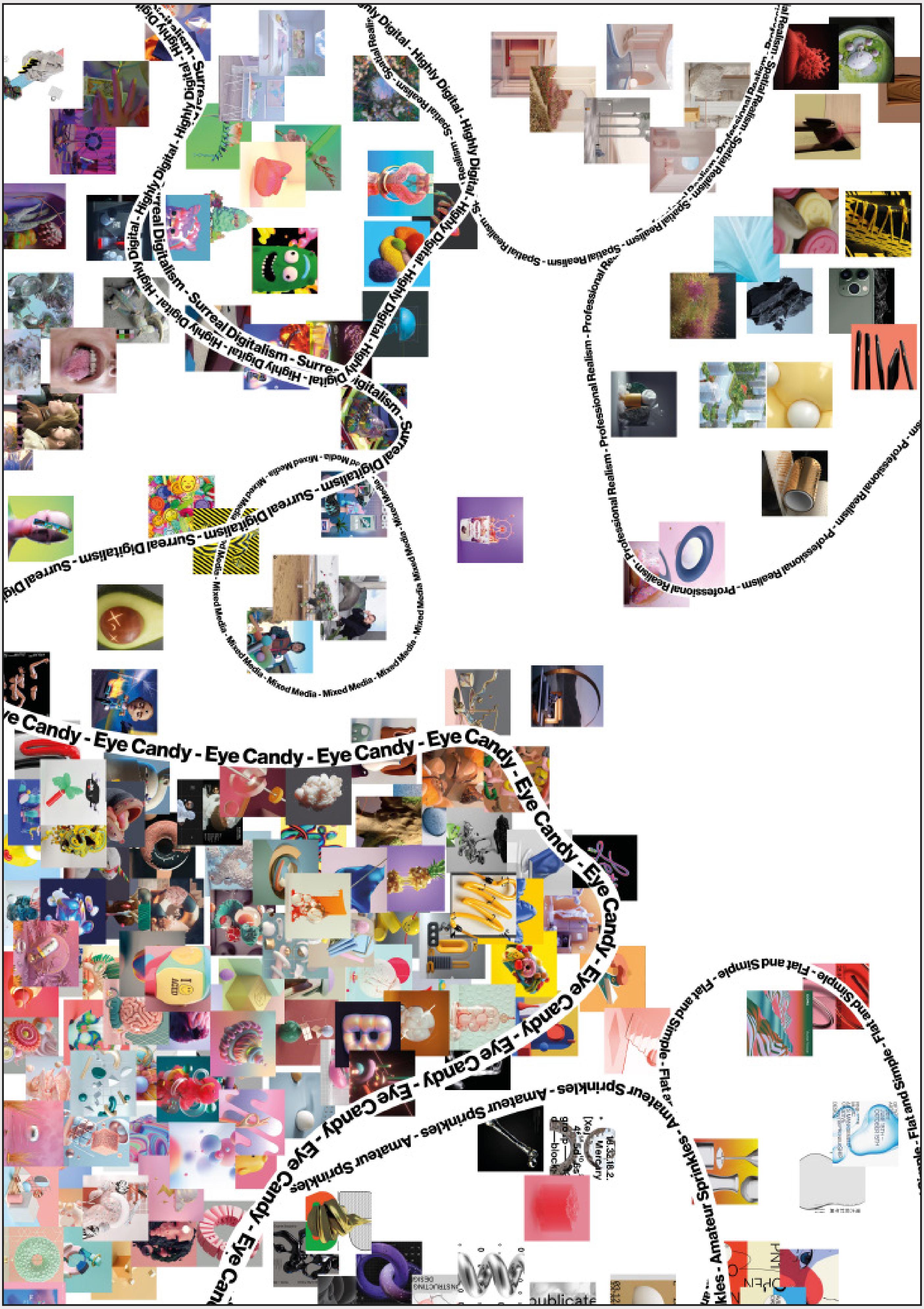
A branch of designers working purely with 3D has been established, many of them have their roots and education in other disciplines like graphic design and architecture, and in many ways the role of the 3D designer is in between the two fields. Combining an understanding of space with the eye of a designer is what creates good 3D work. Lastly an understanding of tempo and movement is needed if the project is animated. So all in all the 3D designer needs to master quite a few disciplines to create the best work possible.

Next I can conclude that there is a dominant aesthetic in 3D design that is reproduced over and over, but also that if you look closer you'll find many 3D designers creating unique looking designs. A way to challenge this dominant aesthetic is to approach the software differently.

The approach of adopting different mindsets birthed by art and design movements throughout history has proven successful, some more than others. Especially the approach of surrealism that involved working as intuitively as possible yielded results that were far from the established aesthetic.

The method of adopting different mindsets goes a long way when it comes to working with software in new and interesting ways, and could very well bring something intereseting to the field of 3D graphics.

APPENDIX 1


Highly Digital
Surreal Digitalism
Spatial Realism
Professional Realism
Mixed Media
Eye Candy
Amateur Sprinkles
Flat and Simple