# **An Animated GIF IRL**

# (Graphics Interchange Format In Real Life)

Sandra Zupanic Textile in the Expanded Field Konstfack University College of Arts, Crafts and Design April 2013 Thesis tutor: Jonna Lappalainen

# Table of contents

The return of the GIF3Repetition in the temporal dimension5Visual cut up6Computation as a catalyst8Perceptual illusions and dimensional transitions9Moving beyond the object12An Animated GIF IRL13Sketch for An Animated GIF IRL15The human factor as a random generator16Translating realms18List of references21Image list22	Abstract	2
Repetition in the temporal dimension5Visual cut up6Computation as a catalyst8Perceptual illusions and dimensional transitions9Moving beyond the object12An Animated GIF IRL13Sketch for An Animated GIF IRL15The human factor as a random generator16Translating realms18List of references21Image list22	The return of the GIF	3
Visual cut up6Computation as a catalyst8Perceptual illusions and dimensional transitions9Moving beyond the object12An Animated GIF IRL13Sketch for An Animated GIF IRL15The human factor as a random generator16Translating realms18List of references21Image list22	Repetition in the temporal dimension	5
Computation as a catalyst8Perceptual illusions and dimensional transitions9Moving beyond the object12An Animated GIF IRL13Sketch for An Animated GIF IRL15The human factor as a random generator16Translating realms18List of references21Image list22	Visual cut up	6
Perceptual illusions and dimensional transitions9Moving beyond the object12An Animated GIF IRL13Sketch for An Animated GIF IRL15The human factor as a random generator16Translating realms18List of references21Image list22	Computation as a catalyst	8
Moving beyond the object12An Animated GIF IRL13Sketch for An Animated GIF IRL15The human factor as a random generator16Translating realms18List of references21Image list22	Perceptual illusions and dimensional transitions	9
An Animated GIF IRL13Sketch for An Animated GIF IRL15The human factor as a random generator16Translating realms18List of references21Image list22	Moving beyond the object	12
Sketch for An Animated GIF IRL15The human factor as a random generator16Translating realms18List of references21Image list22	An Animated GIF IRL	13
The human factor as a random generator16Translating realms18List of references21Image list22	Sketch for An Animated GIF IRL	15
Translating realms18List of references21Image list22	The human factor as a random generator	16
List of references21Image list22	Translating realms	18
Image list 22	List of references	21
	Image list	22

#### Abstract

Can a phenomenon from the digital realm materialize?

'An animated GIF<sup>1</sup> IRL<sup>2</sup>, is an exploration in translating between the digital and the analogue realm. It depicts my journey from the three-dimensional to the two-dimensional back to the three-dimensional through a detour of the two-dimensional to finally land in the four-dimensional on a three-dimensional vehicle. It is an account of my quest to find a way to transcend the digital realm. Rooted in my earlier work, and in relation to the work of artists such as James Turrell and Roman Signer I discuss notions of materiality, dimensional shifts and perception. The GIF is discussed in relation to its connotations to the printed pattern and old animation devices. Temporal and spatial repetition is discussed in relation to spacetime. The distortive aspects of the GIF are pondered upon and experiments concerning generative software, the notion of chance and the search for a way to delegate responsibility for visual aesthetics to digital collaborators are accounted for.

My main question is: How would it look like IRL?

<sup>&</sup>lt;sup>1</sup> GIF is an abbreviation for the digital file format Graphics Interchange Format. An animated GIF is a short looped animation made from GIF-files.

<sup>&</sup>lt;sup>2</sup> The acronym IRL is an abbreviation for 'In Real Life'

#### The return of the GIF

Suddenly animated GIF's are everywhere. The Internet is exploding with them, but why? Why this renaissance for the animated GIF, a file format dating back to the pre-broadband late 80's? Perhaps it is just that, their vintage simplicity that makes them appealing to us. In the age of YouTube and an endless supply of moving images on the Internet, the animated GIF lets us stop and focus for a while on only a few frames, endlessly looping in time.

The upsurge in the popularity of the GIF is due to a number of factors. The GIF is more compelling than a still and more immediate than web video. It is also more diverse than web video since it can be uploaded on sites that do not support video format. Moreover, it works in any browser and on any device i.e. it is a very democratic format. The columnist Ann Friedman connects the rise of the GIF to the boom of the social platform Tumblr<sup>3</sup>. Tumbler's highly visual structure and re-blogging functionality has enabled GIFs to go viral and find a wider audience. One can say that GIFs bridge the gap between a still image and video. They are information-dense containers saving the viewer from going through a whole video if it's only a brief moment that is of interest. Showed in the format of a GIF this moment is highlighted and intensified, frozen in time. Making a GIF is easy and it gets easier by the minute. There is no need to be a computer whiz, a multitude of apps for creating GIFs are now available. There is even a GIF-sharing community; GIFBoom, similar to the photo-sharing community Instagram. The GIF is no doubt gaining momentum.

In his article *The animated GIF: Still looping after all these years*<sup>4</sup> Thompson argues that the animated GIF illustrates the sharp viewers we have become. The simplicity of making a GIF has made us start to scrutinize videos to find as little as half a second to loop, and by doing so, magnifying it, in order to convey whatever it is that we want to convey. We are distilling the

<sup>&</sup>lt;sup>3</sup> Ann Friedman, *What Journalists Need To Know About GIFs- Really*, http://www.poynter.org/how-tos/newsgathering-storytelling/183802/what-journalists-need-to-know-about-animated-gifs-really/ (February 12, 2013)

<sup>&</sup>lt;sup>4</sup> Clive Thompson, *The Animated GIF: Still Looping After All These Years*, http://www.wired.com/underwire/2013/01/best-animated-gifs/ (February 12, 2013)

content of something and turning it into a concentrated form. In doing this, we are sometimes also distorting it. At times this distortion creates a humorous effect, other times it just serves to highlight a movement or an emotion. Taken out of context the meaning of the repeated movement can alter all together. Something is happening in the in between and the GIF starts to exist in its own right, free of previous connotations. I am interested in this distortion; when repeated a single movement can completely change meaning. Two men doing the dishes next to each other appear to be dancing in the GIF version of the event. One can look upon the creation of a GIF that distorts reality as a way to find parallel meanings to events, a way to break down content to its building blocks, and in doing so, building a new composition.

The GIF file format was invented by CompuServe in 1987 but its origin can be traced back even longer, actually all the way back to the birth of animation. One can say that the first attempts at animation, created with devices such as the zoopraxiscope, the praxinoscope, the zoetrope, etc. were the first animated GIFs. These early animation devices all rely on the persistence of vision principle to create an illusion of motion. Mechanical movement is used to deceive the eye into believing that it sees a moving image when in fact it is seeing multiple images spinning around at a certain speed. The animated GIF works basically in the same way. A few images are repeated and looped, thus creating an illusion of motion. The fascination of studying a single movement over and over again does not seem to get old.

But why is it that people are so fascinated by seeing things repeated? Perhaps there is a biological explanation for this fascination. Visual patterns in nature are widespread, even though they are never completely regular. Instead they are often based on fractals; self-similar patterns. Examples of fractals in nature are river deltas, tree shapes and blood vessels. Other examples of pattern formation in nature include waves, foam, sand dunes, cracks and of course the patterns on animal skins<sup>5</sup>. Perhaps because of its recurrence in nature, repetition installs an urge in man to recreate it, hence the many examples of man-made pattern designs that recur throughout history in art, architecture and surface design. Perhaps there is an innate longing for order and regularity

<sup>&</sup>lt;sup>5</sup> Pattern- Wikipedia, http://en.wikipedia.org/wiki/Pattern (March 3, 2013)

in man that is preferred over chaos and unpredictability. This notion could help to explain the popularity of the GIF; the predictability of repetition is in its very DNA.

#### **Repetition in the temporal dimension**

With a background working as a print designer I was drawn to the GIF because of its connotations with the repeat pattern. A few images are repeated in an endless loop creating a pattern that is repeated temporally by transformation and movement. Seen in this way, the GIF is a repeat pattern similar to the repeat pattern used on textiles, wallpapers, etc, but different in the way that it is a time-based repeat pattern as opposed to the ordinary printed repeat pattern that is area-based. Considering the GIF using the concept of spacetime<sup>6</sup>, the GIF is a repeat pattern in which the repetition takes place in the temporal dimension (time) while the repetition of the surface repeat pattern is taking place in the spatial dimensions. Their respective repetitions operate in different dimensions but essentially in the same way. The difference is, where a repetition in the form of a repeat pattern on a fabric is static, a temporal repetition is not. It is ongoing and its repetition is stored in us only as a memory. A repeat pattern can be considered as a chain, created by repeating a set number of components. In a temporal repetition we only see one component at a time but we are creating a pattern in our minds by remembering previous components. The string of repetitions becomes a repeat pattern.

In his book *Theory of Analytic Functions*, the mathematician and astronomer Joseph Louis Lagrange makes a reference to spacetime as a mathematical concept. He says; "One may view mechanics as a geometry of four dimensions, and mechanical analysis as an extension of geometric analysis". Defined through the mathematical concept of spacetime, mechanics is a

<sup>&</sup>lt;sup>6</sup> In physics, spacetime is any mathematical model that combines space and time into a single continuum. Spacetime is usually interpreted with space as existing in three dimensions and time playing the role of a fourth dimension that is of a different sort from the spatial dimensions. In cosmology, the concept of spacetime combines space and time to a single abstract universe. Mathematically it is a manifold consisting of "events" which are described by some type of coordinate system. Typically three spatial dimensions (length, width, height), and one temporal dimension (time) are required. Dimensions are independent components of a coordinate grid needed to locate a point in a certain defined "space". For example, on the globe the latitude and longitude are two independent coordinates which together uniquely determine a location. In spacetime, a coordinate grid that spans the 3+1 dimensions locates events (rather than just points in space), i.e. time is added as another dimension to the coordinate grid. (Spacetime-wikipedia.org/wiki/Spacetime (February 27, 2013))

geometry of four dimensions (time+ the three spatial dimensions). Based upon this definition, using mechanics in order to translate the GIF into a physical manifestation of its digital self makes perfect sense. The repetition of *An Animated GIF IRL* will take place in the fourth dimension using the body of a physical structure.

Visual cut up



Fig. 1 Left: original drawing from which components were taken, multiplied and animated to create the frames for Mountainstripes. Right: Still frames from the animation Mountainstripes

My interest in the GIF is rooted in my fascination for movement, repetition and the idea of the non-static. My first experimentations concerning the idea of combining these qualities stem from my experience working as a print designer. The idea of creating a temporal repeat pattern springs from a dissatisfaction with the static notion of the repeat surface pattern. I became bored and frustrated and I started to feel an urge to make my patterns move. They were too still staring at me from the computer screen. This urge prompted me to move further into the digital realm. I started to experiment with movement and the idea of transformation; the idea of the non-static. My early experimentations involved stop-motion animation and the cut-up technique. These first animations evolved around the idea of limiting myself to only use certain elements already

present in my images and animating those. This idea developed from my earlier longing to make the images that made up my patterns move. I wanted the images to take on a life of their own; I wanted to use whatever components were already in the composition as building blocks dictating the process of transformation and storytelling. In doing this I was inspired by the Dada movement. The artists, writers and other creatives constituting the Dada movement developed a range of new art techniques including; collage, photomontage, assemblage, readymades and the cut-up technique. Elements such as chance, juxtaposition, playfulness and nonsense were introduced as processes for making art. In writing, the cut-up technique served as a stratagem for nonlinearity<sup>7</sup>. The technique was popularized by the writer William S. Burroughs in the late 50's and has also been used by many others as a tool for creating song lyrics and poetry. It has even been turned into a commodity in the shape of fridge poetry. My own use of the cut up technique was in stop motion animation as a tool for building layers and creating a storyline. Created in this way, the storyline is very much a stream of consciousness, thus not pre-conceived. Working like this one has to let go of an element of control and let the piece develop in an intuitive way. My very first stop motion animation made in this way is called *Mountainstripes*. By applying the cut up technique to a visual structure my aim was to explore what happens when a single image is used as a starting point for telling a story. By reversing the idea of letting a story dictate the visuals my framing of the question became the opposite of traditional storytelling; how does a story unfold when the visuals are left to dictate the storytelling content? At the time of making it I did not know it but Mountainstripes marked a shift in my practice in that it was the first step on my journey in exploring the digital realm. It also marked the birth of my interest in chance, generative processes and methods.

*Mountainstripes* is to some extent connected to my idea of the repeat pattern as being made up of a string of multiplied components. In *Mountainstripes* the original image is broken down to its components, which are then multiplied and animated. However, whereas a repeat pattern follows a certain rigid formula, the repetiton present in *Mountainstripes* does not. It is much more free in its repetitive aspects. Each repetition in *Mountainstripes* also generates a transformation. This transformative aspect stands in contrast to the very nature of the repeat pattern. The similarity lies in the multiplication of components.

<sup>&</sup>lt;sup>7</sup> Hans Richter, *Dada: art and anti-art*, (Thames and Hudson Ltd, London, 1997(65))

Even though *Mountainstripes* did not stem from a generative process, the stream of consciousness induced transformation of the storyline contains elements of that. The generative aspect was something that I wanted to explore further. How much of my conscious decision making could be removed from the creative process? The thought that each decision sets another decision in motion appealed to me; the development of the process is directly in co-relation to the previous act, which in turn informs the next. The evolutionary aspect of generative processes intrigued me, sharing a close affinity to my interest in the notion of growing an image organically by letting its contents transform and create something new.

#### **Computation as a catalyst**

As a continuation of my experimentation of visual cut up techniques I started to explore generative processes in computer software. The main software I used were Adobe After Effects



Fig. 2 Computer Gardening

and Modul8 where the experimentation with generative processes took the shape of animations. The way that these animations took on a life of their own was remarkable. Somehow they possessed a very organic quality and had a material sense, although it manifested itself in digital form. Being mesmerized by their apparent, but deceiving tactility I felt an urge to make their digital formations materialize and transcend the digital realm. I was intrigued by the idea of finding a bridge, a way for the digital to transform into something tactile, something subtler than a 3D printer, a translation rather than an embodiment.

*Computer Gardening* is an exploration in generative processes. The idea behind it is to allow an image to grow organically by using generative processes created with the help of different kinds of software. *Computer Gardening* explores ways of delegating work to a digital 'collaborator' (the generative software), thus limiting the designer's active role in the design process. Two particular software were used in the creation of *Computer Gardening*. One was a purpose-made software made in collaboration with a programmer. This software acted as an image generator. Whatever images were imported to it could be manipulated by using a joystick. Some examples of values that the software was working with are multiply, liquidize and mirror.

The next step in the design process was to get a variety of colour combinations. To achieve this the resulting image from the previous software was imported into a VJ software called Modul8. Video performance artists use VJ software to create live visuals. I used it to create my own live visuals, generating a range of colour combinations decided by the software. Whenever I saw a colour combination I liked I took a screenshot. *Computer Gardening* resulted in a series of computer generated images, and was an important step forward in exploring the possibilities of using technology, or a process, as a 'collaborator', rather than just a tool. The main thing I gained from *Computer Gardening* was to loose any pre-conceived ideas of how my work should end up visually and allow for the process to decide.

#### Perceptual illusions and dimensional transitions

After experimenting for a time with the moving image and generative processes I soon felt the same sense of unfulfillment that I had previously felt with print design. I started to realise that I

was altering between working two-dimensionally and working three-dimensionally, altering between the analogue and the digital. Prior to working as a print designer, I had studied fashion design, so my work then was mainly three-dimensional. I now longed for working in 3D again. I wanted to translate what I saw in my animations into real life manifestations, but how to translate an animation?



Fig. 3 An illustration of 'the Necker cube', an example of perceptual psychology where spatial orientation can be perceived in more than one way.

In trying to solve the problem of translating an animation into a physical three-dimensional form I became interested in video projection mapping. Video projection mapping is a technique where with the aid of a computer program an image or an

animation can be projected onto and wrapped around one or several objects in order to create a threedimensional projected surface. My interest in threedimensional projected surfaces led me to explore the works of James Turrell in which he uses light to create three-dimensional forms. I consider his works to be some sort of analogue holograms, playing with light and space and the visual perception of the viewer.

The perception of Turell's works can to some extent be controlled by the viewer. By thinking of the projected image as either inside or outside the space, the viewer can produce a dimensional shift. This dimensional shift is of the same kind as classical ambiguous figures from

Fig. 4 James Turell, Gard, Pale Blue, 1968

perceptual psychology where spatial orientation can be perceived in more than one way depending on how one chooses to perceive it.<sup>8</sup>

<sup>&</sup>lt;sup>8</sup> Craig Adcock, *James Turrell: The Art of Light and Space* (Berkeley and Los Angeles:University of California Press, 1990) 12.

Inspired by perceptual illusions I did a few experiments of my own using a projector, some basic three-dimensional geometrical objects and an animation I had made in a 3D program. I call my, experiment *2D3D*. My aim was to explore the relationship between a three-dimensional animation on a two-dimensional surface and vice versa.



Fig. 5 A still from the video recording 2D3D that I made of the video projection mapping tests exploring two-dimensionality versus three-dimensionality.

When performing my experiments I found that projecting the three-dimensional animation on a two-dimensional surface was a lot more convincing depicting three-dimensionality and depth than projecting a two-dimensional animation on a three-dimensional surface using video projection mapping. I found this slightly contradicting. One would think that a real life three-dimensional object would be perceived as more three-dimensional than a 3D animation. In my experiment this was not the case. Just as James Turell's projected works can be perceived spatially differently when the viewer produces a dimensional shift I found that my work *2D3D* could too. When letting go of the knowledge that the projected image was a projected image I started to see a three-dimensional world moving behind a window on the wall. The window I perceived was produced by the projection and the three-dimensional world moving behind it was

my animation. In comparison the images that were projected and mapped around the threedimensional objects looked flat. My attempt at making the animation three-dimensional in real life actually had a contradictory effect. By comparing the real life three-dimensional objects to the ones created in the computer, I found that the digital objects looked a lot more threedimensional. Of course the result of this project could have been different had I tried different animations that were more specific to the objects I projected on. It is possible that additional experimentations could have led to a different conclusion. However, I do think that the outcome of this experiment says something about our relationship to digitally constructed environments and how powerful they can be in enticing us to produce a dimensional shift concerning spatial orientation. Even though in this experiment the digital animation proved to be perceived as more three-dimensional than the physical three-dimensionality I was not satisfied to let the digital stay digital. I was left still looking for a transition. My main problem was that I had still not found the tactility I was looking for. Although video projection mapping can succeed in creating a perceptual three-dimensionality it cannot provide a material sense of tactility.

#### Moving beyond the object

Thinking of perceptual illusions and dimensional shifts my mind wandered to the notion of 'a crisis of materiality'. In post-modern discourse there has been a theme to move 'beyond the object'. The value of an object is not depending on its material form but of what it represents, what it signifies. Is there even a need for tactility? Why does it seem so important to me to create something that manifests itself in material form? Has it got to do with the old-fashioned, traditional and even materialistic notion of materiality being more valuable than non-materiality? I say old-fashioned because being skilled in making something that manifests itself in a material form, working with your hands, is something that has been valued traditionally. Now this is changing, but the tactile aspect of work continues to be an important factor, one that we cannot completely ignore. Transcending the digital realm is for me connected to wanting to import its qualities into the physical world. My longing for its materialisation was born out of a fascination of digital aesthetics. Central to my work is the will for the digital and the physical realms to merge in order for me to live in a world harbouring the aesthetics of the digital realm. My background as a fashion designer, working with material and tactility is a major factor in my

longing to translate the digital into something tactile. My mind has been trained to work with the digital as a precursor to something tactile. I can therefore not fully let go of the notion that anything digital could also be a sketch waiting to be translated into something tactile.

New advances of technology are challenging our concept of form and the idea of matter. What can be considered as matter? Does it have to occupy a physical space? Can something be considered as matter if it is only occupying a visual space, if its physicality is created in our minds? This idea and framing of a question is not new but one that is in constant flux. In the sixties James Turrell worked with immaterial matter such as light to form an object, or rather, the illusion of an object. In his art, the object itself consists only of light and can actually hardly be referred to as an object. Yet, it possesses a very material sense. One could say that the light in itself acts as a catalyst allowing us to perceive the light as an object. With this in mind we could consider perception as a catalyst for creating images in our minds. Can the perception of movement created by animation be seen as a catalyst that creates an in between place? An immaterial realm created by perception in which the movement takes place?

#### An Animated GIF IRL

An Animated GIF IRL is a mechanical animation device based on similar animation principles that were used in early animation devices such as the zoetrope and the praxinoscope. The zoetrope was invented in 1834 by William George Horner. It is a cylindrical spinning device with several frames of animation printed along its interior circumference. Vertical slits are positioned around the sides through which an observer can view the moving images on the opposite side when the cylinder spins. The praxinoscope is a development of the zoetrope, mirrors are placed in the centre of the spinning cylinder, mirroring the animated frames in order to create a clearer animated image. <sup>9</sup> An Animated GIF IRL is made from not one but several cylinders. Contrary to the zoetrope and the praxinoscope, the image to be animated is wrapped along the outer circumference of each cylinder. Instead of several frames of animation, An

<sup>&</sup>lt;sup>9</sup> History of animation- Wikipedia, http://en.wikipedia.org/wiki/History\_of\_animation (March 24, 2013)

Aimated GIF IRL only has one continuous image wrapped along the outer circumference of each cylinder. This continuous image can either be the same for all cylinders or different for each one. An Animated GIF IRL is the name I have given the device I have constructed to explore the in between place created by perception. It is a generic name for all artworks in this series and for the device itself. An Animated GIF IRL is built from several cylinders that rotate with the help of a motor. The rotating cylinders create a perpetually looping animation, the same as in a digital animated GIF, this perpetual looping animation is what defines An Animated GIF IRL. When animating an image wrapped around a cylinder an in between image is created in the meeting of the adjacent cylinders. This in between image is what becomes the animation. To predict the visuals of the animation is difficult since the image when flat is very different from the image when wrapped and moving. When wrapped, the continuous image is divided into several stills, 'movie frames'. When rotated, these frames animate. Not knowing what exactly will happen in the meeting of frames adds an element of the unknown. My role as a decision maker has partly been delegated to the process created by the Animated GIF IRL. The animation takes place in the in between place created by perception which in turn creates a new visual. An animated GIF IRL is a mechanical animation device that creates a time-based repeat pattern.

Going back to the notion of 'a crisis of materiality' and moving 'beyond the object'; the artist Roman Signer once said that he considers his experiments to be time sculptures. This relates to the definition of spactime in physics; as being any mathematical model that combines space and time into a single continuum. In his work 'The power of rain' from 1974, Signer constructed a plaster cube with a balloon inside. He then connected the cube to a tube, leading to a plastic sheet positioned on a higher level. The installation was installed outdoors in a very remote place. When it was raining, the sheet caught the rain and fed it to the balloon through the tube. Signer then left the installation for two weeks and upon his return he found that the power of the rainwater had caused the cube to explode. In many of his works, Signer makes use of explosives as a process. He considers the explosion itself to be a sculpture, a time-sculpture.<sup>10</sup> Signer's

<sup>&</sup>lt;sup>10</sup> Mack, G., Van den Bosch, P. & Millar, J., 2006, *Roman Signer*, Phaidon Press Ltd, London.

sculptures are taking place in the three-dimensional physical realm but the fourth dimension, time, is what ultimately defines them.

The work of Signer raises the question of what and when a sculpture is a sculpture. A sculpture defined by time does not have to present itself in static form, it is allowed to transform, sometimes even disintegrate. Perhaps there is no need for a sculpture to be permanent? Perhaps it could be only a moment in time? An Animated GIF IRL could also be considered a time-sculpture, as it depends on time to be fully understood. Being time-based, although it relies on mechanics, it has more to do with perception than the actual physical movement itself. The movement of interest as I described it in relation to animation, lies in the in between of where physical objects are perceived. In this in between place the movement, one that is created in our minds.

One can view physical movement as a catalyst for creating a mental movement. The mental movement makes us perceive the physical movement as an animation. The catalyst acts as a transformer, transforming the object or image it uses as a starting point, turning it into an animation. My interest lies in the movement it ignites, the process of going from something static to something non-static.

#### **Sketch for An Animated GIF IRL**

Sketch for An Animated GIF IRL is a prototype for two larger Animated GIFs IRL that I am making for my Master's degree project. The images to be animated are made from small seed beads acting as the IRL counterpart to pixels. The original seed beads were made in Italy in the early 19th century, they were immediately popular and used as decoration on clothes and other items. Historically, seed beads were highly regarded as trade items and consequently spread to all cultures of the World. The same aspect of sharing common references can be seen in various cultures today. Files containing music , video and other information are shared over the Internet on file sharing networks such as for example The Pirate Bay. The result is that no matter where we live in the world, we all to same extent share cultural references, today more than ever. The

seed beads constituting the animated image in *Sketch for An Animated GIF IRL* represent this shared culture made possible by the digital revolution. They also, in an analogue way, mimic a computer screen with its multitude of pixels.



Fig. 6 Sketch for An Animated GIF IRL Seed beads, DC-motor, wood

### The human factor as a random generator

While making *Sketch for An Animated GIF IRL* I was alerted to the many aspects of randomness that insisted on interfering with my initial plan. One such aspect was due to my inability to seamlessly copy the pattern onto the cylinders. To make all the cylinders exactly the same proved very difficult. In fact so difficult that they all turned out quite different. This resulted in an additional random aspect taking place in the meeting of the adjacent cylinders, the in between place, where the animated image is created. The animated image is very different from the original image wrapped around the cylinders and since all the cylinders turned out differently,

the animation as a whole was completely unplanned and unforeseeable. While I was working on this piece a question pre-occupied my thoughts; what constitutes as a random generator when bringing the digital into the analogue realm? This question appeared in my mind because of my failure to recreate the graphic pattern I had drawn on the cylinders with beads. The further I got, the clearer it became that my attempts fell short on succeeding. So why did I fail? Well, for a number of reasons; one was my impatience, another one was the difficulty to follow the pattern accurately, yet another one was time; I was in a hurry to finish the piece in time for an exhibition so I had to work fast.

Sketch for An Animated GIF IRL is really just a sketch to see if my construction works. Because of this I did not really consider the pattern I chose. I quickly drew a few abstract patterns on paper, wrapped them around the cylinders, animated them and chose the one I preferred. Being in such a hurry meant that I did not have the time to weave the beads together, which had been my original plan and in which case it would have been easier to follow the pattern more accurately. Instead I chose to wrap a beaded string of thread around the first cylinder in order to recreate the drawn pattern. While wrapping the thread around the first cylinder I was following the pattern as closely as I could. For the remaining cylinders I chose to copy the string of beaded thread I had created for the first cylinder. I did so by counting the length of each block of colour and then recreating it for the next string of beads. This resulted in a slight distortion of the pattern, which in turn led to a chain reaction, each distortion created another distortion. When I then wrapped the beaded thread around the cylinders additional distortion was created. It proved very difficult to wrap the thread around each cylinder equally tight. This resulted in each cylinder ending up with a slightly different pattern than the previous one. The copying of the pattern had turned into a game of 'Chinese whispers'. Comparing the digital to the analogue caused me to ponder whether my human shortcomings could be considered as the real life equivalent of a digital random generator. Or perhaps 'a glitch in the system' would be a more suitable phrasing to describe these small distortions that occurred and subsequently altered the appearance of the whole piece? At first I was slightly disappointed that Sketch for An Animated GIF IRL did not turn out as I had planned but when I started to consider the outcome as a computational error it somehow made sense. Perhaps I shall call it A Glitch IRL instead. Or perhaps not actually, calling it a glitch does not seem fully justified. The work had not been submitted to any

disturbance, the fault was in the copying. Perhaps likening my attempts to analogue media and they way it responds to copying would be more a more suitable comparison. Think of old cassette tapes and audio, every time you copy a copy, you lose quality. This does not happen with a digital copy. The quality is fixed each time it is written, since everything is in code, either 1 or 0.

# **Translating realms**

The first animated GIF IRL; *Rescue At Midnight Castle* embodies elements of my journey from animation through to generative processes to the GIF and mechanical animation. It takes imagery from a perpetually looping animation called *My Little Pony Explosion* as its starting point, transforming a digital animation to a physical GIF. *My Little Pony Explosion* was made using a generative plug-in to Adobe After Effects creating an evolutionary process in the shape of a colourful explosion. Still images from *My Little Pony Explosion* were used as components to create the imagery to be wrapped around the cylinders. A digital sketch of the animated GIF IRL was then made in After Effects simulating how the imagery would animate once the cylinders rotated. This resulted in a digital animation that will be translated into a physical GIF. The translation process goes from digital to analogue to digital and back to analogue.



Fig. 7. Stills from My Little Pony Explosion

Translating back and forth between the digital and the analogue inevitably means that something will be lost in the process but my interest lies in what will be gained. The series of slight distortions present in the making of *Sketch for an animated GIF IRL* show that translating between realms always carries an unknown and unanticipated factor, an element of surprise. Not restricting the process too much relates to my work *Computer Gardening* in which I explored the

possibility of using a process as a 'collaborator' rather than just a tool. Allowing the process to play its part by playing along with it, allowing for that element of surprise, for things to be lost and gained in translation.

However, the translation process for *Rescue At Midnight Castle* will be more controlled than it was in *Sketch for an animated GIF IRL*. Contrary to *Sketch for an animated GIF IRL* the beads creating the image on the cylinders of *Rescue At Midnight Castle* will be woven together in order to maintain information in the translation process. Losing some information is interesting, losing too much undermines the purpose; to create a physical embodiment of a digital animation. The translation in this process does not only concern the digital and the physical aspects of animation, it also concerns the animated image itself and its transformation when moved from an animation to An Animated GIF IRL. As mentioned previously I am interested in the distortion that occurs when isolating a brief moment of footage from a video in order to repeat it in the form of a GIF. The content is distilled and turned into a concentrated form, distorted and transformed into a new composition. Something new is created from the re-used elements and this new composition starts to exist in its own right, its content re-arranged, still linked to its past, but existing in its own right.



Fig. 8 + 9 The making of a GIF IRL. Left: Translating a digital image into the beaded image that will be wrapped around the cylinders. The beads are woven together to form the pattern. Right: Digital sketch of *Rescue at Midnight Castle* showing how the image will animate when the cylinders rotate.

An Animated GIF IRL is a physical manifestation of its digital self, the GIF. It illustrates the distortion that is created by the GIF when isolating moments of a video. In *Rescue At Midnight Castle* the moment of interest, the moment to isolate is a screenshot of a video, multiplied and divided into several frames through the wrapping of the image around the cylinders. The original image is transformed into something new, linked to its past but existing as a new composition.

The construction of the Animated GIF IRL creates the distortion and the new composition. The digital has become tactile, aspects of the animated GIF has transcended the digital realm in the shape of its analogue counterpart, the Animated GIF IRL.

# List of references

Adcock, C., 1990, *James Turrell: The Art of Light and Space*, University of California Press, Berkeley and Los Angeles

Friedman, A., What Journalists Need To Know About GIFs- Really, *Poynter*, [online] Available at: <a href="http://www.poynter.org/how-tos/newsgathering-storytelling/183802/what-journalists-need-to-know-about-animated-gifs-really/>[Accessed 12 February 2013].

'History of animation', *Wikipedia*, [online] Available at: <http://en.wikipedia.org/wiki/History\_of\_animation > [Accessed 24 March 2013].

Mack, G., Van den Bosch, P. & Millar, J., 2006, Roman Signer, Phaidon Press Ltd, London.

'Pattern', *Wikipedia*, [online] Available at: < http://en.wikipedia.org/wiki/Pattern> [Accessed 13 March 2013].

Richter, H., 1997(65), Dada: art and anti-art, Thames and Hudson Ltd, London.

'Spacetime', *Wikipedia*, [online] Available at: <a href="http://en.wikipedia.org/wiki/Spacetime">http://en.wikipedia.org/wiki/Spacetime</a> [Accessed 27 February 2013].

Thompson, C., The Animated GIF: Still Looping After All These Years, *Wired*, [online] Available at: <a href="http://www.wired.com/underwire/2013/01/best-animated-gifs/>[Accessed 12">http://www.wired.com/underwire/2013/01/best-animated-gifs/>[Accessed 12"]</a>

# Image list

**Fig. 1**. Zupanic, S. (2010) Original drawing and still from *Mountainstripes* [Drawing and stop motion animation]

Fig. 2. Zupanic, S. (2011) Computer Gardening [digital image]

**Fig. 3.** *The Necker Cube* [image online] Available at: <http://en.wikipedia.org/wiki/Necker\_cube> [Accessed 31 March 2013].

Fig. 4. Turrell, J. (1968) Gard, Pale Blue. [Cross corner projection] (The Pace gallery).

Fig. 5. Zupanic, S. (2012) 2D3D [video projection mapping installation]

Fig. 6. Zupanic, S. (2013) Sketch for An Animated GIF IRL [sculpture]

Fig. 7. Zupanic, S. (2012) Still from My Little Pony Explosion [digital animation]

Fig. 8. Zupanic, S. (2013) The making of a GIF IRL [photograph]

Fig. 9. Zupanic, S. (2013) Stills from Rescue At Midnight Castle [digital animation]

Front page image. Zupanic, S. (2013) Firefly [digital image]