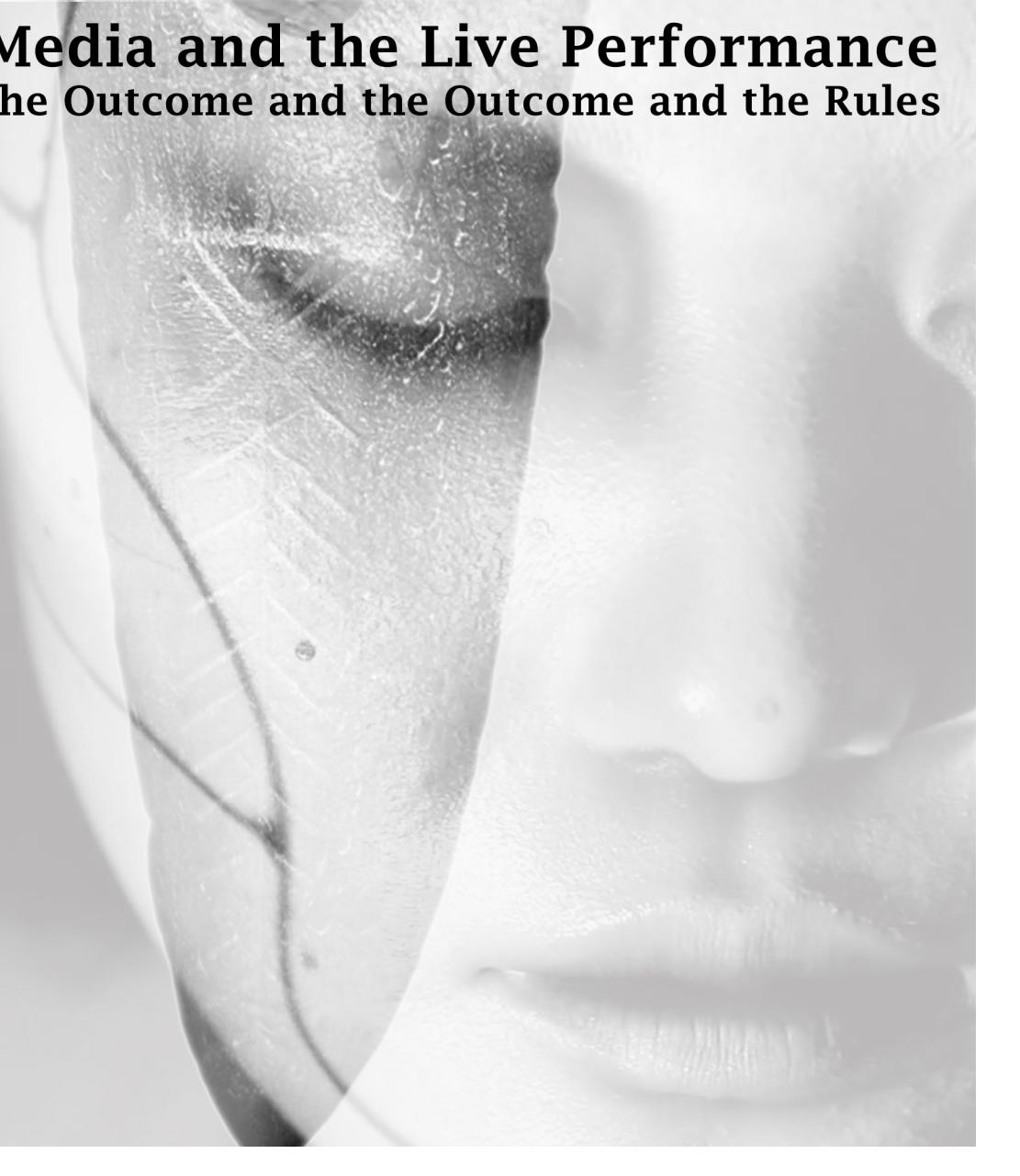


Preapared Media and the Live Performance

The Rules and the Outcome and the Outcome and the Rules



Prepared Media and the Live Performance

The Rules and The Outcome and The Outcome and The Rules

MA Thesis

May 28, 2015

Frouke ten Velden

MA artistic Research

University of Amsterdam

10149570

Dr. Sher Doruff

Index

Preface - The VJ performance in the light of prepared media	5
Introduction	7
Chapter1	
The prepared media of the Audio-visual live performance	
The rules and its images	11
Live art and VeeJaying	12
Synesthesia and translation	12
‘The Kiki Buba example’	14
Lost in translation	15
The club as my ecosystem	16
Chapter 2	
The prepared media of the audio-visual live performance	
Working as a VJ	19
Making visuals, creating content	20
Working Live	22
The audio-visual relation in live mixing -	
and its impact on the content	23
Visuals as a language	25
Free Loops	25
Images becoming stereotypes	27
Rules for prepared media	32
The current VJ climate -	
and how this has it impact on prepared media: the visuals	33
My voice your voice	35

Chapter 3	
Prepared media of live art in software and apps	
The rules in programming and coding	37
Programs and Programming as part of the work	39
How zeitgeist and technologies influence our art practice	40
We have the future ahead and the world at our feet (again)	42
Audio-visual transcoding	43
Projection Mapping - Resolume Arena 4 and Madmapper	45
V Squared Labs #Prepared Media	46
VJ software and plugins, Coded material in prepared media	49
Prepared media as a medium inside a medium -	
Understanding prepared media through Marshall McLuhan	52
The impact on prepared media in software development and apps -	
The Great Vine and Open Source software	53
The impact on prepared media software development and apps	54
Tactility in projected visuals, 3D projection mapping:	
Images and immersive environments.	56
ANIMA	59
Code as artistic or practical material	63
Conclusion	66
Literature	68
List of Images	72
Acknowledgements	79
Appendix A – Interview Lars Berg	80
Appendix B – Interview Resolume, Joris de Jong en Bart van der Ploeg	94
Appendix C – Interview João Fonseca	107

Preface



The VJ performance in the light of prepared media

At one point we preferred to have our axe handle engraved with a nice pattern instead of just using a plane piece of wood, which was probably one of the few great decisions we have made. We then decided we could instead of using it to slaughter, also hold it in our hands and dance around with it whilst singing repetitive songs and drinking all sorts of liquid that made us see what was hidden before, or wasn't even there in the first place... Things just got a bit out of hand from there on.

Even though it is completely useless, for some reason we love to dance, sing and to look at beautiful things, throw all these things together and we'll have something even better. For a live performance there is always something to bring along, but what this exactly entails, how it is made, what qualities it has or how it functions differs. As a live performer myself I can say it depends a lot on the given situation, the collaboration with your surroundings and other performers. Musicians and visual artists who simultaneously work with sound and vision and are inherently working with the concept of synesthesia and immersive environments, they are commonly traced back to early experiments in western culture of the *color organ*¹ or the *Gesamtkunstwerk*.² Among us, the concept of the *Gesamtkunstwerk* has become something that we today call a club night. Since musicians, visual artists, light engineers, laser artists, dancers, MC's, theatrical performers or even the audience, work together, improvising and creating one unique synesthetic experience. The club as the environment, where the DJ plays his music, the rhythm and the beat seem to follow the same rules as the moving lights, that move in sync with the beat. Projected visuals narrate the music, an interpretation of the sometimes abstract, non-verbal

¹ The term color organ refers to the 18th century mechanical device built to represent sound or to accompany music in a visual medium.

² Gesamtkunstwerk (complete art work) is a term introduced by Richard Wagner in 1849. It is an artistic creation that synthesizes the elements of music, drama, spectacle, dance to form one (complete) artwork.

electronic music. During these nights the interpretation of the music and the synthesizing of projected visuals with music and surroundings is the work of a VJ. This act of VeeJaying as most people refer to it today, finds its origin in the late seventies and with that the rise of electronic music. Since then the work of a VJ, the club night and the audio-visual performance-act has evolved and changed dramatically. However, the nostalgic image of the VJ, hidden somewhere in the back, working from an improvised station made of beer crates, mixing images, remains. The VJ accompanying the DJ by lack of a stage act has not only become ubiquitous due to electronic music and easily accessible technologies, moreover it would be a rare coincidence that the act of VeeJaying made its first appearance around the 1960s, at a time where artists from different disciplines began to push the boundaries of contemporary art, criticizing institutions and consequently created alternative environments to perform or display their work, at for example the public space, cafes or festivals. From the 1950s on, artists started experimenting with commercial iconography and low art media like video that belonged to consumer culture, appropriating and reusing images, which resulted in unconventional art forms and well-known happenings where the audience often became part of the art-piece. What we now know about the current club nights and the act of what we call VeeJaying seems to fit right in there. To align VeeJaying with artworks that belong to the traditional art is not meant to defend the art-historical value of VeeJaying, nor should that be the purpose of VeeJaying. VeeJaying explicitly and only exists outside of this art-world, where it has a dialogue on the level of ordinary language, free of the pressure to demonstrate genius or world historical significance.

Unfortunately along with this freedom we are often presented with a lot of what I consider visual pollution that lacks depth and quality. Therefor *VJ* is for some people considered as something an artist distances themselves from. People have been very creative finding alternative labels for their work, and I cannot blame them, since there is a need to specify ‘what it is you do’ and in some circumstances it is even necessary to be taken seriously as an artist. However personally I find *VJ* a perfect umbrella term and prefer to use it for most of my work, even when I find myself welding sculptures. For me it feels all the same creating of content, content to work with, as a VJ. This content, what it is and how it relates to the live performance has lead to the essence of this thesis, namely the prepared media of a live performance.

Introduction



Prepared media³ can take various shapes and forms such as images, video, software, apps, code, an algorithm or physical material.

The ubiquity of software and apps enable us to real-time generate a visual output from existing structures of music like rhythm, pitch and even melody. Algorithmic standards for audio-visual transcoding have become an omnipresent standard, not only for professional audio-visual artists and VJ's, but even on the level of our everyday life. Think about the equalizer on your car radio or the iTunes Visualizer. Moreover the act of translation and interpretation of sound is something that has become even more an act that is constructed, and thus conceptualized beforehand. Therefore VJ live performance on the one hand has become an installation that displays the output of decisions made prior to the performance. At the same time, the visual artist can use his prepared media in such a way that it allows for a specific performance and workflow where everything is actually constructed or generated live and the visual output is a unique moment where creation and presentation seem to have merged into one act.

The main aim of the thesis is to document, make known and reflect on the work of artists and programmers who have an art practice that demands preparation, or to be more specific, that needs material to be created before the actual ‘act’ of the artwork can be activated or materialized. As an artist a VJ creates tools to work with, a set of rules that trigger or generate an outcome. Reciprocally, the aimed outcome asks to create a set of rules. Within this thesis I am interested in the nature of this relationship.

I shall research this prepared media through the works and working methods of several artists as well as my own practice and look into the ways that contemporary

³ Prepared media consist of images, video, software, apps, code, an algorithm or physical material. The material can be sampled from preexisting content, and found on YouTube, films or music videos. A VJ can shoot its own material, download complete video loops or work with a live camera setup. It is also possible to make apps or work with plugins and effects in your software. The material is usually stored on hard drives and categorized in folders.

artists interact with science and modern computer technology and the ways in which this has become part of the performative practice of live art.

Due to the artists and their work, this research shall deal with - and therefore reflect on - digital and modern technologies or concepts, which are time sensitive topics as technologies quickly become outdated. Therefore I'll bypass the use of current specific scientific innovations and digital technologies, and rather zoom in on the people and their working methods. My aim is to create a document that can be timeless. Therefore I shall illustrate the topic based on personal experiences and experiences of the artists, and their thoughts on their work in relation to their prepared media. The artists that I will bring into the document all have a live aspect to their work, which could be a live performance, or live artwork, something I shall capture under the umbrella "live art", a term which in contrast to performance art, doesn't imply a live performer or artists to be present or to activate the prepared media but still has this event-based feature.

The thesis focuses on screen based VeeJaying, thus live mixing with music thereby explores generative visualizations and programming as a technique of prepared media that often results in live-art where the performer is not necessarily present in activating the artwork. The chapters will provide an insight on how the topics on prepared media, modern technologies, software and working live, take shape in the actual practice of artists and people working in the field of live-art. Every chapter introduces concepts that I believe are specifically interesting within the context of prepared media and live-art and shall function as a framework for the interviews with the artists I selected on their relevant artistic practice and the fact that they are dealing with the notion of prepared media within their (artistic) practice. The chapters will be introduced and contextualized by my own work as a VJ and my experiences in the scene.

In the first chapter the prepared media- live artwork relation focuses on the work of a VJ. Herein I will use ideas that are related to my practice and working methods, which are concepts dealing with synesthesia and translation, neuro-aesthetics, the audio-visual relation, the 'language' of images and perception of basically, the physical world around us. I'll introduce the concept aesthetic experience from professor in neurology and aesthetics V.S. Ramachandran and follow his hypothesis to explore the notion of synesthesia that can function as a universal

language, and the impact this has on the live performance of a VJ. In the second chapter I shall also make use of Michel Chions' theory to explain the audio-visual relation in live mixing and its impact on the content.

Within the context of this research I categorize the work of a VJ into either what I call *screen based storytelling* or *dynamic landscape* and use these two different approaches on a VJ's screen-based work. I separate the work of a VJ in three parts, which would first be to create content as a free autonomously working artists. Free interpretation and a personal style of content as well as live mixing. As a VJ you often work within a specific context or show, creating content for a specific live show for a musician or band is the second approach. Opposed to that I will introduce the concept "FreeLoops", which is a platform for video-makers and VJ's. Free Loops is a website where you can download video loops but also as a maker create video-loops for. It is only a platform, it is not a studio or group, its content is for and by everyone, therefore the structure is nothing else but prepared media.

I shall introduce W.J.T. Mitchell's picture theory on how we relate to pictures and the quality of a picture to become a symbol. How he differentiates between pictures and images, how we engage with it and what effect this has on visual content, and VJ libraries like FreeLoops.

The third chapter concentrates on the prepared media in the form of code, software and apps. Live art, such as VeeJaying but also live (generative) and performative artworks or installations that are rendered or materialized in a live setting or have prepared media in the form of code, software and apps. Prepared media is needed for live-art to be activated, by which I mean that the framework and "rules" are set. When these rules are triggered or the apps and software are operated the actual work can take shape. This chapter provides different views on the extent to which prepared media in the form of code or software and the act of programming itself is part of the outcome. To have an outcome, the output of the work needs a certain set of rules and reciprocally, the rules have their impact on the outcome. I shall reflect on this relation and form of prepared media from my own experiences in works wherein I make use of alternative content for live mixing and installations that are rendered real time. I introduce one of my recent projects of the series ANIMA, where I illustrate the topic in more detail. I discuss several artists and their projects, which are either generatively designed or designed for a live performance. In the context of

generative design and creative coding I interview João Fonseca from *onfomative*, a Berlin based studio for generative design. Their works balances between commissioned work and autonomous experimental pieces and they have worked on various live-art projects. I worked with João on ANIMA, wherefore he designed the generative content.

In contrast to artworks that are designed for a specific live performance I interview the software developers and programmers from *Resolume* VJ software. who together with Modul8 and VDMX offer software for live mixing. Similar to what Ableton enables for DJ's, Resolume does for VJ's and visual artists for their live performance. And alike FreeLoops it is purely setting up a framework and designing a set of rules for live performance. Both the artists and the software developers will reflect on the decisions that are made to create a set of rules for their work, and how they think it influences the outcome, the live-art and how its use effects the design of what will be prepared ahead.

I shall also introduce media theorist Marshall McLuhan and firstly use two of his concepts to study the notion of the open source philosophy and the effect a medium has on structures of society in thought and behavior. Secondly I shall follow his hypothesis wherein he explains that television is besides a visual- also a tactile medium and apply this on the current tendencies in audiovisual art and the club scene. I shall return to W.J.T. Mitchell to contextualize the time we live in, and the effect it has on the material of artists working with digital technologies and their working methods.

Concluding I shall give an abstract of the information and ideas that have come from the interviews and show the impact this structure of prepared media and the live performance has on the work and working processes of individual artists. I shall provide a specific insight on how prepared media can be approached in the VJ-performance, digital-art and live-art, and will thereby offer ideas to reflect on prepared media in whatever time will come and how it can have its influence on the outcome of an artwork, And the other way around how the aimed result and context influences the use and design of this prepared media.

Chapter I



The prepared media of the Audio-visual live performance

The rules and its images

Chapter I

Live art and VeeJaying

I am one of those people who make these useless things, and would definitely prefer the decorated axe above the purely functional one. In the end I think both could be considered equally useless, unless your single mission in life is to try to stay alive, than the normal axe will do fine. My work is now mainly audiovisual- live-art however I started off painting, sculpting and making physical installations. What is common in these practices is my interest in the making- and transforming of spaces, interventions in public space and the ‘language’ of images. Consequently I’m drawn to concepts coming from neurology and how the world and its objects are perceived in our brain as well physiologically as psychologically. What do these objects mean to us? What does a space mean to us, a color, an image, a sound or a rhythm? How do they trigger ideas? In the case of images especially, how does the placing of images in a context add layers of communication, meaning and perception? Like many of my colleagues, I am interested in the nature of synesthesia. Artists and scientists alike have always been investigating the rules that should be applied to transform sound into image or melody into color. I want to emphasize here the *nature* of synesthesia, because the focus of my interest lies in *translation*, and not the phenomenon synesthesia as such.

Synesthesia and translation

My artistic practice as a VJ in particular knows several moments of translation, the translation of one domain into the other and the decisions that are made at that moment. A moment of translation involves firstly what is prepared (ahead of time), and secondly what happens in real time, how the VJ works with the material while improvising on the music. The concept of synesthesia probes the question of art’s division into disciplines that work with *separately* perceived sensory stimuli, or whether we are all part of *one larger structure*, a network that unites the different disciplines. For me this poses the idea of everything belonging to one language, expressed in different forms, in which case I rather speak about *translation*.

However it is said that the difference between synesthesia and translation is that synesthesia is involuntary, and translation is a controlled activity. Without going too far in the discourse of neuro-aesthetics, I shall take an example from the writings of a professor in neuro-aesthetics, V.S. Ramachandran, whose work together with Semir Zeki demonstrates that translation can be seen as an equally involuntary activity as synesthesia.⁴ Their work deals with the notion on how sensory inputs are perceived in the brain and are focused on art and synesthesia. However I feel that some conclusions that Ramachandran draws are perhaps not grounded enough in art, art history and moreover contemporary art, for example conceptual art. He makes claims that he knows how art works, something he describes as the logic of art, or what art is: that it all is a metaphor that in the end comes back to a reward system and something that is similar to why men are attracted to large breasts. As he describes in the essay he wrote together with W. Hirstein⁵: “(...) what the artist tries to do (either consciously or unconsciously) is to not only capture the essence of something but also to amplify it in order to more powerfully activate the same neural mechanisms that would be activated by the original object.”⁶

He speaks about the ‘eight laws of aesthetic experience’ that is based on several principles that artist consciously or unconsciously deploy. One of these principles is a phenomenon called the peak shift effect: “If a rat is rewarded for discriminating a rectangle from a square, it will respond even more vigorously to a rectangle that is longer and skinnier than the prototype. (...) An evocative sketch of a female nude may be one that selectively accentuates those feminine form-attributes that allow one to discriminate it from a male figure; a Boucher, a Van Gogh, or a Monet may be a caricature in ‘color space’ rather than form space. Even abstract art may employ ‘supernormal’ stimuli to excite form areas in the brain more strongly than natural stimuli.”⁷ Nevertheless he shows with a few of his experiments that there is a structure going on in our brain that connects both the auditive and optical domain.

⁴ Zeki, S, *Inner Vision: An Exploration of Art and the Brain*. Oxford: Oxford University Press, 1999.

⁵ Ramachandran V.S., W. Hirstein.’ The Science of Art A Neurological Theory of Aesthetic Experience.’ *Journal of Consciousness Studies*, 6, No. 6-7 (1999): p.15-57

⁶ Ibidem. p. 17.

⁷ Ibidem. p.15.

'The Kiki Buba example'

One of the most common examples in neurology that Ramachandran uses to defend his theory, illustrates that the auditive and optical are interrelated. This is the Kiki Buba example.⁸ In this example someone is shown two images (shapes) one is curved round, the other is pointy. [Fig. 1]

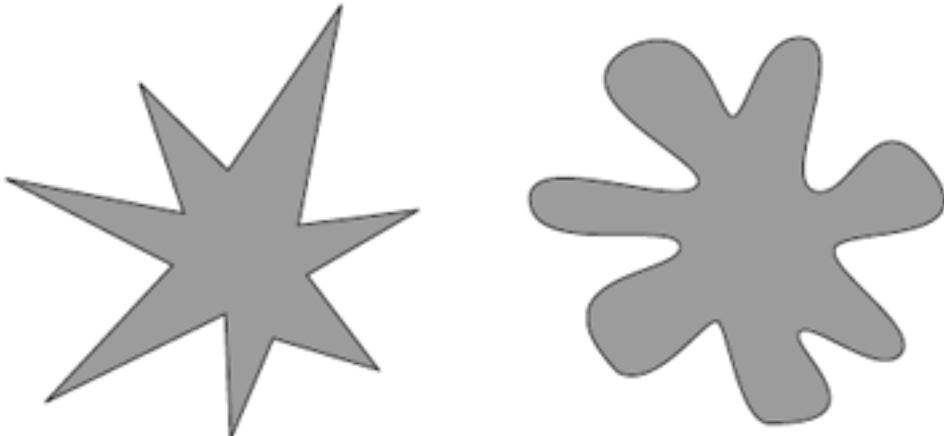


Fig. 1

The person is asked who is Kiki and who is Buba. Unsurprisingly almost everyone ascribes Buba to be the round one and Kiki the pointy one. It would be too extensive to move into the direction of neuro-aesthetics.⁹ since it belongs to a larger discourse of semiotics and neurology that is beyond the scope of this thesis. However, the Kiki and Bouba effect shows a non-arbitrary mapping between speech sounds and the visual shape of objects.

Which is s a concept that is part of the foundation from where I have formed my approach to translation of the different domains into one other.

With the rise of digital technologies, the process of the artist working in audiovisual media is often accused to lack meaning or conceptual depth. Many audio-visual performances show software that can map the properties of sound onto the visuals.

⁸ The Kiki and Bouba effect shows a non-arbitrary mapping between speech sounds and the visual shape of objects.

⁹ Neuroaesthetics is a relatively recent sub-discipline of empirical aesthetics. Empirical aesthetics takes a scientific approach to the study of aesthetic perceptions of art and music. Neuroaesthetics received its formal definition in 2002 as the scientific study of the neural bases for the contemplation and creation of a work of art. From: Nalbandian, Suzanne 'Neuroaesthetics: neuroscientific theory and illustration from the arts' *Interdisciplinary Science Reviews*, 33, No.4 (2008): p. 357–368.

Digital technology enables us to synthesize and synchronize the structures of different domains, however it completely bypasses the problem of symbolic representations. Synchronizing movement or synchronizing clips with music leaves out the curating of the images. Images are full of meaning and story, interestingly enough if we would follow Ramachandrans hypothesis, even symbolic representation could maybe be generated since it is based on an internal structure, which can maybe be animated by an algorithm. Maybe we have not explored that aspect enough in the current VJ and AV software and plugins, nevertheless we have arrived at a time where the act of audio visualization is fused together with and influenced by a customized software culture of apps and plugins.

“All of a sudden it hit me, if there was such a thing as composing music, there could be such a thing as composing motion. After all, there are melodic figures, why can't there be figures of motion?”¹⁰

Len Lye, 1991

Lost in translation

Thinking about language and making a structure for translating one domain into the other, lets us redefine the notion of the Gesamtkunstwerk. We do not merely seek for a whole, but a structure where the different domains exist next to each other. Different than in the complete artwork, where $1+2=3$, we could be seeking for an approach where $1+1=1$. Various artists have been and are experimenting with mapping one domain on the other by their internal structures. For example Artists Len Lye saw film and kinetic sculpture as aspects of the same "art of motion". The composer and architect Iannis Xenakis realized a series of automated audio- visual spectacles, titled *Polytopes* featuring strobe lights, laser beams and electro-acoustic music that were installed in existing buildings and archaeological sites.¹¹ [Fig. 2-3.] He stresses the diversity of the senses and states the following: "We are capable of speaking two languages at the same time, one is addressed to the eyes the other to the ears. There is a link between the two, this is necessary because we're used to the fact that there's a connection between what we see and what we hear, [...] this attributing of meaning

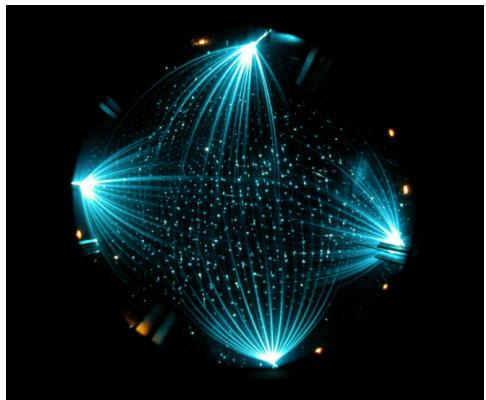
¹⁰ Quote from Len Lye in: Horrocks, R. *Composing motion*. Wellington, 1991. p. 27.

¹¹ Sterken, S, 'Immersive Strategies in Iannis Xenakis's Polytopes. *Immersed' Sound and Architecture*, *OASE*, 78, (2009): p. 116–125.

does not take place on a phenomenological level, but on a more conceptual level.” And continues: “The link is not between them but beyond and behind them: there is nothing between, only the human brain: my brain.” Xenakis took the translation aspect in his work almost literally, he believed that it is possible to link different fields through similar structural relationships, and he explored such correspondences by projecting similar mathematical or formal structures onto music as well as visual space.

Fig. 2

Fig. 3



The act of VeeJaying during a live music performance or event is a more intuitive act. The VJ creates a set of rules and uses specific media for the live performance. The act of live mixing is a more or less intuitive act, however, as I mentioned earlier, based on internal structures of a seemingly universal language where auditive and optical are interrelated. In the context of this research it is not important to elaborate on how or what is translated, more important is the fact that the translation is generated by a structure that is created by a maker, a person who defined how this translation works. These decisions belong to the prepared media, the phase of the making of the art-work where the rules are set.

The club as my ecosystem

Besides my interest in the notion of translation within my prepared media, the act of translation also happens while working live, which makes VeeJaying different from a music video. I prefer to experiment and work live in a place where I can engage with my surroundings and have immediate feedback. I consider my work as something that adapts to its surroundings while I improvise or set it to work.

Therefore I consider the club¹² as my playground and a unique space with no equivalent. It usually is dark, there is no light coming from outside and therefore becomes a timeless space, the only time is the rhythm of the music. This provides a context that allows for immersion and focus. Moreover it is as a space incomplete, an empty space with the special purpose to be used or completed. It has a specific function, namely to have musical performers, artist and an audience, preferably a crowd enough to fill the room. I find it especially noticeable when the club is not “in use”: There is something alienating to an empty club, with the work lights on. Nevertheless it is not a blank space, isolated like a white cube. There are always external factors that have an influence on the work, either music or people. The work of a VJ inherently builds on something else, which can be a sound, but also a context or physical surroundings. VeeJaying is not only the translation of sound into image, it is situated, defined by the space, which can be a context or the actual architectural design. In my work I create a balance that defines the impact I want the installation or projected visuals to have on a space and what kind of involvement will be provided to the spectator. The involvement can be direct participation of the audience, working with live cameras or interactive tools (sensors) to make the visual ensemble possible. But on a more abstract level, involvement also has to do with how much the projected visuals enable for an immersive experience. This is mainly caused by factors like light intensity, scale and positioning. On the one hand it could be a classical theatrical setup, thus a stage on the one end of the space and the audience in front of it, looking towards the stage to where the DJ or band is performing. Similar to a church, a comparison that is commonly drawn to the traditional club environment, in both scenarios where the audience sits (or in this case dances) front to back side-by-side of each other, with their eyes directed to the stage. Then again, when the screen are surrounding the audience, their involvement with the projected visuals becomes different. Now it doesn't merely serve the DJ or band, but it serves an audience, and interacts with its presence as well as that of the music.

Therfore the prepared media of my work and with that most live art works is inherently not only (projected) visuals or video content, it also includes *the setting*,

¹² By the club I mean a venue where a musical performer plays music, a discotheque or a pop-podium. Therfore I referece to clubs like, The Melkweg, Paradiso, Trouw, Studio80, Sugar Factory, Korsakoff, Pand14, Radion, Patronaat etc. I consider the outdoor music festival also as my playground, but it is as a space different from a club.

the physical surroundings. The physical surroundings have like the projected visuals an impact on the complete experience and are therefore part of the live performance as they influence and alter the live moment of VeeJaying. This moment where the VJ improvises live becomes a second moment of translation from one domain into the other.

Chapter II



The prepared media of the audio-visual live performance Working as a VJ

Chapter II

As I am working as a VJ myself and am familiar with the VJ scene, I shall reflect on the notion of prepared media through this experience, the artists and platforms like festivals, art-events or the online communities and of course from my own work. In the following part I shall reflect on my working method, how I prepare for a live performance, how and what kind of imagery I use and how I decide what to bring along content wise, in the second chapter I shall also look into the software that can be used for a live performance. First I shall have to separate working from a concept for a specific live show and my free work. The next section is led by my VJ work for specific live shows, my autonomous work, and the online library of VJ loops; Free Loops.

Making visuals, creating content

When I started VeeJaying it was mostly because I wanted to give form to all the images that came to mind, sometimes just out of the blue and sometimes triggered by music. In VeeJaying I found a way to make them visible to an audience and have immediate feedback. I've heard various reasons from colleagues about what attracted them to VeeJaying. Either that they were drawn to the scene, the music and the people or that they wished they could play an instrument but unfortunately couldn't. For some it was to have an awesome platform for their work. On the other hand, I once heard it was because all there was to see was so stupid that this VJ just felt a human obligation to make better stuff. I think for me it was more or less a combination of all the above. VeeJaying can also grow naturally from a current profession. As for example from many of my colleagues who are filmmakers, motion graphic designers or editors. Lars Berg, founder of the platform and website FreeLoops sees VeeJaying as a form of live editing, as he explains: ‘Recently I’ve been working a lot for Beeld en Geluid with footage from their archives¹³, I just load all the footage into VJ software Resolume from which I create small clips on the spot. I use these clips live until I’ve had them all and continue with a new deck of archive footage. In this way I

¹³ Het Nederlands Instituut Voor Beeld en Geluid is the Dutch national institute for the preservation, provision and presentation of the national audiovisual heritage.

use Resolume for editing, which makes that VeeJaying for me is like live editing.”¹⁴ This shows that every VJ has its own way of working. Some are more focused on the visuals (the image content) others first try to think about a setup, a stage design. When I personally prepare for a live performance I first check the location. What does it offer me, what does it ask and what can be possible installation wise. I can more or less anticipate what kind of images I can use. Nevertheless I can only see the actual impact of the images and improvise while working live. The meaning is given outside of the images and is formed by the combination of things.

Usually I know the genre of music I will be working with as I perform mostly with a certain type of music which is *Electronic Dance Music* and genres like Deep House or Techno with a bpm around 120/130. At the same time I regularly perform with a live band that plays an improvisational combination of rhythmic, soul and funk music. This is a particular live show with custom-made visuals and stage design. I can usually use my own personal library of originally made and gathered visuals. For a VJ every context is different and it is often said that it is difficult for a VJ to be autonomous and creative. Sometimes with commissioned work the room for personal input and creativity is very limited. When you are asked to do a live show on a specific location with specific music the amount of freedom is already larger than when you are asked to make something specific. For example, for a main stage during gay-pride the organizers could ask for rainbow images. There are countless ways of visualizing a rainbow, as there are countless ways to draw a dog and so on. Nevertheless many VJs consider VeeJaying as a very free and autonomous way of working, partly because it’s a relatively unknown profession and thus leaves more room for experiment.¹⁵ It also depends on how you relate to your VJ practice. As Lars Berg, VJ and founder of FreeLoops, sees three different kinds of VJs in how they relate to their visual content, and how they work with their prepared media live. He thinks there are large groups of people who just enjoy making visuals and rather design and produce instead of VeeJaying live with the content. They find their pleasure in the fact that other people may use it, that other people like and appreciate it. He speaks about another group of people who just want to do live shows, they prefer to work live and interact with the music, and the people instead of spending a

¹⁴ Berg, Lars. Interview on FreeLoops and prepared media. Appendix A.

¹⁵ Personal conversation VJ Academy workshop, Sugar Factory, April 2015.

lot of time or are not skilled enough to be designing and creating loops themselves. Basically they get their material from anywhere, or have a whole team of animators working for them. And then you have a large group of artist and VJ's that want to make all their visual content themselves and also want to perform with that material live. They want to do something different every time. As Lars says: they do not want to take the easy road, and want to create a unique performance every time.¹⁶

Working Live

While working live I respond to what I feel with the music if it is dark or colorful, rhythmic or melancholic. Music can feel slow and warm, or uplifting and fresh, which can be something to work with in visualizing the music in a live set. Even though there are pre-existent rules and translation, for me the live performance remains an intuitive act, very much related to synesthesia. As I mentioned earlier, I consider the act of VeeJaying during a live music performance as an intuitive act, yet based on the internal structures explored in neuroscience where the auditive and optical are interrelated and seem to belong to something that I refer to as a universal language.

Nevertheless, while creating the *image-content* (the visuals) there is more room to think and conceptualize beforehand. You prepare and create a library, an archive of images, a vocabulary. While projecting images you create a virtual reality that tells a story, even a completely abstract story. W.J.T. Mitchell states in his picture theory that with looking at pictures we should not want to place them in a context of the ‘history of images’, ‘history of art’ or its methodologies. We have to consider pictures to be living things with desires and needs of their own and ask them what they want; start a conversation, like in the real world where we are always looking at others and others looking at us.¹⁷ Furthermore, he explains that the beholder fills in what the picture lacks. The incompleteness of a picture is what becomes interesting when you look at a VJ performance and the content he or she uses. Since a lot of my imagery is abstract, the beholder becomes even more present in the image. Mitchell doesn't mention projected visuals but states that with abstract art in general, the

¹⁶ Interview Lars Berg Appendix A Berg Appendix A

¹⁷ Mitchell, W.J.T. *What do pictures want?: the lives and loves of images*. Chicago: University of Chicago Press, 2005. p.47.

beholder and the work of art address each other in a dyadic relationship. The smallest social group possible, namely two entities, where both must cooperate to make it work and address each other in a dialog that is not only external or mechanical, but brings them into a sphere where they influence each other. For Mitchell, abstract art is not alienating us. It opens the conversation in which both subjects interact and make meaning. The beholder becomes what he beholds. When images are placed together they enable us to form (sometimes surprising) connections and meaning. I consider images to have no meaning until they are placed next to something else, which can be other images but also the space, sound, light, shapes or color. It is important to realize while preparing for a live show that connections are made in our minds where meaning is given outside of the images. You actually cannot prepare completely for a VeeJay performance, the ‘becoming’ of the work emerges during the live performance. You create a set of images, a library, and while performing live, the story will be constructed. This is not all set and defined beforehand. The work is a spatial-temporal event that *becomes* and *ends* almost simultaneously.

The audio-visual relation in live mixing and its impact on the content

The rule-set for creating visual content in a typical VJ setup is generic. The content must be loopable. Furthermore, the file shouldn’t be too heavy to run on your computer or it will constantly crash and usually the visuals shouldn’t be too bright or it will easily overrule the space and light design. Also the music has a rhythm or bpm, therefore the visuals which have a certain movement, should preferably consist of equal parts so that you can speed it up or slow it down live to match the rhythm.

The earlier mentioned audio-visual relation seems to be more important in live mixing than during the conceptual-aesthetical creation of the content where you also focus on a theme or work purely aesthetically. While working live, sound and vision not only influence each other in meaning and perception but also strengthen each other, or to go even further - in the audio-visual combination one perception influences the other and then transforms it.

Music is often said to come first in the way we perceive things, but also literally in the current context of a club environment, where the musical performers are the headliners, the music comes first the visuals follow. In film and cinema it is often the other way around, but the relation is inevitable. ‘Audio-vision’, a term

introduced by theorist and composer Michel Chion,¹⁸ states that we never either see or hear, but we constantly “audio-view”. When placed together, images and sound always engage in a relationship where both alter and transform each other. The combination triggers a kind of conceptual resonance between image and sound, which means that when a sound doesn’t literally match the image we fill in the rest; we have to make an effort of fusing the sound with the image as if it would come from the image in the first place. So if we follow Chion’s theory, for example the sound of a basketball bouncing, matches the ‘boing’ (as we would expect) and then projects the sound back onto the image. Music combined with ‘unrelated’ images does not match our expectations yet we still fuse them together. With his theory of audio-vision Chion shows that we as an audience experience sound and image as one entity when they are placed together. In his theory he describes the ways in which sound and vision are interlinked. He states that sounds has an influence on the perception of the image. “Sound has an influence on perception: through the phenomenon of added value, it interprets the meaning of the image, and makes us see in the image what we would not otherwise see, or would see differently. And so we see that sound is not at all invested and localized in the same way as the image.”¹⁹

Chion’s hypothesis is in my opinion not only applicable on sound and image but moreover sound and movement. Sound and image or sound and movement do not need to be one on one (as is should be in a film where you for example expect the sound of a car with the image of car) as visuals do not even need to move in the exact same rhythm with the music. The experience could also take a contrasting stand and maybe move much slower, as I often use slow-motion recordings of people moving through the city; detailed close-ups from faces or clouds forming. When we go back to the early days of VeeJaying one could even see that correlation with projected liquid-slides that VJs from the early seventies once worked with.

The ability to fuse sound and image means that without too much effort the image (in this case VJ loops) seem to always fit the music. There are various examples online where people have replaced the soundtrack of a film trailer with another and it usually matches spot on. Then again we also find it very disturbing

¹⁸ Chion, Michel. *Audio-Vision: Sound on Screen*. Vert. Claudia Gorbman. New York: Columbia University Press. (1994-2005)

¹⁹ Ibidem.. p.34.

when there is a certain movement going on and completely mismatches the rhythm because it naturally doesn't sync with our logical structure of interlinked sound and image. It remains important to make an effort in harmonizing the movement that is in the image with the music while working live. Therefore it is interesting to see how software is built to map the properties of sound directly onto the visuals. In the third chapter I shall explore the ways that apps and software are programmed and built to map the properties of sound onto image.

Visuals as a language

My library represents my voice, what I then tell with it can be very diverse. To stick with this metaphor I consider my prepared media in the form of software and visual content as my vocabulary and the aesthetics of my visual-library as my voice. Naturally my voice is recognizable, and I have a certain way of expressing myself. As a VJ it is possible to work with VJ loops that come with the software or download VJ loops. Amongst VJs, we are all familiar with the loops and popular styles. Within the scene it is highly valued when you make your own loops and it's a common thing on the VJ platforms to post or promote a pack you've made and get some feedback. Many VJs and motion graphic designers make visuals and packs, not only for their own use, but also to download for other artists to use, sometimes free sometimes paid. Only mixing with these kinds of images is usually not considered the most inspiring or artistic thing to do. However in the context this research, it is not relevant to discuss the emotional and social positions towards the use of these images. It's more important to discover how these packs affect a live performance. Studying them will provide an insight on 'how' we make and use images. As many visual artists, designers and VJs offer their loops through their personal channels, there are several places where loops of different artists are gathered. The online libraries of VJ loops reflect and make a visual culture and become exemplary for what a VJ does. From this perspective the live aspect is the becoming of the work, and the prepared media perhaps becomes irrelevant. One of these online libraries is Free Loops.

Free Loops

Free Loops is a platform for VJ's and video-makers where, as the name already gives away, one can download video loops. The main focus of the platform is VeeJaying

but the loops are also used by movie directors, DJs, bands and producers of any kind. Lars Berg and Jorrit Schaap founded Free Loops in 2011. They are both filmmakers and had been working together as VJs before they started Free Loops. The loops, unlike most stock material, are either free or cheap. Other popular websites that offer VJ loops are for example Resolume or the visuals from Beeple (Mike Winkelmann). A Resolume pack of for example ten HD loops can cost 80 euros, FreeLoops works with accounts where all HD loops are available for 50 euros a year. It is very important for Lars that the loops remain this affordable and all loops available, from the idea that more VJs can create better shows and focus on their art of live performance. Lars explains “It is about what you do with the 800 loops: when you have them at your laptop or when I do, we can both make a good VJ performance, but its not that subsequently everyone will give a good show. You need experience in what works; you cannot place an inexperienced VJ at the Ziggo Dome²⁰ with only FreeLoops clips, he will probably fail. He lacks experience in working live.” Lars believes that when someone has loops he can get started and can built his VJ experience. Both Lars and I have had a year of education at the VJ academy, which meant that you often get to go along with the experienced VeeJays and also work with their material and I personally believe that this experience has made me a better live performer. Lars and Jorrit still occasionally perform as VJs at live events, but prefer working on producing content and finding new ways to bring this content to visual artists.

Within the context of this thesis the emphasis on Free Loops lays in their functioning as a platform that concentrates mainly on the prepared media of a live performance. The structure can be used as a research tool to gather information on the type of prepared media in the form of video loops, and how it is used by VJs to mix live. Lars explains that FreeLoops is not only for VJs; maybe just 30% of their users are VJs the other 40% are filmmakers and 20% are animators. Recently they have been focusing more on *VJ loops*, the loops on FreeLoops form a basis, but Lars sees it heading in a different direction: “We are thinking about concentrating on loops that express a certain feel. Instead of love is ‘hearts’ we are focusing on more specific images that have a certain, lets say, romantic feel such as a forest, beach with typical video-

²⁰ The Ziggo Dome is music venue in Amsterdam that can host 17.000 visitors.

filters".²¹ He speaks about "real images", by which he means cinematic, not abstract animations. The base of FreeLoops was formed by Jorrit Schaap, with mainly abstract animations and Lars himself with cinematic footage. They have recently teamed up with Hunter Bussemaker, who works on what Lars describes 'creative VJ loops' and themes. According to Lars, the abstract animations are simple but always work. The creative packs that Hunter makes are downloaded less than the abstract lines and graphics but he doesn't see that as a problem because finds them them artistically engaged, and for him that is more important than the how many people. The more specific the loops are the fewer people use them: "I notice that certain loops Hunter has made of for example 'pipes' and 'speakers', are less often downloaded than for example white lines: 2D, very simple, something anyone can make, but doesn't have?" even though the popularity of these loops, he isn't keen on the idea of making more loops like this. He wants to avoid becoming a database of visuals that are all exchangeable: anyone can make them. He finds it important to keep this basis of 'fire' and 'abstracts', but also wants to have specific packs of for example 'countries'.²²

Images becoming stereotypes

Because so many VJ's and visual artists all over the world use their loops they define and shape a certain visual culture. Inherently, they create metaphors and while doing this they set standards for images. The images become stereotypes. An idea or 'concept' is made into a visual form and becomes a symbol, which functions as a language.

One of the first people who claimed that vision was like a language, and also insisted that it was a universal language, not a local one, was eighteenth-century philosopher Bishop Berkeley.²³ He implies a perception of the image as a universal icon, as a stereotype: a common language and personal relation that we can have with a picture. I believe that the stereotyping of images starts when we are given our first Dick Bruna picture book who is known for his distinctive simplifications.

²¹ Interview Lars Berg Appendix A

²² Interview Lars Berg Appendix A

²³ Bishop, George Berkeley, *A New Theory of Vision*, in *Berkeley's Philosophical Writings*, ed. David Armstrong, New York: Collier Books, 1965.

W.J.T. Mitchell gives in his essay *Showing Seeing*²⁴ a critique of visual culture. He states that vision is learned and cultivated, not simply given by nature. Therefore, its history is related to the history of art, technologies, media, and social practices of display and spectatorship. It is deeply involved with the human societies, with ethics and politics, aesthetics and epistemology of seeing and being seen.²⁵ His theory provokes reflection on the differences visual and verbal signs, and the relations between different sensory and semiotic modes. In the context of the VJ performance as a communicative medium and the use of images it is interesting to see to what extend vision is unlike language, working like “a message without a code”.²⁶ We can, in a way communicate with images, it shows that as a VJ, working with short loops (images), you can create a story -however abstract - for example a story of love. Therefore in this sense the image is actually a depiction of a thought, and the picture is a depiction of the image. Think about the countless ways there are to depict a rose, or more abstract to depict love. The difference between images and pictures is key to understanding the impact that a platform like Free Loops can have on our universal visual language.

Mitchell clarifies that an image can be lifted of a picture and transferred to another medium. As he says ‘We can hang a picture but we cannot hang an image’²⁷. The question of picture versus image is discussed by many philosophers and ancient Greek thinkers, for example the Aristotelian model that images are like species and pictures are like organisms whose kinds are given by the species. This leads to the



famous phrase ‘Ceci n'est pas une pipe’ ('This is not a pipe') which was the subscript of René Magritte’s painting of a pipe from 1928. [Fig. 4]

We have to look at images in this sense, as it were something living, something that can evolve on their own.

Fig. 4

²⁴ Mitchell, W.J.T. ‘Showing Seeing’ in *What do pictures want?: the lives and loves of images*. Chicago: University of Chicago Press, 2005. p. 336

²⁵ Mitchell, W.J.T. *What do pictures want?: the lives and loves of images*. Chicago: University of Chicago Press, 2005.

²⁶ Ibidem.. p. 34.

²⁷ Ibidem.. p.85.

One can say that it is a good or bad picture, but one can never say that it is a good or bad image since the form or manifestation of the *image* is given by the *picture*. Mitchell says he tries to stay away from Platonism and the notion of the meta picture and explains: “The task of an iconologist with respect to images and picture is rather like that of a natural historian with respect to species and specimens (...) while we can recognize beautiful, interesting, or novel specimens, our main job is not to engage in value judgments about species. A species is neither good nor bad: it simply *is*, and the question of value only arises when we are dealing with the individual specimen or collection of specimens.”²⁸

Within the context of the prepared media of the VJ performance, the difference between image and picture has an effect on the visual culture, lets say in the case of VJ loops; the VJ culture. The VJ’s content are pictures, and following Mitchells hypothesis, these pictures depict an image. The image is what remains the same; the picture is what differs every time. FreeLoops is a platform that offers loops in categorized packages. Lars is aware of the critique or fear that some people have: “I know people are afraid, they say: ‘Then everything will be available for everyone, so then the VJs become exchangeable’. I don’t think that will happen, I do think that a VJ needs to become experienced in live performing and needs to make combinations with the different images, and needs to add something personal to it.”²⁹ He sees the power in the combination of images, and not the images itself.

VeeJaying is a form of non-linear storytelling and is in its essence a form of montage; it is live and associative, through their projected visuals VJ’s create a narrative, a story and give a certain feel. New ways of perception often occur when the pictures are not structured in a traditional, linear or chronological way but make unique non-linear combinations. When images are placed together is where they become meaningful in themselves, they are then given meaning. VJ’s make use of this concept and in the case of sampling, it could be considered their main profession because every time a VJ performs he or she can re-use images or re-contextualize existing images to construct a different narrative every time. Lars sees his visual content as plain material, that shouldn’t necessarily be owned by one individual, he believes that the way that VJ uses the loops or in what context they are used is what

²⁸ Ibidem.. p.86.

²⁹ Interview Lars Berg Appendix A

will make them differ from another VJ. I often happens that without too much thought and almost randomly, he shoots footage that he later realizes they are potentially good visuals or a cool pack and then makes the footage into a VJ pack: “(...) I really enjoy to see other people use the loops in ways which they initially weren’t meant to be used, or at least in ways I didn’t expect them to be used.”³⁰ He says some loops that he initially made for VJ loops, are for example used as intros for films, or music video’s.

The individual VJ defines and simultaneously expresses a certain visual culture. They define a visual culture because they choose to use and spread certain images, and at the same time they create a visual culture because they create images, by filming, editing or making animations. The material they work with, and the things they show while performing, express the aesthetics of popular culture, a certain scene or social group. As Lars Berg explained that he thinks you can speak of a visual culture on the level of a city, for example Amsterdam, a group of people, like filmmakers from HKU (University of the Arts Utrecht), a hipster scene, etcetera. A platform like Free Loops where individual artists are asked to create content, has a significant impact on visual culture and VJ aesthetics that bypasses local tendencies. Lars: “We have many users from outside of the Netherlands, outside of Europe even.”³¹ Moreover its structure of FreeLoops has no top down but bottom up system for making loops. The way in which they create loops differs; sometimes they make them themselves, they have a plan of for example making loops in the theme “countries”, it also happens that they are shooting for something else, a video or project and by coincidence realize they have great footage for making loops.

The loops on FreeLoops are also from other artists and VJs with whom they occasionally work. Lars explains through a project, where they were using an object “Bird”, which is an object made by VJ Jayo that she uses at music events and on which she does projection mappings. “(...)we wanted to make different animations for the Bird for that video, and then it would be nice if from there would come a VJ-pack”³² So they made animations specifically for the Bird, with a specific theme: the purpose for this was the video, and from there derived a VJ-pack.

³⁰ Interview Lars Berg Appendix A

³¹ Interview Lars Berg Appendix A

³² Interview Lars Berg Appendix A

But also with another pack, which was made by Hunter, who joined FreeLoops as motion graphic designer in 2014: “he made a ‘Tear’ animation, actually for his own animated logo. It looked so awesome and loops so nice, he made a pack from it.” There are several reasons why Lars considers a loop to be good, although he finds it difficult to explain. “What I like about this loop is that it looks very organic, and it can be used for many different things. I also find it very original; I’ve never seen something like this! And when its in black and white, it can be used as a transition for a clip.”³³

Lars finds that the loops should be original and not exchangeable, however they have several basic and to a certain extend exchangeable loops: “Jorrit noticed that many people searched for “water”, “timeleapse” and “fire”. Where after he made a fire-pack. Personally I wouldn’t do that, because those are all standard loops and very exchangeable (...) you can also find these on websites like Istock or Resolute: stock sites in general. But it is very useful to have, because as a starting VJ you just need ‘fire’ or ‘water’ sometimes, so of course its very popular, but its not something that I find belongs to FreeLoops.”³⁴

The notion that the loops are used by different VJs all over the world and become standards poses the question if we’ll soon find ourselves in an unvaried visual landscape where VJs repeat themselves and each other. Lars encourages people to mix their loops in new and unique ways. Het believes that only when someone uses the visuals directly from the website than it might be a bit boring, but that would only be for the insiders and peers. Lars doesn’t think an audience or client would notice or even bother. But he rarely sees that happen, and especially with the content they offer at FreeLoops he hopes that people will use them in such a way: that the individual VJ needs to make combinations, however he says: “We will never offer the loops ‘clean’; we used to do that, when it still has the fisheye distortion etcetera: the original footage. So we thought, everyone could use and rework it as they like, but that appeared not to be the case! (...) People want loops that are ‘finished’ and ready to use for an intro or VJ performance.” But then again, he says, they are then always

³³ Interview Lars Berg Appendix A

³⁴ Interview Lars Berg Appendix A

remixed and moreover, the context in which the visuals are used differs, what makes them different and unique every time.

Lars says that other websites or creators of VJ loops like Resolume and Beeple, offer loops that can be used one-on-one, without mixing them with original or own content. These loops are “finished”.³⁵ With finished Lars means that they are just decent, ready to use, the coloring is right they work, they loop, and thus it is not necessary to rework them in any way. Lars believes that these sites are a more developed in that sense. “Especially recently, they have great stuff on their site, they just released an awesome pack. (...) they are getting also more specific.” They differ from FreeLoops in the sense that Resolume and Beeple alike, only focus on VeeJaying, where FreeLoops focuses on a wider audience and offer loops that need to be mixed and reworked for their purpose and in such a way that they apply in their context.

Rules for prepared media

The rule-set for creating visual content in a typical VJ setup is generic. There are some rules that can be applied on a VJ loop that most people consider it to be a good loop. Lars says that for FreeLoops a loop must be four or eight seconds or sum of that (4, 8, 16, 32 seconds) So that you are able to adjust it to the beat. Animations should loop seamlessly, for other content (cinematic) there are tricks as for example mirroring the image or edit sequences of for example four equal shots that tell a short story. “A good thing about a loop is when you can discover something new every time, often because it is not so repetitive, it stays attention-grabbing.”³⁶ When you don’t know where a piece of video starts or ends it will not become that predictable and so you cannot really wait for it to jump to the beginning again: it seems to keep our brains interested. But in the end Lars doesn’t think there is a golden rule that makes a loop interesting as he says it depends on the situation “Recently we were recording the music video with Jayo’s ‘Bird’, we had prepared a lot of stuff and made special content, but the only thing that seemed to work that day was a Resolume

³⁵ Interview Lars Berg Appendix A

³⁶ Interview Lars Berg Appendix A

pack!”³⁷ Lars also makes loops from existing content like video clips and seeks for great parts that can be (or already are) a loop. While creating loops he doesn’t really think about the music that much, only when it’s for a certain event or when he works with a set list. And usually he tests the loops on hard rock or electronic music.

The current VJ climate

And how this has its impact on prepared media: the visuals

Lars and Jorrit started FreeLoops out of idealism. When most people said they were crazy because they were going to give away video loops. But simultaneously YouTube has become enormous, and many stock sites offer free templates that can all help someone to build a great VJ library. Lars thinks that many established VJ’s see this as a threat because now a VJ can rip beautiful time-lapses, extraordinary content and animations, combine this with some abstract animation and a cool filter, and it’s done. He agrees that on an ordinary level it’s true. But he doesn’t see it as a threat as he has a very forward-thinking mindset: “I think it’s a great thing that everyone can start VeeJaying a little, just as everyone is able to play a little music. (...) It’s not anymore that you have to make a great VJ loop and the live is additional to that. It is more that you have to make a good loop, pack or concept and than also think about the complete show and technique, consequently that you have work with a team. That is the direction we’re heading. You don’t need to be able to do it all yourself, you only have to see when something is a great loop, or that you are able to direct a whole team of animators, to explain the concept or the goal or the show. That are able to delegate what should be made and bring everything together in the end. After this the visuals have to be programmed and synced with the lights: that’s when you rise above the ordinary VJ”³⁸

As mentioned earlier with their loops FreeLoops addresses different users, not only VJ’s but also filmmakers, designers, animators. This is also because he believes we’re experiencing many crossovers within the VJ scene and there is a shift from the VJ performance in clubs to other places as for example fashion shows, commercials or art-installations. But he sees that also the role of the traditional VJ changes:

³⁷ Interview Lars Berg Appendix A

³⁸ Interview Lars Berg Appendix A

“Someone who makes a clip for a fashion show, is that a VJ? Is he going to start every clip? Will he follow cues? Will he make a loop with FreeLoops and fashion images (he prepares a lot) and then starts a new loop every few minutes. Is he a VJ or a filmmaker?” The visuals content doesn’t necessarily need to be that of the live performer’s making. VJ content specifically needs to be designed in such a way that they can be adjusted to the bpm and so on. “Resolume focuses purely on VJ’s, for dance events and electronic music: that speaks from their typical visuals.” He finds that Resolume has a distinctive style, but finds it difficult to explain more than “Yeah, they’re just ready to use, they are fine” and explains: “When you ever find yourself stuck, and you have pack of Resolume visuals, you’ll manage with some effects.” Resolume has a pack that is called “VJ survival kit” and consists of simple black and white graphics that work perfectly on any beat. [Fig.5] What does this do to the notion of the voice?

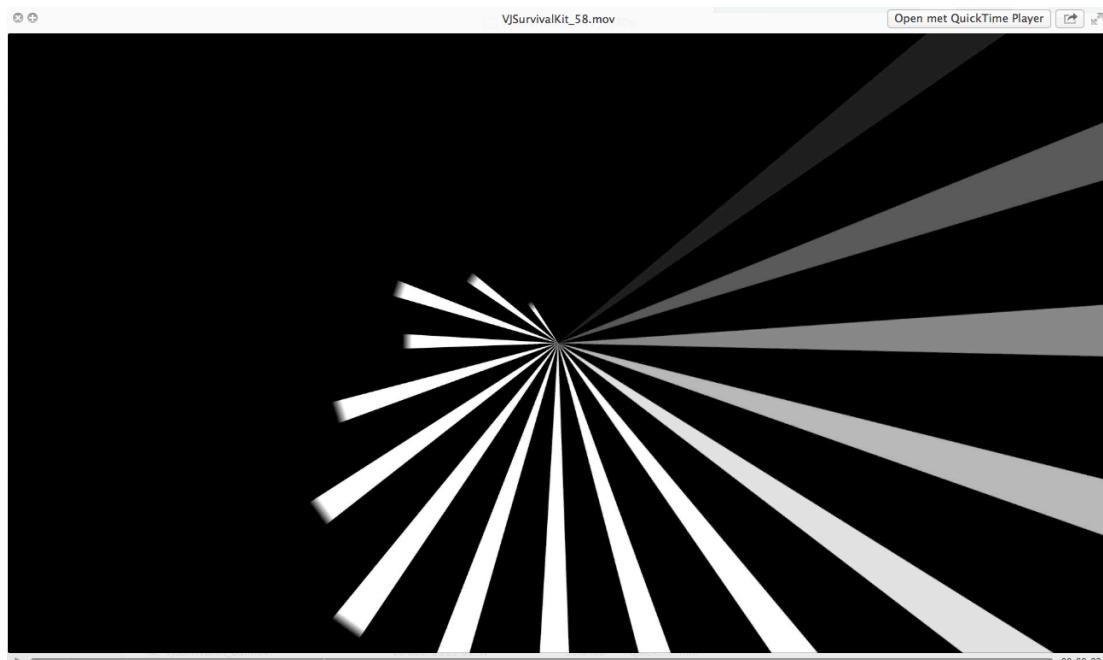


Fig. 5

My voice your voice

My library represents my voice, what I then tell with it can be very diverse. To stick with this metaphor I consider my prepared media in the form of software and visual content as my vocabulary and the aesthetics of my visual-library as my voice.

Lars takes another approach. There are many VJ's as for example Vision Impossible who don't want to share their loops, they have spent many hours creating those loops, and state that they are the VJs they are because of their loops. "I'd rather think that: you are a great producer of video-loops and you can be a great VJ" by which he means you do not necessarily need to be both. A great VJ doesn't need to use its own made material, and he doesn't agree on the criticism either: VeeJaying is for Lars *what* you do with the footage live, and only if you use the loops one-on-one than it would be difficult to recognize different VJs. For Lars a lot can happen while working live, as he said that he considers VeeJaying as a form of live editing. He uses the software to create loops on the spot, even the loops that are made during the performance, disappear after a VJ closes his set. When Lars started working as a VJ he says he just wanted to show a beautiful image or make a strange combination of two images. "I just wanted to show the people something fun I had discovered, a weird dance or something." Unlike DJ's play tracks they like, bands that play covers because they like the song, VJs can show images they like. "I also show YouTube clips to my friends, why wouldn't I show that to an audience?"³⁹

So when we follow Lars's hypothesis, it doesn't really matter what kind of loops a VJ uses, but how he works with that live is how a VJ distinguishes himself from another. According to Lars, the combination of the footage, the mixing and mashing and then being capable to work with your content live. A VJ should be aware of the context he or she will be performing and adjust and work with that.

Since his open-minded and open-source mentality he doesn't come across as a critical peer but he tells me that he really doesn't like the work of VJs that often and is usually standing with his back towards the screen: "Often I find it too intense, a VJ shouldn't demand too much attention, it should serve the music, it shouldn't be about the images. (...) A VJ should rather pick a few moments to shine. Oh yes, and I'm also

³⁹ Interview Lars Berg Appendix A

done with only abstract images. I think it's almost too easy; it always works, you can easily follow the music, change some colors, and it works. It doesn't add anything to the experience. Moreover, then the audience also doesn't always know it is all live.”⁴⁰

The live aspect makes a great deal of the VJ performance, the content is important and the main aim is to show something new, make combinations. For Lars it seems to be about how someone works with the visuals content live and how a VJ uses the software, because this is how you differentiate. It is how you pronounce the words, the funny French accent you add to it.

⁴⁰ Interview Lars Berg Appendix A

Chapter III



Prepared media of live art in software and apps

The rules in programming and coding

Chapter III

The previous chapter demonstrated the transformation of the VJ performance over the last decade as it went from screen based storytelling towards a dynamic landscape. Which means that it often has more resemblance with installation art and painting than it has with cinema. The VJ performance deals with the concept of audio-visual translation as it also deals with the notion of immersion. Ancient wall paintings could be considered the first attempts to create a virtual reality where the picture opens up possibilities for immersion. The later invention of panorama and frescos from the early antiquity brought us a step closer to immersion and being in the picture, towards the invention of film and cinema, but in film there is not only perceptual but also narrative engagement, we as an audience are involved in the medium by the story and meaning. With the rise of film, artists found in this new medium ways to experiment with live cinema, non-narrative films and performances, as did the VJ in the nineties who were mixing images with VHS tapes. The contemporary VJ-performance readdresses the perceptual ‘being in the picture’ quality of the visual. Techniques like 3D projection mapping, but also on another level: through the use of sensors the audience can participate and make the visual ensemble possible through their own actions or just for being present. The use of these modern (computer) technologies influences the way that we as artists relate to the craft of the work and our material. As an artist you create tools to work with, which trigger an outcome and/or the outcome asks for a certain type of form and tools. These working tools are part of the prepared media.

Programs and Programming as part of the work

“I decided to look into computer vision to find simple ways to work with Yannick’s footage rather than the other way around. I built an OpenCV module that was taking care of analysing Yannick’s videos and extracting interesting data that I could use for my animations. This idea gave birth to a nice list of new effects, some of them would extract the polygons out of videos to create collisions, some other would use grayscale gradients to influence the strength of another effect.”

Simon Geilfus on the creation of Paleodictyon⁴¹

VeeJays have content, video content and images, live camera, plugins and apps. But I also consider software that is used to work live as part of the prepared media. This VJ software allows to import and mix these different sources (video content, images, live camera, plugins and apps) The software can be used to mix live (it imports external files, does something with it and outputs them again) but due to the effects and plugins and the way in which it is built, it can be used as a tool to create content or transform content real-time. Besides special VJ software artist built their own apps to perform live or for a live artwork that follow a similar structure of input-transform-output.

Gathering and transforming data belongs to the realm of digital art: designers, programmers, scientists and artists alike are exploring the possibilities of data as material to work with. I consider the *act* of programming where the code is designed as something that can become part of the work. Media theorist Arjen Mulder explained in his book *From Image to Interaction* that since Duchamp’s *Urinoir*, it is never anymore about the actual product of art, but what we find important about an artwork.⁴² Therefore I shall bypass the discussion on what an artwork is or what belongs to the artwork. Within the context of this research I consider software, apps and coding all part of the artwork and try to make known to what extend artists themselves feel it related to their live performance.

⁴¹ Geilfus, Simon. (Paleodictyon) antivj.com. 2011. April 22, 2014.

<<http://blog.antivj.com/2013/bacteria-farming-and-software-design/>>

⁴² Mulder, Arjen. *Van Beeld naar Interactie*. 1. Rotterdam: V2_publishing, 2010. p. 165.

How zeitgeist and technologies influence our art practice

*"One of the things our grandchildren will find quaintest about us is that we distinguish the digital from the real, the virtual from the real."*⁴³
William Gibson, 2007

The time we live in, a time where programming languages have taken part in the realm of human communicative languages, where the computer is integrated with every aspect of our everyday lives. The digital world has become one with what solely used to belong to the physical world. Consequently living in this paradigm makes artists hand in hand with scientists and philosophers, reflect on our world and are all trying to explore the possibilities of this new age through different means. Like the painters of nineteenth century western society who had to take a position towards the new medium of photography, the contemporary artist takes a position towards the exponential growth of (computer) technologies. Furthermore, they are part of a globalized world where information and knowledge is not anymore bound to national borders. Within the arts, science, and technology we are not only experiencing a time of change but moreover we're undergoing a change of times. Institutions and practices of engineering are facing significant challenges where both artists and scientific researchers are raising questions of ethics and craft. Our current globalized society and rhizome structured network has more than ever created new spheres for interaction between specialisms and made it possible to form fields where both artists and scholars can explore the *artistic* potential of developments in science and technology, which often result in interesting projects and objects that verge on art and science. Take for example artists that make musical compositions into tactile sculptures using computer technology, interpretation models and 3d printers⁴⁴, artists that measure brainwaves and make them visible in the form of a synesthetic visualization or musical composition⁴⁵, or architects that use an intelligent algorithm

⁴³ Cory Doctorow. 'William Gibson: The Rolling Stone interview' *Boingboing*. Nov. 7, 2007. boingboing. May 8, 2015 <<http://boingboing.net/2007/11/07/william-gibson-the-r.html>>. boingboing. May 8, 2015 <<http://boingboing.net/2007/11/07/william-gibson-the-r.html>>

⁴⁴ Reify. 'Project website' *Reify*. 2014. May 8, 2015. <<http://www.reify.nyc>>

⁴⁵ Peter Crnokrak. 'What Need Angel, project video' Vimeo. April 2015. May 2015. <<https://vimeo.com/124047433>>

that produces architectural buildings following structures from nature and architecture that is designed to repair itself.⁴⁶

Within the context of this document it would be either naive, as it would be impossible to make a claim on the current time, and the impact of modern technologies on art and our daily live. Moreover it is not in the interest of this research to show where we stand. It merely touches upon the topic through the artistic practice and material of artists working with digital media and advanced technologies.⁴⁷

Many writers, thinkers' philosophers and scholars went before us in describing their time and the somewhat utopian ideas for the future. From the Age of Reason to the Industrial Revolution, we now have entered a new age or at least a transition period towards a new age and we reflect on this new paradigm. According to W.J.T. Mitchell⁴⁸ we've already passed the digital age as he explains in his essay 'The Work of Art in the Age of Bio-cybernetic Reproduction'⁴⁹ in which he revisits Walter Benjamin's classic essay "The Work of Art in the Age of Mechanical Reproducibility"⁵⁰. In Mitchells theory, the current time might better be called the age of *mis- or dis-information* and the *era of cybernetic control*. He describes the *bio-cybernetic* life form as the reduction of a living being to a tool or machine becoming an intelligent creature that is capable of adapting itself to its environment. In his approach, *bio-cybernetics* refers to the new technical media and structures of political economy that are transforming the conditions of all living organisms on this planet. As an artist I find the concept of the *post-human* age very thought provoking. Since within my practice I work with mainly digital media and digital technologies, and make use of images as their content. As I explained in the previous chapters, I have always been interested in exploring what images mean to us, and not only what they

⁴⁶ Jim Daly. 'New TED Book envisions the 'living' cities of the future' *blog.ted.com*. February 8, 2012. May 8, 2015 <<http://blog.ted.com/new-ted-book-envisioning-the-living-cities-of-the-future/>>

⁴⁷ I dont understand what kind of footnote should be here (was in the comments)

⁴⁸ W.J.T. Mitchell is theoretician and professor at the University of Chicago. His work is most often focused on the history and present theories of media, visual art, and literature. His work explores the relations of visual and verbal representations in the culture and iconology in the context of social and political issues.

⁴⁹ Mitchell, W.J.T. 'The Work of Art in the Age of Biocybernetic Reproduction' *arts.rpi*. 2003. Rensselaer's Department of the Arts. January 7, 2012.

⁵⁰ The essay "The Work of Art in the Age of Mechanical Reproduction" (1936) has been highly influential across the humanities, especially in the fields of cultural studies, media theory, architectural theory and art history.

communicate, but also *how* they communicate. Today in this post-human age we (human beings) are to a certain extend living with our (digital) technologies, which probes the question on how we should deal with this arranged marriage. Digital technologies and computers are not just part of our everyday life as merely tools, they have become entities with whom we are (however still superficially) living. At least we can say this seems to be the road that lies ahead.

This idea, combined with my interest in images has led me to start a project, that I call ANIMA. Together with friend and artist Nick Verstand we decided to make a digital entity which resulted in a series of works through which we explore the nature of living things, an exploration of a soul as the title of the work already suggests. The work investigates how we emotionally relate to a digital entity. We are investigating and trying out various ways to animate consciousness and are exploring possibilities of artificial intelligence. However, equally important is the experience and effect it has on the audience and discover how we engage in a relationship with a digital being. I shall return to this project later in this chapter.

We have the future ahead and the world at our feet (again)

According to Mitchell, the contemporary age needs to be updated to the age of bio-cybernetic reproduction. High-speed computing, video, digital imaging, virtual reality, the Internet and the industrialization of genetic engineering dominated the past decades. This did not only have its impact on science and their consequences for ethics and politics, but it also influenced the tools and materials that artists use for their work and therefore its impact on art; the making as well as the *product* of art. At the same time live art like audio-visual performances were becoming commonplace and belonged to something called *Intermedia art practice*. A term that was popularized by artist and co-founder of the Fluxus movement Dick Higgins by which he refers to the use of different media art practices combined into one work. Higgins called for unusual combinations of genres and proposed that all media could and even should be conjoined into the artwork by mapping one structure onto another, a concept that has become very relevant again today with the notion of encoding and transcoding of information and the § software and apps that are built to synchronize and map structures of sound onto visuals.

Audio-visual transcoding

An artist with a live art practice, and in this context a VJ, uses various tools from hardware to software. Nowadays VJ software allows for many more sources than the video file. Furthermore, the AV artist and VJ often program their tools and music visualizations themselves.⁵¹ This user-friendly audio-visual transcoding technology and software has become essential to AV performance and often the machine is not solely used as a tool to improve the workflow of a VJ but completely takes over the hands-on work of the VJ. Software like Resolume are designed to trigger and sync clips with the music, for example allowing the VJ to work with *time-code*⁵² so that it completely matches the soundtrack and live show prepared beforehand. Resolume can import external sound input from the sound table or uses plugins that are designed to sync visualizations in real time with for example, the DJ software Ableton-live.

Although this ubiquity of algorithmic standards like the way in which audio visualizers, plugins and effects are rendered, the fact remains that many AV artists consider the visual and aesthetic content of key importance implying a relationship between the prepared media and the live performance that goes beyond the synchronization or symbioses of the audio and the visual. In general I see the technological development for audio visualization in hardware and software as an advantage, however, I share the thought of my colleagues that the more an AV artist or VJ makes use of audio-visualizations that are prepared beforehand, there is a risk of the AV performance becoming more of the same and impersonal. The effect is the same and it is possible recognize the software in the end result. As for example VJ Lars Berg saw someone using certain plugins and software, the audience wouldn't notice something like this but as a VJ you can: "I could see the VJ was using a cracked version of Resolume, and recognized all the Resolume footage". Also VJ and programmer of Resolume software Joris de Jong says that as soon a VJ uses effects and certain *transitions*, you can immediately recognize the software.⁵³ However,

⁵¹ With program is meant that an artist writes code for music visualization. AV Programming can for example be done in Processing, Quartz Composer, Max/MSP and could be a FreeFrame (GL) plugin. It can be written in programming languages for example Java or C++.

⁵² Time code is sometimes known as SMPTE (pronounced Simp-Tee) or SMPTE code, is an electronic signal which is used to identify a precise location in digital systems and on time-based media like audio or video tape.

⁵³ Interview Resolume Appendix B: J.

Resolume aims to design their software as neutral and flexible as possible. As founder of Resolume Bart van der Ploeg says: “I like it the best when I don’t recognize Resolume. When it’s a great VJ-set or online performance and I couldn’t recognize Resolume, but found out later that he was using Resolume, then I think we did well, or actually, the VJ did well: that you won’t let your tools influence your style.”⁵⁴

Moreover, since the same algorithms are used, it could be hard or even impossible to see the artist’s hand at stake. VJs who only work with material that is made by someone else are in a way similar to a DJ that mixes records live. As Lars Berg in the previous chapter already said that he wouldn’t mind the VJ performance heading in the direction of a VJ just mixing clips that he or she likes, and not only uses unique footage, as he claims that it is the way that someone uses the footage live makes it different every time. Still, a VJ is more often expected to work with original material. Either way, with or without original material it is said that by using existing structures for audio-visualization and live performance, the artist is excluded from the process of translating music into a visual composition. Remarkably there is something paradoxical at stake. As on the one hand the use of digital technology within an AV performance enables us to work even more live and synchronize more directly with the music. On the other hand, it creates a larger division between the live performance and the prepared media, since key decisions that form the basis of the visual composition are done beforehand. Even working with video material can become a live event as Lars said: he uses the software Resolume as a way for live editing. He throws in full-length footage and makes (edits) small loops in real time. When he has used them all, he makes new loops. Bart would agree on this working method, as he tries to make Resolume as flexible and neutral as possible. He believes VJs should in the first place be able to express themselves, without interference with the software. Resolume should have the least influence on the projected picture. It should merely be a tool that is easy to use and makes it possible to do quick improvisations.⁵⁵

⁵⁴Interview Resolume Appendix B: B.

⁵⁵ Interview Resolume Appendix B: B.

Projection Mapping - Resolume Arena 4 and Madmapper

New technologically developed hardware and software materials and the open source mentality has made it possible for many people to build apps, work with sensors and work with reactive, generative content. This has resulted in different manners of audience participation that are neither narrative nor completely perceptual. However, this new tendency of interactivity, live rendering and 3D projection-mapping in the VJ-performance seems to stress sensory immersion over and above narrative immersion. The VJ performance in particular has evolved into something that plays with optical illusions of space, and has ever since the rise of the computer been focused on a one-on-one synthesis of music and visuals. Within the VJ performance, the screen has made room for a more spatial approach to projected visuals. A technique called projection mapping has grown in popularity in and outside of the club and has resulted in numerous projects on architectural sites in the public realm as well as immersive stage design in clubs and music festivals.

The recent technique of 3D projection mapping has gained popularity since 2011 with the introduction of the VJ software *Resolume Arena 4*, the same year that the Garagecube team and creators of VJ software Modul8 launched *Madmapper 1.0*,^{56,57} Before this 3D mapping used to be extremely cumbersome to do. Now both applications allow for on the spot (live) projection mapping by creating slices from the original composition (the content output) and position and transform them to fit any surface: a stage design, sculpture or building. [Fig. 6]

Joris explains the reason for making the Advanced Output in Resolume Arena: “We actually made that for specific needs from Eye Supply.⁵⁸ A year or six back they more often came in contact with LED screens, and they wanted an easy way to adjust their content to that aspect ratio and shape of the screen. Then we made the app Advanced Output for them, which has made Arena so popular.”⁵⁹ However they state that the Advanced Output is far less advanced and less concerned with 3D projecting

⁵⁶ Bart. (*Introducing Resolume 4 Avenue & Arena*)*Resolume.com*. September 1, 2011. April 22, 2014. <<https://resolume.com/blog/8824/introducing-resolume-4-avenue-amp-area>>

⁵⁷ Boris. (*MadMapper 1.0 released!*)*Modul8.com*. May 27, 2011. April 22, 2014. <<http://www.modul8.us/2011/05/27/madmapper-1-0-released/>>

⁵⁸ Eye Supply is one of the leading VJ collectivs from the Netherlands

⁵⁹ Interview Resolume Appendix B: J.

mapping than Madmapper⁶⁰ as Madmapper is specifically designed for 3D mapping. Advanced Output is more applicable for simple positioning as it was originally also designed for that.

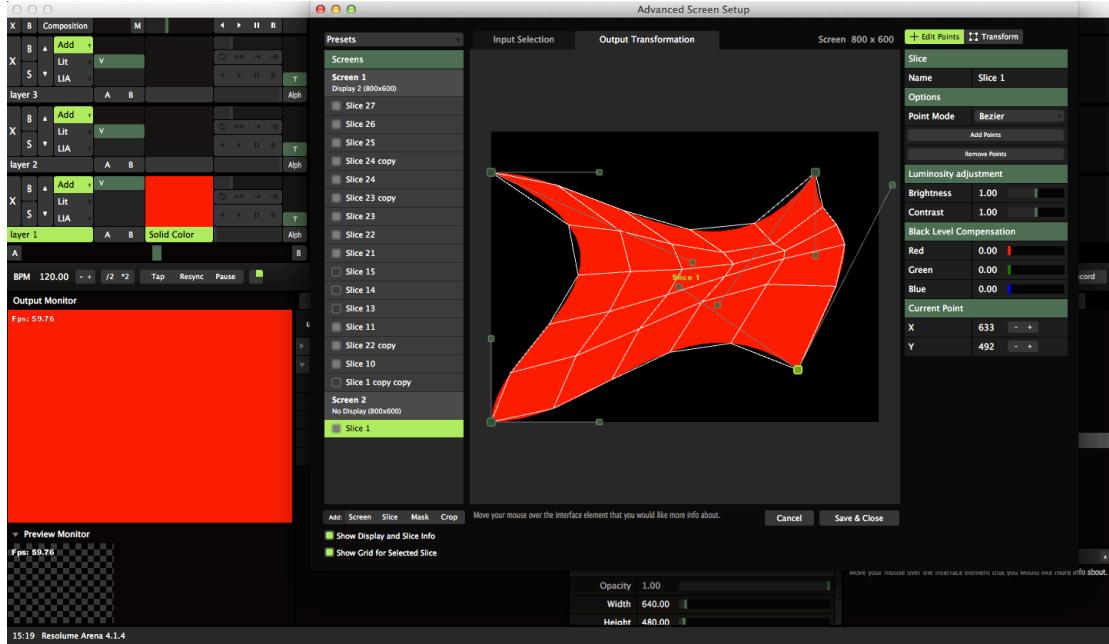


Fig. 6

Since the availability of software now artist and VJs alike are more often using the technique of projection mapping to create spatial designs that play with the perception of space in immersive 3D environments. Famous projects that use the technique of projection mapping are for example the touring productions of V Squared Labs who created one of the first touring 3D mapped stage designs for Amon Tobin's *Isam Live Show*, the *Krewella Volcano*, *Datsik Vortex Lumen* and *Infected Mushroom*, combining projection mapping with integrated light effects.⁶¹ [Fig. 7]

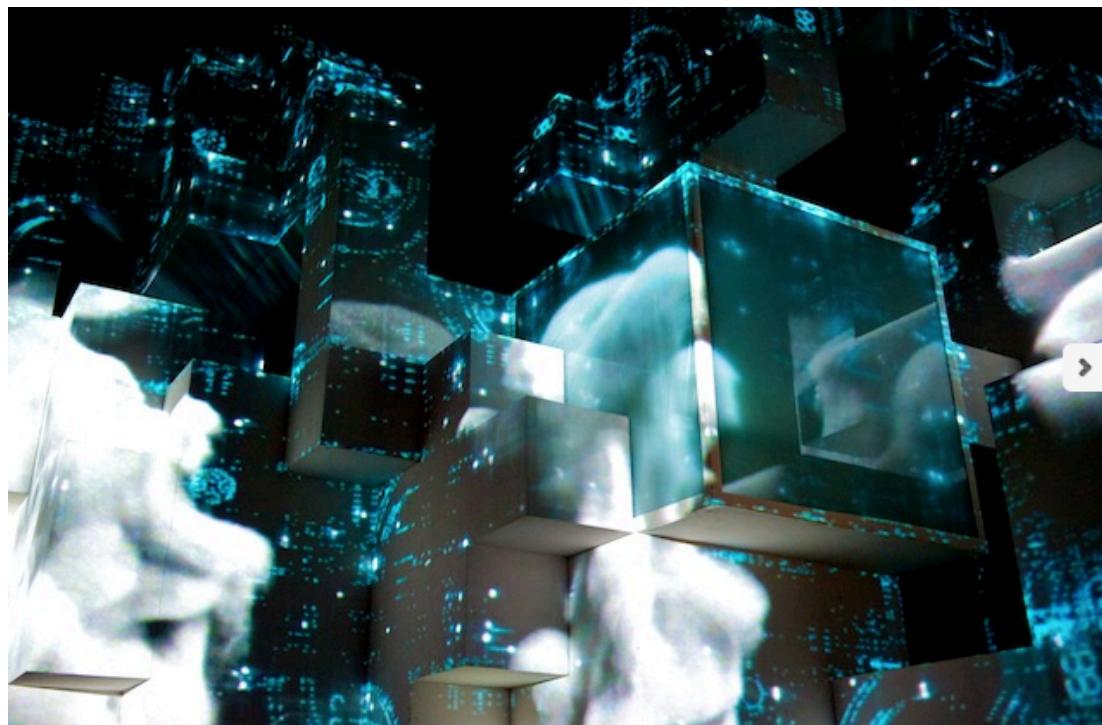
V Squared Labs #Prepared Media

More often you see that musicians are investing in the complete experience of their musical performance. Therefore VJ's and DJ's, audio-visual artists and composers work together on this complete experience that often results in immersive

⁶⁰ Madmapper is software by the makers of VJ software Mofdul8 and was designed for 3D mapping only.

⁶¹ V Squared Labs. (Homepage) vsquaredlabs.com. V Squared Labs. 2013. April 22, 2014 <<http://vsquaredlabs.com>>

environments and stage designs where visuals are in sync with the music. One of the first musicians of recent times to get involved with a complex stage design that would later become equally important to the performance was Amon Tobin in 2011 when he sought collaboration with the Los Angeles based organisation V Squared labs. They



created a huge 3D mapped stage design and travelled with him for his Isam live show tour.

Fig. 7

V Squared Labs was founded in 2002, and is a formation of VJ's, Animators, Designers, Producers, Programmers and Architects. They are one of the many collectives of visual artists working with music producers and musicians for their live shows. Sometimes, as with the creation of the *Isam Live show*, they worked together with several artists and designers with their own specialism to create an AV performance.⁶² Their work is known for their sculptural stage designs and 3D mapped visuals that are made to go on tour with a certain band or musician.⁶³ After meeting with the musician they interpret the music and make a design that speaks the

⁶² Leviathan. ‘Visualizing ISAM’ *Vimeo*. Vimeo. January 07, 2011. April 22, 2014. <<http://vimeo.com/26057973>>

⁶³ Shaw, Heather. (Vita Motus) Presentation Beamlab ADE. Pakhuis de Zwijger, Amsterdam. October 16, 2013.

philosophy of the tour. During the live performance the VJ mixes the visual content live with the music. Moreover in the case of their more recent installations they work with the built-in LED as well. Nevertheless not all their projects have a live component. For example their recent project *Infected Mushroom* has a ninety-minute sync mapping set, which means that the visuals are linked to the audio and triggered by an algorithm. [Fig. 8]



Fig. 8

Bart is very enthusiastic about the new possibilities of implementing light in the set of a VJ. Especially now that VJs more often work with LED the VJ performance already has taken over some functions of the light design. Both Joris and Bart agree that the different fields are merging into each other, Joris: “There are already moving lights that work like small video screens”⁶⁴ Moreover the LED screens are getting bigger and have much more impact on the light conditions. Bart thinks that the VJ in the future will be doing light effect as well; they are developing the software in such a way that a VJ could trigger and control lights, real strobes or led strips so that everything could be done by one person.⁶⁵ He started Resolume together with Edwin de Koning with the aim to make the improvisation part of the VJ performance much easier to get it in sync with the music and the lights. Now with the integration of

⁶⁴ Interview Resolume Appendix B: J

⁶⁵ Interview Resolume Appendix B: B.

triggering lights in Resolume he sees that finally possible, when one person is simultaneously doing the lights and the visuals, everything can be seamlessly synchronized. However, Joris is less enthused by the idea of one person doing everything. Especially he doesn't see that happen on larger events. As he explains that he explicitly treasures the fact that when you are together with the other disciplines like light, laser, fire in the Front Of House,⁶⁶ that you have that what calls 'band' feeling. The fact that you are making something together and all people with such different workflows manage to bring them all together. Not by connecting them technically, but because they are all busy with the same thing.⁶⁷

VJ software and plugins

Coded material in prepared media

As with the example of the *Infected Mushroom* and the feature plans of Resolume, algorithms can be used to trigger or control visuals or to generate a visual output. To be more specific, VJ's more often design and program their own apps to generate or control their visuals. Popular for audio visualization among VJs and AV artists are visual programming languages Processing, Quartz Composer, Jitter, OpenFrameworks or for example Max/MSP.

These programs are used to in a way, create machines inside the machine. You can build an app that can be implemented in a different app or software. As AV artists you choose to work with a certain type of software or program, often depending on the preferred output of a project but also the preferred working-method. For example Quartz Composer is a node based, visual programming language, you work with something that are called patches, which are small blocks of code with different functions, you can place them and connect them to other patches creating a plane, a network or something that looks like a roadmap. [Fig.9] Quartz Composer could be used running live, generating and triggering visuals as in the case of V Squared Labs project *Infected Mushroom*. Or there is for example Processing, much like Max/ MSP and Quartz Composer, is a visual programming language. Processing, built on Java,

⁶⁶ The Front Of House is a place where light and sound operators are normally positioned in a small sectioned-off area, surrounded by the audience or at the edge of the audience area.

⁶⁷ Interview Resolume Appendix B: J.

gives instant visual feedback on what is being written which makes it easy to use for beginners in the world of programming. Artists use it as a sketchbook but can build complete apps in it used for example in live VJ performances. It is *Open Source* software, like some others such as Open Frameworks or programmes that are free for non-commercial use, like VVVV.⁶⁸ When you make use of Processing software, your source code should be available for others to work with or extend upon. The interface designs of Max and Quartz are different from that of Processing. They are more visual and tactile instead of linguistic, making them more user friendly. [Fig. 9/10/11]

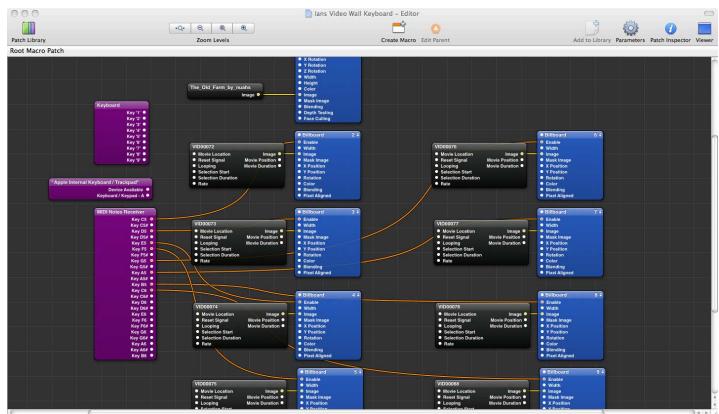


Fig. 9

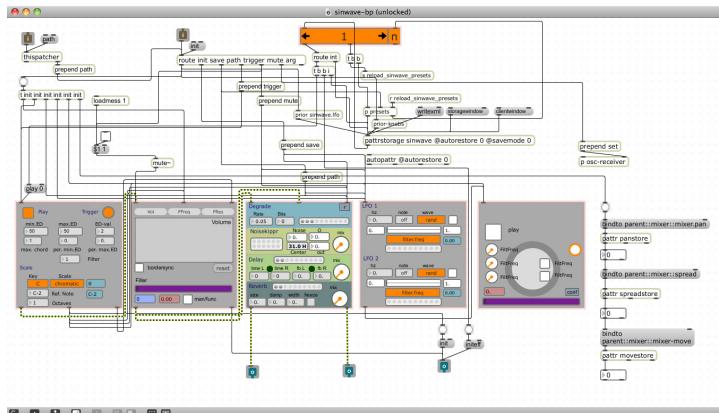


Fig. 10

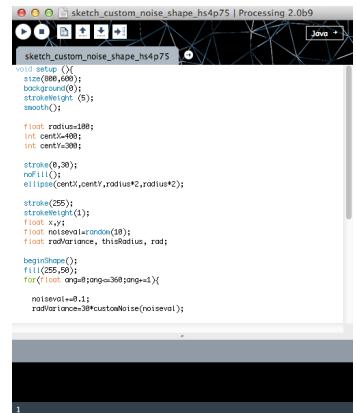


Fig. 11

Max/MSP is similar to Quartz Composer but with more emphasis on audio design. The VJ software Resolume enables to import various source formats and is constantly updating itself to new sources. In the first place of course the traditional video files and images, but also live camera input or apps based on FFGL (FreeFrameGL).

⁶⁸ Open Source is a development model that promotes universal access via free license to a product's design or blueprint, and universal redistribution of that design or blueprint, including subsequent improvements to it by anyone. Researchers consider open source as a specific case of the greater pattern of Open Collaboration.

FreeFrame is an open source real-time video effects plugin system for various platforms that make use of OpenGL, thus for example Quartz Composer.⁶⁹

An artist can use existing apps as part of a larger project or performance, reworking existing apps or building new apps with existing patches. An artist can also build patches with existing modules or write unique modules (and functions).

Moreover it is also possible to write a completely new language for your project. This rarely happens although it was recently done by the visual performer and programmer Simon Geilfus (AntiVJ) within the project Paleodictyon.⁷⁰ The reason for this, he claimed, was because he is a super nerd and really wanted to do it.⁷¹ While elaborating on it further, it did seem to me that he thinks of coding as something that is part of the work. Not something that needs to be done before it all can happen, even though the ‘outcome’ or ‘work’ of Paleodictyon is a site specific audio visual performance.⁷² [Fig. 12-13]

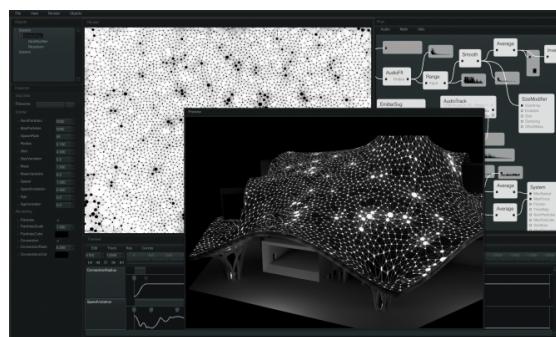


Fig. 12



Fig. 13

We could consider coding for an AV performance comparable to 17th century painter Johannes Vermeer spending a lot of time making his own oil paint. (however he often made his students and assistants do this) Writing a new language would be similar to 15th century painter Jan van Eyck, who was considered one of the first to invent the oil paint. Nevertheless, code is hardly comparable to a tool like paint, since the visual content is multi dimensional and nonlinear. A machine inside a machine, or even

⁶⁹ OpenGL; Open Graphics Library, is a cross-language, multi-platform API for rendering 2D and 3D computer graphics.

⁷⁰ Geilfus, Simon. (Antivj) Artist Talk and Workshop Coded Matters, Coding the Club. March 6, 2014.

⁷¹ Ibidem.

⁷² Geilfus, Simon. (Paleodictyon) antivj.com. 2011. April 22, 2014.

<<http://blog.antivj.com/2013/bacteria-farming-and-software-design/>>

more relevant in the context of the AV live performance, a medium inside a medium inside a medium.

Prepared media as a medium inside a medium

Understanding prepared media through Marshall McLuhan

In the second half of the 20th century a major theorist in media studies, Marshall McLuhan, shed a new light on the notion of media. He changed the way we approach the term with his book *Understanding media, The Extensions of Man* in which he describes how new media have affected human behaviour.⁷³ McLuhan could be seen as a visionary as he predicted cyberspace long before the Internet existed which is why his ideas were again discussed with the rise of the Internet and are still valid today. He introduces many interesting ideas from which I will focus only two concepts with regard to the media of the AV performance, first the way a medium changes structures of society, our human nervous system in thought and behaviour. Second the notion of tactility in projected visuals (or television) and a medium in general which I shall try to explain through his most widely quoted dictum - The Medium is the Message.

McLuhan claims that new media have changed society not only superficially in the way we live our everyday lives, but because they have directly affected the human central nervous system and with that changed patterns of thought and behavior.⁷⁴ He claims that the message of a medium is the effect it has: "For the "message" of any medium or technology could be considered the change of scale or pattern that it introduces into human affairs. "The railway did not introduce movement or transportation or wheel or road into human society, but it accelerated and enlarged the scale of previous human functions, creating totally new kinds of cities and new kinds of work and leisure."⁷⁵ When we take McLuhans hypothesis closer to the context of this thesis we could consider that the VJ performance and live-art, the medium 'computer' and the Internet allowed for the availability of software,

⁷³ MacLuhan, Marshall. *Understanding Media. The Extensions of Man / by Marshall McLuhan*. New York etc.: McGraw-Hill. New York: 1964.

⁷⁴ Marshall McLuhan Speaks. (*Introduction*) marshallmcluhanspeaks.com. 2011. April 22, 2014. <<http://marshallmcluhanspeaks.com>>

⁷⁵ MacLuhan, Marshall. *Understanding Media*. 1964.

hardware and knowledge on a global scale. McLuhan predicted the Global Village (the internet) before it existed.⁷⁶

The impact on prepared media in software development and apps

The Great Vine and Open Source software

He described the generation who grew up with television to be more like primitive tribesman. Globally but intimately involved with each other, and confined to what they hear over the great vine, like a Global Village. Obviously this concept of the Global Village has now become reality. The way in which we use the Internet (or actually how the Internet has altered us humans), as well as in the philosophy of Open Source software like Processing, Open frameworks and VVVV. The open source mentality has become part of our current human behaviour: everything is available or at least accessible. The structures of what is “yours” who is the maker or creator have changed. Open Source is a concept that comes from programming and coding, where they speak about ‘the source code’. The source code is the un-compiled written and readable code that can be changed, improved or distorted. Many people offer their source code online to work with and ask in return to upload improvements or changes for other people again or that you reference them when possible. The tendency of ‘giving away’ stuff that you have worked on for very long is similar to what Lars says about the ideology of FreeLoops, people, artists and VJ’s can use any loops and he gets credit for it by personal messages, which for him is enough. He explains that his material is not what defines him as a VJ, the way someone makes it his own and works with it live is what makes a difference. The philosophy of open source, expresses the current zeitgeist, everything is available for everyone: also prepared media in the form of software and code is a mixture of gathered material, bits and pieces or complete blocks of code and finished apps. Not everyone agrees this is the best way to go, or at least, it is according to VJ Michelle van Mil aka VeeMee, not sustainable. She explains that the leading names in the scene like Vision Impossible, Eye Supply or V Squared labs make their own content and thinks that the VJ who

⁷⁶ MacLuhan, Marshall. *The Global Village : Transformations in World Life and Media in the 21st Century / Marshall McLuhan and Bruce R. Powers.* Ed. Bruce R. Powers. New York etc.: New York etc.] : Oxford University Press, 1989.

makes his own content will outlive the rest. When a VJ never creates his own content, he will stay on a marginal level and will never reach the level of the leading artists from the VJ scene. She believes it is really important to make your own material, even if it completely commissioned. She also sees it as a principle and believes that a VJ who only uses stock will never get the respect from its peers, and in the end also the commissioners will see that. Michelle also finds that DJ's should be producers too and that mixing other peoples records is too easy. The discussion if it's a good or respect-winning thing to do or which way to go is of course a very subjective discussion and to make a statement on that within this context would be irrelevant. What is does show is that prepared media is a very sensitive concept, and is for some artist very important to make it yourself as well. Michelle doesn't mind working with the work of other people when she is VeeJaying as a stand-in: as long as its original material.⁷⁷

Joris also makes his own material but takes a different stand: "I believe a good VJ should think 'What clips from all material I have, my own, that of others or a mixture of that, fit best on this stage with this music?' I think that makes A VJ sustain."⁷⁸ Bart adds that there are some people better in the preparation phase and others are better live. When a VJ lacks mixing skills it doesn't matter how beautiful the clip is, it isn't working. The same goes the other way around. It could be an ideal situation if you can do both, but he believes it is more important what happens live, on that exact moment.⁷⁹

The impact on prepared media software development and apps

Before Joris started working at Resolume he used to work with the VJ software VDMX. He says that they differ from Resolume because they are very much focused on the generative aspect of the AV performance and they let an artist of VJ built his own interface. Their approach is that as an artist you should not be limited by your software and should be able to build it exactly the way you want. Joris noticed when he started using Resolume for VeeJaying that his performance improved because he had fewer choices to make. Resolume enables to make clips, mix them and add

⁷⁷ Personal conversation Michelle van Mil. May 2015.

⁷⁸ Interview Resolume Appendix B: J.

⁷⁹ Interview Resolume Appendix B: B.

effects. For him it allows for more focus on what kind of footage would work best and which effects would fit better. “I realized that you don’t need more to make a great performance. While when you have so many choices and generate your own footage, it’s very easy to lose the overview of what you’re doing.”⁸⁰ The fact that Resolume limits an artist a bit is for Joris what makes it a stronger application. He uses a metaphor of a guitar, where there are just some chords you can not reach, the structure of Resolume allows you to reach them, but as an artist you don’t have to build the guitar from scratch.⁸¹

The software can have an impact on the aesthetics of a live performance, especially when a VJ uses certain effects and plugins that come with it. But Joris also sees something else he considers to influence the outcome. According to Joris it is not so much software that allows you to play clips that have an influence on the aesthetics, the influence of the software is much more recognizable with software in which an artist makes visuals: “ I’m convinced that you can see the difference between the material from people that makes generative stuff in Quartz Composer and someone who makes stuff in Jitter. Purely because one has a colorful and round-off interface with curved edges and pastel coloring, and the other is more ‘wire-frame-ish’, black and white, with sharp green edges, a thin 8bit font and look ‘tech’. That makes that you get different visuals with it. (...) I notice that due to the design of the interface people will make that kind of visuals. Maybe I am too esoterically about it, but you are constantly looking at such an interface when you’re working. I can’t imagine that this won’t influence you”.⁸² Artist and creative coder João Fonseca sees it differently. He is always curious to find out how something is made, but the program or ‘language’ someone uses doesn’t affect the aesthetics: “I would say is much more about the performance of a program, for instance if you use a fast language you’ll probably be able to create more impressive visuals, but I don’t think the use of a different language will affect the aesthetics you use.”⁸³ For João there is the idea first. He always translates his initial ideas on paper before he starts to code, it can happen that during the process the work changes, but that is according to João not because the program that someone uses forces him to work towards certain aesthetics.

⁸⁰ Interview Resolume Appendix B: J.

⁸¹ Ibidem.

⁸² Ibidem

⁸³ Interview João Fonseca Appendix C

Tactility in projected visuals, 3D projection mapping: Images and immersive environments

McLuhan believed that people raised after the arrival of television have a different balance of the five senses from those raised during the previous centuries of a literate, print dominated world. He claimed that television returns man's five senses to their "pre-print pre-literate tribal balance: "For television addresses multiple senses: the auditory and tactile senses at the same time; television is not a visual medium but audio tactile."⁸⁴ Therefore according to McLuhan television addresses multiple senses; hearing, touch and sight. In contrast, radio that only addresses hearing.

A medium that addresses a single sense, allows for a one-way acceleration in a kind of direction that this medium allows for. A medium like television or projected visuals employs multiple senses and needs to be completed by an audience. It creates the illusion of depth and is therefore audio tactile. Following McLuhan's hypothesis, something like television and cinema are registrations of physical space and 3D events that we experience as a tactile event: where we fill in what the picture lacks, *unlike* the notion of communication as in W.J.T. Mitchells approach, but in actual *physical* tactile space. We have moved beyond television and the notion of tactility has become even clearer now with the recent developments of the Oculus Rift.⁸⁵ Inside the music venues we are striving for immersion, and we have the means for it, since current software developments make it possible to build 3D models and animate them in a virtual 3D space. The technique of projection mapping allows us to project this virtual 3D model back onto an actual physical 3D space. Projecting visuals in a club is not about decorating the space it is about showing that the space has dimensions. I believe that for the sake of immersion visuals and projection mapping can generate the experience that a body can become part of a space, rather than having a body that stands in front of a picture, it is important to understand that it makes a huge difference.

⁸⁴ McLuhan, Marshall. *Understanding Me: Lectures & Interviews*. McLuhan, S. and Staines, D. (eds). Cambridge, MA: MIT, 2003. P. 14

⁸⁵ The Oculus Rift is an upcoming virtual reality head-mounted display, being developed by Oculus VR.

These new possibilities for tactility and dimensions are explored in the club environment: VJ software like Madmapper and Resolume has implemented it in their software. For Joris the notion of total immersion is also what VeeJaying should do “(...) to make the people at a party forget that they are at a party in a warehouse with dirty walls. (...) To bring people to a different state due to the flickering lights and the projected visuals.”⁸⁶ Bart sees this effect of immersion also in the synchronization of all elements; the lights, music and visuals. Making that workflow easier was for him one of the reasons to design the software in the first place.

When he together with co founder Edwin de Koning wanted to start VeeJaying they saw video performances where a stack of video recorders, and crates of VHS tapes were part of the VJ’s set-up. There often was a mixer where a VJ could switch channels which had some effects. They noticed that when the music changed, for example it went slower, there was a break or another record was played, that the visuals continued running at the same speed. “We thought that could be improved if you could improvise quicker, that you could follow the music better.” And seeing the tools they noticed that there were just three or four videotapes to choose from. They realized that if they could do that with a computer, clips could change much easier, could easily play it faster or slower. When they found out a tool like this didn’t exist they decided to program one themselves. The first thing they designed was something that could import multiple clips and switch between them. Bart: “That still remains the most important feature.”⁸⁷

Resolume can be used as a tool to play and mix clips but the way the software is designed makes that it can be used in different ways. People as for example Lars Berg also use the software as a means of real time video editing where others only use it to mix live. Undoubtedly the software is becoming more complex as it has more functions and possibilities. Bart sees the function of importing and mixing clips as most important. They are not so much concerned with the notion of audio-visualization on an aesthetical level (thus apart from syncing it with the music). Of course they have many effects and plugins, but they try to design Resolume like Photoshop: “We are trying to make a tool that has no influence on the style in which someone wants to work, when we would make standard audio-visualizations Resolume would be

⁸⁶ Interview Resolume Appendix B: J.

⁸⁷ Interview Resolume Appendix B: B.

recognizable and every VJ would look alike (...) that someone is not forced into a certain style.”⁸⁸ They expect the VJ to import material and work with it to make sure the VJ performance stays unique. Every software is different; they say that when a VJ stays away from the built-in effects it is not possible to recognize the software. It doesn’t matter if a VJ uses Modul8, VDMX or Resolume: However every software is different, VDMX makes an artist build his own interface and Modul8 has certain effects implemented in the interface. Bart: “Than it would be possible to recognize the software because when it is there anyway, you’re likely to use it in the end. An artist has to control himself not to use it. As if the effect belongs to VeeJaying.”⁸⁹ Resolume tries to balance between these two.

Both Joris and Bart agree that a VJ should bring something personal into the performance, which is inevitable: A computer can never completely take over the work of a VJ. If everything is generative in sync with everything it becomes clean and sterile set that is not pleasant to watch. “A computer doesn’t have swing (...) its up to the artist to bring in variety; a computer can’t do that.”⁹⁰ Moreover what a computer could never do is the curating, what clip will be showed and when.

Joris explains, “When we take the standard EDM party is just about flickering along with the beat and sometimes throw in a strobe. But at techno party the tracks are much longer, the bpm can be the same, the volume can remain the same only the feel of the track can be completely different, it is up to the VJ to improvise and work with it. But when you would use *automatic bpm detection* or *FFT analyses* for the volume, nothing will happen.”⁹¹

The hands-on live mixing remains of key importance. The workflow in the software is built to enable someone to adjust it to the way they prefer to work. Some simple triggers allow for speeding up and slowing down, it allows to create different transitions and a way of using color as a leading feature for all clips. The simplicity of some of these functions has a significant impact on the VJ performance. A good example for that is according to Bart “Something we have implemented in version four is that you can adjust the transition time with just one slider. Normally when a VJ

⁸⁸ Ibidem..

⁸⁹ Ibidem.

⁹⁰ Ibidem.

⁹¹ Interview Resolume Appendix B: J.

would change a clip it always was a hard switch. (...) the effect of this one slider has a huge impact on what happens at that moment and your personal style.”⁹²

For some particular performances or artworks you need to build something specific, not only on the level of the aesthetics but also the program: the structure of the app itself.

ANIMA

Within my work I have made use of sensors, use generative apps or plugins to make the visible ensemble possible. Sometimes I design the structure but also have made use of existing sets of code and plugins. One of my recent projects that I mentioned at the beginning of this chapter is ANIMA. [Fig. 14]



Fig. 14

ANIMA investigates our (human) relationship with a digital entity. It probes questions on how one can animate consciousness in a digital being, how it should behave and what it should look like. We decided it shouldn't imitate human life, like a robot, a *Furby* or a *Tamagotchi* does.^{93 94} And to avoid similarities in that sense, we

⁹² int res b-7

⁹³ A Furby is an American electronic robotic toy released in 1998 by Tiger Electronics. It was the first successful attempt to produce and sell a domestically-aimed robot.

⁹⁴ The Tamagotchi is a Japanese toy that functions as a digital-pet and was released in 1996 by Bandai. It was a pocket sized, egg-shaped computer with a few buttons.

chose an abstract form and designed a being from a white canvas, poetically starting at the beginning of life, as ANIMA would grow more complex over time. We chose for a spherical design, as it is one of the purest shapes, and one where everything is made of from the atom to the solar system. A sphere has neither a front nor back; ANIMA should be installed in a space where an audience can walk around it and should be able to come close and touch it. ANIMA has no visual references to ‘ears’ or ‘eyes’ but it does respond to the presence of the spectator. ANIMA involves many different specialisms: generative design, projection, installation, sound design and programming, Nick and I sought collaborations with specialized programmers and artists from the scene. We found collaboration with onformative, which is a Berlin based studio for generative design, the sphere itself is a design and construction of PufferSphere displays who started off as artists themselves, but now are producing and renting out the spherical construction. The sphere is projected from the inside with a special hemispherical lens. The fluid-like structure is generative and rendered live. The code is based on a noise structure called *Perlin Noise*⁹⁵ that we use to create the fluid distortion for its behavior and is designed in such a way that the different gradients express the imagined depth of the fluid waves. In the neutral state the fluid-like structure would continuously move slowly across the surface, through the use of Kinect sensors the algorithm triggers certain behaviors such as speeding up and changing color. These are very basic responses that technically don’t go that much further than the complexity of a sliding door. Through several experiments, we decided to adjust the code by implementing a ramp to the state of going from neutral to active and added chance function in changing colors so it would feel more random or natural but not completely random: we noticed that as soon as we made the sphere more reactive it became predictable and gimmicky. As João also says that as soon as he understands how something ‘works’ he loses his interest. Not only on the level of the outcome, its ‘behavior’ but also how the structure works: “When I’m experiencing an art piece I like to be intrigued and question not just the work but also the process, if I immediately understand the process it becomes boring and loses its magic.”⁹⁶ We are trying to find the balance between reactive and interactive. We have made various versions and have added functions to the app that we can choose to use or not to use

⁹⁵ Perlin noise was developed by Ken Perlin in 1983 and is a type of gradient noise.

⁹⁶ Interview João Fonseca Appendix C

depending on the context. For example, in version two we added a light source that seemed to come from within the sphere. This light source would be moving around, searching and spotting the spectator that would give the spectator the notion of ‘someone else’ and of being watched as well. Like this relationship that W.J.T Mitchell describes that we’re living in a world where we are constantly looking at others and others are looking at us. We fill in what the ‘picture’ lacks, in the case of ANIMA people ascribed anger and joy to colors and movement. The latest version we did had the most complex reactive system: Beautifully designed from the inside, (from the back) but maybe too demanding for the spectator to engage with (at the front). We have been exploring possibilities of implementing artificial intelligence, however the last time we have noticed the more complex and ‘realistic’ the behavior became, the less people felt engaged with ANIMA.

It seems important to at least have an ephemeral response, an audience feels far more engaged when there is a very direct and clear response even if it is relatively loose. It is engaging because it is believable that you’re in a conversation. This ephemeral response is also caused by the use of the Kinects because it is not the direct touch response, it is more ephemeral: It detects you but it is not as clear and constant when we would have used a touch display. ANIMA should cause some special awareness in the sense that people feel connected, to make this happen someone needs a visual trigger or an audio trigger to know that there is a response. It seemed that if people feel the disconnect for too long we lose them, as in a dyadic relationship Mitchell also refers to when he speaks about abstract art, if one of them fails, the group will fall apart. Therefore this is an important aspect to consider in the process of making ANIMA, it is about trying to engage the audience, not only about making a beautiful artwork. Therefore we made a feature where ANIMA responds to sound very direct by some sort of regurgitation of whatever sound you make. ANIMA seems to try to respond by taking segments of audio and repurposing it. This is an overlay on the constant soundscape and thereby an element of the installation where there is a direct response.

Concerning the prepared media of ANIMA there are various facets to it. First there is the context, the spherical design and the construction itself [Fig. 15]

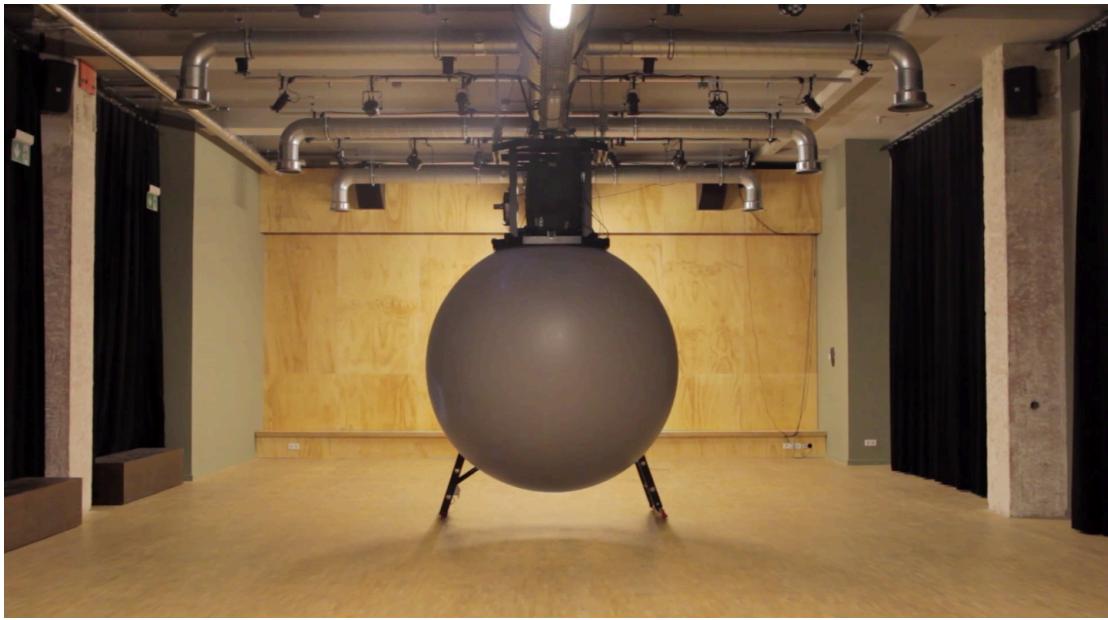


Fig. 15

Every time we exhibit ANIMA we have to adjust it to the scale of the space, the acoustics, the darkness or brightness. Every time we spend a few days to test out if we feel that it works. Therefore the space and context have their impact on the work. Moreover there is the sound that functions as a soundscape and a voice at the same time. It defines the work and its character. As Michel Chion already showed that the audio and visual are automatically interlinked and are bound to each other and. The soundscape is based on water and water droplets and give an eerie feel to the installation, because the echo causes a distortion in the sense of space and scale of the already blacked out room. Moreover, the sound syncs with the speeding up and slowing down of the visuals and the color transitions. When someone shouts something or claps his hands, the sounds is transformed and echoed back as if ANIMA answers or repeats you. Then we have the visual content that is triggered by sensor inputs. In designing it we started off from the idea of using a fluid-like structure.

João Fonseca designed and programmed the generative code. João is a creative coder and designer. His works engages with music, sound and motion and are interactive pieces where he combines math, sound, design and art. “I mainly use technology as a medium of expression not just because of the creative possibilities,

but because I have this urge to understand how the things that surround us work.”⁹⁷ João is a great fan of the open source philosophy as he explains “I owe a lot to open source, not only the software but also the community is incredible and the knowledge and frameworks that people develop, build and share with you for free. I also try to give some contribution from time to time.”⁹⁸

Code as artistic or practical material

When he starts to design/program a work, the first thing he does is setting an environment or framework that allows him to quickly test an idea or a concept. “There is always an idea first, as in all creative processes, I guess. At least for me there is always a lot of thinking, a lot of writing, conceiving before starting coding (and it also saves me a lot of time).” But he explains that this doesn’t mean that idea can’t evolve during the process and even thinks this usually the case. Within the prepared media he creates a set of rules with an outcome in mind, but the act of programming as a process allows adjusting the aimed output through this process, where as he says ‘just tries things out’ until they seem to work. “A good example would be ‘ANIMA’ we had an idea, a concept in the beginning. I had an idea on what it should look like and behave but of course the process made it evolve and grow into something bigger than the initial idea.”⁹⁹ Not only the process of working on the prepared media is part of the outcome, but also more direct playing with randomness. There is a part within this process that is open to chance “Randomness and noise are definitely present in a lot in my work. But I always try to use them in a controlled way. So I can still picture what’s happening even with uncontrollable variables.”¹⁰⁰

For João programming is a framework, like the act of painting he says, “You could consider it just a way to ‘get something done’.”¹⁰¹ But the code itself and programming and making your own things can in a way be part of the artwork. He explains that when these actions are isolated from the artwork, he doesn’t consider

⁹⁷ Quote from personal website João Fonseca. ‘About me’ *cargocollective.com/joaodafonseca*. May 8, 2015. <<http://cargocollective.com/joaodafonseca/About-me>>

⁹⁸ Interview João Fonseca Appendix C

⁹⁹ Ibidem.

¹⁰⁰ Ibidem.

¹⁰¹ Ibidem..

them as an art-object. But when they're combined with the artwork as a whole, they become part of the process and then the process itself can be artistic. On the one hand he states that the outcome is always the art piece because that is what is exposed as the art object. But he feels the code as part of the artwork, or even as an artwork on itself as he explains: “(...) code itself is just an abstraction of the output. So by reading it I can picture the outcome. The same way a musician can read a musical score. (...) Is the score the musical composition? If you think about it, a score is a translation or a set of rules to follow, so if you can read it you can ‘play’ the music in your head. The same thing happens with code; if you understand it you can picture it in your mind. Of course this is always an abstraction but if you can visualize it in your head isn’t it part of, or even the work itself just translated in other way?!”

Following this metaphor programming could be considered the same as speaking or writing in a regular language, at least it seems to be similar. On the other hand programming differs from a language as it is a system, a tool and for João resembles Lego where different blocks are combined to build something bigger. However, he says there is a vocabulary in it and you are talking to a computer, but it is not like you are having a conversation. It should be considered a way to put ideas in a logical order in a language with very few words.¹⁰²

In the case with the VJ software Resolume, both makers Joris and Bart agreed that the software should be flexible and should be able to be adjusted to the artist's specific workflow. However, the more possibilities there are the less focused an artist can become: As Joris said that when he started using Resolume after VDMX, he was able to focus more on what he found important within the live performance. João agrees that if something (an aimed result) can be achieved via existing software, there is no need or the advantage to make something himself. But he adds that this rarely happens, since the pre-existing software is usually not prepared to what he wants to do. Therefore he says that hacks a lot of software or creates plugins to extend their functionality. For João being able to write the code for his work is liberating and considers code as *material* a great advantage to have as a framework. “The possibilities are endless which makes that you as an artist can never be constrained by

¹⁰² Ibidem

the medium.”¹⁰³ Programming and using existing software as prepared media are a different thing, however in both existing software or uniquely designed apps the program shouldn’t be visible or according to João is not visible in the live art part: the art-object. Joris believes that only on a psychological level the program that you work with has an influence on the aesthetics. But João doesn’t agree. The app that is used to build something or generate an outcome isn’t visible at all, thus not the program *itself* but it can be possible to get an idea of the process that was used to get to that result. As a programmer João is always interested to find out how something works or is designed. From the outcome, he tries to trace back its rules. But also by looking at the code, the rules that are to be triggering a certain outcome, he can imagine the work in his mind. What is real? Does it matter? And the rules itself can become the art-object. He can read the code like a musician reads a musical score, and considers it math alike poetry: “I can get really fascinated by the way that people write code. I think it is pretty much the same as mathematicians and physicists describe the beauty of an equation. It’s a very abstract beauty but it’s definitely there.”¹⁰⁴

¹⁰³ Ibidem.

¹⁰⁴ Ibidem.

Conclusion



This research showed various angles to approach prepared media of a live artwork, as *material*, emotionally, personally and others see it merely as a tool to get something done. For example the materiality of prepared media is illustrated by the project Paleodictyon where Simon Geilfus interpreted the visuals that were designed for the project on Centre Pompidou. He even created a new language to write that program. In this scenario it is not just about creating a tool to work with, which is the case with the VJ software Resolume. They created a tool that enables artists and VJ's to work and mix their images live. Their aim was to enable the artist to adjust the program to his or hers specific needs, the tool should not be visible within the live performance. Sometimes the program or language that artists use to make visuals, can have an effect on the aesthetics of the art-object. This would be because the artist is constantly looking at the aesthetics of the interface he is making the visuals in. João disagrees: He sees a program merely as a practical tool. Only the performance (speed) of that particular program could give away what the artist used to make the work.

The notion that the aesthetics of a program can have an impact on the outcome of an artwork (the art-object) has to do with the impact aesthetics have on our visual reference and how we relate to ‘images’. Therefore it is similar to what happens with the depiction of images. When VJ's make use of existing VJ loops and stock footage, these pictures become stereotypes. Besides software etc., the VJ's prepared media are visuals in the form of short loops, either (abstract) animations or figurative content. This content can either be unique material from the live performer's making, it can be downloaded VJ packs and loops or found footage and ripped video material, or a combination of all. Some VJ's find it important that the material is unique or made by the artist himself, while others don't find this important at all: it is about how someone works with it live. The meaning of the images is formed by the combination of things. According to Lars Berg different people can use the same loops and it can still be a completely different performance. When someone makes new combinations or places them in a different context, the meaning and function changes. Therefore it is only possible to see the actual impact of the images while working live. The visuals can on itself become a symbol but in the combination of things they can tell a different story.

The hypothesis that images become symbols and work like a language can be traced back to W.J.T. Mitchell's theory on how we relate to images, that we should consider them as living beings with a life of their own. We are continuously in conversation as we are living in a world where we are always looking at others and others are looking at us. We fill in what the picture lacks. Furthermore, we (as human beings) have a neurological condition where we link sound and vision, a form of synesthesia that everyone seems to have which functions as a universal language. Additionally, Michel Chion showed that sound and vision are interrelated and that we constantly *audio-view*: we ascribe a sound to come from the picture that we simultaneously see. This relation forces a certain way of audio-visualization: It makes for example that the software and plugins are built to make the imagery visually respond to the beat. The synthesizing of sound and vision is according to Lars easily done with abstract animations and therefore repetitive; it becomes more complex with figurative imagery. An important role of the live-performer is according to both Bart and Lars the *curating* of images; what image comes when and how, and secondly the human ability to improvise and not merely technically link audio to video. Joris also finds that the synchronizing of sound, visuals and lights should not necessarily be linked through technologies but encourages for different disciplines (people) to work together like a band.

Some artists stress the importance of making, designing and building their own stuff and are afraid that when everything becomes available for everyone, every VJ or artist becomes replaceable. This contradicts the open source mentality, where there is a different view on ownership: everything is publicly shared, from actual code to knowledge. People can find source code online, and make something new or change it. Therefore both video content and code can be considered as building blocks to make something bigger.

We can also see that what belongs to prepared media is not only (projected) visuals or video content nor code, software or hardware: it also includes *the setting*, the physical surroundings. The physical surroundings have like the projected visuals an impact on the complete experience and are therefore part of the live performance as they influence and alter the live moment of the artwork.

Furthermore technologies have an impact on what artists make or use and it has become part of the performative practice of live art: In the final chapter João

explains that the use of code as a framework feels liberating and the open source community has made many things possible for him, not only the source-code that is online, but also the knowledge that is spread, something that Marshall McLuhan predicted and called The Great Vine. Bart and Edwin from Resolume VJ software finally see the complete synthesizing of audio-visual-lights (their initial goal) possible through development of modern technologies. And they are now working on implementing light control in the VJ software. Lars showed that within the context of video the high resolution LED screens make way for the comeback of cinematic and figurative imagery. Therefore it is again possible to focus more on these cinematic and figurative images within the libraries of FreeLoops. Thus, the HD screens an effect on the visual landscape and the visual culture of the VJ scene.

Conceptually when we look at what is happening in the scene of touring-live-shows, this also has an effect on the tools to work with: Software is made to handle high resolution files and because of the fusing of different disciplines (LED screens take over the function of the lights, and moving lights are almost like small projectors) software is adjusted to control lights.

Moreover the *being in the picture* (opposed to standing in front of a picture) is becoming more present in the immersive experiences that we see in the digital-performative arts. Recent software developments are designed on this trend and enable to easily map 3D visuals on physical 3D surfaces. The prepared media and the outcome do not only influence each other, they merge into each other. The live performance or live artwork on the one hand has become an installation that displays the output of decisions made prior to the performance. At the same time, a visual artist can use his prepared media in such a way that it allows for a specific performance and workflow where everything is actually constructed or generated live and the visual output is a unique moment where creation and presentation seem to have merged into one act.

Something that seems to belong to prepared media only, namely a tool to make the live-artwork possible, becomes an artistic environment on its own: Lines of code can have a poetical value, it functions like a language and through reading it, it enables to imagine the work, to ‘picture’ it in your head. In this way, it could be considered the work itself, translated in other way.

Literature

Bart. (*Introducing Resolume 4 Avenue & Arena*) *Resolume.com*. September 1, 2011. April 22, 2014. <<https://resolume.com/blog/8824/introducing-resolume-4-avenue-amp-arena>>

Bishop, George Berkeley, *A New Theory of Vision*, in *Berkeley's Philosophical Writings*, ed. David Armstrong, New York: Collier Books, 1965.

Boris. (*MadMapper 1.0 released!*) *Modul8.com*. May 27, 2011. April 22, 2014. <<http://www.modul8.us/2011/05/27/madmapper-1-0-released/>>

Chion, Michel. *Audio-Vision: Sound on Screen*. Vert. Claudia Gorbman. New York: Columbia University Press. (1994-2005)

Cory Doctorow. 'William Gibson: The Rolling Stone interview' *Boingboing*. Nov. 7, 2007. boingboing. May 8, 2015 <<http://boingboing.net/2007/11/07/william-gibson-the-r.html>>. boingboing. May 8, 2015 <<http://boingboing.net/2007/11/07/william-gibson-the-r.html>>

Fonseca, João. 'About me' *cargocollective.com/joaodafonseca*. May 8, 2015. <<http://cargocollective.com/joaodafonseca/About-me>>

Geilfus, Simon. (Antivj) Artist Talk and Workshop Coded Matters, Coding the Club. March 6, 2014.

Geilfus, Simon. (Paleodictyon) *antivj.com*. 2011. April 22, 2014. <<http://blog.antivj.com/2013/bacteria-farming-and-software-design/>>

Horrocks, R. *Composing motion*. Wellington, 1991.

Jim Daly. 'New TED Book envisions the 'living' cities of the future' *blog.ted.com*. February 8, 2012. May 8, 2015 <[http://blog.ted.com/new-ted-book-envisons-the-living-cities-of-the-future/](http://blog.ted.com/new-ted-book-envisions-the-living-cities-of-the-future/)>

Leviathan. ‘Visualizing ISAM’ *Vimeo*. Vimeo. January 07, 2011. April 22, 2014.
<<http://vimeo.com/26057973>>

MacLuhan, Marshall. *Understanding Media. The Extensions of Man / by Marshall McLuhan*. New York etc.: McGraw-Hill. New York: 1964.

Marshall McLuhan Speaks. (*Introduction*) *marshallmcluhanspeaks.com*. 2011. April 22, 2014. <<http://marshallmcluhanspeaks.com>>

MacLuhan, Marshall. *The Global Village : Transformations in World Life and Media in the 21st Century / Marshall McLuhan and Bruce R. Powers*. Ed. Bruce R. Powers. New York etc.: New York etc.] : Oxford University Press, 1989.

McLuhan, Marshall. *Understanding Me: Lectures & Interviews*. McLuhan, S. and Staines, D. (eds). Cambridge, MA: MIT, 2003.

Mitchell, W.J.T. ‘Showing Seeing’ in *What do pictures want?: the lives and loves of images*. Chicago: University of Chicago Press, 2005.

Mitchell, W.J.T. ‘The Work of Art in the Age of Biocybernetic Reproduction’ arts.rpi. 2003. Rensselaer's Department of the Arts. January 7, 2012.

Mitchell, W.J.T. *What do pictures want?: the lives and loves of images*. Chicago: University of Chicago Press, 2005.

Mulder, Arjen. *Van Beeld naar Interactie*. 1. Rotterdam: V2_publishing, 2010.

Peter Crnokrak. ‘What Need Angel, project video’ *Vimeo*. April 2015. May 2015.
<<https://vimeo.com/124047433>>

Ramachandran V.S., W. Hirstein.’ The Science of Art A Neurological Theory of Aesthetic Experience.’ *Journal of Consciousness Studies*, 6, No. 6-7 (1999): p.15-57

Reify. 'Project website' *Reify*. 2014. May 8, 2015. <<http://www.reify.nyc>>

Shaw, Heather. (Vita Motus) Presentation Beamlab ADE. Pakhuis de Zwijger, Amsterdam. October 16, 2013.

Sterken, S, 'Immersive Strategies in Iannis Xenakis's Polytopes. *Immersed' Sound and Architecture*, *OASE*, 78, (2009): p. 116–125.

V Squared Labs. (Homepage) vsquaredlabs.com. V Squared Labs. 2013. April 22, 2014 <<http://vsquaredlabs.com>>

Zeki, S, *Inner Vision: An Exploration of Art and the Brain*. Oxford: Oxford University Press, 1999.

List of Images

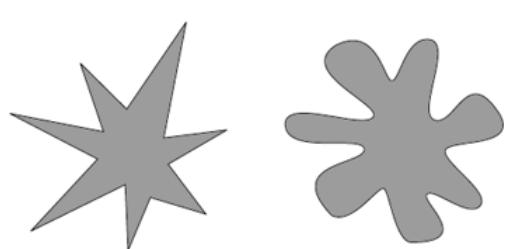


Fig.1 The Kiki Bouba effect.

The Kiki Bouba effect. Author unknown. *The Kiki Bouba effect*. Digital image. Author unknown. Website: [synesthesia-test.org](http://www.synesthesia-test.org/blog/bouba-kiki-effect). Travis January, 2012. May 6, 2015. <<http://www.synesthesia-test.org/blog/bouba-kiki-effect>>

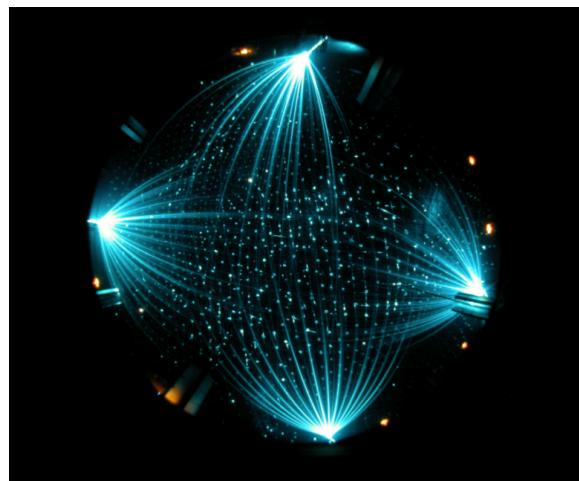


Fig.2 From the show Xenakis Legend of Eer in its Diatope in Paris, 1978.

Bruno Rastoin. *The show Xenakis Legend of Eer in its Diatope in Paris*. 1978. Digital image. From website: Les Amis de Iannis Xenakis. ‘Architectural realizations’ [iannis-xenakis.org](http://www.iannis-xenakis.org/xen/archi/real.html). 2000-2014. Les Amis de Iannis Xenakis. May 8, 2015. <<http://www.iannis-xenakis.org/xen/archi/real.html>>

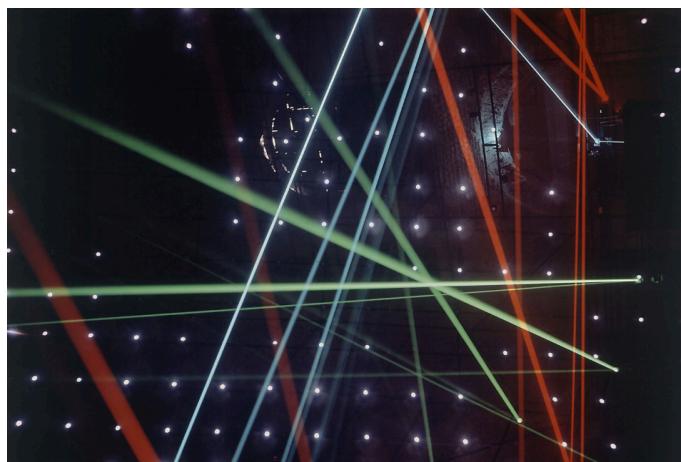


Fig. 3. From the show Xenakis Polytope de Cluny in Paris, 1972.

Unknown. *The show Xenakis Polytope de Cluny in Paris*. 1972. Digital image. From website: Les Amis de Iannis Xenakis. ‘Architectural realizations’ [iannis-xenakis.org](http://www.iannis-xenakis.org). 2000-2014. Les Amis de Iannis Xenakis. May 8, 2015. <<http://www.iannis-xenakis.org/xen/archi/real.html>>



Fig. 4. Rene Magritte, La Trahison des images (Ceci n'est pas une pipe)

Rene Magritte. *La Trahison des images (Ceci n'est pas une pipe)*, 1948. Oil on canvas. Private Collection. picture from website: WikiArt. ‘The treachery of images (This is not a pipe)’ [wikiart.org](http://www.wikiart.org). WikiArt Visual Art Encyclopedia. May 8, 2015. <<http://www.wikiart.org/en/rene-magritte/the-treachery-of-images-this-is-not-a-pipe-1948>>

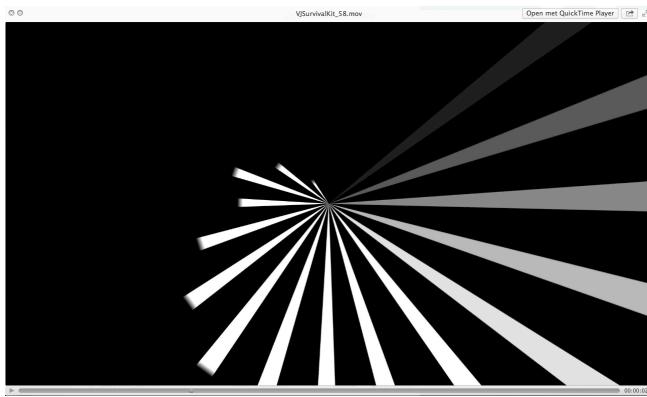


Fig. 5. Author. *Loop VJSurvivalKit_58*. Screenshot from Loop VJSurvivalKit_58. Author. 2015.

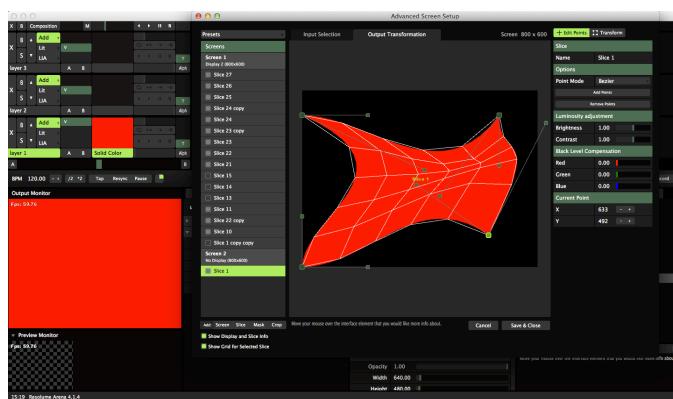


Fig. 6. Author. *Resolume Arena 4 Advanced Output*. Screenshot from the Resolume Arena 4 interface of the Advanced Output. Author. 2015.

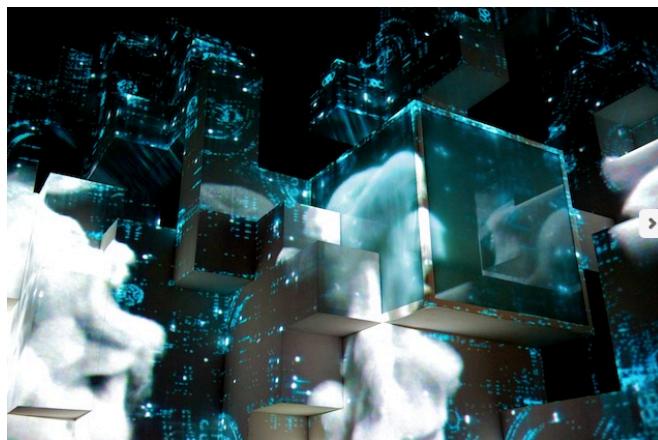


Fig. 7. A photo from the *Isam Live project* live during a performance in 2011

V Squared Labs. *Amon Tobin London Roundhouse 17-06-2011*. A photo from the Isam Live project live. V Squared Labs inc. Website: V Squared Labs. (project/amon-tobin) vsquaredlabs.com. V Squared Labs. 2013. May 6, 2015.
[<http://vsquaredlabs.com/project/amon-tobin/>](http://vsquaredlabs.com/project/amon-tobin/)



Fig. 8 A photo from the *Infected Mushroom* live.

V Squared Labs. *Infected Mushroom Fungus Among Us Experience*. A photo from the Infected Mushroom live. V Squared Labs inc. Website: V Squared Labs. (project/infectedmushroom) vsquaredlabs.com. V Squared Labs. 2013. May 6, 2015. <<http://vsquaredlabs.com/project/infectedmushroom/>>

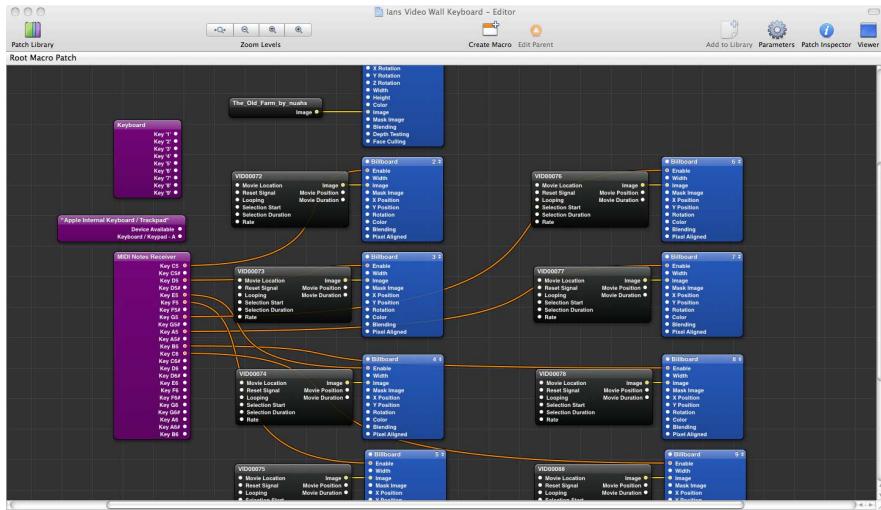


Fig. 9 Screenshot Quartz Composer

Hunt, Ian F. *Quartz Composer the complete Video Wall Patches*. Screenshot from Quartz Composer patch. Website: Hunt, Ian F. *Quartz Composer the complete Video Wall Patches*. clickformedia.co.uk. 2014. May 6, 2015. <<http://www.clickformedia.co.uk/?p=3039>>

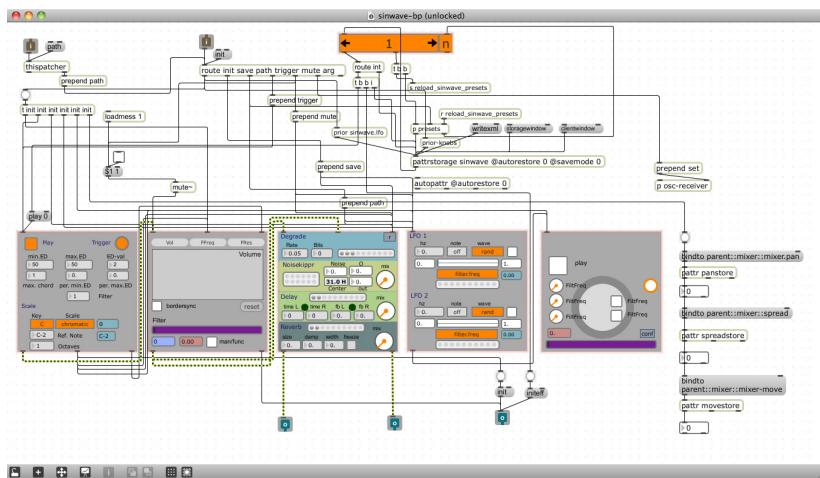


Fig. 10 Screenshot Max/MSP

Loibner, Bernhard. “*unfinished*” – Max/Msp live patch. Screenshot from a Max/MSP live patch. Website: Loibner, Bernhard. “*unfinished*” – Max/Msp live patch. [loibner.cc](http://loibner.cc/wp/unfinished-maxmsp-live-patch/). 2014. May 6, 2015. <<http://loibner.cc/wp/unfinished-maxmsp-live-patch/>>

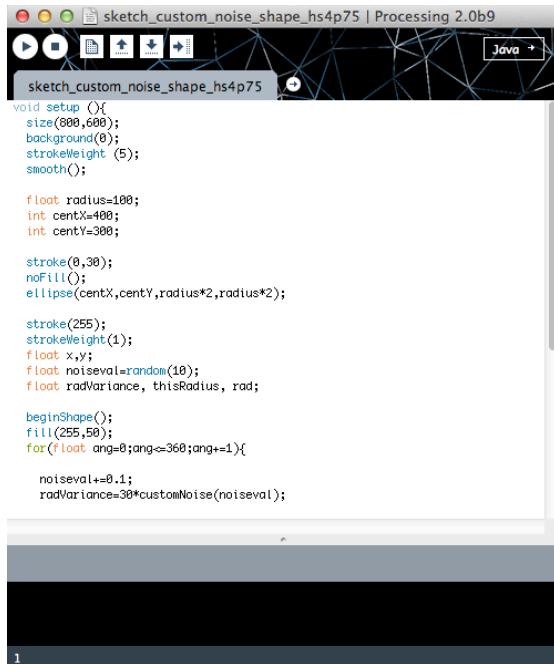


Fig. 11. Screenshot Processing Sketch

Author. *Processing Sketch*. Screenshot from a Processing file. Author. 2015.

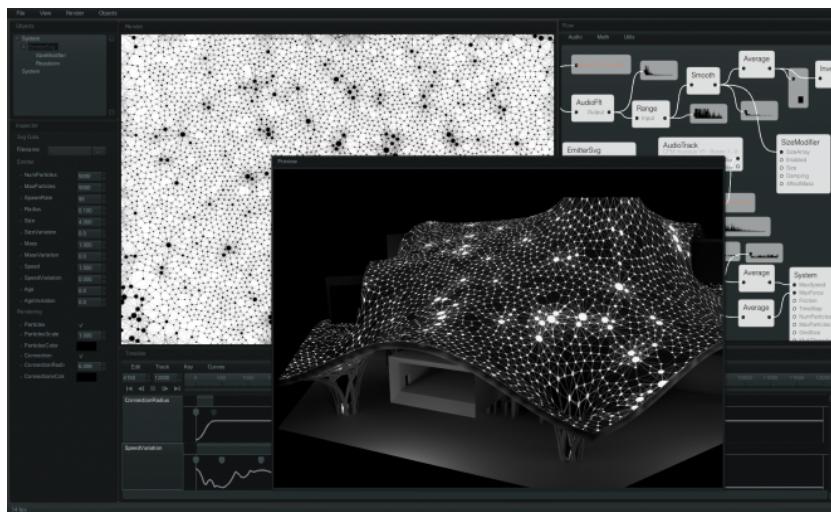


Fig. 12. Screenshot from the project of Paleodictyon in development

Geilfus, Simon. *From Storyboard To Software*. Screenshot from the project of Paleodictyon. Website: AntiVJ. (Paleodictyon) antivj.com. 2011. May 6, 2015. <<http://blog.antivj.com/2013/bacteria-farming-and-software-design/>>



Fig. 13. Photo from the project of Paleodictyon and the Centre Pompidou-Metz

Geilfus, Simon. *From Storyboard To Software*. Photo from the project of Paleodictyon and the Centre Pompidou-Metz. Website: AntiVJ. (Paleodictyon) antivj.com. 2011. May 6, 2015. <<http://blog.antivj.com/2013/bacteria-farming-and-software-design/>>



Fig. 14. ANIMA

Photo from ANIMA during Kantor 2014. Author. November 16, 2014. Amsterdam



Fig. 15. ANIMA Puffersphere construction

Photo from ANIMA during ADE Playgrounds at Volkshotel. Author. October 14 2014. Amsterdam

Acknowledgements

Special thanks to all members from VeeJays.com

VJ Union Global

VJ Union Europe

VJ Union Showreels

VJ Union Loops (sell& Share)

VJ Union Hardware

VJ Forum International

VJ Forums.com

VJ

The VJ Node

VJs Lab

VJs TV

VJ LOOPS

VJs/DJs Worldwide

Polish VJing

Resolume

Computer Art

VJs Mag

VJs United-Europe

LPM –Live Performers meeting

Video Mapping

We Are VJ

3D Mapping Projection//Architectural

Appendix A – Interview Lars Berg

Interview Lars Berg, 14 April 2015, Zandstraat 11, Amsterdam. (NL)

Interview door Frouke ten Velden

Wat is voor jou VeeJaying?

“Ik zie VeeJayen wel als live editen “ De laatste tijd werk ik voor ‘beeld en geluid’ met archief materiaal en dan gooï ik gewoon alles er in, dan maak ik daar live allemaal clipjes van (in Resolume) sequences. En daar ga ik live mee editen, dan heb ik ze op een gegeven moment allemaal gehad en dan ga ik weer naar een volgend deck. Ik gebruik Resolume dus ook om live te editen. Daarom zie ik VeeJayen dus wel als live editen.

Vroeger zou ik dat niet zo snel hebben gedaan, dan zou ik gewoon een mooi plaatje neer zetten of een gekke combinatie te maken van twee beelden, dat je toch een verhaaltje verteld, dat je die combinatie opzoekt. Dat wilde ik dat gewoon graag laten zien aan mensen, als ik iets leuks had ontdekt. Een gek dansje of iets dergelijks.

Is er bij jou live ook nog van belang dat je de beelden aan de muziek linkt?

Ja, het hangt er wel vanaf wat voor nummer het is, dus ik kijk wel of ik iets er bij vind passen. Ja, dat is wel intuïtief.

Op de site staat bij dat er betere shows komen omdat je kunt focussen op de kunst van het VeeJayen, kun je dit uitleggen?

Ja, het gaat er om wat je er mee doet, die 800 loops: als jij ze op je laptop hebt of ik, dan kunnen we allebei een goede show doen maar het is niet vanzelfsprekend dat iemand die al die loopjes heeft er een goede show van maakt. Want je hebt ervaring nodig over wat werkt, je kan niet een beginnende VJ neerzetten in de Ziggo Dome met FreeLoops dingetjes alleen, want die gaat op zijn bek (Die maakt het veel te wit, of die

geeft geen momentjes aan de licht man) die mist die ervaring van het live: ik snap niet dat sommige mensen dat niet zien. Het vervelende is dat programmeurs en bookers vaak gewoon een VJ nemen die ze kennen die ook nog wel wat loopjes heeft, maar ja, zo zijn we ook eigenlijk allemaal begonnen denk ik.

De relatie tussen jou als VJ en je materiaal (loops) verschilt per persoon, hoe kijk hij hier tegenaan?

Met FreeLoops zijn we vier jaar geleden begonnen uit idealisme, veel mensen verklaarden ons voor gek, ze zeiden “Waarom geef je je loopjes weg?! Want jij bent je loopjes toch?” En dat YouTube bijvoorbeeld Veel groter is geworden en dat mensen of via templates en stock sites een heel goede library kunnen opbouwen en hebben. En denk dat de meer gevestigde VJs dit soort ontwikkelingen zien als een bedreiging dat je bijvoorbeeld Van YouTube dingen kunt rippen, bijvoorbeeld hele mooie *timelapsen*, en als ze niet weten waar je het vandaan hebt, dan laat je gewoon vette filmpjes zien met een filtertje er over of een abstract dingetje van FreeLoops er overheen en je bent klaar. (Tenminste: op een ‘gewoon’ level.) Ik zie dat helemaal niet als bedreiging, ik denkt dat het juist heel goed is dat iedereen een beetje kan gaan VeeJayen, net als dat iedereen een beetje muziek kan maken. En dan heb je toch wel de grotere klussen: daar heb je echt goede VJs voor nodig. Die bijvoorbeeld heel technisch zijn, het is niet meer, je moet een goed loopje bouwen en het live komt er bij: het is of je moet een goed loopje maken of heel pakket en concept, en dan eigenlijk het liefst ook nog het nadenken over de hele show en de techniek: dat je het met een heel team moet gaan doen, dat het daar nu heen gaat. Dat je niet alles zelf hoeft te kunnen, maar dat je ziet wanneer iets een goede loop is, of dat je een heel team van animatoren kan aansturen, het doel, uitleg, van de show et cetera, en delegeren wat er gemaakt moet worden en het uiteindelijk samenvoegen. Dan moet het nog geprogrammeerd worden, en gaat het samen met het licht: dan spring je er toch wel weer bovenuit, boven de gemiddelde VJ.

Wat maakt een VJ goed als hij live werkt? (Stel je voor 2 VJs met dezelfde loops)

Ik vind VJs niet zo snel goed, in de club sta ik er vaak met mij rug naartoe, ik vind het vaak te heftig: een VJ moet niet te veel de aandacht eisen, ik vind dat het in dienst

moet staan van de muziek, maar het moet niet gaan om de beelden. Bijvoorbeeld bij een band of bijvoorbeeld op festivals moet het niet te intens zijn, zoals een lichtshow: je kunt beter een paar goede momentjes pakken. En ik ben toch echt een beetje klaar met alleen maar abstract.

Dat vind ik bijna te makkelijk, dat werkt toch altijd wel. Je kunt heel makkelijk meegaan op de muziek, dan verander je de kleur een beetje, en dan werkt het. Het voegt niet zoveel toe, het publiek weet bijvoorbeeld ook niet altijd dat het allemaal live gebeurt (de VJ show). Ik heb op festivals zo vaak gezien dat het niet zoveel voorstelde, dat er geen opbouw in zit, dat ze niet hun momentjes pakken, het ziet er allemaal wel goed uit, maar het springt er nergens echt uit.

Wat ik interessant vind aan FreeLoops is dat het dus stereotypen (symbolen) worden, “schoolvoorbeelden” een hartje zie er zo uit enzovoort. Wat vind je van deze gedachte? Hoe denk jij hier over?

We zijn met FreeLoops nu juist nadenken om loops aan te bieden die een gevoel overbrengen, dus niet liefde is “hartjes”; we gaan ons meer richten op specifiek beeld, bijvoorbeeld romantisch gevoel bijvoorbeeld bos, strand, met een bepaald filter sferisch “echt beeld” Daar zijn we nu bezig, we hebben de basis.

Wat is die basis?

In principe is dat dus Jorrit, met abstracte dingen, in mijn ogen zijn dat loopjes die heel simpel zijn maar die heel goed werken. Die ik zelf niet zou maken, maar dan zie ik het en denk ik ja dit is goed, dit is klaar. En ik (Lars), dat is dan meer de “echte beelden” en nu met Hunter er bij, de wat meer “creatieve” loops. Dus een pakket dat misschien niet goed zal lopen maar wij wel artistiek verantwoord vinden.

Waarom loopt zo een “creatief” pakket niet goed?

Omdat het heel specifiek is, het valt mij bijvoorbeeld op dat bepaalde loops die Hunter heeft gemaakt, met “Pipes en Speakers” dat die minder goed worden gedownload dan bijvoorbeeld witte lijnen. 2D, heel erg simpel, wat iedereen volgens mij wel kan

maken. Maar niet heeft ofzo?? En die worden super veel gedownload. En dan denk ik, dat is zo makkelijk gemaakt.. Dus dan denk ik gaan we nou allemaal loops maken die goed scoren? Maar (nee) want dan wordt je een enorme database van loops die inwisselbaar zijn. Waar iedereen het komende jaar heel erg blij mee is, beetje alles in de stijl van Resolume of Beeple etc. Ik denk juist; nee we moeten zorgen dat die basis er wel is, dat er een pakket is met vuur, en met abstract, maar dat er ook specifieke pakketten zijn, bijvoorbeeld de landen pakketten.

En wat vind je van de loops van Resolume, vind je die bijvoorbeeld inwisselbaar, of toch niet?

De laatste tijd vind ik er hele mooie dingen op staan. Bijvoorbeeld het “steam pakket” ze hebben steeds meer specifieke visuals. En ook wel een paar grafische pakketten, het ziet er goed uit, het is gewoon “klaar”. Daarin zijn ze wel een paar stappen verder dan wij, ze zijn echt op de VJ’s gericht,

Wat bedoel je met ‘klaar’?

Nou als je zo een pakket van Resolume download, en je zet zo een loopje aan dan is het gewoon goed, klaar, kwa kleuren etc, dat klopt helemaal. En bij FreeLoops heb ik dan toch meer het idee: het gaat om het combineren. Dat je visuals combineert, dat je er nog zelf iets mee doet of moet doen. Dat het nog niet helemaal af is ofzo (de loops). Dat is ook hoe ik hoop dat mensen het gebruiken. Dat ze het als basis gebruiken, maar dat ze nog wel iets met de loops doen.

Dus wat je er mee gaat vertellen, de betekenis, zit dat hem dan in de combinatie van de loops, dus hoe je de loops combineert met andere beelden?

Ja, maar het is wel belangrijk om te vertellen dat 30% van onze gebruikers zijn VJ’s, 20% zijn kerken(voor kerkelijke animaties), 40% zijn filmmakers. De kerken gebruiken ook veel hipster animaties.

Wat zijn hipster animaties?

Dat zijn animaties met driehoekjes, en lijntjes, dat bounced en draait een beetje. Het is een best wel populaire stijl nu, je ziet bijvoorbeeld van die kinetic word animaties, van die templates, met van die bewegende tekstjes er in.

Ik geloof dat je een visuele cultuur bepaald, door het platform en doordat de visuals die er op staan worden gebruikt, of werkt dat misschien juist anders om, dat er een visuele cultuur is en dat zie je vervolgens terug in de animaties op FreeLoops?

Het is denk ik bijna zo dat er een visuele cultuur is in bijvoorbeeld Amsterdam, the scene waarin ik in zit, VJ's, filmmakers van de HKU. En dat ik zie dat mensen toffe animaties maken, en die een jaar later liggen te verstoffen, terwijl als je wereldwijd kijkt, dan zijn dat nog steeds vooruitstrevende beelden. Ik denk dat Nederland best wel voorop loopt in de animatie en VJ scene, waardoor we met FreeLoops misschien wel iets bijdragen wereldwijd. Het zijn voornamelijk (gebruikers) uit het buitenland, het is maar een klein deel Nederlanders.

Hoe kun je vooruit lopen op beeld? Is er vernieuwend beeld?

(Denk lang na) Ja, bijvoorbeeld het laatste pakket van Resolume, (3D achting, mapping) dat vond ik er vernieuwend uit zien, een van de makers van Resolume (Joris) die had een pakket gemaakt, dat kun je zien: zij kennen het programma goed (Resolume) ze weten hoe het in de shows wordt gebruikt.

Wat ik denk dat nu misschien wel vernieuwend is, toen ik bijvoorbeeld acht jaar geleden begon met VeeJayen was ik een van de weinigen die met echte beelden (filmisch) ging VeeJayen. Bijna iedereen raadde dat af, resolutie wat 320 bij 240, het zou niet over komen. Toen gingen we in half HD filmen en toen HD, maar die schermen konden dat niet aan. Abstracte animaties werkten heel goed, en nu zie je eindelijk dat de schermen steeds beter worden, dus ik denk echt dat de nieuwe trend zal worden realistische (filmische) beelden.

Ik denk dat bijvoorbeeld zo een pakket over Amsterdam (FreeLoops) heel goed gaat lopen in de toekomst, omdat alle schermen straks ook heel goed zijn, sowieso in Nederland. We hebben veel gebruikers in de Filipijnen en Mexico, daar lopen ze technisch misschien nog wat achter kwa schermen, maar over een paar jaar is het daar ook normaal om full HD en hoge resolutie Led te hebben hangen. Dan komen deze beelden meer tot hun recht.

Welke regels gelden er voor een loop?

Bij ons is een loop tussen de 4 en 8 seconden of een meerdere of mindere daarvan. (4, 8, 16 of 32 sec) Zodat je er in ieder geval wat mee zou kunnen doen op de beat.

Het moet het seamless loopen. Met trucs zoals beweging vanuit het midden, de zijkant, of juist gespiegeld: de standaard trucjes. Met animatie is het makkelijker dan met echte beelden, dan moeten we steeds zoeken naar overgangen en andere trucs om het seamless te loopen. Ik heb ooit van Daan van Sense een truc geleerd om bijvoorbeeld een sequence te maken van vier verschillende shots, waarmee je een kort verhaaltje verteld, en dan is het direct al een interessant loopje. Bijvoorbeeld de ‘Shanghai’ loop; het heeft sfeer, het ziet er vet uit met neon, het is een beetje nabewerkt: het goede aan de loop is dat je steeds niets nieuws er in ziet, juist doordat het niet zo strak is blijft het leuk om naar te kijken (boeiend).

Als je iets aan het maken bent, denk je er dan ook aan waar het terecht gaat komen? Denk je bijvoorbeeld aan muziek?

De laatste tijden ben ik weinig zelf aan het maken, maar bijna altijd als we loopjes gingen maken dan was het met een doel voor een feest of evenement. Dus dan ben je heel erg bezig met de muziek etc. En meestal test ik het wel onder hardrock muziek en onder elektronische muziek of het werkt.

Ik ben er niet zo heel erg mee bezig nu, want de loops op FreeLoops worden voor verschillende doeleinden gebruikt, fashionshows, videoclips.

Waarom maak je bepaalde loops? Hoe kom je op het idee?

Mbt ‘Vliegtuig loop’: Dat was gewoon spontaan, we gingen eigenlijk voor een ander project filmen, en bedachten, ja we hangen een GoPro onder de vleugel. Toe had ik het materiaal, zag het er goed uit en dacht ik, ja hier moeten we wat mee doen. Toen hebben veel mensen het gebruikt. Het is veel gebruikt voor intro’s van filmpjes, terwijl ik het had gemaakt om voor VJ optredens te gebruiken.

Met de meeste loops gaat het zo, het is niet van te voren bedacht. Gewoon dat materiaal er is, en dan werkt het. Ik vind het heel erg leuk als mensen de beelden anders gebruiken dan wat er misschien eerst mee bedoeld was, of waarvoor ik verwachte dat ze gebruikt zouden worden.

Je zei eerder, met FreeLoops wil je kwa loops een beetje andere richting op gaan, wat bedoel je precies?

We hebben nu de basis, we willen mensen om ons heen die we kennen of wereldwijd, die loops hebben gemaakt en die als ze bijvoorbeeld al een keer zijn gebruikt, dat het dan zonde is als ze blijven liggen en/of zij ze alleen zelf gebruiken. Dan zijn er heel veel VJs zoals bijvoorbeeld Vision Impossible, die zeggen “Ja maar ik heb hier heel lang aan gewerkt en ik ga ze niet met iemand delen, want ik ben deze VJ omdat ik deze loops maak” En ik denk: Je bent een hele goede producent van VJ loops, en je kunt een hele goede VJ zijn. Ik ben zelf bijvoorbeeld niet de beste live VJ meer, ik vind het wel leuk, maar ik zie gewoon dat anderen beter zijn, vooral omdat ze het vaker doen.

Is het bijvoorbeeld erg dat je misschien geen credit krijgt voor je werk (als je bijvoorbeeld de loops hebt gemaakt) en iemand anders staat er mee in de Ziggo Dome te VeeJayen?

Waar ik hoop dat het heen gaat is dat mensen het *of* gaan herkennen zoals bij De Wereld Draait Door; dan krijgen we af en toe telefoontjes van vrienden of bekenden. “Hé was dat FreeLoops?” Ik zou het alleen maar leuk vinden, ik geniet er van te zien door wie en waar het allemaal wordt gebruikt. Dus je krijgt er ook die credits voor (als ze je bijvoorbeeld bellen om te zeggen dat het ergens in zit)

Naast dat veel VJs ageren tegen het feit dat mensen bestaand materiaal gebruiken omdat het ‘oneerlijk’ is, is mijn hypothese daarbij dat doordat veel VJs de loops gebruiken en bijvoorbeeld de beelden (liefde) door VJs gedownload worden op FreeLoops (hartjes): dat wordt voor mensen hoe iets er (in hun hooft) uit ziet en gaan vervolgens dat soort beeld weer nastreven terwijl het misschien wel als origineel idee is begonnen. hoe kijk jij hier tegenaan?

Ja, gebruiken *en* remixen: alle beelden worden geremixt. We zetten ze er nooit helemaal clean op. Eerst wel: dan is het nog *fish-eye*, etc. origineel: dan kunnen mensen er nog van alles me doen, zo dachten wij. Maar dat bleek helemaal niet zo te werken. Mensen willen dat de *fish-eye* er uit, en het na bewerkt was etc., dat het er veel ‘filmischer’ uit ziet, die loops die af zijn, die je direct kunt gebruiken voor een intro of VJ show, die werken het best. Maar ja, dan worden ze later toch weer geremixed . (IK: ook omdat de context steeds veranderd)

Maar ik denk dat, dat wat je beschrijft bij Resolume en Beeple veel meer aan de hand is: ik was in Argentinië in een club, en zag dat de VJ Resolume clips had, alleen maar, en ik zag dat hij ze niet had gekocht en met een gekraakte versie van Resolume aan het VeeJayen was. Dat is dan wel jammer, “Ik zie dat nu, maar het publiek weet het niet eens.” Maar toen dacht ik ook weer: “Goed voor die VJ, hij heeft het ontdekt, en hij gebruikt het op zijn manier.” En hij combineerde dat met videoclips, dat stond best wel lang aan maar het bleef boeiend, hij maakte er toch weer wat eigens van… Het was geripped YouTube materiaal, wat heel veel mensen niks vinden, maar hij zette het wel in een nieuwe context. Hij zette de clip niet in zijn geheel aan.

Zijn er andere platforms die loops aanbieden? Werken zij anders? Hoe?

Ze doen allemaal wel wat anders, want ik denk dat wij ons niet alleen op VJs richten maar ook op filmmakers en visuele artiesten. Het moeten wel allemaal loops zijn zodat het zowel voor filmmakers en VJs te gebruiken is. En de laatste tijd hebben we ons wat meer gericht op VJs.

Hoe zie jij de toekomst van de VJ performance?

Ik denk dat het meer richting filmmakers gaat dat het veel meer gaat samenwerken. Iemand die een filmpje maakt voor een fashion show: is hij dan een VJ? Gaat hij dat live in-starten en ques volgen. Maakt hij vooraf een filmpje met FreeLoops en fashion beelden, bereid dus heel veel voor: en start dan elke vijf minuten een nieuwe in. Is het dan een VJ of filmmaker? En Resolume richt zicht puur op VJs (voor op Dance feesten: EDM) dat zie je aan de soort visuals, Resolume loops hebben voor mij een heel herkenbare VJ stijl. Ik kan niet echt beschrijven wat dat precies is. Het is een goede basis om te hebben, als je een keer vastloopt en je hebt een pakket van Resolume dan kom je er altijd nog wel mee weg met effectjes etc. Het verschil is ook: een pakket van Resolume kost 80 euro in HD en dan heb je 30 loopjes, en bij ons heb je dan alles. (abonnement)

Als ik als VJ plotseling ga VeeJayen met een nieuwe pakket van Resolume, zou jij dan nog herkennen dat ik dat ben?

Ik denk dat als jij dat soort loops gebruikt dat ik herken in de manier waarop je de loops combineert met eigen beeld, dus dat het een nieuw origineel werk is. Maar niet als het 1 op 1 is.

Zou je verschil herkennen tussen VJs? (zonder het te combineren met eigen beelden)

Ik denk het wel, voor de VJs in de wereld wel, maar voor een klant denk ik dat het geen verschil maakt. (is) Ik weet dat sommige mensen daar bang voor zijn, “Straks is alles beschikbaar voor iedereen, dus dan zijn de VJs inwisselbaar” Ik denk dat dit niet gebeurd, ik denk dat een VJ juist die live ervaring moet opbouwen en die combinaties moet maken en *wel* iets van zichzelf moet toevoegen. Voorbeeld: ‘dingetje’ maakte nooit zijn eigen loops, maar stond wel op alle grote feesten, ik weet dat sommige mensen daar kritiek op hebben, want hij maakt helemaal niets zelf. Maar hij kon zichzelf duidelijk wel goed promoten, had een goed netwerk, hij wist de juiste feestjes uit te pikken, en hij wist wel precies wat er werkt op die feesten want hij wordt wel

steeds weer opnieuw gevraagd. Dan kun je er kritiek op hebben dat hij zijn dingen niet zelf heeft gemaakt, maar hij is wel een goed Live VJ.

Vorig jaar zomer(2014) gingen we FreeLoops nog serieuzer nemen, en zorgen dat er elke week een pakket kwam: en dat al het geld naar de animatoren van FreeLoops ging, een level hoger. Dat werkte wel, er kwam wel wat meer geld binnen, maar dat ging ook direct weer in de animatoren op, maar omdat FreeLoops groter werd (er steeds meer pakketten kwamen) kon ik in een keer weer grote VJ klussen aan. (ik had meer materiaal tot mij beschikking)

Wanneer je loops maakt: hoe kom je op je ideeën? Hoe maak je een loop? Waar komen ze vandaan?

(Lars pak de website er bij om voorbeelden te kunnen laten zien) Afgelopen half jaar ben ik meer iemand geweest die produceert: producer.

Bijvoorbeeld het ‘data’ pakket: ik zag via wat van dat materiaal voorbij komen, het zag er goed uit, en is heel basic, goed als basis, dus stelde ik voor dat hij er een pakket van ging maken.

Voor een ander project (videoclip) wilden we de VJ installatie van VJ Jayo hebben, maar een andere animator loops laten maken voor op die Bird voor de clip, en dan zou het leuk zijn als daar een VJ pakket uit voort zou komen. Dus hij had specifiek animaties gemaakt specifiek voor die vogel, met het thema etc. de basis was de videoclip, en daar kwam toen een pakket uit. Ik ging bij haar (Jacqueline) langs, ze heeft een schets gemaakt en een aantal daarvan zouden volgens mij goed werken. Daar heeft ze toen een pakket van gemaakt.

Maar ook bijvoorbeeld, Hunter, dat is nu een van hun (niet meer alleen Jorrit en Lars) Die had een ‘Tear’ animatie gemaakt, eigenlijk voor zijn eigen logo animatie. Dat zag er zo vet uit en die loopt ook heel lekker dus heeft hij daar een pakket van gemaakt. Maar dan zeggen wij bijvoorbeeld wel tegen hem: Maak hem ook zwart wit, dan kun je hem gebruiken als masker.

Wat ik goed aan deze loop vind is dat hij heel organisch lijkt, hij is voor heel veel verschillende dingen inzetbaar. Ik vind hem echt origineel, ik heb nog nooit zoets

gezien. En dat hij in zwart-wit als masker gebruikt kan worden bijvoorbeeld als transitie bij een filmpje.

Ik zelf als maker: Het ‘Venetië Pakket’ ik was bijvoorbeeld op vakantie in Venetie en toen had ik een dag over, en ging ik filmen. Het doel wat ik mijzelf stelde was wel; ik ga een pakket maken. Het ‘Sunflowers pakket’ was echt voor het optreden in het Van Gogh museum. Dus heb iets met zonnebloemen en timelapse gemaakt. Allereerst een paar loopjes voor de VJ show en later bedacht hoe we er een pakket van konden maken.

Je sprak eerder over loops die inwisselbaar zijn, wat bedoel je daar mee?

Jorrit zag bijvoorbeeld dat er op de site veel werd gezocht naar water, timeleapse en vuur. En toen heeft hij een vuur pakket gemaakt, dat zou ik zelf nooit doen, want dat zijn allemaal standaard loops, heel erg inwisselbaar, wat mij betreft niet echt FreeLoops: dit zie je namelijk ook op Istock en andere stock sites. Maar het was wel heel goed om te hebben, want als beginnende VJ heb je af en toe gewoon vuur nodig of water, dus ja, het wordt onwijs goed gebruikt, maar het is niet wat ik FreeLoops vind.

De loopjes van Hunter bijvoorbeeld vind ik heel specifiek, die kun je niet altijd gebruiken, maar als je ze goed gebruikt, misschien maar één of twee keer per avond. Misschien voor één specifiek moment. Dan is het bijvoorbeeld echt gek, het kan goed passen op de locatie. Hoe we er op kwamen (Pipes pakket): Hunter kwam een plugin van After Effects tegen waarmee je heel makkelijk als een soort van legosteentjes pipes kon bouwen en dat was maar 50 Dollar. En we zeiden koop het, ga er maar lekker mee spelen.

(Speakers pakket) Hunter heeft in het verleden bij *Vision Impossible* altijd zo veel speakers geanimeerd, en zei: dat ontbreekt er nog. (op FreeLoops) Speakers zijn een soort van basics. Het maakt niet uit of je op een hardstyle avond staat of dance, of bedrijfs evenement. Er komt altijd wel een wat ruiger nummer voorbij en dan heb je even die speakers. En dat werkt altijd wel. Wat ook echt basics zijn, zijn motion backgrounds. En ik ben toch vaak blij dat we ze hebben, want je zet

het over live beeld heen, of je past wat kleuren aan; maar ik ben hier niet trots op. Het is goed dat het er is, maar het is heel inwisselbaar, ik ben veel trotser op uniek beeld dat we hebben.

(Fireworks pakket) wel trots op: was ook geen plan voor. Hij (Toon) was op de Sneek Week (festival) voor iets anders aan het filmen, zag het gebeuren en zei tegen Dominique “Ik heb heel veel mooi materiaal, maak er maar een pakket van.” En toen is Dominique er naar gaan kijken om hoe je er een VJ loop van kunt maken, en die bedacht, “O! Ik ga split-screen doen” (goed voor de VJs) en daarnaast de normale loops, die kunnen weer beter gebruikt worden door filmmakers.

Dus soms kom je gewoon iets tegen en dat je dan ziet het een goed beeld is: wat maakt iets dan een goed beeld?

(Lars denk na, zoekt even een voorbeeld) bijvoorbeeld “Lights pakket” Voor beeld en geluid promo filmpje gelikte stijl, maar ik wilde er VJ stijl aan toe voegen. Dus het was wel echt het plan: we gaan een weekend lang filmen en heel veel materiaal schieten (bijvoorbeeld strepen op de weg, veel onscherp: echt een VJ achtige manier) ik mocht gewoon helemaal los gaan en een beetje spelen. We hadden uiteindelijk veel shots van tunnels en lichten, en strepen op de weg. Ik wist al zeker dat hier een goed pakket uit zou komen. En het simpelste loopje dat in een kwartiertje was gemaakt, wat niet eens goed loopt, werd 20.000 keer gedownload. (ook omdat we hem hebben gepromoot) Maar toe ik hem filmde wist ik al: dit is een goede loop, maar dat heb ik niet altijd. Ik heb me daar ook weleens in vergist.

Heb je weleens dat je materiaal hebt gemaakt wat live echt niet blijkt te werken?

Ja, dat is dan bijvoorbeeld dat de filmpjes te licht zijn. Mooie beelden, maar voor VeeJayen eigenlijk niet. Dat is dan bijvoorbeeld ook vaak niet boeiend genoeg, gewoon niet echt een VJ ding. Ik kan mij voorstellen dat het in een andere context wel goed kan werken, bij bijvoorbeeld een modeshow of iets dergelijks.

Is er iets aan loop dat het boeiend maakt om naar te blijven kijken?

Nee, er is denk ik geen loop die altijd boeiend is, het gaat echt om de situatie. Onlangs hadden we een show met VJ Jayo, we hadden allemaal dingen voorbereid, en gemaakt, maar wat op die dag goed bleek te werken was een pakket van Resolume. Iets wat ik leuk vind om te doen, iets van vroeger, en iets waar veel kritiek op is: Maar dat is om vanuit bestaand materiaal, bijvoorbeeld een videoclip, om dit te rippen en hier een loop in te zoeken. Door de beste stukjes uit de clip te halen en daar iets nieuwe mee te maken.

Hoe zie jij de relaties tussen jouw prepared media en de live performance?

Ik denk dat je een hele grote groep mensen hebt die het tof vinden om vette visuals te maken. En daar zelf niet mee hoeven op te treden, die gaan veel liever produceren en die vind het gewoon heel vet als het veel wordt gedownload en het over de hele wereld gebruikt wordt. En dan heb je de mensen die gewoon heel graag vette shows willen maken. En hun materiaal overal vandaan halen, of een heel team hebben aan animatoren. Veel studio's kopen veel stock materiaal en die maken een paar dingen op maat, en die gooien daar een sausje overheen: ze zorgen dat er iets unieks komt, en vindend dat heel vet.. En dan heb je een grote groep kunstenaar-VJs die alles zelf willen maken en alles zelf live willen doen. En ook elke show weer anders willen doen, en zich er niet makkelijk af willen maken, die willen gewoon elke keer een uniek optreden geven.. Maar die krijgen denk ik niet altijd veel credits en aandacht die het misschien zou moeten hebben, het valt de mensen misschien niet zo op. Dus ik denk dat het persoon verschillend is.

Samenvattend: het maakt eigenlijk niet uit wat voor loops je gebruikt, maar hoe je daar live mee werkt is hoe je je als VJ onderscheid, en dat je zo het verschil kan maken?

Dat is één ding. Die combinatie van verschillende loops en materiaal (FreeLoops/stock, rippen van internet, en eigen materiaal maken) en daarbij het juiste inzicht hebben “We zijn vanavond in de Melkweg, dan moet het contrast omhoog en

doen we alleen zwart-wit. Dat is iets waarmee je je als VJ neerzet, ik vind een VJ dus niet slecht als hij materiaal van allerlei plekken haalt. Ik zou het ook niet erg vinden als VeeJayen er heen gaat dat je gewoon vette filmpjes laat zien: een DJ laat vette platen horen, je hebt bands die nummers coveren omdat ze de nummers vet vinden. Waarom zou een VJ niet gewoon Plaatjes, foto's 'beeld' uit de populaire cultuur willen delen met het publiek, ik laat ook filmpjes van YouTube aan m'n vrienden zien, waarom zou ik dat niet aan een publiek laten zien. "Dit is tof, een dansende robot die een auto is" of "Een schildpad die aan het rennen is" of filmpjes die je op Dumpert ziet, waarom zou je die niet remixen en laten zien aan mensen? In een club: iets meer dan alleen maar abstracte beelden.

Interview Joris de Jong en Bart van der Ploeg, Scheveningen 30 april 2015

Interview door Frouke ten Velden

Wat is voor jou VeeJayen?

J: Voor mij is het samen met andere disciplines zoals laser, licht, vuur effecten proberen een persoon op een feest te laten vergeten dat hij op een feest is. Dat hij niet meer door heeft dat ie in eenloods staat met smerige muren, maar dat ie in een ander staat wordt gebracht door het geknipper en de beelden die je ziet.

Hoe heb je de software ontworpen? Wat was het eerste wat je belangrijk vond?

B: Toen wij de software zijn gaan ontwikkelen was toen we zelf wilden gaan VeeJayen (Edwin en ik) we zagen video performances en we zagen dat die met videorecorder werden gedaan, met kasten vol met videotapes en dan een stapel met drie videorecorders op elkaar, en dan kon je daar tussen wisselen en had je een paar effectjes en dat was het. Dat wilden we graag zelf doen, dat leek ons onwijs cool. Maar we studeerden toen en hadden geen geld om al die videobanden en videorecorders te kopen en de videomixer was vooral heel duur toen. We zagen ook dat wat je aan het doen was als VJ, wanneer de muziek veranderde dus langzamer, een volgende plaat werd gespeeld of er was een snelle break: over het algemeen raasde het beeld dan gewoon door, we hadden het idee dat dit beter kon als je sneller kon improviseren, dan kun je veel beter met de muziek mee gaan. En we zagen ook wel aan de videorecorders (aan de tools) dat je maar tussen drie bronnen kon wisselen, ja dan kun je ook niet op alle situaties voorbereid zijn. Dus wij dachten; als je dat met een computer doet kun je veel makkelijker filmpjes wisselen als je wilt, filmpjes langzamer of sneller draaien. We zijn toen gaan zoeken of dat er was, en dat bleek er niet te zijn dus zijn we het zelf gaan programmeren.

B: Het eerste wat we maakten was dat je überhaupt filmpjes kon inladen, dat je meerder kon inladen en dat je hiertussen kunt wisselen. En dat is nog steeds het belangrijkst.

Tegenwoordig zijn er ontzettend veel vormen, plugins etc (Itunes audio visualisation ed) voor audio visualisatie, ook zie je steeds vaker dat muzikanten, feest organisatoren en DJs een totaal ervaring en show willen en vaker samenwerken met VJs.

Kijken jullie in het ontwikkelen en mogelijkheden van de software naar de vraag vanuit de muziek wereld en wat daar gebeurd?

B: We kijken niet zo zeer naar audio visualisaties, we leunen daar niet zo erg op: we ontwerpen Resolume eigenlijk als Photoshop: we proberen een tool te maken die niet van invloed is op de stijl waarin je wil werken. Want zodra wij standaard visualisaties er in zouden maken dan kun je nog makkelijker Resolume herkennen en wordt elke VJ hetzelfde. Wij zien het echt als tool waarin jij als artiest nog wel zelf materiaal moet inladen en hij moet er zelf mee aan de slag om te zorgen dat het wel uniek blijft voor die gene. Zodat elke performance in principe anders is: dat je niet in een bepaalde stijl gedrukt wordt. Dat vinden wij heel belangrijk.

Is het ontwikkelen van de software een continu proces, of zijn er momenten waarop jullie de software herzien?

B: Het is een continu proces, er is niet een moment waarop je kunt verwachten dat je de beste ideeën krijgt.

Kijken jullie naar andere software zoals Ableton live en hoe jullie daar op kunnen inhaken?

B: Ja, Ableton is een belangrijke inspiratiebron voor ons geweest. Omdat het audiosoftware is zijn zij veel sneller gegroeid omdat er veel meer muzikanten zijn dan VJs. Het is een veel groter bedrijf met veel meer klanten, er komt meer geld binnen en

hebben daarom ook veel meer ontwikkelaars dus zij kunnen veel sneller ideeën uitwerken en ontwikkelen waardoor die software al vrij snel vrij complex werd. En dat is de fase waar wij nu ook in zitten: de software wordt in principe steeds complexer, er zitten steeds meer mogelijkheden in. Dus vooral hoe zij dingen oplossen in hun interface is voor mij altijd wel een inspiratiebron geweest.

B: We koppelen niet zozeer de software direct aan elkaar, we hebben wel een aantal plugins die het makkelijker maken met *Ableton* of *Max for live* te werken, maar het is niet zo dat wij daarvoor onze software hoeven aan te passen.

Soms is de software niet alleen een tool die je kunt gebruiken voor live mixen, maar het neemt steeds meer taken over van een VJ (door plugins, syncen van clips met audio etcetc.)

Hoe zie je de relatie van deze keuzes die van te voren worden gemaakt en het live werken?

Naar eigen interpretatie: gebruikers kunnen doordat de software flexibel is en zo neutraal mogelijk is gemaakt zelf bepalen hoe ze de mogelijkheden inzetten. Ze houden zich niet zo bezig met audio visualisatie, ze maken in de eerste plaats een tool.

Hoe beïnvloed de live performance (dat wat mensen met de software willen) de keuzes die gemaakt worden in het ontwerpen van de software?

B: Ja, we krijgen elke dag vragen en tips van mensen, vaak zeggen mensen “Als je daar nou een button neer zet, dan is het perfect” Dan beroep ik mij op een oud software gezegde, dat je niet naar je klanten moet luisteren. Wat je moet doen is kijken naar wat ze willen: en wat ze echt bedoelen. Ze zeggen “Ik wil een button”, maar we proberen te kijken naar wat ze echt willen, naar wat de reden daarachter is. Of er een bepaald effect is wat je wil bereiken, of dat het niet makkelijk genoeg is, dan proberen wij daar een gestructureerde oplossing voor te bedenken. Als wij alle vragen van klanten allemaal hadden opgevolgd dan was het een grote kerstboom met kleurige knipperende knopjes geworden. En dan zou Resolume niet meer de

gestructureerde tool zijn die het nu is. Soms zeggen we ook gewoon nee, omdat het niet genoeg aansluit bij wat we willen met Resolume. We hebben voor een bepaalde interface gekozen en zoeken daarbij ook naar dingen die in die structuur passen.

J: Een goed concreet voorbeeld hiervan is de Advanced Output van Arena. Die hebben we eigenlijk aan de hand van wensen van Eye Supply gemaakt. Die kwamen vijf a zes jaar geleden steeds meer in aanraking met led schermen, en zij wilden dat makkelijker in kunnen stellen. Toen hebben wij de app Advanced Output voor hun ontwikkeld waardoor Arena nu zo populair is, en nu krijgen we heel veel vragen van mensen die graag effecten op de slices willen gooien, of ze willen de blendmode van de slices kunnen veranderen. Wat wij zouden kunnen doen is daar een knopje bij maken waarbij je bijvoorbeeld de blendmode van de slice kan veranderen, maar waar wij nu voor kiezen is om te proberen uit te vogelen waarom mensen in de Advanced Output en niet in de compositie werken (waar je al die dingen al hebt) en dat we dan proberen de reden te ontdekken waarom ze naar de Advanced Output gaan, om dat dan makkelijker te maken in de compositie, in plaats van die dingen in de Advanced Output te dupliveren.

B: Dat is echt iets waar we nu mee zitten, we zien mensen dingen doen met Advanced Output waar het eigenlijk niet voor bedoeld is. Het was het idee dat je alle slices positioneert en het vervolgens weg klikt, maar het blijkt dat mensen daar ook juist (in Advanced Output) willen gaan VeeJayen.

J: Maar als wij niet naar Eye Supply hadden geluisterd dan was heel de Advanced Output er niet.

Hing het 3D mappen niet ook al in de lucht?

J: Ja zeker, bij het videomappen gedeelte is het zeker zo, het echte projection mappen op objecten, en je ziet ook dat dit in Madmapper het uitgangspunt is geweest. Bij Resolume was het in eerste instantie gemaakt om stukken op led schermen goed te krijgen. En daardoor hebben ze allebei een net iets andere insteek waardoor Madmapper net iets beter is in projectionmapping en Arena goed werkt voor het recht

toe recht aan slices knippen. En dat heeft ook weer met onze klanten te maken, wat ze ermee willen.

Hoe maak je keuzes hierin, met welke gedachte maak je de software?

B: We proberen de tool zo neutraal mogelijk te maken, er zitten een aantal standaard dingen in: je hebt een compositie, daarin zitten lagen, en daarin zitten clips. We proberen het zo flexibel te maken dat je met die drie componenten eigenlijk weer hetzelfde werkt: effecten kun je op de clip zetten, maar ook op de lagen of op de compositie. Uiteindelijk is de keuze voor de VJ welke effecten hij gebruikt, kun je zo neutraal doen als je wil. Je kunt een kleur effect inladen, maar als je bijvoorbeeld een *stingy spheres* effect inlaad, dat heeft een vrij sterke look, en dat is er dan bijvoorbeeld ook meteen eentje waaraan je Resolume kunt herkennen.

B: Joris heeft bijvoorbeeld een tijdje geleden het *triangular* effect gemaakt: precies zo en op die manier zit die niet in andere software dus daaraan herken je het dan. Dus dan ontkom je er niet aan dat je een bepaalde stijl hebt van wat wij mooi vinden, en als mensen dat gaan gebruiken, ja dan ga je het in hun set herkennen. Ik vind het altijd het fijnst als je Resolume niet herkent. Als het een goede VJ set is of een online performance en ik kan Resolume niet herkennen maar ik kom er achteraf achter dan vind ik dat ik het goed heb gedaan, of eigenlijk, dan vind ik dat de VJ het goed heeft gedaan: dat je je stijl niet laat beïnvloeden door het gereedschap wat je gebruikt.

J: Aan de andere kant: Voordat ik bij Resolume terecht kwam werkte ik met software dat VDMX heet, en die zijn juist heel erg gericht op het generatieve gedeelte, en die laten je ook je eigen interface bouwen. Hun insteek is: "Je moet als kunstenaar niet gelimiteerd worden door je software, je moet het kunnen bouwen zoals je zelf wilt." Ik heb gemerkt dat toen ik Resolume ging gebruiken mijn VeeJayen veel beter werd omdat ik juist minder keuze had. Ik heb gemerkt dat dit komt door te focussen; in Resolume kun je clipjes bouwen, je kunt ze door elkaar mixen en effecten toepassen: daardoor ben ik meer gaan nadenken over wat voor clipjes nou echt mooi bij elkaar passen, en welke effecten daar weer bij passen. Toen kwam ik er achter dat je niet echt meer nodig hebt om een goede show te draaien. Terwijl als je heel erg veel

keuzes hebt en je genereerd je eigen beeld, dan kun je eigenlijk zo veel dat je vrij snel het overzicht kwijt raakt.

Dus dat je de kunstenaar vrijlaat: maar zoals ik het zie, de kracht is eigenlijk dat we dat ergens ook niet doen. (itt VDMX)

Hoe kom je op de effecten? (bijvoorbeeld dat triangular effect)

J: Je hebt van die standaard “pixelate” dingetjes, en dit is eigenlijk een variatie daarop. Vandaaruit ga je weer bedenken, zal ik daar meer driehoekjes doen daar minder. Soms werkt zo een idee en wordt het een mooi effect, en soms krijg je het gewoon totaal niet voor elkaar, en dan gooien we het weg.

Denk je bij het maken van zo een effect aan hoe het later gebruikt gaat worden?

J: Nee. En ik moet ook zeggen, laatst was er een AV show waarbij we zowel de muziek als de beelden heel erg mooi vonden, en die jongen gebruikte dat effect. Het was niet heel goed meer herkenbaar, maar toen ik het ontdekte had ik wel een gevoel van trots.

J: De krachtigste effecten zijn wel dat je ze door ze op verschillende bron materialen toe te passen veel verschillende resultaten kan krijgen. Dat is wel een vereiste. Een voorbeeld van een effect waar altijd hetzelfde uit komt is een kaleidoscoop: wat je er ook in stopt, het wordt altijd zo eenzelfde soepje.

Aan de andere kant kun je door de software juist veel meer nog “live werken”? In hoeverre zie jij de software als onderdeel van een live performance?

Naar eigen interpretatie: Het moet gebruikt worden als tool. Het is niet hun bedoeling dat je terug ziet dat het Resolume is, de workflow moet zo gemakkelijk mogelijk zijn en de software flexibel.

Een totaal ervaring, nu ook met 3D mapping dat niet meer weg te denken is:

Waar zie je de VJ performance heen gaan? Wat voor impact heeft dit op de software?

B: Je ziet dat het steeds meer om zich heen grijpt, vroeger was het een badlaken achter een DJ, vervolgens werd het badlaken steeds groter en het werd led. Sinds dien gebeurt het VeeJayen steeds meer op led schermen. Led regeert veel meer als licht, niet meer als video. Toen we net begonnen zag je VJs die veel abstract werkten en anderen werkten meer figuratief. Je ziet heel erg dat de VJs die vroeger heel erg op het figuratieve zaten, dat die het een beetje zijn kwijt geraakt omdat er nu op de podia en clubs allemaal led staat. Daar werkte het figuratieve (igg tot nu) niet goed op. Dus je zag dat het steeds abstracter werd en het eigenlijk steeds meer over licht ging dan over video.

B: Vanuit Resolume willen we ook het licht gaan aansturen, dat lampen gaan meebewegen, ledstrips, misschien zelfs wel echte stroboscoops die je kunt aansturen. Het gaat straks ook gelijk het licht kunnen bedienen, daar zijn we met Resolume nu igg actief mee bezig om dat te bouwen.

J: Ik denk dat op grote feesten er niet één persoon gaat komen die alles doet. Ik denk wel dat de disciplines waar ik het eerder over had steeds meer gaan samenwerken en er steeds meer overlap komt. Er zijn bijvoorbeeld al bewegende lampen die al een soort videoschermen zijn, en er zijn ook gigantisch grote ledschermen ter grootte van het badlaken. (niet meer projectie scherm maar functioneren als lampen) het gaat die kant op.

B: En je ziet het overigens ook wel weer terug bewegen: nu is de resolutie van led inmiddels zo hoog, en de schermen zijn zo groot dat video langzaam wel weer begint te werken. Je ziet het langzaam aan weer terug komen.

De software kan steeds meer wat eerst een VJ live en handmatig moest doen: wat kan de software of een computer niet?

B: Een computer kan niet swingen, stel je doet een flitsje op de beat, dan kan de computer zeggen ik flits voor jou, telkens perfect in het tempo. Dan wordt het wel heel mechanisch om naar te kijken, dan is het niet echt lekker. Terwijl als jij als VJ er achter staat kun je hier in afwisselen, kun je makkelijker met de muziek mee gaan en wordt het aangenamer om naar te kijken. In plaats van naar een hele cleane, steriele set. Hier heb je weinig mogelijkheid om te improviseren, het is niet prettig om de hele tijd naar hetzelfde te kijken. Het is aan de artiest om voldoende variatie aan te brengen, en dat kan een computer niet. En daarnaast ook het cureren, wat een belangrijke taak van de VJ is: welk filmpje speel ik wanneer.

J: Je merkt dit heel erg bij techno feesten: als je het gemiddelde EDM feest hebt, dat is eigenlijk gewoon puur in de maat mee knipperen en af en toe een stroboscoopje tussendoor. Bij een techno feest zijn de nummers veel langer en kan de bpm precies hetzelfde zijn en kan het volume precies hetzelfde zijn, alleen de sfeer van het nummer is super anders: dan is het aan de VJ om in te spelen en daarin mee te gaan. Maar als je automatische bpm detectie aan hebt en FFT analyse voor het geluidsvolume dan gebeurt daar niets mee.

Soms gebruikt je de software voor live mixen, je kunt de software eigenlijk ook gebruiken puur als prepared media:

Ik heb wel eens geëxperimenteerd met een optreden waarbij ik geen content had en vanaf scratch iets maakte: solid color, effect, record: over het algemeen mixed een Vj met contens video of plugins en werkt met effecten, sterker nog, over het algemeen wordt vooral het mixen goed gebruikt.

Hoe zou je willen dat de VJ de software gebruikt?

Ik zie het als een zo neutraal mogelijke tool, zij moeten vooral zichzelf kunnen uitten, zonder dat wij (de software) dat heel erg beïnvloeden. Dat wij zo min mogelijk invloed hebben op het plaatje wat uiteindelijk op het scherm komt. En dat onze tool zo makkelijk en snel te bedienen is dat hij snel kan improviseren.

Is er VJ software dat op een hele andere manier werkt?

B: Al onze concurrenten hebben een andere insteek, bijvoorbeeld bij VDMX daar zeggen ze het zelfde “We willen een tool maken waarbij de artiest zo vrij mogelijk is” Dus kwa tool zelf (dus niet zo zeer de effecten) hebben ze het zo losgelaten dat je dat ook zelf moet gaan bouwen. En daar proberen wij een middenweg in te vinden, we proberen dat als je software opstart, dat je er wel vlot mee moet kunnen werken; dat de *learning curve* niet zo idioot hoog is.

Als jij veel dingen wil kunnen doen, veel effecten wil gebruiken, dat je daar eerst nog zelf een hele interface voor moet bedenken, dat vinden we net een stap te ver. Maar bijvoorbeeld bij Modul8 daar hebben ze in de interface bijvoorbeeld al standaard een paar effecten. Die zijn altijd in beeld en hoef je alleen maar aan te zetten. En dan wordt het misschien wel weer zo dat je zo een set sneller gaat herkennen, want als het er toch al is, ja dan ga je het uiteindelijk toch aanzetten. Dan moet je je als artiest inhouden om dat niet te doen. Alsof dat effect hoort bij het VeeJayen. Daar proberen wij een middenweg vinden.

J: Als ik het voor het zeggen had zou ik wel een paar effecten er standaard in hebben. Namelijk kleur verandering.

B: ja dat zou dan iets als contrast of kleur verandering zijn maar niet zo iets als stingy sphere.

J: Ik ken overigens geen enkele software die niet met lagen werkt.

B: Nee, ik vind het ook heel moeilijk over beeld na te denken zonder lagen, dat komt ook misschien van photoshop.

Je hebt altijd met een volgorde te maken, dat maakt de interface van VJ software lastiger dan muziek. Bij muziek: als je een hi-hat hebt of een drum, die hebben geen volgorde, het is niet dat je eerst de een hebt en dan de ander, die zitten in de ruimte naast elkaar. Met beeld heb je dat niet, er is altijd sprake van een volgorde, en dat is een heel groot verschil tussen Ableton live en Resolume.

Kun je de software terug zien in de live performance: kun je bijvoorbeeld zien dat iemand Resolume of Modul8 gebruikt? Hoe?

(ook wel: Hoe beïnvloed de software de uiteindelijke live performance?)

J: Dat hangt er een beetje vanaf wat er gebruikt wordt, je kunt in principe een hele visuele set bouwen met alleen maar afspelen van je materiaal, en dan is het onmogelijk om te achterhalen welke software er gebruikt wordt. Maar zodra je effecten gaan gebruiken en bepaalde transities gaan gebruiken dan kun je er vrij snel achter komen.

Wat vind je zelf de mooiste feature van Resolume?

B: Iets wat we in versie vier hebben ingebouwd is dat je met één schuifje op de laag de transitietijd bepaald. Eerst was het altijd zo dat wanneer je van filmpje wisselde, dan was het altijd een harde switch. Als je wilde faden moest je twee lagen gebruiken. Nu kun je gewoon met één schuifje een mooie transitie maken van de een naar de ander: dat vind ik echt Resolume. Één schuif, maar het heeft een enorme invloed op wat er op dat moment gebeurt en op jouw stijl. Het simplificeert wat hiervoor al mogelijk was maar met meer handelingen.

J: Zonder hue-rotate effect zou ik in andere software niet dezelfde show kunnen draaien. Het hue-rotate effect heeft een hue-scale parameter en als je die naar beneden draait dan wordt je kleur altijd hetzelfde, bijvoorbeeld begint het altijd bij rood. Daarmee kun je dus eigenlijk al je content, wat voor kleur die ook heeft, er doorheen laten lopen, en dan begint die altijd bij rood. Als ik dat niet zou hebben dan zou ik heel veel moeite met andere software hebben.

Van welke technische mogelijkheden wordt je enthousiast? Hoe zou je die willen implementeren in de software?

B: Dat is iets waar we nu heel erg mee bezig zijn, met het aansturen van licht. De reden dat wij zelf wilden VJen is dat we vonden dat het improvisatie gedeelte beter

moest kunnen. Dat het beter geïntegreerd werd. Nu zie je veel dat de video bijvoorbeeld snel mee veranderd of dat juist het licht goed mee veranderd, maar dat dit nog net niet op elkaar is samengesteld. Dus als je nu juist vanuit één plek dat licht ook gaat aansturen dan is dit nog meer synchroon en wordt het nog sterker één grote show, één geheel. Daar ben ik wel enthousiast over, het is überhaupt de reden dat we de software zijn gaan maken.

J: Ik sta daar denk ik tegenover: ik denk wel dat Resolume die zowel audio als video als licht doet op bepaalde plekken zoals bijvoorbeeld in het theater heel erg handig kan zijn. Maar ik wordt juist heel erg enthousiast dat ik merk dat tijdens een show in de front of house op sommige momenten iets ontstaat dat vier personen die laser, licht, video, vlammen er bij doen, dat er dan een soort band gevoel ontstaat. Hoe die de totaal verschillende workflows een beetje hetzelfde laten worden, niet door ze technisch aan elkaar te koppelen, maar dat de mensen met hetzelfde bezig zijn. Daar word ik enthousiast van.

Dat je samenwerkt: dat je bijvoorbeeld met de laserpersoon van te voren praat en vraagt “Wat doe jij nou eigenlijk tijdens zo een show?”

Veel VJs die ik sprak vinden dat belangrijk: als iedereen hetzelfde materiaal gebruikt wordt de VJ performance onpersoonlijk. Ook wordt er gezegd dat VJs die niet hun eigen materiaal maken wel op grote feesten staan, maar niet overleven: duurzaam zijn. Hoe denk jij hier over? En vind je dat een VJ zijn eigen materiaal moet maken?

J: Ik doe allebei, ik maak materiaal en verkoop dat ook in de Resolume winkel. Ik werk ook voor andere bedrijven waarvoor ik dan juist hun materiaal gebruik. Ik denk dat een goede VJ moet denken “Welke clipjes, van dit bronmateriaal, van mij, van iemand anders of een mengeling daarvan, passen op dit podium met deze muziek goed bij elkaar?” Dat maakt een VJ duurzaam.

B: Je hebt VJs die goed zijn in het maken van content, de voorbereidingsfase, maar hun live-mixing skills zijn dan weer minder: die missen bijvoorbeeld breaks of die jagen op hetzelfde tempo door. Dan kan het een mooi clipje zijn, maar het past nu niet. Er zijn ook VJs en die maken zelf niet zo veel, maar die kunnen wel weer heel

goed live mixen en improviseren. Misschien is het een ideale situatie als je het allebei kan, maar uiteindelijk gaat het er om wat er op dat (live) moment gebeurt. Of je het nou zelf hebt gemaakt of iemand anders, als het op dat moment past bij de show, dat is het belangrijkst.

VJs vinden het vaak niet respectabel om veel materiaal (video content) dat door anderen is gemaakt te gebruiken, maar niemand schijnt het erg te vinden dat iedereen Resolume (incl. effecten) gebruikt: wat zegt dit over het prepared media aspect van de software?

B: Als je echt weg blijft van de effecten die een bepaalde Resolume look geven denk ik dat de software die je gebruikt voor jouw show, of dat nou VDMX, Resolume of Modul8 is, dat als je van die specifieke features en effecten af blijft het niet uit maakt welke tool je gebruikt. Want de basis (filmpjes wisselen, over elkaar heen leggen, en tussen elkaar kunnen faden en tempo veranderen) dat is uiteindelijk de essentie van het VeeJayen, en niet zozeer welke effecten je gebruikt. Daarin zie ik het misschien wel als compliment dat er geageerd wordt tegen mensen die niet zelf hun materiaal maken, maar dat er niet geageerd wordt tegen VJs die Resolume gebruiken. Blijkbaar maken we het neuraal genoeg, zodat dat niet uit maakt.

Hoe beïnvloed de software de uiteindelijke live performance?

J: Je ziet het ook veel meer terug in software waar je content in *maakt*: ik ben er heilig van overtuigd dat je het verschil ziet tussen iemand die bijvoorbeeld in Quartz Composer generatieve dingen maakt dan iemand die het in Jitter maakt. Puur omdat de een kleurrijker en afgeronde interface heeft, gecurvde lijntjes en pastel kleuren en de ander wat meer wire-frame en zwartwit, groene strakke lijntjes, dunne type in een 8bit lettertype (technisch) oogt, krijg je daar andere visuals door. Bij Resolume is het meer: “Die speelt je clipjes af”. Je merkt dat mensen door de vormgeving van de interface dat soort visuals maken. Ik ga nu misschien iets te esoterisch over dingen nadenken, maar je kijkt terwijl je er mee bezig ben de hele tijd naar zo een interface, het zit de hele tijd op je netvlies gebrand. Ik kan me niet voorstellen dat het geen invloed op je heeft.

Slot woord

J: Het is als een gitaar, er zijn akkoorden waar je gewoon niet bij kan, en wij maken de software zo dat je daar wel bij kan. Niet dat je de gitaar eerst ook nog zelf moet bouwen.

Appendix C – Interview João Fonseca

Interview João Fonseca – Berlin may 8, 2015

Door Frouke ten Velden

How would you describe your work?

It's a cross between, art and Technology and Science. I develop software/frameworks that preform in the fields of interactive and generative art. Knowing and understanding what surrounds me is a great source of inspiration that I always like to translate to my work.

What got you exited to start working this way (programming)?

My background is design, so apparently nothing to do with programming. But the mainly reason I stared to program was the possibility to make art and design with my own, custom and free frameworks.

You're a great fan of the open source philosophy, can you explain what you like about it?

Yes, absolutely I owe a lot to open source, not only the software but also the community is incredible and the knowledge and frameworks that people develop, build and share with you for free. I also try to give some contribution time to time.

A painter needs paint and a canvas, you need a computer and electricity, however for outputting it, the painter doesn't need much more as the actual matter is the “tool” itself. With programming the matter is something that is nothing but bits and bites until “executed” by a computer.

Following this hypothesis this means that in that sense you are working on preparation for the execution. Does the code only function as a set of rules that make the outcome possible, or is it part of the work?

And do we need to forget about it (the code) when its executed/outputted?

This a difficult one! Off course the outcome is always the art piece because that's

what is exposed as the art object.

But on the other hand code itself is just an abstraction of the output, so by reading it I can picture the outcome. The same way a musician can read a musical score. I think this is a good metaphor to answer this question, a musical score. Is the score the musical composition? If you think about it, a score is a translation or a set of rules to follow, so if you can read it you can “play” the music in your head. The same thing happens with code; if you understand it you can picture it in your mind. Of course this is always an abstraction but if you can visualize it in your head isn’t it part of, or even the work itself just translated in other way?!

When you work with multiple people on a project or you’re collaborating as in ANIMA. Your part in those works is not only designing but also the programming part.

To what extend is for you the act of programming part of the artwork or is it just something that needs to be done?

Well for me programming is a framework, like the act of painting on a canvas it is way to “get something done”. If you isolate those actions from the artwork I don’t see them as an art object. But if you combine them with the artwork as a whole, they become part of the process and then the process itself can be artistic.

Where do you start designing your code? (What is the first thing you do or consider?)

After knowing what I want to do first thing would be to set an environment/framework that allows me to quickly test an idea or a concept.

Do you already have an output in mind? A result?

Normally yes and I always translate my initial ideas into paper before start to code.

How much do you leave open to chance? Is it possible to leave things open to chance?

Randomness and noise are definitely present in a lot in my work. But I always try to use them in a controlled way. So I can still picture what’s happening even with

uncontrollable variables.

Sometimes (always) you're curious how something is made, why?

Yes I am! I like to question things and understand their nature or how they work, this is also a big part of my creative process, getting inspired by the process itself.

Can you trace back how something is made?

You can get an idea about the process, but not all the steps.

Can you see what program is used? How?

Not the program itself but you can get an idea of the process that was used to get to that result.

Is it important to be able to trace back from the output, how it is generated?

Well I think there is no right or wrong here, but personally, when I'm experiencing an art piece I like to be intrigued and question not just the work but also the process, if I immediately understand the process it becomes boring and loses its magic.

On what does this decision depend (if it could be traced back or not)?

I think it just depends on the artist to decide what to reveal!

To what extend is your work ‘the outcome’ defined by or formed and shaped by the technologies behind it? (For example by the programming language that you use.) (*One of the makers of Resolume VJ software says you can see difference of someone working in quartz composer or jitter*)

I would say is much more about the performance of a program, for instance if you use a fast language you'll probably be able to create more impressive visuals, but I don't think the use of a different language will affect the aesthetics you use.

Sometimes the same result can be achieved via different ways, what makes you choose a certain kind of software/language?

That really depends, if performance is not an issue, I normally opt for the language

that I'm just more comfortable with.

Sometimes the same result can be achieved through existing software, do you find it important to try and create something unique and new?

Well if I can do exactly same thing with existing software, and you are willing to pay for it, I don't see any reason to not use it. But normally the pre existing software is not prepared to what I want to do. Sometimes I also hack a lot of software or create plugins to extend their functionality.

If you had to choose an (artistic) profession in comparison to programming, what would be for you the most similar to what you do? (Architect, designer, painter, sculptor, composer, dancer, engineer, construction worker etc.)

As I have a design background and I'm a completely autodidact programming learner, my approach to code is very similar to the design process. I think for instance an engineer will have a completely different approach than mine. It also depends on what you want to do. Obviously I make creative things with it, I'm not throwing rockets to space, if you know what I mean.

**Is programming for you the same as speaking or writing in a regular language?
Is it similar to a language, or does it work completely different?**

Yes and No. There is a vocabulary in it and you are talking to a computer, but it is not like you are having a conversation. It's more putting your ideas in a logical order in a language with very few words.

Friedrich Kittler says a programmer first maybe needs its head to be emptied of words before writing in a programming language: do you agree?

Yes, in the sense that you have to set your mind to think in a very abstract way, but I think this is something that happens naturally with time, it's not like I have to meditate before start coding.

Could you describe this form of “writing” or this process of programming? And how does this influence your workflow?

I guess you can compare it with LEGO pieces, you have a few different blocks and by combining them you build something bigger, that’s how you write code, by combining small logic blocks you are able to create bigger logical structures.

Does it influence your work? (for example aesthetically)

No it doesn’t really...

People say they experience being able to write the code for your work is liberating, does it? Or do you also sometimes feel constrained by your “medium”?

Absolutely I think this is the greatest advantage of having code as a framework, you are never constrained and possibilities are endless.

While creating a work, (from my perspective) I assume there is first the idea? Does it also happen that a work is produced due to the act of programming: that it comes from just messing about/how does this work?

There is always an idea first, as in all creative processes, I guess. At least for me there is always a lot of thinking, a lot of writing, conceiving before starting coding (and it also saves me a lot of time).

So yes, there is an idea, a concept before, which doesn’t mean that this idea can’t evolve during the process, normally it does, but I guess this is universal, you try something it’s not what you picture, you try another approach, wow now it’s working better and now maybe I can add this, yes I’m getting there...

A good example would be ‘ANIMA’ we had an idea, a concept in the beginning. I had an idea on what it should look like and behave but of course the process made it evolve and grow into something bigger than the initial idea

What is in your opinion the beauty of programming?

I think the beauty is the way that you translate an idea into very simple but organized

language. You can do it in many different ways; some are really intelligent, some not really. I can definitely see some poetry in it: I can get really fascinated by the way that people write code. I think it is pretty much the same as mathematicians and physicists describe the beauty of an equation. It's a very abstract beauty but it's definitely there.