

The integration of Motion Graphics within Contemporary Theatrical Performances

Student: Lisa Kelly

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Presented to: Research Supervisors

Tena Patton

and Johnny Boyle

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School of Business

Letterkenny Institute of Technology

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The integration of Motion Graphics within Contemporary theatrical performances

Abstract

The purpose of this research is to investigate the potential use of motion graphics within live theatrical performances. The paper explores the use of motion graphics as digital content in theatre, to enhance the experience. This research examines this through historical reference and the live practice of a theatrical production 'Artaud'. The research aims to introduce spectacle and visual narrative to stimulate a visually aware audience, as audiences today are already visually aware with the various visual media available in today's society. The introduction of spectacle and visual narrative is investigated through the multi-discipline environment of theatre, while exploring how a motion designer fits into that environment. This work also looks at digital technology and the practices involved in the design process. The aim of the work is to prove that motion graphics has a role in theatrical productions, by enhancing the performance through the discipline of motion graphics, to introduce visual stimuli to the live experience. Additionally this work will research the historical pattern of motion graphics in theatre, by understanding the origins of motion graphics it is easier to understand the potential of motion graphics today.

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1 :: Introduction

The aim of the research is to investigate how enhancing a live theatre experience through motion graphics can engage a contemporary audience. However, today's audience expectations are higher, therefore they look for a more stimulating experience. Therefore the discipline of motion graphics is explored to enhance the meaning and interpretation of a live performance, to communicate and stimulate a visually aware audience. Stating that theatre should expand on the traditional aspects of the stage to take full advantage of modern technology to create a multi sensory or sensational experience. As Malone, a visual artist and academic states;

“The concept of a new stage form is based on the premise that theater, performance art, opera, Music Theater, concerts, dance, puppetry and other forms of live art should reflect the society for, and in, which they are created. As photography challenged many of the traditional functions of painting and printmaking, so film and television have done with theater and live performance” (Malone 2006: 12)

Therefore suggesting that for theatre to reflect our society, it needs to challenge the spectacle created in film and television in order to reflect today's society. This research will challenge Motion graphics ability to accompany the traditional aspect of performance art to entertain a visually aware audience. Motion graphics can accompany the traditional aspect of performance art through numerous roles to create a multi-sensory storytelling experience in a theatrical environment. An environment, which is a mix of physical and digital. As such, motion graphics in theatre needs to work seamlessly with other elements such as stage space, audience, lighting, performance, costumes, props and set.

The key themes discussed within this research are, the potentials of motion graphics in theatre to;

- Stimulate a modern audience?
- Work with other art forms?
- Enhance the experience?
- Provide creative possibilities?

This thesis consists of five chapters. Chapter two evaluates why it is important to introduce digital technology in the form of motion graphics, to provide a contemporary theatre platform. The third chapter identifies historical evidence, relevant theories and current debates to clarify the position of motion graphics within a theatrical environment. Evaluating the origins of digital content in live performance is important to understanding how this has evolved and how it can be improved upon with motion graphics. The fourth chapter evaluates the development of five motion graphics artefacts within the live practice of a working theatrical environment.

This chapter states key findings in the workings practice of a motion designer in theater, through technical and design practices. Finally the fifth chapter reflects on the aims and objectives and analyses the findings while taking into account potential developments.

In summary, this research provides a collective source of information on the disciplines of motion graphics within the highly inter-disciplinary environment of the theatre. The research, offers; a source of information from historical origins, current debates and working processes, to create, visual dynamic projections in theatre through the discipline of motion graphics. The research aims to prove that motion graphics, is an integral addition to a theatre stage, whether it works in its entirety or within a set architecture. Thus creating a theatre production, which has, the ability to stimulate and entertain a contemporary audience. In short to provide evidence that motion graphics has a role in live theatrical performances.

2 :: Rationale

This research evaluates how motion graphics can create visually dynamic graphics that complement a live performance to entertain a visually sophisticated audience. Therefore the motion designer's role is to enhance this experience. As today's potential theatre audiences are accustomed to visual spectacle on television, online and in film, they therefore hold higher expectations for live events. Motion Graphics can contribute to this live spectacle live to visually satisfy a contemporary audience. Burke (2011) believes that theatre does not directly compete with this entertainment, but believes that it competes for an audience's time and money, which is why it is important to create visually stimulating live events.

The concept of using motion graphics to update and enhance a live experience came about while at a Gorillaz Concert in the O2, Dublin (2010) (Fig.01). The overall concert experience was heightened by the use of animation and motion graphics, which created a loose narrative for the show. I was very inspired by the memorable experience motion graphics added to this particular concert and bands such as U2, Massive Attack, Paul McCartney and The Rolling Stones, have also used motion graphics successfully to enhance the live experience for the audience. Scrimgeour (2001:13) writes how U2's approach to visuals, is to create a "one to one bond" with every member of the audience, with everyone experiencing the live spectacle, which heightens drama and the meaning of the music, creating a synesthetic experience.

I have especially been inspired by Damon Albarn's and James Hewlett's 'The Monkey Opera - Journey to the West' (London 2008) (Fig.02). An Eastern inspired opera, with an elaborate mix of dance, acting, music and time based media. Albarn and Hewlett embraced digital media in opera to produce a spectacular experience. As a graphic designer it was inspiring to see design used within this art form, for instance, time-based media was used to emphasise the narrative too ambitious to create on stage. This contemporary approach to opera attracted an audience who would not normally visit the opera. Moreover, this has inspired me to research innovative digital media solutions for theatre productions, through the discipline of motion graphics.



Figure 01. The Gorillaz Live



Figure 02. The Monkey Opera

Furthermore, initial research shows that digital technology through video and projections has become increasingly popular in live productions today. During this research I have been inspired by projection

designers, for instance; Nina Dunn, 59 Productions' and Mesmer who are the UK's leading projection designers in theatre. These companies explore new possibilities in digital technology in live environments, through the use of time-based medias such as, motion graphics, film and animation.

Auslander (2008), who has been found to be the key theorist in what he calls the "liveness" debate, also discusses how the live takes on mediated elements to compete with mediums such as television. However, he believes the introduction of digital content into a live performance, is not always desired by those who value the culture of live performance. He indicates how some attend live performances to escape media, such as, the television. Therefore, it is important for a motion designer to create a design that does not detract from the art of live performance, but work seamlessly with it. Besides, technology today allows for design to look beyond the digital, to create a media piece that holds the values of a handmade design, a key objective for the design of the artefact. A good example of this design is 59 Productions artwork for Jonsi Live. The artwork is based on nature to match the style of the music, which is a very successful approach (See Visual Diary). Therefore this research will investigate the best possible solutions for creating an artefact, which can be integrated seamlessly into the theatre environment.

Dixon states how Auslander's theories state that the "live event is real" and the "digital is secondary and artificial reproductions of the real". (Dixon:123) However, motion graphics is a design feature in theatre, similar to costume design or set design, in the case that both are designed and prepared prior to the live event. Therefore making the point that the pre-rendered digital content is a design feature, which is integrated into the live performance. Therefore this research seeks evidence to prove motion graphics place as part of the live experience

Furthermore, researching the possibilities of enhancing live performances is important for cultural society, to ensure that audience's expectations are met through an enhanced production, using technological advancements, which are readily available. This research will look to the past for inspiration, to fully understand this medium's origins to gain a full understanding on how it can be developed further for today's audiences. Today's live performances now incorporate digital media, making it a product of media technologies, a concept sought by theatre designers in the 1930's with the introduction of film to the theatre stage. Vseold Meyerhold (1969 – Nothing is an essay), reacted to cinema gaining more appeal than theatre, he called for "cinefication" of theatre. (Meyerhold 1969 cited by Auslander 2008:25).

“Give us a chance to work in a theatre incorporating modern techniques and capable of meeting the demands which our conception of the theatrical spectacle will create, and we shall stage productions which will attract just as many spectators as cinema”.

(Meyerhold 1969 cited by Auslander 2008:25).

Meyerhold thought once theatre held visual spectacle and words, the audience would return. But cinema further advanced with the addition of sound and words. However, theatre still strives in the cultural entertainment industry in the 21st century and as staging becomes more elaborate, for instance *Batman Live* (2011) and *Spiderman* (2011), this calls for new methods of synchronizing visuals with performance and music to give the audience a dynamic, multi media performance, which brings together artistic expression with technology and design.

3 :: Research

3.1 Research Introduction

This research explores the use of digital content within live performances. It will be evaluated using historical references to view the evolution of this media and the current potential for motion graphics in a theatrical environment.

3.2 History of motion graphics in theatre

3.2.1 Past Technological Developments

Experiments in moving image in performance took place as early as the 17th Century with the “magic Lantern” (1671), which, was seen as the projectors predecessor. Hall (2010:1) states how its use, which “by using lamp oil, a lens and painted pictures on a glass plate”. This created small animations that resembled a “simple Flash movie”. This illusion of movement can be traced through the development of technology, such as the invention of photography, which led to cinematography. Darley states how, Muybridge’s (1878) investigation into movement through photographic representation, was an important technological breakthrough, which led to cinema. The Lumiere Brothers (1895) further developed the moving image and set up small pop up theaters across the world to project basic films to entertain audiences. The developments in cinema created realistic illusions that entertained an audience. Showing early evidence that images in motion had the ability to stimulate audiences.

3.2.2 The Merge between live and time based media

Digital performance can be traced back to experiments in the modernist Avant Grade movements of the early 20th century from the Bauhaus to futurism, constructivism, expressionism, Dada and surrealism (Dixon 2006:47). However it was during the 19th Century that technological optical experimentation and live entertainment began to merge, which saw silent movies accompanied by live orchestras. Animations, such as, Windsor McCay’s, ‘Gertie the Dinosaur’ (1914) and later Walt Disney’s, ‘Fantasia’ (1940), both incorporated live music and narrators to engage the audience. Gertie the Dinosaur was even introduced on stage by the animator himself (Parkinson, 1995 cited by Rush, 1999) (Fig. 03). In short, this shows the early relationship between time-based media and the theatre.

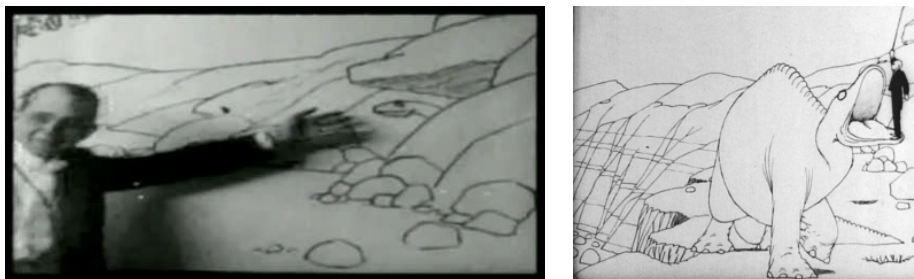


Figure 03. Windsor McCay introducing Gertie

The Silent film era was a time of exploration and discovery for film development. In a cinematic level it developed the montage, theorised by Serge Eisenstein's (1898-1948). The montage is an important feature to any motion graphics artefact, as it ensures the development of a narrative using only visuals. White (2006) indicates how theatre designer, Vsevolod Meyerhold (1874-1940) used Eisenstein's method of montage and entered it into his stylised theater (Fig. 04). Eisenstein began his career in theatre, showing a strong link between time-based media and theatre.

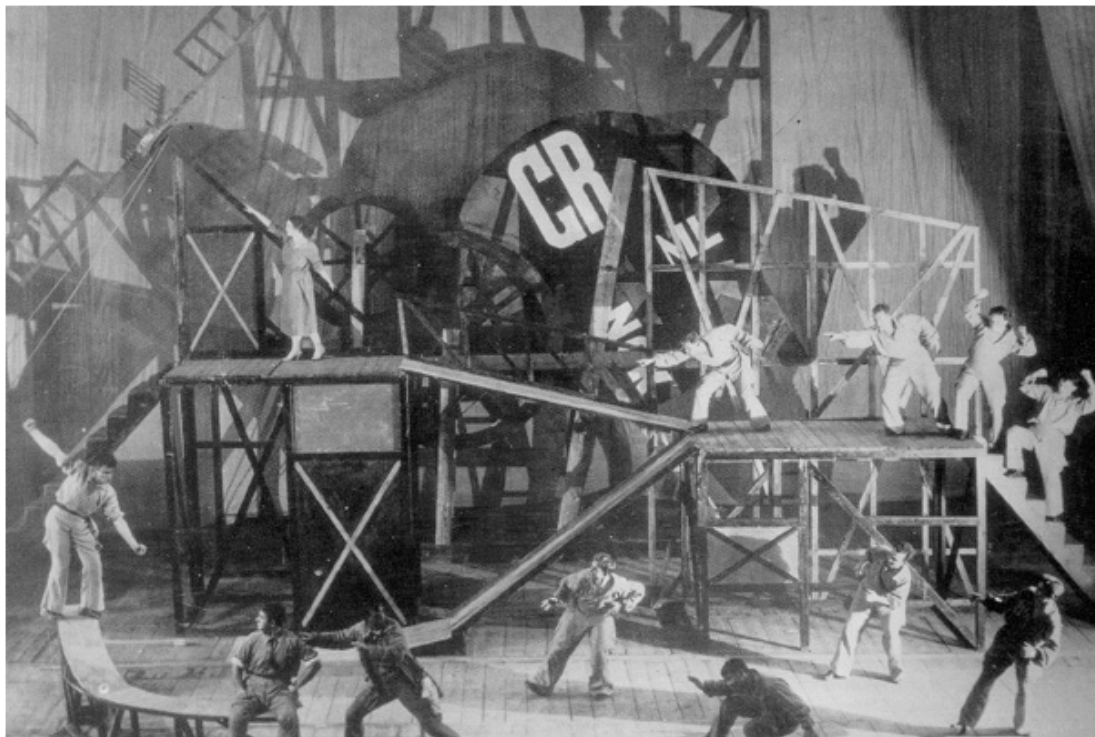


Figure 04. The epic style of Meyerhold's theatre

Dixon (2006:10), indicates that throughout the 20th century live performance integrated film into productions, both mainstream and experimental theatre both competed with cinema in terms of spectacle and theatre became more cinematic in concept. Theatre plays began to change and include "short scenes, cross cuts, parallel action and the use of flash backs, dramatic time shifts, all inspired from cinema". The aim was to intensify the theatrical experience.

Theatre designers and directors, such as Vsevolod Meyerhold, Ervin Piscator (1893 – 1966), Bertolt Brecht (1898 – 1956) and Antonin Artaud rejected 'realistic' scenic designs and added new compositional ideas from Dadaists, futurists and expressionists (Malone 2006). Erwin Piscator stated that the;

"The epic style (of theatre)...made use of dramatic devices which had already been discovered, but whenever possible added technical innovations from the world of industry...we used film projections as

a kind of classical chorus. Furthermore, the film was not just used instead of a painted backdrop, but in order to create a dynamic, moving world for the action on stage.”(Erwin Piscator 1934, cited by Malone 2006 : 12)

These directors embraced the new art of filmmaking and projection as an essential part of the stage, moving away from static painted scenes as seen by theatre director, Gorman Diaghilev, who depended on painters for scenery (White 2006).

Czech designer, Josef Svoboda (1920-2002) later synchronized the live and the mediated by projecting video; onto actors, mirrors, floor, staircases and fog (Fig. 05). Proving projection flexibility as a tool in theatre. Svoboda, emphasised the importance of technical research and experimentation in theatre design. He wanted a theatre designed specifically for new multimedia (Malone 2006).

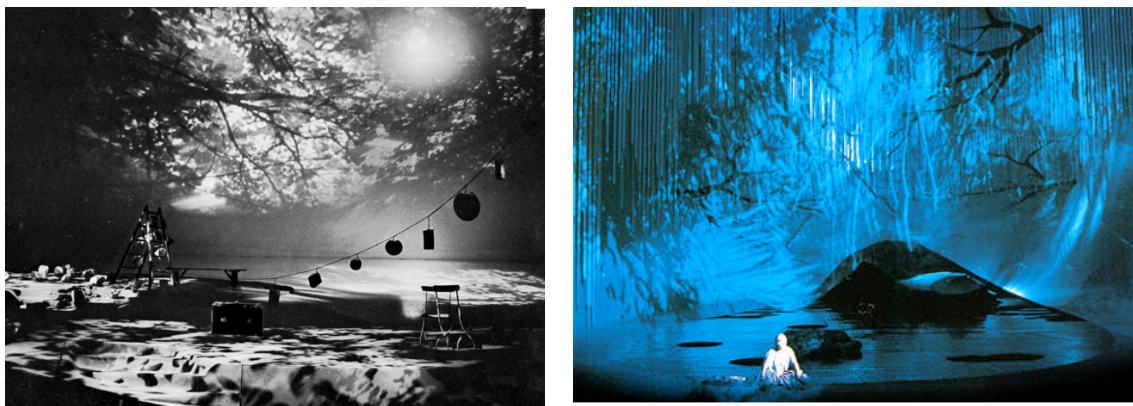


Figure 05. Josef Svoboda's Projections

Based on Svoboda's concept, this research will explore motion graphics ability in designing a stage set which consists almost entirely of projected digital moving imagery. This will be investigated through the design of motion graphics for a play about French Theatre Director Antonin Artaud (1896-1948). Artaud was an important figure in Avant Grade theatre, his theories on the 'theatre of cruelty' have been central to experimental performance since the thirties and continues today in digital performances. (Dixon 2006)

Malone (2006:15) identifies how Artaud's theories on the 'theatre of the future', where he believed that narrative should "move seamlessly through the actor, singer, dancer, puppets, music and light". Today this can be further conceptualised through projected motion graphics. In fact, Oddey, (2006) indicates how 'Artaud' himself wrote scripts that called for innovative possibilities of digital technology long before this technology existed, for instance his script for 'The Jet of Blood'. Artaud's theories, known as Artaudian, influenced performance artists, such as Nam June Pak (Fig. 06), who brought about changes in the development of technology for performance art that led to the integration of technology into live work in the sixties. Dixon believes that this has been a significant influence on digital media in theatre, inspiring theatre groups such as The Builders Association (1993) and The Wooster Group (1975-2011) (Fig 07). Both groups are key to the history of multimedia in theatre and the use of media

as Brechtian techniques. Brechtian, means inspired by theatre director Bertolt Brecht (1898-1956), which Dixon indicates is;

“highlighting its (a productions) technological actuality, by revealing itself as media”. He believes, that Brechtain highlights the fact that “the live and the meditated do not merge as one, they work as separate components, making connections, between and about one another”. (Dixon: 348 /347)

A key point to consider when investigating the integrating of motion graphics into live performances, is that the motion graphics is a separate component to the performance, but needs to connect seamlessly with the performance. Therefore the performance needs to acknowledge the digital media. This Brechtain concept will be mentioned further in chapter 4. As the play ‘Artaud’ uses Brechtain inspired concepts.



Figure 06. Nam June Pak Figure



Figure 07. The Wooster Group

Graphic Developments

Experimentation by Walter Ruttmann and Oskar Fischinger in Visual Music resulted in simplistic graphic forms synchronised to orchestrated music. John Whitney (1966) went on to develop Visual Music through new technologies such as the “cam machine”, a computerised motion camera that allowed the plotting of graphics over film (Hall 2010). Dixon believes that this was the beginning of the computer-generated images as an art form. John Whitney’s graphics were used in collaboration with, Saul Bass’s (1920-1996) film titles, for Hitchcock’s ‘Vertigo’ (1958) as indicated by Hall. Therefore, a significant part of motion graphics history.

Furthermore, Visual Music is a good basis for approaching graphics to accompany tonal harmonies and suspense in a musical piece. Artists such as Kandinsky and Klee used music as a basis for visual work. Kandinsky suffered from Synaesthesia, a condition that causes people to view sound. This Synaesthesia or multi sensory approach is what artists/designers are looking to create as a backdrop for a live

performance, to create a “sensational experience” as stated by VJ, Faulkner (2006: 16). Faulkner believes that today’s cotemporary society is constantly looking for the next multi-sensory or sensational experience. Therefore, a theatrical environment, with a mix of live performance, music and motion graphics, can offer this synaesthetic approach.

Moreover, Faulkner, states how Andy Warhol created a synaesthetic experience in 1966 with a show called *Exploding, Plastic, Inevitable (EPI)*. Warhol mixed music, theatre, film and performance in one spectacle. This result was inspired by 19th century, Opera Composer, Richard Wagner. Wagner’s concept was a mixture of music, theatre and visual art, known, as Gesamtkunstwerk or complete artwork, in theatre this is known as mise en scene. Wagner believed that;

“Artistic Man can only fully content himself by uniting every branch of art into the common artwork” (Richard Wagner 1849 cited by Dixon: 41)

Based on Wagner’s concept Pink Floyd (1980) created a total concert spectacle, ‘The Wall’. Pink Floyd developed a rock opera narrative with grand theatrical elements. Resulting in a synaesthetic performance with projected film and animation. However, they only managed a few performances, due to technical and financial difficulties. (Faulkner, 2006).

Today ‘The Wall’ has been recreated, by Roger Waters, by using modern techniques it makes it a more viable touring production. It allows Waters to redefine the vision and narrative for today’s audience and make the theme more expansive, as stated in an interview with Waters cited by Moerton (2010). The Wall (2010), also explores the notion of social media participation in a live environment. The audience was invited to email images of loved ones who died in war. The images were then projected on ‘The Wall’ during the concert. Therefore, involving the audience at a much greater level. Warhol and Pink Floyd used motion graphics in a live performance “to create a total spectacle” as stated by Faulkner (2005: 16). This research will look at large scale productions such as ‘The Wall’ for inspiration and explore how motion graphics can work within smaller theatrical productions.

3.2.3 Historical Findings

Furthermore, Dixons states that from the 1970’s until the end of the 20th century has seen a growing use of media projections in theatre. However, the use of this media in theatre has been part of a theoretical debate since it divided critics and theatergoers a century ago and through this research evidence shows that this is a continually arguable point today. Performance theorists such as Dixon and Auslander have highlighted such arguments, which are explored further in this chapter. Dixon states that;

“Digital performance is an extension of continuing history of adoption and adaptation of technologies to increase performance and visual arts aesthetic effect and sense of spectacle, its emotional and seasonal impact.” (Dixon 2007: 40)

Malone (2006:16) asks the question; “what led artists such as Meyerhold, Vakhtangov, Piscular, Svoboda and Brecht to incorporate film and moving scenery into their stylised theatre?” Answering this question is key in understanding the importance of motion graphics within a live theatre performance in the 21st Century. Malone came to the conclusion that they wanted to demonstrate that theatre was a contemporary medium, which was prepared to move with a modern society. In the past, theatre has been threatened by other sources of entertainment such as the movies, television and radio. However, this problem is compounded today, as our society is saturated with visual imagery and spectacle on a greater scale. Therefore, this research will investigate how motion graphics can contribute to a contemporary theatre to stimulate a modern audience; this is an integral theme throughout this thesis.

3.3 Current position of motion graphics in theatre

This research has discovered that time-based media in theatre is not a new concept and has been around for approximately 100 years. Therefore looking to new technology advancements in projection design is important in discovering how motion graphics can stimulate a contemporary audience. During this research several descriptions for the use of digital media technology in theatre has been used, such as; Virtual Theatre, Cyborg Theatre, Multimedia Theatre, Live Movies, Digital Theatre and New Media Theatre. I will use the term digital theatre, which is the use of digital visuals used within a virtual and physical space. Also I will refer to the designers as projection designers, which are a mix of motion designers, animators and filmmakers. Dixon (2007) defines digital performance as;

“All performances, which include computer technology as a key component. This includes performances that integrate projections that have been digitally created or manipulated (Dixon 2007:3). He states, “Digital media, has and does bring about new stylistic and aesthetics properties which result in unique performance experiences and genres.”(Dixon 2007: 4).

Therefore a motion designer’s role within theatre is to enrich the audience’s experience through design that creates the illusion of time and place, meaning, memory and feeling. Using design as a tool to express and communicate the theme of the script, while also creating spectacle to dazzle and stimulate an audience. Malone (2006) states that projected motion graphics within theatre allows the spectator to be absorbed into a fictional world, with added depth and movement. However, balance is important, ensuring tension on stage is not overshadowed by the motion graphics. Darley (2004) highlights how the live and virtual need to work simultaneously.

Furthermore, motion graphics within theatre is highly collaborative, combining ideas of writers, directors, actors, lighting designers, set designers and costume designers. Contemporary theatre directors are allowing multimedia to stand in for static painted scenery, design and texture. Digital scenic projections can be effective and visually exciting, creating a space of “synesthesia”. However, not all theatre designers look upon technology as a positive approach. As Palmer (2006) has researched;

“Advances in technology have allowed for greater scope, potential and excitement but has also created potential problems in the cohesiveness of making theatre” (Peter Hall cited by Palmer, 2006 : 105)

This suggests that the use of technology is not always accepted in theatre. Palmer’s (2006:106) research suggests, that some see technology as “anti-artistic and alien to the creative process”. Palmer believes that technology can be misunderstood and frustrating for those who are not computer literate, making a director feel like he is losing creative control or an actor fearful of being replaced by an animation. White (2006) indicates how Marshall McLuhan’s (1911-1980) theories suggested the end of humanity due to the development of digital technology. However, she believes that “digital technologies are the tools of our age, where the message can be developed and where scenic art/scenography can be presented as an installation.” (White 2006: 94). In short, White argues that

digital technology allows for the mixing of media, which is an important aspect of theatre in a contemporary society.

Furthermore, Nina Dunn (2010) states how it is important that the script asks for such technology, as projections need to be part of the overall story and not an afterthought or a way to save money. Davis (cited by Malone 2006) a professor in theatre performance states how it is important to only use multimedia in theatre if the script suits it. Davis indicates that, if given a proper reason for use, digital media can work to expand the imaginative and expressive possibilities of the stage. However, if used in the wrong context the results can weaken the impact.

In addition, some set and lighting designers are skeptical towards the advancements of digital media in theatre. Digital Media, as a medium in theatre, needs skilled designers, such as motion designers, filmmakers and animators, who are not always familiar with the world of theatre. However, over the past 15 years a growing number of theatre artists now train in multimedia design, as indicated by Malone. For instance, universities such as Yale, have specifically designed a course to teach projection design. Also, while talking to a course coordinator in the North West Regional College, Derry (2011), they showed interest in this medium as they have the capabilities to create collaborations between their school of Drama and design students, within the college. Proving the new interest in a long existing media.

3.3.1. Can the stage set exist entirely as digital media?

A Live Design Article, *Projecting the Future*, (Lampert-Greaux, 2007:1) wrote how the *“brave new world of projection design is moving off the screen to add a new layer of interest on the entire stage, and images of actors are being projected from remote locations mixing live performance with their digital counterparts or replacing live actors altogether”*, This article evaluates the usage of digital media in theatre and asks if design for theatre can exist entirely as digital?

Lighting Designer, Donald Holder (cited by Lampert-Greaux, 2007:1), believes that *“we are already close to an all-digital scenic design on Broadway.”* He indicates that Mesmer’s ‘The Women in White’ is an example of this, as he believes it *“relied heavily on digital video to create the impression of a three dimensional scenery”*. Although, Holder is critical of the use of digital scenery and describes Mesmer’s designs as two-dimensional. He states that projections only become successful visually when they are broken up onto multiple surfaces and integrated into the three dimensional space of the stage. He indicates that Julie Taymor’s set for the Los Angeles/Lincoln Center Festival production of *Grendel* (2006) used projections successfully;

“By projecting video onto scrims (Material) through which highly kinetic three-dimensional objects were revealed, the video took on a more magical and floating quality and added greatly to the depth and mystery of the stage pictures.”

As a result to this finding, this research will test the use of projected motion graphics onto cloth to evaluate the additional possibilities of cloth as a medium for projected imagery. In short to create a

stage space, which relies entirely of digital content to create dynamic, moving scenery. To research a solution for small productions which cannot afford kinetic objects seen in Grendel, but can aim for the floating effect of the cloth to add depth to the stage.

However, White (2006: 100) disagrees with Holder and sees 'The Women in White' as a "step forward in projection technology" (Fig. 09). Sven Ortel and Dick Straker of Mesmer and projection supplier XL Video, worked together to solve the technical requirements of Bill Dudley's show, 'The Woman in White' (2004) (see visual diary). Straker states "the important aspect to the project was to merge two arts without making one more dominant. (Dick Straker cited by White: 100) White indicates how Mesmer developed a stage, using mapping capability to move shapes and images across the stage in real time with the addition of pre-recorded actors to work with live performance on stage. Giving a total reliance on visuals for setting the scene, moods and special visual effects (White, 2006: 101).



Figure 08. The Women in White, Projections by Mesmer

In addition, Dixon (Date: 335) believes that in "live multimedia theatre, projection screens or video, frame the 3D dimensional stage space", he believes *'that 2D visuals can add spatial possibilities to the stage. "Unlike the fixed point of view offered to the theater spectacle, screen media and projections facilitate multiple viewpoints on the same subject through the variation of camera angles; and perspective and spatiality can be transformed from a vast panorama to a huge close up in twenty-fourth-of-a-second blink of the projectors eye."*

In contrast, theater designer Neil Patel (cited by Lampert-Greaux 2007: 3) does not believe that projection design will replace scenery, but rather that it will become more integrated with scenery. He indicates that the function of scenery is more than a basic storytelling of locations, but is to create a 3D architecture to embrace the performers and the text. The projections require "real space", texture and detail. Patel also notes that theatre cannot compete with film and television, but can create

“architectural space that is emotional and metaphorical.” This research explores how this shared space and social experience, can be enhanced by projected motion graphics.

Technology Difficulties

The introduction of digital technology into a live performance brings risk of failure, sometimes serious enough to cancel a show. Palmer indicates how, Robert Lepage's, show *Elisnore* (1996) (Fig. 9) proves that multi medias in a show can be a struggle. The show ‘Elisnore’ integrated a mix of a kinetic stage, live video and projected images, however the multi-media set up caused problems, often causing the performance to be halted or cancelled. However, Palmer believes that the element of technical difficulties caused interest, the element of danger contributed to the intensity of the show. This is also the case for the production *Spiderman* (2011).



Figure 09. *Elisnore*

Although, Lepage (cited by Palmer 2006: 109) indicates that it is important to communicate with today's audience, with a modern approach, “as digital media within theatre allows for new forms of communication and creative expression”. He is critical of the majority of current practice; “*people in theatre are still working to code of the early 20th century, the old conventions*”. However, Palmer indicates that many contemporary theatre artists now seek new ways to incorporate technology as a response to modern society. Palmer (2006:109), states that new technology and new media offer creative possibilities which “extend boundaries of the art of performance”, whilst providing the “potential to fascinate a modern audience” with a “new kind of theatrical spectacle that brings together the world of art”. In addition, Josef Svoboda, wrote how it is essential for the scenographer to embrace all the existing tools at their disposal, which contemporary theatre should take into account due to the sophisticated technology currently available.

4 :: Methodology

4.1 Introduction

This chapter investigates the use of motion graphics within the live practice of a theatrical play and focuses on the innovative opportunities that motion graphics can contribute to the live performance. It also explores the skills that a motion designer needs within the theatre industry, the processes involved and the potential of motion graphics within a theatrical production. The key points explored evaluate how motion graphics; can stimulate a contemporary audience; through the introduction of innovative digital techniques into theatre; while working in an interdisciplinary creative environment.

This chapter investigates the creation of a motion graphics artefact, which explores new possibilities, and challenges in theatre, with the aim to answer questions raised within this dissertation. Therefore, can motion graphics in a contemporary theatrical performance;

- Stimulate a modern audience?
- Work with other art forms?
- Add to the experience?
- Provide creative possibilities?

4.2 Project Development and analysis

While researching the process of projected motion graphics in theatre, I came across many influential academics and industry experts who I would like to discuss further, as they provided me with valuable advice and inspiration, which I considered throughout the development of the artefacts. Such experts include; 59 Productions, Mesmer and Nina Dunn's, and academic's, Jeff Burke of California University and Christine White of Leeds university.

4.2.1 Inspiration:

After important research into projection designs by Nina Dunn (2011) I had the opportunity to experience her work live, as in order to analyse theatre projections, it is best to be experienced live. Dunn designed projections for Northern Ballet's stage adaptation of Cleopatra (2011) (*Fig. 10*). The projections were used to create scenery, enhance the mood of scenes and extend the narrative. For instance, one scene, projected blood pouring down all three walls of the stage to demonstrate a bloody battle, which emphasised the narrative of the scene effectively. At times they were incorporated in a subtle form, working to complement the stage architecture and costume design. The overall production showed incredible attention to detail, for instance the projections matched the colours within the costumes. These details help to integrate the projected motion graphics into the performance.

Furthermore, Dunn's motion graphics were also projected onto floating cloth, which added additional movement to animated leaves. This scene was further emphasised when dancers throw physical leaves into the air, mixing the virtual and physical to give a total spectacle. Dunn's work has highlighted how the projections can work seamlessly with the other art forms to create a complete artwork or mise en scene.



Figure 10. Projection at Northern Ballets, Cleopatra, by Nina Dunn



Figure 10. Projection at Northern Ballets, Cleopatra, by Nina Dunn



Figure 10. Projection at Northern Ballets, Cleopatra, by Nina Dunn

4.2.2 Inspiration:

Another inspirational work has been 59 Productions, Tony Award Winning production , The War Horse (2011), a spectacular production that mixes theatre, projections and puppets (*Fig. 11*). It has been a successful production, which has been running for three years in London, and now has been adapted to appear in New York’s Lincoln Center (2011). For the New York production, 59 Productions reworked the design to adapt to a new architectural space, new technology and new collaborations. 59 Productions’ wanted to move the show forward, with extra emphasis on the visuals. The War Horse already has a distinctive visual aesthetic, which comes from the puppetry (life size horses) that the projections have to work in sync with. (59 Productions 2010)

The set designer Ray Smith created drawings of the English countryside, which have been the inspiration for the distinctive hand drawn feel to the design. (See Visual Diary). 59 Production’s challenge was to create digital media that represented a hand drawn style, the results are silhouetted horsemen, with great use of texture and depth and it is nearly impossible to tell that they were created with 3D technology. 59 productions aim to use technology without it being apparent, which they have achieved with The War Horse Projections and Jonsi Live, which was discussed in Chapter 2.

The War Horse projections start with a “comforting world” as described by 59 Productions (2011), as the images evolve and move through war times they appear darker and become “Jagged, broken and aggressive” to represent the feeling and despair of this era. A good example of how design can aid the narrative by affecting the mood. In addition. the stage structure has been designed to work with the puppets, which locates the projections on a height, leaving the lower half of the stage blacked out. This provides the perfect backdrop for the puppets to work against, while the projections are visual at all times.



Figure 11. The War Horse Projections, by 59 Productions

4.3 The Artefact

The initial artefact concept was a motion graphics piece that created creative possibilities in supporting a narrative within a live performance. Researching this, led to a meeting with a Derry based Theatre Company “AnNua”, who expressed an interest in using Motion Graphics in their production Artaud. AnNua wanted to introduce a contemporary approach to theatre in Ireland, through natural expression, abstract form, strong characters and projected visuals. The play is based on the life story of Antonin Artaud (1896 - 1948) a French theatre director and theorist, who contributed greatly to the history of, Avant Grade Theatre, as discussed in Chapter 3. The play is set during World War One and covers the time when Artaud was institutionalised in Rodez Asylum and portrays his time spent in Dublin and Mexico. The play is a dark comedy with a mix of musical compositions, shadow puppetry, shadow play and projections, that all emphasis the dramatic and theatrical elements of the play.

During early meetings with AnNua (2010) (Appendix 4) they expressed an interest in the use of film and motion graphics to replace complicated shadow puppetry movements. Since this meeting I have found greater scope for the use motion graphics in theatre, as it can play several roles within a performance, such as; digital scenery to show the movement of time and place, complementing the music and narrative and extending the characteristics of acting, as well as working with the shadow puppetry.

The first reading of the script proved potential for the use of motion graphic elements within the play. The director himself wrote the script initially to be accompanied with visuals, which has been inspired by Artaud’s theories as discussed in chapter 3. The script held immense creative scope for a motion designer.

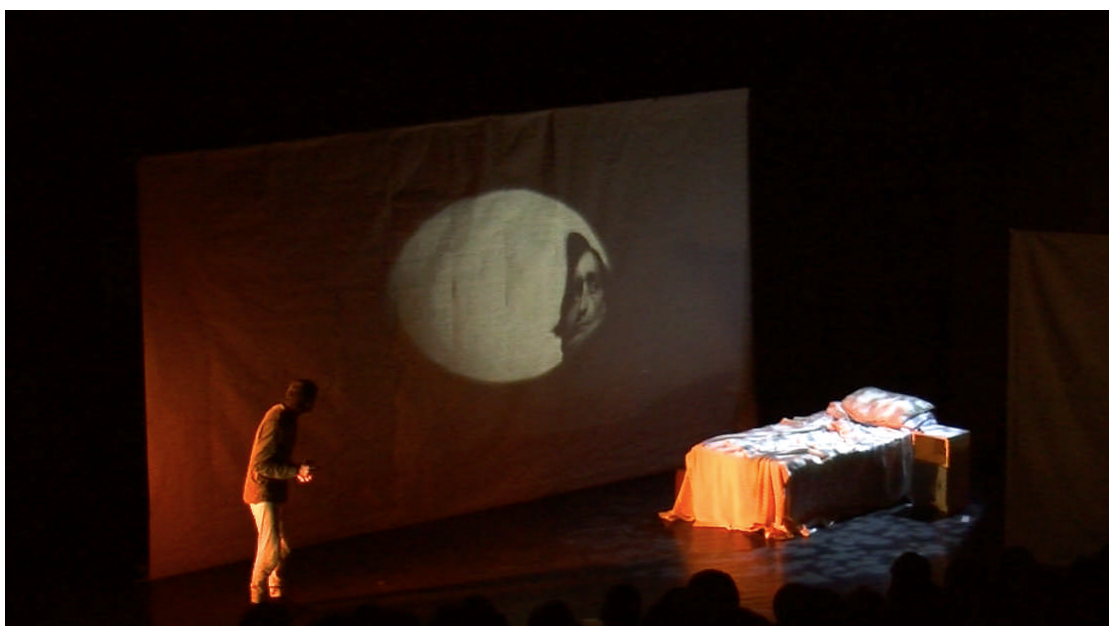


Figure 11 Scene from ‘Artaud’ – Actor interacting with the projections

4.4 Artefact Development Stage 1

4.4.1 Technical Development

Timing

Preparation is important when developing any piece of motion graphics. In theatre it is extremely important to understand the script before starting design; this can be achieved by receiving a full read through at the beginning of the process to see the script's potential, allowing an early understanding of the cues and timing. A key finding, as timing is vital to the development of the motion graphics artefact. Therefore, a timing sheet has been designed for use during the read through of the script and rehearsals, to mark the motion graphics role and timings, to allow notes on cues, actions, costume changes, lighting and positioning, which is crucial information for the design development. See Appendix 5 for timing sheet.

Furthermore, dealing with the theatre director can be a challenging process, which has been reinforced by research undertaken by White (2007). The director did not fully understand the role of the motion designer and their ability to create visuals from concept through to delivery. Initially the director expected movement of existing visuals, such as old film clips and photography. This meant that educating the director on the potential of motion graphics was an important process. Therefore, Storyboards and animatics were important to help the director visualise this potential.

However, due to the time constraints, the development time was limited and the pace of work was intense. This highlighted the importance of planning; through to well structured storyboards to production schedules, to ensure all deadlines are met, as managing time was a challenge.

Technical Rehearsals

The motion tests took place on stage, as it is important to see the designs projected and how they relate to the stage space and actors movement. Here it became apparent that imagery needed to be of high contrast when projected, an important finding for the overall design. The technical rehearsals were an important learning curve; as it flagged up projector positioning problems, timing and cueing issues. It is an intense process for the designer, as amendments need to be made promptly to ensure the production does not slow down. Rendering files in After Effects became a problem, due to lengthy rendering times; this resulted in using Final Cut Pro to amend files, as the rendering times were faster. 59 Productions (2011) and Burke (2011) use 3D technology to allow for flexibility when making changes during rehearsals, which means no rendering times for the media meaning they can react quicker to amendments. This proved to be a common challenge for projection designers as Dunn states that;

“Time management has always been an issue when using video in Theatre. Video production takes time and amendments are never easy to make quickly enough during rehearsals. Q-Lab will help you to be able to make simple changes on the fly.” (Dunn 2010)

In short, Q-Lab allows for a certain amount of changes, which can be made in real-time. This program is best solution for productions on a budget.

Live Performance

During the live performance of *'Artaud'* I controlled the cues manually, based on music, the script, the actors and lighting. The projection designer as visual controller during a live show will only occur on low budget productions. On larger productions the designer will create all imagery, test, attend rehearsals and then pass files over to an operator or technician to control, as advised by Dunn (2011).

Advice on cueing systems proved to be valuable knowledge for this research as during the live performance of *'Artaud'* the error of using PowerPoint to cue projections caused problems, such as; the cursor on display and delays in loading the media on cue. Ross (2011) and Dunn (2011) both program their systems to be cued manually with the cues coming from the stage manager. Ross believes that “self cues keep it very live”. However, Ortel (2011) and 59 Productions (2011) both cue their system with lighting, however, this only suits productions that can afford the more complicated set up. Catalyst is the industry standard for programming live visuals, and has the ability to sync multiple projectors and lights. Although, this set up requires a programmer’s input, which requires additional time and expense. Instead, Burke (2011) advised to keep the system control simple for smaller production, as “complicated systems take up more money and time”. Therefore, I researched the use of Q-Lab to cue the projections, as advised by the industry experts. Its basic set up and low cost, best suits smaller productions.

Ross (2011) of Mesmer used Barco CLM's and Catalyst to cue the system for the production of 'Knight Crew' (see *Visual Diary*). This is a complicated system, which Finn would normally pass to a programmer, but chose to program the system himself to save money for creative purposes. Therefore, showing the importance of knowing the equipment, as budgets may not lend themselves to the expense of a programmer, which can cost approximately £250 - £400 per day.

"I actually programmed Knight Crew, the money I would have spent on a programmer I spent on a day underwater filming for the show instead. Normally I would pass this on to a programmer." (Ross 2011)

In addition, Dunn states the importance of knowing the basics of programs such as, Catalyst, to ensure awareness of its capabilities.

"The way I tend to work is with a programmer / technician, but I make it my responsibility to know enough about the systems to be able to not only get the best out of them but also to be able to troubleshoot. I work alongside my programmer before tech (Technician Rehearsals) to plan the systems and how to make the content in the most appropriate way then we work together during tech."

However, on Mesmer's 'Women in White', Ortel worked closely with the programmers Digital Antics and XL Video to cue eight projectors, a complicated system where a programmer's input was essential. Ortel indicates that he concentrates on the design elements and does not program systems. In short, proving that every production set up will be very different and requires different needs. For instance, Burke has researched the use of motion sensors to cue systems, which has been put into practice for a production Macbeth (2003). However, this is a complicated set up which is best avoided for smaller productions.

Furthermore, during 'Artaud' problems with the lighting design occurred, as the projection equipment was in the way of the lighting set up. This resulted in last minute changes to the projectors position. In brief, this was an important learning curve, as the set up should have been discussed and planned with the lighting designer at an early stage of the development. Dunn, indicates, while working on Cleopatra, she worked closely with the lighting designer to receive the best possible results for the projections. This proves the importance of the working collaboration with the lighting designer.

In addition, the actor's movement on stage interfered with the projections, casting shadows, which obstructed the visuals. The solution to this problem is the use of rear projection. Burke advised on the use of a black screen for rear projection, which allows the projection screen to remain hidden when visuals are not projected. As a selection of audience members did not favour the white screen on stage. However, additional rehearsal time was also needed, in order to work out the actors positioning, ensuring the actors are aware of the projections in order to react correctly.

Furthermore, during a rebellious scene of 'Artaud' that reflected the character going mad, the actor tore

the screen/stage backdrop (*Fig.12*). The script wrote, “As he continues, he eventually destroys the wall ” however, this action was not discussed during the rehearsals. This action proved to be a major fault as the torn screen obstructed the projected visuals. In short, if aware of this action, the design of the visuals would have been amended to work with the torn screen. This proves the importance of full communication within the collaborative process. The director-designer collaboration difficulties are a common problem as stated by White and Ross, therefore a full awareness of each other roles and abilities is vital in improving the process. In contrast, audience members believed that the obstruction was intentional and a visual aid to symbolise ‘Artaud’ going mad. This is the nature of live performance as each performance will vary from the last, and each audience member will have their own individual interpretation of what they see.



Figure 12. Scene from ‘Artaud’ – Torn Screen

4.5 Artefact Development Stage 2

4.5.1 Design Development

For the play, 'Artaud', I produced 26 scenes; 4 scenes contained edited shots from Artaud's film *The Seashell and the Clergyman*, 3 scenes contained footage I shot and edited, 4 scenes contained stills produced by the Director and 15 scenes contained motion graphics. Within this Chapter I will concentrate on a selection of four Motion Graphic Artefacts, which will be developed further, based on feedback and practice from the play.

The four artefacts chosen have separate purposes and aims within the play. The ECT artefact will introduce special effects to the live stage and magnify the props. The Mexican artefact will complement the narrative and the musical composition. The Text Screens support the narrative, that is not played out on stage. Finally, the Flash Back Artefact visualises the thoughts going on in Artaud's mind. Each artefact will be explained further within this chapter.

4.5.2 The Style

The play is based on Antonin Artaud a writer and director of theatre from the 1920-1930's therefore the play's style takes on elements of this period. The overall design inspiration came from 1930's; film, photography, graphic design and typography. Artaud's personality is an important factor in the style of the graphics, as he is an extreme character, which allows the design style to be extreme, which has been backed up by Burke. The script is a dark comedy therefore the scenes have a high contrast between humour and melodrama, Colour and sepia tone.

The artefact also holds surreal values, to represent Artaud as a surrealist film maker. This style has been inspired by an artist of Artaud's time, Max Ernst and his collage style paintings, which use a mix of materials and textures (*See Visual Diary*). Ernst is also mentioned within the script; therefore, it is appropriate to reflect this style throughout the play, as it is emphasising concepts within the script.

This collage style has been built up from textured papier-mache, which symbolises Artaud as a writer. This texture is then overlaid onto graphic illustrations, photography and video. The collage approach has been further influenced by an animation by Andrea S. Allen, *The Thomas Beale Cipher* (2010) (*see visual Diary*). This animation represents the 1930's, in graphics and colour, however, it also holds contemporary values, a style aimed for within this research.

Also, researching 1920's and 1930's Graphic design, influenced the use of mixing posterised black and white imagery with colour as seen in designs from, Czech graphic designer Ladislav Sutnar (Date). In addition, the 1930's style has been reinforced by the addition of old film techniques, such as; lines, splotches, flicker and a vignette, created by using Magic Bullet. This look has been inspired, by old footage by Thomas Edison.

In short, the overall style created is a combination of the 1930's elements, collage and surreal styles, which results in a contemporary piece that combines old styles and new to give a unique look that also reflects Artaud's extreme personality.

Moreover, all design concepts have been worked out with pen and paper, then moved into Illustrator and Photoshop, a similar approach to a graphic design project, however, with the addition of Final Cut Pro, Sound Edit and After Effects. Also the exploration of different materials such as; filming Indian ink in water and watercolours dripping on paper, were tested for use as textures and transitions. It is important for a designer to explore different medias, a process that has been inspired by 59 Productions, *Jonsi Live* (2011), as mentioned in Chapter 2, where the designers filmed real fire and animals to achieve an authentic style and movement. This mix of techniques can add depth to motion graphics through realistic movement.

Furthermore, I have been especially inspired by an interview conducted with Jeff Burke (2010). Burke has undertaken extensive research into digital media within live performances. I discussed my developed designs with Burke (2010), as I was concerned that the designs may be too detailed for use on a projector and on the stage. On showing Burke the designs he thought they reflected the subject matter well and that the detail would not be an issue as audiences today are "visually sophisticated and have the ability to take in more information at a faster pace" as seen in question one Appendix 4.

"When designing the detail it does not have to be simplified. As the projector will pick up the detail and texture – ensuring the contrast is high. Best to approach a project about Artaud will be less precious, don't worry about being pixel perfect as the result should have freedom, to reflect his personality. People are visually sophisticated therefore the audience has the ability to take on more information at a faster pace. Although directors worry that the audience will look at the image and not the actor. As the eye is drawn to motion. But the audience is visually aware and capable of taking on the fast paced imagery.

Because the motion graphics is competing with the detail of the real on stage, therefore, if it is overly simplified it can look out of context. The use of extreme is suitable to Artaud – a subtle approach would not suit the script and his extreme personality."

4.5.3 Artefacts Explained

Artefact 1:

Rodez Asylum, France – Part 1

| | | |
|-----------------|---|--|
| Scene | <ul style="list-style-type: none"> • Mental Asylum • Artaud in bed | <ul style="list-style-type: none"> • Two Doctors discuss Artaud and his medical treatment and condition |
| On Stage | <ul style="list-style-type: none"> • Two doctors • Artaud in hospital bed | <ul style="list-style-type: none"> • ECT Prop • Doctor 2 giving Artaud medication |
| Reasons for use | <ul style="list-style-type: none"> • Set the scene • Support Narrative | <ul style="list-style-type: none"> • Special Effects |
| Motion graphics | <ul style="list-style-type: none"> • Text Screen • Hallway • Medicine images | <p>to introduce the scene. set hospital scene. to represent the Hospital, little movement as the main feature in scene is the actors</p> |
| Sound | <ul style="list-style-type: none"> • Actors in dialogue • Footsteps sound effects in artefact | |

The hallway scene has been built up in Photoshop and modelled on an old 1930's asylum to represent Rodez. This hallway scene is dark in colour with a tint of sepia tone to represent the 1930's and a tint of green to represent the hospital. Part one sets the scene of the asylum. The scene is taken from the doctor's viewpoint before he appears on stage. The long corridor with the single door represents the loneliness and isolation for Artaud. It represents his darker state of mind. The scene is shown from the Doctor's view to represent him reaching out to Artaud. In contrast the graphics that follow, representing the hospital, are subtle in movement, as the actors are in dialogue on stage, which is the main focus, therefore the motion graphics need to work as a backdrop only and cannot take away from the actors performance.

The hallway has been created using the Vanishing Point in Photoshop to create a 3D grid, which resulted in a 3D perspective of the 2D image, known as camera mapping. This results in the use of an after effects camera running through the corridor, giving the illusion of a 3 dimensional space. The introduction of an animated light (CC Spotlight) added a subtle jump in lighting to build up the feeling of the doctor walking through the corridor. This was further emphasised with the addition of footstep sound effects. This effect proved to be a good solution for this project as an old style corridor was not available to film.



Figure 13. The Hallway Scene



Figure 14. Visuals to represent the hospital

Rodez Asylum, France – Part 2

Rodez Asylum, France – Part 2

| | | |
|-----------------|---|---|
| Scene | <ul style="list-style-type: none"> Mental Asylum Artaud receives ECT treatment | <ul style="list-style-type: none"> Doctors views on ECT |
| On Stage | <ul style="list-style-type: none"> Two doctors Artaud in hospital bed | <ul style="list-style-type: none"> ECT Prop |
| Reasons for use | <ul style="list-style-type: none"> Set the scene Support Narrative Special Effects | <ul style="list-style-type: none"> Complement the music Interplay with actor Highlight Props |
| Motion graphics | <ul style="list-style-type: none"> ECT Machine Two colour tones to represent before and after treatment | |
| Sound | <ul style="list-style-type: none"> Musical composition and song | <ul style="list-style-type: none"> Scene ends with siren |

This scene is a pivotal point within the play, as it contains the controversial use of ECT on Artaud. Therefore, the ECT prop on stage needed strong visual representation to accompany it. These visuals magnified details of the machine that could not be achieved by the prop, projecting these details meant the entire audience could see this detail highlighted within the motion graphics. The ECT visuals also introduced special effects to the stage, with electricity striking to further add to the intensity of the scene. This intensity has been built up with flashes of black to darken the stage for short intervals, giving the visuals the role of lighting effects.

The design of the ECT Machine has been created with photography and textures, produced in Photoshop. Initially the movement through the moving dials was a camera pan, however this pace did not match the intensity needed for the scene. Therefore, it has now been built up with edits, which match the tone. Each edit contains a subtle camera pan through the dial, to add additional movement, as without this movement the cuts were too static. The Edits have been cut to complement the musical composition to highlight tonal change and harmonies. The dials movement symbolise the build up of the machine being switched on, to add tension. While the introduction of the full visual of the machine is to show the overpowering nature the ECT plays within 'Artaud'.

The colouring of this scene is built up of full colour elements and sepia tones, which symbolise the 1930's. The scene gradually gets darker, which is created by animating the filter CC Toner. This is to complement the music, as tone at the beginning is intense which dramatically changes to a very melancholic tone as the doctor contemplates the use of the ECT. At this stage the scene is much darker and gradually blackens out to darken the stage.



Figure 15. The stage during the ECT scene – Artaud receiving ECT

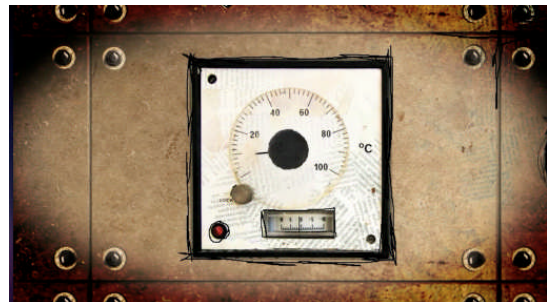


Figure 16. Logo in French to reinforce location Figure 17. Close up of dial on ECT machine

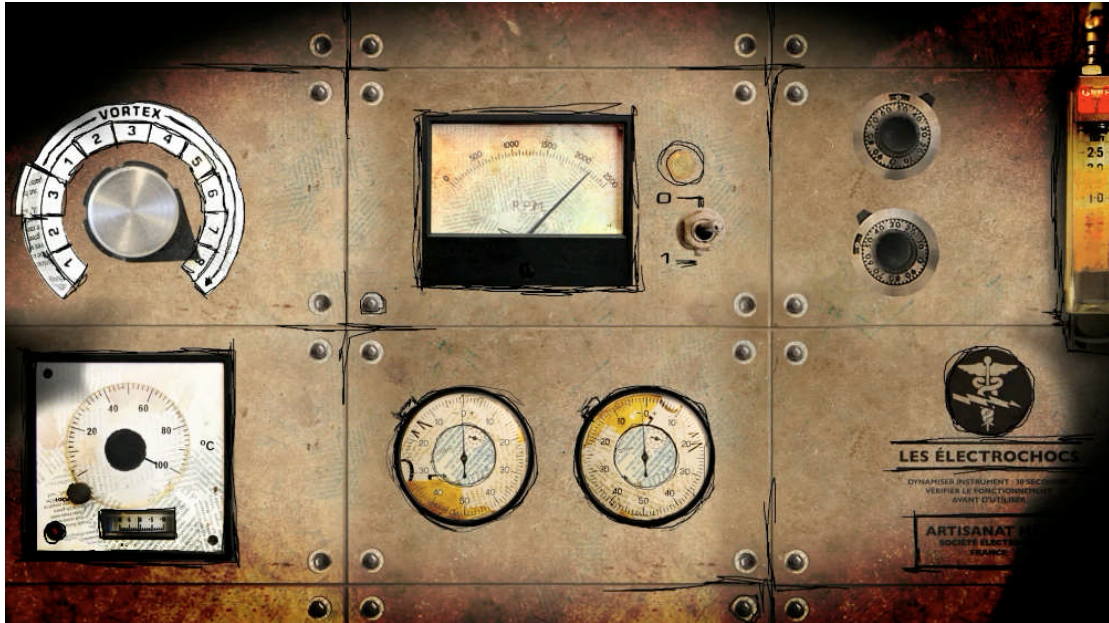


Figure 18. Large machine to show intensity of the ECT



Figure 19. Close up detail of the ECT machine

Artefact 2:

The Day of the Dead Festival, Mexico

| | | |
|-----------------|--|--|
| Scene | <ul style="list-style-type: none"> Mexico Artaud in search of peyote Day of the Dead celebrations | <ul style="list-style-type: none"> Artaud consumes large amount of peyote Musical composition & Song |
| On Stage | <ul style="list-style-type: none"> Shadow dancing Shadow puppets | <ul style="list-style-type: none"> Artaud on stage |
| Reasons for use | <ul style="list-style-type: none"> Set the scene Support Narrative | <ul style="list-style-type: none"> Complement the music Work with shadow puppetry |
| Motion graphics | <ul style="list-style-type: none"> Drug induced hallucinations; Dancing skeletons Surreal Mexican landscape | <ul style="list-style-type: none"> Dramatic tone change Dark tone at end |
| Sound | <ul style="list-style-type: none"> Musical composition and song | |

This scene shows a journey to Mexico and symbolises Artaud state of mind, which is gradually progressing to a darker place because of the consumption of the Mexican drug Peyote. A surreal style is used to symbolise his hallucinogenic state. The graphics are bright as Artaud celebrates the Mexican holiday 'The Day of the Dead'. The use of the filter CC Toner is used to gradually darken the scene, which changes dramatically to spinning skeletons, as his visions become darker. A displacement filter has been added throughout to add a surreal movement to the overall piece, to further emphasis the hallucination.

The Mexican scene is a mix of shadow dancing, motion graphics and shadow puppetry. The developed graphics will replace an initial scene, which consisted mainly of shadow puppetry. However the use of shadow puppetry was bulky and noisy to set up, therefore have been replaced motion graphics. The Mexican landscape has been built up with vector and bitmap files to create a surreal style similar to Max Ernst's paintings. The movement is a subtle pan to symbolise the Mexican journey.

Initial designs of the skeletons were illustrated with emphasis on producing the movement of the limbs. However this resulted in a very mechanical structure, which was an inappropriate style for the skeletons. Therefore I choose to photograph a science lab skeleton, to achieve a realistic structure. The Skeleton has been posterised, to simplify the photography to obtain a graphic style. The skeleton layers have been rigged in After Effects, by parenting the layers to the hips, as advised by animator McCloskey (2011).

However, Initial problems arose in creating the skeleton dance movement, as it was difficult to recreate a realistic dance movement. In order to improve this movement, I filmed a basic Salsa step. Studying this movement slowed down, provided a good understanding of the movement needed. This basic movement was creating using only four keyframes while ensuring the feet were anchored. (See visual Diary for rough drawings of the movement needed).

Furthermore, animating this movement also proved to be a challenge. Initial use of the rotation tool to move the layered limbs did not allow the feet to stay anchored, due to the parenting of the layers. Therefore I experimented with the puppet tool, which resulted in a fluid movement however, that did not match the rigid structure of the skeleton. After much experimentation with movement, the final solution resulted in mixing the use of the Rotation Tool and the Puppet Tool, this allowed for the flexibility needed.

Moreover, the movement of the Spinning Skulls was animated using the expression code for rotation.

```
radius = 340; // the radius of the circle
cycle = 3; // number of seconds to complete a circle; higher value = slower
```

```
if(cycle == 0){cycle = 0.001;} //avoids a divide by zero error
phase = 27; // initial angle in degrees from bottom
reverse = 1; // 1 for ccw, -1 for cw
```

This resulted in a fluid movement that could not be achieved using key framed rotation. The use of expression code is an efficient solution as it is a tidy format, which can simplify complicated set-ups in After Effects. The code only needed the circumference value changed to position the width of the rotation. An expression wiggle (*wiggle(1,10)*) was added to the each skull to add further movement, as a static head rotating was not sufficient.

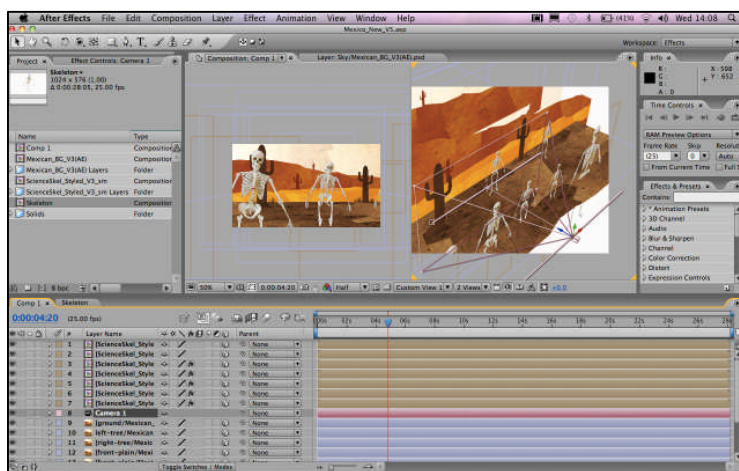


Figure 20. Using camera to pan across landscape



Figure 21. Development of the Mexican scene



Figure 21. Development of the Mexican scene – scenes gradually getting darker



Figure 22. Development of the Mexican scene – scenes gradually getting darker



Figure 21. Spinning Skulls

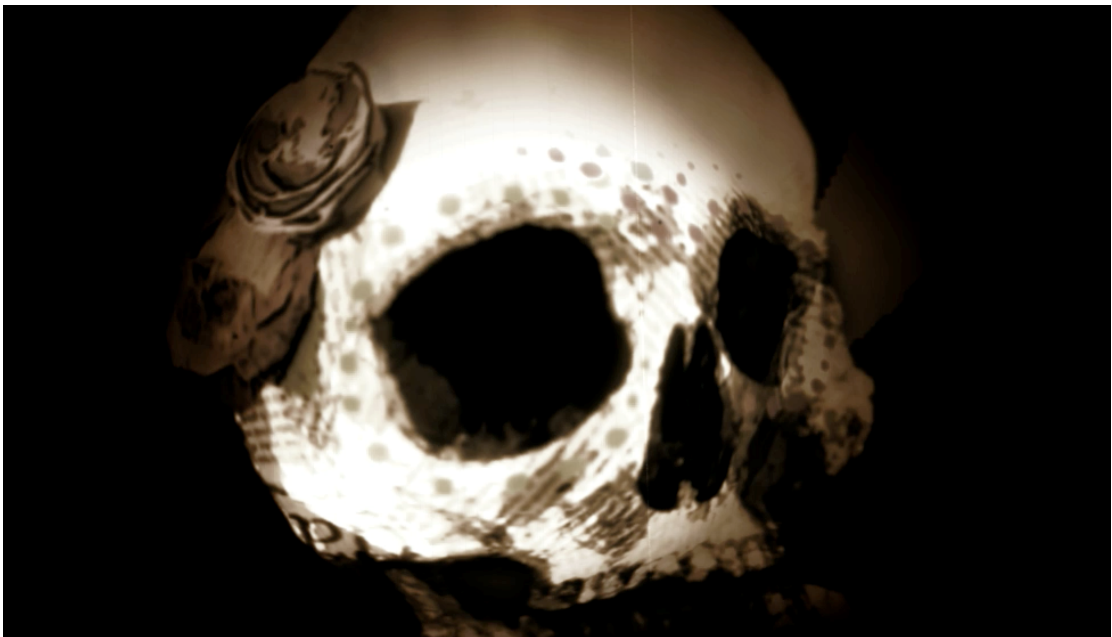


Figure 22. Close up to add tension

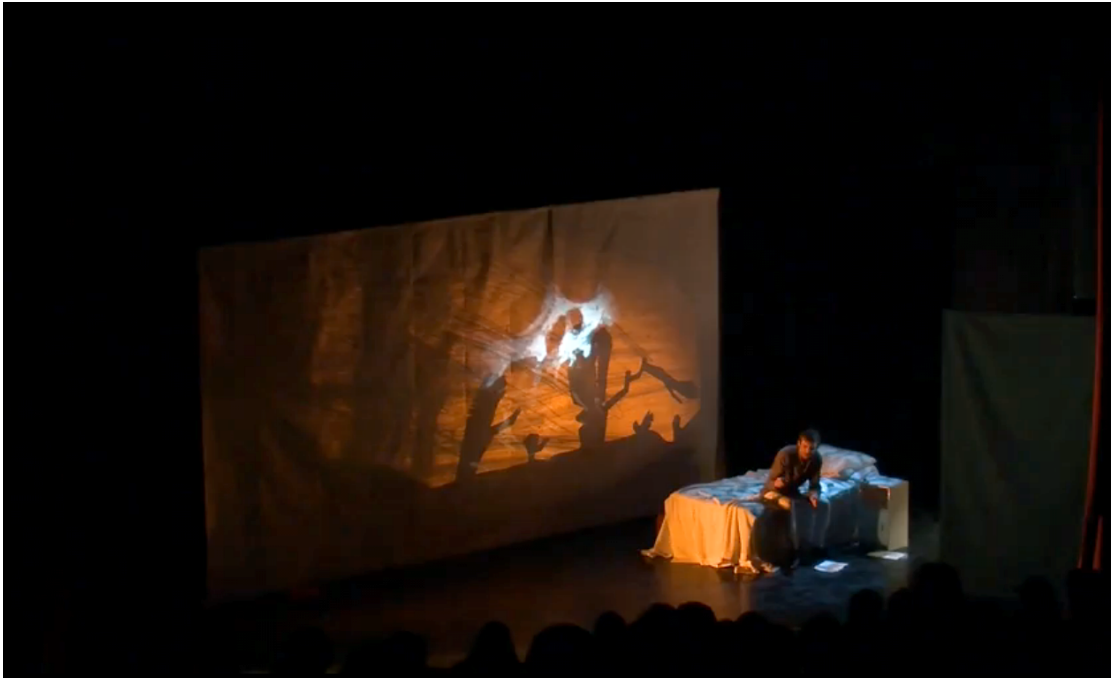


Figure 23. The mix of shadow puppetry and motion graphics

Artefact 3: Fans Flashback

Fans Flash Back

| | | |
|-----------------|---|---|
| Scene | <ul style="list-style-type: none">Nightmare Flash BackSupportive comments are not welcomed by Artaud | <ul style="list-style-type: none">Artaud acts in distress towards the flash backDialogue |
| Reasons for use | <ul style="list-style-type: none">Set the sceneSupport Narrative | <ul style="list-style-type: none">Interacting with the actor |
| Motion graphics | <ul style="list-style-type: none">Surreal feelIn head experience | |

This scene represents Artaud's mental struggles. This scene brings the illusion of his 'in-head' experiences to the stage, an important role for motion graphics, as this illusion would be difficult to create with physical actors on stage, due to the added effects needed to represent the illusion.

The Flashback scene has been built up with video and textures. Two actors were filmed against a green screen, using a Canon 5D on Aperture setting with a 100mm lens and studio lighting. Keylight was used in After Effects to key out the green. The Canon 5D proved to be the best option for chrome keying, as the green keyed much easier compared to the JVC Camera and Broadcast Camera. During the shot, the actors were instructed to wear eyeliner to mimic a look popular in the 1930's, for instance, Charlie Chaplin's, iconic style. This resulted in highly defined eyes when the images contrast and colouring were changed.

However, the video footage needed to match the graphic elements created for the skeletons and ECT; therefore I added the filter CC-Threshold to create a high contrast graphic style, which will also project well. In addition a bulge effect was added to create a distorted and surreal style to the overall piece. Also, the design has been tilted downwards, in order to have the heads looking down onto the actor, to intensify the scene. This motion graphics piece needs to overpower the actor, as he acts in despair at the sight of these visuals.

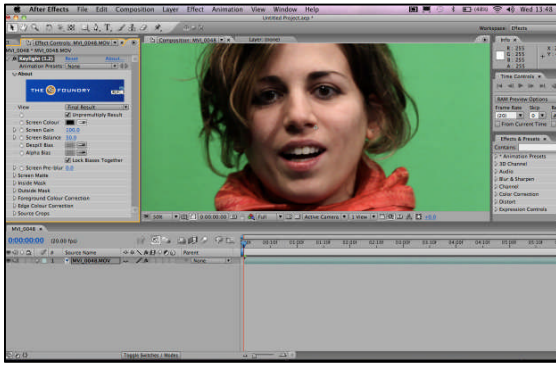


Figure 24. Shoot actor against green screen

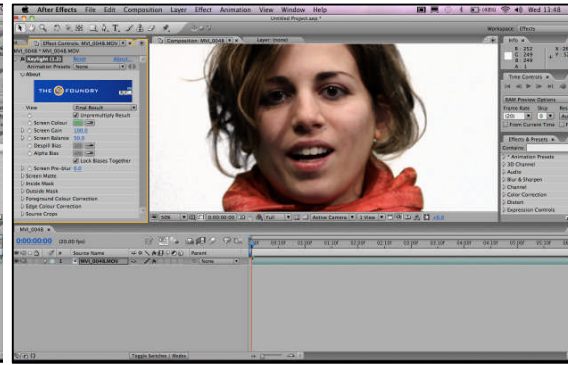


Figure 25. Keying out Green with Keylight

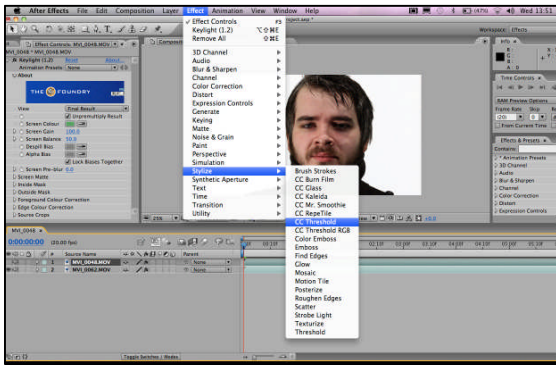


Figure 26. Added effect CC Threshold

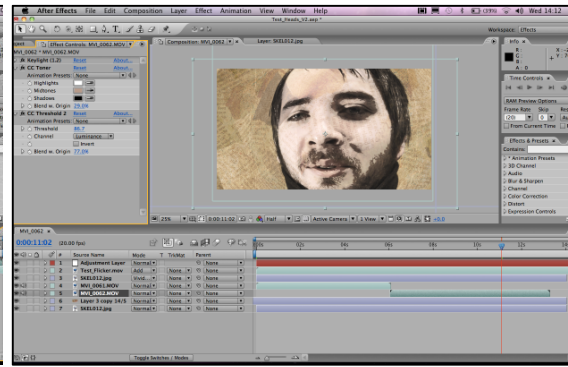


Figure 27. Overlay of textures



Figure 28. Screen Shot from Flash Back Artefact

Artefact 4: Text Screens

Text Screens

| | |
|-----------------|---|
| Scene | <ul style="list-style-type: none">To support narrative not played out on stageLights off and stage emptyText only |
| Reasons for use | <ul style="list-style-type: none">Adding NarrativeOpening Title |
| Motion graphics | <ul style="list-style-type: none">Silent Movie style screensMovement in film style effects |

The text screens have an important role in telling parts of the story that are not performed on stage. Therefore the typography layout is extremely important. The typography style has been designed to represent a style of a 1930's silent movie text screen to symbolise Artaud's contribution to film as an actor and director. The typography needs to be strong and legible from a distance to reach an audience at the back of the theatre. Therefore, after considerable research into serif fonts and silent movie screens, I choose Jenson for the Text screens and 18th Century for the opening titles text. Both fonts resemble a 1930's look and function well on the large screen. (See Visual Diary). The movement with in the text screens is kept simple to ensure the type is fully functional, this movement mimics old film appearance to reinforce the 1930's style.

The opening title screen has been introduced to highlight the beginning of the play. As on the night of the play clips of Artaud's film *The Seashell and the Clergyman*, played while the audience members took to their seats. Once the audience were seated I cued a black screen and the play began immediately. However, the play beginning was not clear to the audience. Therefore the opening title acts like a movie title within the live environment and is an indication that the play is beginning,



Figure 29. Screen Shot of Text Screen

Artaud

ARTAUD

Font: 18th Century

ARTAUD
1896 1948

ARTAUD
1896 1948

ARTAUD
French playwright, poet, actor
and theatre director

French playwright, poet, actor
and theatre director

Figure 30. Development of logotype for Artaud. Used within opening title screen

4.6 Review Process

The play ‘Artaud’ on the 25th of February 2011 will be developed further if funding is awarded from the Arts Council. AnNua are applying for funding to research the subject further and employ staff, including a production manager. The director Moore (2011) stated that stage one of ‘Artaud’ struggled, due to lack of management and the team working on a volunteer basis. If funding were awarded AnNua would pay staff for a full 4 weeks of rehearsals to amend the problems that occurred. Moore believes that this will result in a “very good piece of theatre”.

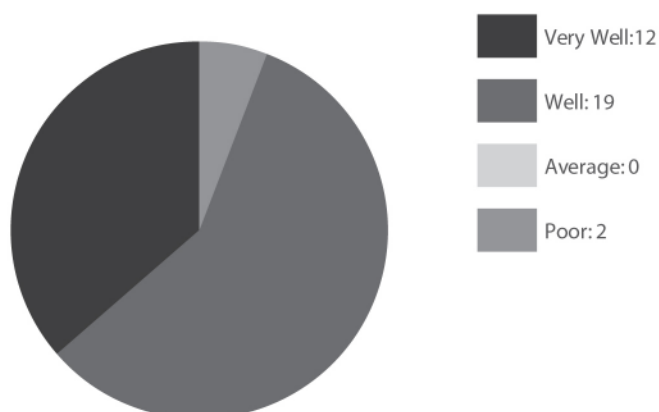
4.6.1 The Audience Response

After the play ‘Artaud’ quantitative evidence was gathered from the audience. An 18% response rate, out of 185 audience members was received. The evidence gathering proved to be a very effective source of information for this research.

Supporting the narrative

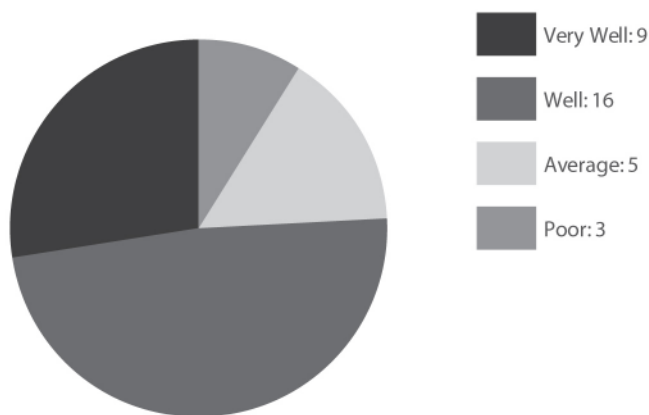
On the night the audience were asked to rate the motion graphics role in supporting the narrative, as this is an important aspect to the artifacts created. The response was 57% good and 36% very good, with a total of 94% positive responses, and only 6% rating it poor. This proves the effectiveness of the artefacts in supporting the narrative. This has been backed up by feedback gathered by the composer; Norby (2011) stated “that audience members had commented that the motion graphics complemented the narrative during abstract elements of the script. Also an audience member stated on the questionnaire that;

“The story itself was difficult to follow but the motion graphics added to the visual aspect of the storytelling, it got across the mood well” (Audience Member 2011). Therefore the motion graphic artefacts answered the brief of supporting a contemporary theatre narrative.



Supporting the actor's performance

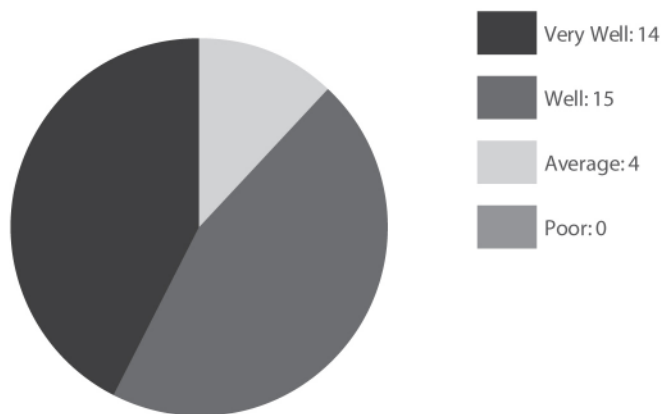
A similar result was gathered when investigating the audience's response to the motion graphics supporting the actor's performance. The audience response rate showed that 48% said well and 27% said very well, resulting in 75% positive responses with only 9% stating that it did not complement the actor's performance. This result proved to be an important finding as ensuring the motion graphics work with the performance is an important aspect to the design. An audience member stating that it "Made it more meaningful". With another member highlighting the technical problem mentioned, however believed it worked in this instance, "*Sometimes the actors got in the way of the projector, but when it worked it worked very well.*"



However one audience member stated "*Graphics at the expense of the performers*". A common issue in theatre, which has been taken into consideration in the development of the graphics. However, this can be resolved with additional testing and the use of the timing sheet, which will inform the designer of the actors positioning and role. This an important comment to evaluate, as the design needs to work seamlessly with the live performance, an important point made in Chapter 3.

Supporting the musical composition

The results on how the motion graphics supported the musical composition were the most positive, with 87% positive responses, 12% average responses and with no members stating a negative response. Proving on the night the audience most connected to the motion graphics complementing the musical composition. Which has been backed up with an audiences comment; *“Enjoyed that (motion graphics complementing the music) the most”* and another audience member stated that; *“The graphics gave a flavour of what the music was trying to represent.”* Therefore proving that the motion graphics complemented the musical composition.



Proving Motion graphics role in theatre

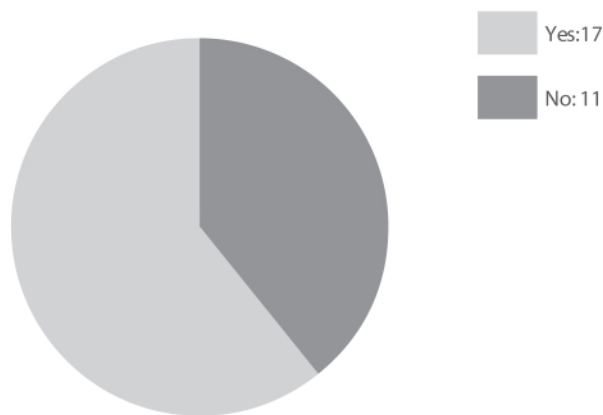
These results have been very positive towards the use of motion graphics within the play ‘Artaud’. Proving that the motion graphics; stimulated an audience, worked with other art forms and added to the overall experience. When the audiences were asked if they would return to another production, with similar emphasis on the use of motion graphics. The response was very positive with 84% stating they would return to a similar production. The positive feedback within this research reinforces the fact that motion graphics has a place within theatre. Many positive comments were gathered, with audience members stating;

“Very interesting, experimental piece. Look forward to next one.”

“Clever, coherent, unique, encompassed, many vital artistic disciplines, including philosophy, ethics. Nothing was forced either, all served to be presented subjectively.”

“Innovative, different styles, great performance and music.”

These comments and statistics indicate that the audience members appreciated the innovative values that the motion graphics offered to the production of 'Artaud'.



However, in contrast, one audience member stated; *“Tried to cover/do too much. Quality sacrificed in favour of quantity.”* This is an important point to take into account, as too many techniques were used with little time to be fully developed, especially the use of the motion graphics. This reflects back to a point made in the chapter 3, to ensure the need for the motion graphics use is coherent. For instance, certain scenes did not have a need for motion graphic, which is why I only developed four artefacts, as these hold the most potential to be enhanced with motion graphics.

Also the use of shadow puppetry was bulky and noisy to set up, therefore many mistakes occurred during the live show. This is why the majority of shadow puppetry in the Mexican scene has been replaced by motion graphics, as the change of imagery is more fluid.

4.6.2 Industry experts

Development and scheduling

Timing on the run up to the show was an issue because of the lack of a production manager, which meant that the schedule was not always followed, meaning the production slowed down. This resulted in only three days for technical rehearsals and only one dress rehearsal, which was not enough time to ensure all the amendments were complete and visual cues are in sync. Therefore, I received advice from Ortel of Mesmer on general practice timescales, which a motion designer would work to, in a commercial situation;

- *“On a commercial show I usually need 8 weeks to design and make the imagery. It's personal, because everybody works differently, but I make most things from scratch at a very high standard and that takes*

time. Then we usually have 10 days to get the projection system up and running ready for programming and dry-tech.

- *Dry tech is usually 3-5 days just stepping through the show and programming a skeleton of cues without the cast.*
- *Technical Rehearsals 7-10 days with the cast*
- *2 dress rehearsals”*

This shows that about 8 weeks of design is needed and approximately 27 days is needed to prepare and test the motion graphics. This time is based on a commercial basis, however the 4 days that I received for preparation and testing was an unrealistic timescale set by the director. Proving that a small production needs adequate timing also. In short an additional 2 weeks would have improved the show ‘Artaud’ immensely.

Technical rehearsals

The experts have confirmed that timing is always an issue when dealing with digital media in theatre, as the digital files, are not easy to amend during rehearsals. Collectively their advice suggested the use of, Q-lab for small productions. This allows for a certain amount of amendments in real-time, meaning no rendering time is needed. Although, Dunn (2011) states that flexibility is key, “as you will always be amending files in an intense environment. Ortel (2011) states how timing issues are in the nature of live design and that last minute changes are down to theatre being an “organic process with a number of collaborators.” He also states how it is important to inform the director how long amendments will take, proving the importance of communication in the collaboration process.

Cueing settings

Cueing the production ‘Artaud’ also proved to be difficult as the wrong software was used. Therefore the use of Q-Lab has been tested for cueing, as advised by the industry experts. Ortel (2011) states how all productions are different and require different cueing systems. Although, he prefers cueing visuals to lighting, rather than manual cues, as lighting usually prompts cues. However, time is needed to ensure all the cues work as desired. Therefore, Sevn advises to set cues manually with an operator if time is limited. This was the case with Artaud as money for a programmer and time was not available.

Live Performance

During the live performance, the challenges were technical based; from the poor use of PowerPoint, to last minute projector problems. Technology failure is always a risk in live performance, which has been highlighted in Chapter Three. The High Definition projector failed and was replaced by a low quality version. However, as time was an issue, there was no other option, and as the old saying goes, “the show must go on.” Therefore, it is very important to ensure the set up of backup up technology on site such as a laptop and projector.

Furthermore, as previously mentioned, the use of PowerPoint also proved to be a problem. It was slow to load content, which made it difficult to hit cues in sync with the performance. It also did not have a setting to remove the cursor from vision (Keynote has this function), a problem highlighted by audience members. The solution to this problem is again the use of Q-lab. Q-lab is an Apple programme that has been designed specifically for live performance. Q-Labs advantages are; it has a simple set up and most importantly it is inexpensive, as the package can be rented for \$1 per day.

4.6.3 Feedback from Participants in play

Feedback on the motion graphics within 'Artaud'

The feedback from AnNua was very positive. The composer, Norby (2011), is very interested in the use of live visuals complementing the musical composition. He felt that the visuals supported the narrative within the music. He indicated that the motion graphics on the night were successful as they added an additional dimension to the stage and its role was as important as the music and the acting. He believed that the visual elements complemented the performance, especially the script, as the visuals helped make sense of abstract elements. Overall he stated the use of motion graphics has the ability to lift theatre out of tradition. A great response, as this research aims to add a contemporary element to a theatre production. Therefore answering a main objective within this research.

The director found the process of dealing with a motion designer an interesting learning experience, as he was unaware of motion graphics potential within theatre. The director's visual experience has come from shadow theatre in Asia, however, he now feels that he has hit new ground with the mixture of motion graphics and shadow puppetry, as used in the Mexican scene. After the process of the play the director realised the potential of using motion graphics to create a total picture or mise en scene. The director is now interested in using motion graphics in a new production, Doire 24, and requested an estimate to be submitted, for a funding application to the Arts Council.

Estimating a motion graphics project for a live production is a very different task to an estimate for a graphic design project. A Motion graphics for a live performance project will need sufficient development time, to analyse the script, identify the potentials for its use, the creation of storyboards, style screens and animatics, testing and rehearsals.

Once development time is complete in a graphic design job, time is then dedicated to making client amendments. However, live graphics, requires additional time dedicated to testing and technical rehearsals. On creating the estimate I required expert advice, which I received from Dunn..

4.7 Methodology Findings

The overall experience of working within the interdisciplinary process of a theatre production has proved to be an inspiring creative process and a valuable learning opportunity. Solving creative problems on a timeline with live work and an audience, highlighted the importance of learning multiple skills and working with in the physical space of the stage.

The collaborative working environment was a challenging process as each member of the team had a different creative background. Therefore different mindsets arose throughout the process. This was a key finding proving that the development process needs structure and organisation to allow the team to gain awareness of each other abilities. Therefore the motion designer needs to:

- Ensure a full run through of the script takes place in order to gather information. Using the form designed in chapter 4, the motion designer can document the performance details before design begins. Therefore, designing with knowledge of cues, timings, positioning, lighting details, prop positions and costumes. In short this will ensure that the graphics created, works seamlessly with the performance, avoiding problems such as the actors positioning interfering with the projections or the projections overpowering important actions on stage.
- Ensure the team are aware of the potentials of motion graphics, and advise on how it can be used to its advantage. This can be achieved by informing the team on the progress of the graphics through the use of storyboards, style screens and animatics.
- Ensure the team are aware of time needed for; design development, amendments and rendering. This can be achieved with the use of a production schedule.

Working within the creative environment of theatre, proved the importance of learning multiple skills from dealing with technical issues, to solving design problems in an intense environment to difficulties in communicating concepts to the director. The process also proved the importance of working within the physical space of the stage, to gain awareness of the environment in which the visuals will be projected and the subject matters in which it needs to work with. The process highlights a designer's needs to adapt to new skills within the theatrical working environment.

5 :: Conclusions

5.1 Introduction

This research has investigated the use of motion graphics within live theatrical performances. Through this investigation many key findings have been discovered such as; motion graphics origins in theatre, technology developments, digital media acceptance in theatre, the collaborations involved and the design process.

5.2 Reflection

This research has highlighted that the integration of motion graphics into a live performance is a progressing media, a point backed up by Burke. Technology is still developing, with the need for motion design programmes such as After Effects to allow faster rendering times or more importantly the ability to make amendments in real time. Programmes such as Q-Lab and Catalyst will only allow for a limited amount of design changes, for instance, size, rotation, shape and transparencies, as the graphics are contained as a rendered movie file within these programs. Dunn's solution to this is rendering the layers separately to allow for changes to specific layers. Therefore cutting down rendering times as amendments can be made to layers that require changes only.

Furthermore, within the research a critical point stated by lighting Designer Holder (2007), has highlighted that projections are not always favoured in theatre. However, this research proves that the use of projected motion graphics can introduce an additional dimension to the stage, which has been backed up by audience feedback, correspondence from a theatre production company, digital theatre academics and industry experts.

However, Holder, believes the use of floating materials for projections are successful. Therefore the investigation into the use of cloth as a backdrop was tested. This testing proved to be very successful as the cloth added extra textures and movement to the motion graphics (See Visual Diary). The use of cloth goes back to Svoboda's theories about creating a multimedia theatre as mentioned in Chapter 3. Svoboda's wanted a theatre designed entirely for multimedia; therefore the use of cloth can be introduced as a successful projection backdrop to be used as a stage set created entirely for digital content.

Also, based on Svoboda's concepts, projections were tested on an actor (Fig. X), which also proved very successful. Showing evidence that projections can be very a flexible, creative medium, while also providing a cost effective solution for theatres.



Figure 31. Projections on actor

Furthermore, reflecting on the question; can the stage design be entirely digital content? A point, discussed in chapter 3, has been answered in the development of the motion graphics for the play 'Artaud'. The play's stage set existed almost entirely of digital content, with the exception of the shadow puppetry. The 'Artaud' audience were asked to compare the role of motion graphics against the role of the shadow imagery. The results proved to be very positive with a 79% in favour of the use of motion graphics. Therefore, showing evidence that the audience would have accepted a set design, which consisted entirely of motion graphics.

However Nina Dunn's graphics are designed to work within a designed set. Showing evidence that two types of digital theatre exist. One that exists in its entirety as digital scenery which can be seen in Mesmer's 'Women in White' mentioned in Chapter 3. And one that works with a designed set for instance Dunn's designs for Cleopatra.

5.3 Evaluation of the audience's response

The artefact has been developed further based on audience feedback, practice, collaborative challenges and the live show. The developed artefacts were then sent to industry experts and presented to a focus group of five audience members, to evaluate the design further.

5.3.1 Focus Group Feedback

Research was gathered from a focus group in July (2011). This group attended the play 'Artaud' in February (2011) and agreed to be contacted further. Each member has stated how the developed design would have added greater value to the overall production. The results from talking to the focus group on the developed designs proved that the artefact answered the design problems, which were raised within the development process and live performance.

Analysing the focus groups comments proved to provide positive evidence for the developed designs. Overall the feedback proved that the motion graphics during the play complemented the performance, however the developed design would have had the ability to visually complement the performance significantly more. Burns (2011) stated that; *the new developed designs, of ECT and Mexican for the play, I felt these would both accompany each of the respective scenes very well and in turn have the potential of providing a better visual experience of the play and thus add to the appeal of the play*".

O'Donnell (2011) has indicated how the developed designs are more in keeping with the style and tone of the play. He stated that the *"ECT design, you do get more of a sense of the mania displayed by the main character, and with the Mexican design you get more of a feel for the fun being made at the character's dire circumstances"*.

This is an important point as the developed designs were created to give an overall style to the play, which matched the plays tone. Also the developed ECT scenes and Mexican scene were enhanced to complement the dialogue and musical compositions to work seamlessly on stage with the actors, which answers a key challenge within this research.

Beattie's (2011) feedback has been very important, as Beattie is a motion designer, therefore an industry expert in this field. His advice on the developed design states that the designs are of much higher standard to the original designs used in the play, he indicated that these designs would have advanced the production even further. He stated that the play was difficult to follow, therefore believes that the *"new graphic sequences would have helped the production enormously. In the same way as Monty Python used graphics and animation to enhance their comedy and show scenes that would have been otherwise impossible to film, these graphics and animations could have greatly improved the drama and freed the production from the same constraints"*. This proves that the developed motion graphics answer the brief to complement the performance.

5.4 Evaluation of Industry Experts

Ortel (2011) from Mesmer advised that the in-head experiences should have a connection between the actor on stage and the projections, to ensure the audience is aware of the images purpose. This show valuable evidence for the design, as creating a transition from the stage to the visuals is a very important point I to consider when creating motion graphics to work seamlessly with the performance.

5.5 Evaluation of the participant's response:

The feedback from AnNua was also very positive and led to them to seek funding from the Arts Council for a new production with motion graphics.

The composer Norby, of AnNua has reviewed the developed designs and provided valuable evidence for the artefact. He indicates that the revised style is much more definite, while stating that they would work *simultaneously* with the other arts. Norby, highlights the fact that the development schedule was unrealistic and if the production held off they would have produced a more fluid show. He also stated that the design style of the ECT reminded him of “Dave McKean’s artwork for the ‘Arkham Asylum’ graphic novel (Batman)”, which is a huge complement for a designer, as McKean’s illustrations are inspirational pieces of illustration.

Norby has backed up my reservations regarding the problematic shadow puppetry; therefore this supports the use of mainly motion graphics as opposed to shadow puppetry. He states that the skeleton dance would add a constant style to the Mexican scene, which in turn would complete the scene. In fact, this backs up a key point that supports the aim of creating an overall style for the production. He also indicates how he would like to construct the musical compositions based on the movement within the Mexican motion graphics, which would be a very interesting and creative approach for a motion designer. Overall he indicates that the developed designs would “make for a tighter more synchronized interaction between the elements, which was missing on the night”. In short Norby was very impressed by the developed designs and believed that they would have benefited the show greatly.

5.6 Value to the Motion Design Community:

This research should benefit the motion design community as it explores the working process a designer will undertake in the collaborative working environment of theatre. Therefore, helping a designer set goals in approaching this type of work. Evidence within the creative possibilities of motion graphics within a live performance has been highlighted to assist a motion designer of the potentials motion graphics can bring to the stage environment. This work also provides a brief history of motion design in theatre, therefore giving a motion designer the basis of this work and its origins to which further emphasis the potentials through technology advancements.

5.6.1 Feedback from Irish projection designers

Companies such as 59 Productions' and Mesmer have proved the existence of the theatre market for motion graphics in the United Kingdom. Therefore, while investigating the potential of motion graphics in theatre production, the exploration of the market potential for this service in Ireland was also undertaken. This was investigated by speaking with Irish projection designers. These designers stated that the market in Ireland is small compared to Britain. Therefore they advised that a motion designer should not solely concentrate on theatre productions only. Unfortunately setting up a business similar to Mesmer would not be viable in Ireland. However Cummins (2011) stated that a motion designer should therefore concentrate on all live events, from corporate events, concerts and live television with the addition of theatre. Therefore a motion graphics company could not make sufficient funds in theatre as funding for the arts is difficult to achieve during the economic downturn, as indicated by Gallagher (2011). He stated that the use of projection design is an increasing market, although budget is a problem for theatre, but he believes that there is a good market for live television, live concerts and corporate events.

5.6.2 Market Potential

To further investigate the markets potential for a motion graphics business that specializes in visuals for live performances proved to be very successful. I pitched my business idea to seven business people, as part of the Digital Derry Seed Comp (2010). My business Little Kite Design, which aims to create motion graphics for all live events from theatre to corporate events (as advised by Irish designers), win the student section of this competition. The judging panel believed that this company would make a profit, suggesting that there is a market for this service in Ireland.

5.7 Potential Future Developments

The development potential of the artefact is immense, and could be developed in a variety of ways. For example, the use of cloth, mentioned throughout, has created interest. This could be developed further through investigation of stage set design with materials such as cloth and vinyl, built for the purpose of digital media and motion graphics. Burke has undertaken similar research to create pop-up stage sets for multi-media purposes.

Also the introduction of participation within theatre could also be explored further.

Initially I intended to research this, however, during the interview with Burke we discussed this subject, as Burke had undertaken such research in 2003. On talking with him he expressed "that this was something that he was interested in then, but not so much now, as the need for it is not great". He stated that a theatre play does not depend on participation. However, he is interested in outside information being integrated, although this depends on the script. He feels that future research in social media participation is needed, but his research in participation has had more purpose within community-based projects such as Remapping LA (See talk notes in Appendix 3). Burke (2011) liked the simple concept of 'The Wall's' social media participation as mentioned in Chapter 1. He believes that there is room for additional

research in this area. Although, Burke believes that not all productions will lend themselves to the use of participation and is more interested in the use of media to improve the stage aesthetic. Due to talking with Burke I decided to concentrate solely on motion graphics role within theatre design as the scope was immense. Although if to approach the subject I would choose a simplistic concept similar to that used in Roger Water's 'The Wall'.

Furthermore, projections as a tool alone holds immense scope to develop spectacular stage sets to stimulate a contemporary audience. The recently popular 3D mapping capabilities, created on outdoor building architectures, are a new medium to catch spectator's attentions. The projection medium has also been used very successfully as a promotional tool for products such as Nokia and rock bands such as ACDC, as stated by projection designer from Seeper. However, it was Coldplay's use of this medium that caught my attention. They lit up Glastonbury (2011) with 3D projected graphics, to create spectacle and dazzle a festival audience. Coldplay used the pyramid stage to its full advantage, which resulted in an enhanced experience for the audience. In short, this successful medium could highlight indoor architecture in a similar style to create three dimensional motion graphics within a theatre environment

In conclusion, this research has revealed problems in the process of development, from technical errors, to timing and through to the design process. These problems have been answered and solved through the development of the artefact. However, it provides scope for further investigation into developing stage architecture designed for motion graphics, introducing participation and projection technology.

5.8 Final Reflections

Working within the theatre business and working with motion graphics, were two new areas for me. I had to avail of a new set of skills in software and working practice, with the objective of providing a theatre production with digital content that adds dynamic moving imagery to the stage. As the research process has proved this is a postmodern approach, as history has proved that this approach to theatre has been about since the beginnings of projection technology. However, this is a continually evolving area, shown through the advancements in technology today. Meaning motion graphics can have a more prominent place in theatre productions. On reflection I feel that I have proved that motion graphics integrated into a theatre production can:

- Provide creative possibilities
- Stimulate a modern audience
- Work with other art forms
- Enhance the experience

On reflection the motion graphics created for 'Aratud' allowed the directors vision to be more expansive, as what could not be created on stage was created using motion graphics, allowing the director additional creative scope to stimulate a contemporary audience.

Appendix 1

Email Correspondence

Email Correspondence From Finn Ross – Mesmer - England

Hi Lisa,

Some answers below - hope they help.

Finn Ross

+44 (0)77177 43902

www.behance.net/finnross

Hi Finn,

Thanks for your reply.

I am interested in video/projection design within live theater performances.

I'm currently studying a MA in Motion Graphics, at Letterkenny Institute of Technology, Donegal, Ireland. I'm researching the use of Motion Graphics in a theater performance to entertain a modern audience. I'm very interested in your work for theater and the mix of video and animation. Especially your modern take on Opera (A Dog's Heart).

I have just completed my first role as a Motion designer/projection designer in a performance. This was my first experience of working in the world of theater and I found the work very intense. It was also the directors first time using Motion Graphics/Video projections. The play was produced on little or no budget, therefore the Director took on many roles - such as writer/Director/Actor, and therefore time management was an issue. As the director did not have time to tie down ideas until a week before the show. The first run through occurred two days before the play. Which only gave me two days to amend video, adjust timings, make cuts and render files again. I would be very grateful if you could take a little time to look at a few of my questions and advise. It would be of great value to my MA project. I'm now developing my findings based on the problems that occurred;

- The use of PowerPoint for the projections was a problem. The cursor was on show and clicking video to play was not smooth. I need to research a cost effective method to successfully project my motion graphics, ensuring transitions and timing is smooth. Have you any recommendations?

Try Qlab - runs on almost any Mac, you can rent the software for about \$1 a day and it is much better than power point. No one really uses it, and if they do it would be Keynote,

Apples version of power point. It is much better. But Q lab is actually designed for use in live performance.

- Will the Motion Designer (projection designer) be responsible for playing the projections during the show? Or is this handed over to a technician?

Will the projection designer, test and set up the projections?

I don't stay with shows, when I was at a more formative stage of my work I did, but now I leave at press night and it is left in the hands of a programmer or an operator. In you last question I think you mean will the projection design set up and test the system. I will design a system but leave it to a programmer and technicians to set up. This is largely due to most of my work being on a fairly large scale. On smaller shows I will be running around poking at computers and projectors. But on a smaller show someone else will still run it.

- I manually clicked the slides to appear - using the script, the music, and the actor's movement as prompts.

What is the standard method for timing projected video and animation within a theater production on a budget compared to large production. Is it normally Manual?

Always manual. It's the best way. Usually a DSM (Deputy Stage Manager) will call the cues, like you say on lines, music and movement, a company I work with called Complicite (www.complicite.org) does all it's shows self cued so the lighting, sound, video opps all self cue - it keeps it very "live"

- Also time management was an issue for the entire play - which lead me to amend and render video files, just a few hours from the play beginning.

This was due to the director not being aware of the time needed to make video changes? Have you any advise on this matter? Is this the nature of live design?

Sound like my every day life. Directors are either mad, totally disorganised and winging it and need you to organise their ideas for them, or they are mad, very organised and have specific ideas about what they want and sometimes it is very hard to give them the exact shade of red the want because it is actually orange they want to see. Or you will find them somewhere in the middle of the two. Generally thought working with the other designers in the team you find the answers, but it is always very last minute.

- For Example your work for "Knight Crew" – you used two Barco CLM's and Catalyst. (not aware of either system) How much programming will a projection designer be involved in or is this passed to the programmer?

I actually programmed KC, the money I would have spent on a programmer I spent on a day underwater filming for the show instead. Normally I would pass this on to a programmer.

If passed to the programmer, do they control the system during the live performance?

Yes and no. If it is only a few shows then they will stay, but programmers are expensive (£250-£400 a day) so generally someone in the building is trained to look after the system and it is left in their hand.

Will this control multiple projectors?

Yes, Catalyst can drive up to 6 projectors when set up correctly.

The set up for 'Das Portrait' sounds complicated – how long does this type of set up take?

It took about 2 days in the end and nearly drove the programmer and me mad.

What would the general schedule be for a live performance? From design to run through? Run through to live show? How much time do you give the design process? And how much time would you give to rehearsals and amendments?

It varies from show to show. Some shows I start work on over a year in advance, some I get very late in the process, as for time on stage, usually about 2 weeks to put it all together.

What are the main reasons for using projection/video design in a performance, in your opinion?

It's a new layer of meaning in a piece. Just light lighting and sound having had an enormous evolution in the past 20 years, now it is time for video to have its turn. Theatre is a bastard art form pulling together many different art forms into one. Theatre is about exploring our world, like all art, and it is only natural in that exploration it should pick up new and diverse influences on the way.

Do you feel that the addition of video/projection design can attract a wider audience, an audience that would not normally attend Opera or theatre?

I think it can, but that shouldn't be the only reason, it should be part of production that has the imagination to think beyond traditional theatrical bounds that finds different ways to engage an audience.

Thank you in advance for taking the time to read through my email.

Kind Regards

Lisa Kelly, MA Motion Graphics Student

Appendix 1: Email Correspondence

Email Correspondence with Sven Ortel of Mesmer, Boston

Hi Lisa

Yes, sorry, I received them.

Answers below - I'm in technical rehearsals and got a bit snowed under.

Here is a little bit of blurb about how I work, but everybody works a little bit differently: <http://www.svenortel.com/index.php?page=about--projection%20design>

About Projection Design

It is concerned with the creation and integration of film, motion graphics and video technology, such as cameras, projectors, LED walls or monitors into the fields of theatre, opera, dance, fashion shows, concerts and other live events.

The process of storyboarding, acquiring, manipulating, editing and creating the imagery is very diverse and differs from project to project. It is therefore useful to have a credit for it. I got used to calling it "video design" and theatres in the UK embraced that credit. In North America "Projection Design" is more common, but neither title really fully describes what I do.

Projection Design is an older title, which used to be applied to individuals or companies that realize or design different forms of slide projections. This commonly required the strategic placement of projectors and the skillful pre-distortion of the slides to compensate for unusual projection angles, which were dictated by the architecture of the buildings the projections were going to be employed in.

With the advancements in computer, projector and display technology which went hand in hand with the way communication changed and has transformed our everyday life the term "projection designer" has lost some of it's descriptive power.

I approach a design as a combination of content or imagery and the way that imagery is delivered or displayed. I believe that this is essential to the success of design: For example, even for a single image to be visible, bright and crisp to the satisfaction of the audience, creative team and producers, it may be necessary to employ a multitude of computers, projectors and control equipment. I like to be the person that chooses these components because they directly effect the resulting projections.

As a projection designer I need to know how to choose the tools that help me realize my and the creative team's vision.

In my opinion the process of designing the system that delivers the imagery with the use of modern display technologies is only a successor of the older slide projection process, which is why I still call it "Projection Design".

It is common for sound or lighting designers to choose their tools or design their "system", but that is not always the case for video designers. The reason for that lies partly in the fact that a lot of "video designers" have not necessarily a theatre background, but come from other fields such as film making, post production or graphic design. In those fields only the content or the imagery is produced as part of the job.

To highlight the fact that there is another important creative component necessary to the successful realization of a video design I have additionally used the credit "projection design" in the past. However with the United Scenic Artist's Union Local 829 embracing the "Projection Design" as its youngest membership category in 2007 I have started to drop the video design credit again. I think as my profession has matured one credit suffices. It is common for me to collaborate directly with directors and/or set designers on the ideas and requirements for a design and production.

A note on the common complaint about two-dimensional quality of projection in theatre: Projections are essentially light, which means they are only two-dimensional when their light is reflected back from a dense surface. It is entirely possible to project through multiple surfaces that have varying degrees of translucency and the result is everything but 2 dimensional. I frequently project on performers and into an open space. Or three-dimensional objects. Whether projection is two-dimensional or not is therefore a design decision.

A brief historical note: I often read about how "video" or "digital projection" is the latest fad in contemporary theatre. However the first example of projections being used in theatre I know of is from the 1920s. The German Director Erwin Piscator used movie projectors frequently to enhance his productions. Josef Svoboda's applications are also astounding, but in the 1950s.

Questions & Answers: Sevn Ortel

- The use of PowerPoint for the projections was a problem. The cursor was on show and clicking video to play was not smooth. I need to research a cost effective method to successfully project my motion graphics, ensuring transitions and timing is smooth. Have you any recommendations?

Media not running smooth is down to a couple of factors:

Codec that you use (lookup codec's). QuickTime or windows media is just a wrapper for media files that can be of a wide variety of formats.

Different codec's are optimised for particular processors, operating systems or purposes (streaming, DVD authoring, broadcast, iPod, etc.)

Power of the computer (processor and graphics card)

Hard drive speed and type.

The bottom line is that you have to have an optimized computer depending on what you expect it to perform.

I recommend you look into software designed to be used to play video in a live environment.

Q-lab is pretty good and cheap, if basic

<http://figure53.com/qlab/>

Isadora is versatile, a bit convoluted, but cheap

<http://www.troikatronix.com/isadora.html>

Then you quickly are looking at dedicated media servers (which are expensive)

Watch out

Hipotyser

Catalyst

Pandora's box

I think you will find q-lab to solve most of the problems you encountered, provided your computer is newish.

**Will the Motion Designer (projection designer) be responsible for playing the projections during the show? Or is this handed over to a technician?
Will the projection designer, test and set up the projections?**

The people/ jobs positions I work with call themselves:

Animators, compositors or motion graphics artists: they make the artwork under director of a designer or art director

Projectionists: they make the displays and projectors work right, line-up focus, etc

Video or av technicians: they make the video infra structure work

Media server techs: they make media servers work

Projection programmers: they program the projections using propriety software or lighting consoles

Video or projection designer: they design the imagery and the way it is projected/ delivered.

One person can do more than one of these jobs. I have certainly done small projects ere I did everything, but with the increasing size of projects the jobs get more and more split up.

I manually clicked the slides to appear - using the script, the music, and the actor's movement as prompts. What is the standard method for timing projected video and animation within a theater production on a budget compared to large production. Is it normally Manual?

There is playback software that can be triggered by sound or lighting.

There is not a straight answer, because every production is different.

Generally speaking once the show is programmed I try to have it triggered by lighting or lx, because a lot of my cues go with either of the two anyway and this way all stays synced.

That happens on large and small productions, because it's just practical. However there needs to be enough time to make sure all the triggers work as desired (say a week of previews). If there is not enough time I insist on an operator. Whether that person is I or another person does not matter, but if there is not enough time the projections and they are important to the show they need a dedicated operator.

Lighting triggers most commercial shows that have projections eventually.

However I have an associate who together with me makes changes to imagery, an assistant who keeps track of cueing (lx and projection) and a projection programmer

- Also time management was an issue for the entire play - which lead me to amend and render video files, just a few hours from the play beginning.

This was due to the director not being aware of the time needed to make video changes? Have you any advise on this matter? Is this the nature of live design?

You got that right. That's the nature of live design. Everything changes until the last minute because it's an organic process with a number of collaborators. The important thing to do is to be clear to the director and designers about how long certain changes will take to implement and to judge whether the requested change will jeopardize anything that has already been achieved

- For Example your work for "The Woman in White" - used 8 projectors that were set up in conjunction with Digital Antics and XL Video.

How much programming will a projection designer be involved in or is this passed to the programmer? If passed to the programmer, do they control the system during the live performance?

What would the general schedule be for a live performance? From design to run through? Run through to live show? How much time does give to design? And how much time would you give to rehearsals and amendments?

The projection designer in my case does not program, the programmer controls the system during the show, yes.

On a commercial show I usually need 8 weeks to design and make the imagery. It's personal, because everybody works differently, but I make most things from scratch at a very high standard and that takes time.

Then we usually have 10 days to get the projection system up and running ready fro programming and dry-tech.

Dry tech is usually 3-5 days just stepping through the show and programming a skeleton of cues without cast

Then 7-10 days with the cast, teching the show

2 dress rehearsals

4 weeks of preview

Appendix 1 – Advice on Developed Designs

Hi Sven,

I'm Lisa Kelly an MA Student in Donegal, Ireland. I had been emailing you later this year for advice for my Master's paper on Live design. Your advice has been a great addition to my research, thanks. If it's possible, could I ask for further advice? If you could look and my designs and advise, it would be greatly appreciated and of great help for my research paper. The motion graphics have been designed to work within the Play "Artaud" which is about Antonin Artaud.

My design can be seen at:

<http://lisakellydesign.wordpress.com/category/main-project-development/>

ECT Song 2 - Is to work with the ECT Machine prop. Artaud receives this treatment in an asylum in France in the 1930's.

Mexican Scene Full - This scenery is to depict Mexico and the festival "The Day of the Dead". The scene is a hallucination, which gets darker as Artaud is taken the Mexican drug Peyote.

If you could advise on:

Whether you think this design would work well projected onto a simple stage set (Bed and 3 actors)?

(Play can be seen on this blog page also - designs have been developed since the play)

Thanks

Lisa Kelly

Ortel Reply:

The artwork looks really good. Well done.

Not sure how important that is, but I even be bolder about the personal perspective treat of the clip (pejote dream)- You definitely on the right track with the feathered ellipsoidal mask, but what I mean is this:

I'd push the shape of the imagery even further, just to see what happens. At the moment the shape does not change and the mask is very feathered. Feather is good, I just wonder what would happen if the mask was animated and moved and changed shape very slowly and really went to black around it. Sometimes it good to try an extreme treatment to find out what works (for the audience)

Another important trick is to somehow create a connection between the performer and the imagery. It needs to be clear that he (the performer) is the source and motivator of what we see. That is usually a question of staging and direction, and a transition can help. Young directors do not necessarily come of with that but they do understand it once you explain it. Just off the top of my head- say he gazes onto an object, like a glass of water, that glass of water could appear on the screen. As the performers looks closer into the glass from above, the same can happen to the projected glass (as if it's life captured) and the you can create a transition from reflective, roundish liquid into your clip.

Those kind of transitions are really important to make the content work with live performers.

Re: Set

I think it would, but at least in the video one aspect seems not have gotten as much attention as the imagery: the surface it is shown on.

It reads like a projection screen (in the video) and the question is whether that is a good thing considering the bed reads like a period bed and chair like a period chair - so there is a stylistic clash and and the setting seems incomplete in my opinion. I wonder how the screen could become more like scenery and gel with the chair and bed? It's about liaising with the set designer.

I think it would work better if the screen is more integrated with the rest of the set, but since you establish the rules of the show early on, the audience will accept the screen regardless - it could just be made easier.

I hope this helps.

Best,

Sven

Great advise. Thank you.

For the stage set I was thinking of integrating cloth for the projections. In order to achieve a more organic look and feel. Do you think the use of cloth would suit this stage set and the projections.

Lisa

I think cloth is good, probably texture or painting to fit the color scheme of the rest, but the real (scenic) question is what is that screen when it's not projected on? Is it a wall in his room - if so what would it look like? Would it have wooden panels, some moulding etc... Something simple as a base board at the bottom and a bit of moulding along the top edge would communicate that it is a wall in that room? I can't judge whether it's too specific though. It's just thoughts off the top of my head if it's the main location and it was the back wall of the apartment.

Best,
Sven

I think it boils down to this: the right imagery is just one component of what makes a (good) projection design. There are other important components: the integration into the stage language (that includes the set design) and the relationship it has to the actor reality and the actors. Otherwise you'd be making imagery for a piece of theatre, but in my mind not a projection design. I'm not saying you are not creating a projection design, because I could not remotely judge that but my remarks from earlier were referring in part to the issues above. It will get so much better once you consider these. But you are doing it right. There are a lot of pieces to this job and you have to try put the together to see what's needed and what works. In an odd way those things only become clear when you write or talk about it, so thank you also for your questions .

Best,
Sven

I hope this helps.

Best, Sven

Appendix 1: Email Correspondence

Email Correspondence with Nina Dunn of Something Graphic

Email 1

Hi Nina,

My name is Lisa Kelly and I'm currently studying a MA student in Letterkenny Institute of Technology, Donegal, Ireland. I'm researching the use of Motion Graphics in a theater performance to entertain a modern audience. I'm very interested in your work for live events, from operas, fashion to comedy, all are very innovative and creative.

I have just completed my first role as a Motion designer/projection designer in a performance. This was my first experience of working in the world of theater and I found the work very intense. The play was produced on little or no budget, therefore the Director took on many roles - such as writer/Director/Actor, therefore time management was an issue, as the director did not have time to tie down ideas until a week before the show. The first run through occurred two days before the play. Which only gave me two days to amend video, adjust timings, make cuts and render files again. I would be very grateful if you could take a little time to look at a few of my questions and advise. It would be of great value to my MA project.

Nina: First up, projection in Theatre is NEVER easy. It is always intense (I generally have to take 2-3 days off to sleep following opening a show after the technical rehearsal week). And it is expensive. Over and above that, it can be very clunky and when it goes wrong, it's far more noticeable than lighting going wrong! So there needs to be a good and valid justification for using it under the tough circumstances you find in the Theatre. However, hopefully a few things I say below will help you in your research and if you choose to delve further into this role, to be able to get it right. And it is ever so rewarding when it works well!

I'm now developing my findings based on the problems that occurred;

The use of PowerPoint for the projections was a problem. The cursor was on show and clicking video to play was not smooth. I need to research a cost effective method to successfully project my motion graphics - ensuring transitions and timing is smooth. Have you any recommendations?

I do know large-scale shows that have indeed used PowerPoint and, although it's really too basic a program for most shows, you should research how to get it working properly. *The usual way with Keynote or PowerPoint payout (in presentation scenarios) is to connect a*

laptop via VGA or DVI to the projector and use the connected projector as the 'display' screen and the laptop as the 'work' screen. This enables the output to be seamless and for you to do the entire clicking etc off screen on your own machine. You need to set up your screens so that you have an external display scenario and not have them 'mirroring' the same image.

As for the machine itself, if it's not playing back well, you either need to beef up the power of that machine or learn a bit about encoding video for smooth playback. A .wmv or .MPEG4 is probably what you're after. I spent years doing broadcast design and learning about video and performance and it's a whole area in itself that is constantly evolving. I don't know what your background is, but I suspect someone at your college will be able to help you with this.

The next step up from this set-up would be to use professional but easy-ish cueing software like Q-Lab: <http://figure53.com/qlab/>

I manually clicked the slides to appear - using the script, the music, and the actors movement as prompts.

What is the standard method for timing projected video and animation within a theater production on a budget. Is it normally Manual?

I suspect that your college is not primarily a theatrical college from this question. It sounds like you were approaching cueing correctly but on larger shows; usually someone else has the responsibility of 'calling' the show and giving cues over radio or from the wings to each department. This person is the 'DSM' or deputy stage manager. See: <http://www.britishtheatreinfo.com/otherresources/glossary/glossdf.htm> for more definitions.

Also time management was an issue for the entire play - which lead me to amend and render video files, just a few hours from the play beginning. This was due to the director not being aware of the time needed to make these changes? Have you any advise on this matter?

Time management has always been an issue when using video in Theatre. Video production takes time and amendments are never easy to make quickly enough during rehearsals. A program such as Q-Lab will help you to be able to make simple changes on the fly but the most important starting point is to get buy-in on your creative before it's too late. I use discussion and storyboards (with stills of proposed video overlaid onto the set model) as one method. In addition to this, I make umpteen versions of one cue or file, just in case one isn't reading well / working with timings so make sure you arrive at the Theatre with options. You will always be re-making files as the show requires - flexibility is the key - so make sure you can cater for this with a good machine too. And maybe team up with someone to help you on this front.

If I may say, it doesn't sound like you were helped at all by your director. Theatre is a beautiful collaboration and people should be used for what they do best so he needs to choose what he wants to do / be then delegate other responsibilities to a team he trusts and learn to talk about what he wants with them. Budgets are always tight but it's a shame to spend what little you have on too few people, as the result will suffer. Look for willing learners to share the load...

Will the Motion Designer (projection designer) always is responsible for playing the projections on the night? Or is this handed over to a technician?

Will the projection designer, test and set up the projections?

The way I tend to work is with a programmer / technician (I use catalyst, which is a very complicated system that I wouldn't contemplate programming myself while I also have to have my eyes on stage and on content) but I make it my responsibility to know enough about the systems to be able to not only get the best out of them but also to be able to troubleshoot.

I work alongside my programmer before tech to plan the systems and how to make the content in the most appropriate way then we work together during tech. following this, I hand over to an operator for the run. This can often be a lighting guy as we usually program the video through a lighting desk that talks to the catalyst software that in turn runs the computer(s) playing out the video. On some occasions (and when there is time to set this up) we use a trigger from the lighting desk that can fire our cues as well as theirs so there only needs to be the lighting operator running the show.

I hope I have been able to help. One thing I would say to you if you are thinking of doing more of this is save yourself from pain where you can and ask yourself 'why' the show wants to use video / projection first. If they are looking for a new toy or to save money on set, walk away. If they have a good creative reason to use it, they will be more willing to discuss and understand your process, pay for proper kit and you will have a good result. Again, if you want to be involved in this, get your head firmly around the basics of video - the making, the payout, everything. Then you will be free to create what you want.

Dunn

Email 2 -

➤ Hi Nina,

Thank you for your reply, its of great benefit to my research. I will look into your suggestions further. Your observations are correct, my college is not a theatrical college - so the subject is new to my lectures and myself. I'm a graphic designer up skilling to motion design and my research subject has been inspired from my interest in live events such as theatre and concerts. The script for the play is very creative and holds many creative possibilities for projection design - the script is based on the life of Antonin Artaud. The play itself was a mix of music, drama, comedy, shadow play, dance and projection. It all worked well together, but lacked time to perfect.

➤ I found your details through Google.

Do you know of any projection designers in Ireland? As my research I led towards talented projection designers, but none in Ireland yet.

Thanks again for your time, it much appreciated.

Lisa

Email 2 - Reply

Hello,

Sounds like a very interesting production!

Sadly I don't know of any projection designers based in Ireland. Lots are based in London but generally, we do shows all over so I suggest you try and find someone with a show coming to Ireland and meet up if they are travelling with the show.

If you're interested in seeing the Ballet of Cleopatra I have just opened with the northern Ballet, it's coming to Belfast and Cardiff - neither of which are exactly close to you but just in case.

Cheers,

Nina Dunn

Email 3 – Dunn

Hi Nina,

How are you?

I would just like to ask a further question based on projection design. The director that I worked with on the play 'Artaud', would like to work with me again on another project. The last project was done on a volunteer basis, as it was research for my masters, for this new project I will submit an estimate based on design costs and time. It would be gratefully appreciated if I could ask for a little advice on estimating costs for projection design for a theater play. Considering I have little experience in projection design but 8 years experience in graphic design. If I were providing an estimate for graphics I would charge about £30 - £40 per hour. Motion design takes more development time so I'm unsure of what to charge.

The director needs 4 sets of digital scenery, each depicting a time of day. Each piece will be approx 1 min in length and repeated if necessary. The time scale from initial concept to production is approx. 4 weeks - also do you think this is a realistic time scale.

- > Week 1 - Initial concepts, storyboards, animatics, meetings with Director
- > Week 2 - Concept development & meetings
- > Week 3 - Motion tests & Tech rehearsals
- > Week 4 - Rehearsals

Kind Regards

Lisa Kelly, MA Motion Graphics Student

Email 3 - Reply - Dunn

Hello Lisa,

Great news that you are now about to quote properly for a job!

It sounds like there isn't too much to do (but it depends how complicated the scenery will be) so 4 weeks sounds about right. Charging by hour in Theatre never works, however - and the only people who charge a day rate are technical staff so you'd be wise to keep yourself being seen as being on the 'creative team'.

And when you're charging for this type of job, it's worth having at least two separate categories:

Design fee - meetings, concepts, storyboards

Production fee - the 'make' - whether this is you or a team of people - stock footage / images / shoot / 3d animation etc.

The design fee should be fixed and guaranteed then the Production fee tends to be keyed to the requirements of the show and can expand or contract according to what comes to light in discussions, much as a set designer has a design fee and a workshop fee.

It may be worthwhile trying to find out what the set designer or lighting designer is being paid as the Design fee itself should be similar to this. Your workshop fee could also be comparable to the set designer's fee.

And then you should think of what you'd hope to be paid for the time you'll spend doing the work (assuming that it's you, not you+ team). The meetings and storyboards and production week are likely to take up 2 weeks' worth of days then there would be 2 weeks to make imagery (not necessarily as 1 chunk but maybe in between the meetings with the director etc). I'd aim for £1,000 / week if I were you and see where that sits within their expectations. Of course the venue and duration of the run will define how much your fee can actually be before it causes them to risk making too much of a loss but if it's a professional production, they need to understand what these things cost.

As a global note, even if they don't have as much budget as you'd like to be paid with, it's worth establishing a benchmark of what should be - it doesn't help any of us if designers accept jobs on a regular basis that aren't paid in the right way.

Does that all make sense? Let me know how you get along...Cheers, Nina

Appendix 2

Email Correspondence with Irish Industry

Irish Designer Advice and Feedback:

John Gallagher

On 13 Apr 2011, at 12:08, Lisa Kelly wrote:

Hi John,

My name is Lisa Kelly and I'm currently studying a Motion Graphics MA in Letterkenny Institute of Technology, Donegal. I'm researching the use of Motion Graphics in a theater performance to entertain a modern audience. I'm very interested in video/projection designers in Ireland, as I would like to research the potential of the theatre market for a motion designer. So far my research is mainly based in companies and universities in England and America, but I would also like to research Irish projection designers. I would be very grateful if you could take a little time to look at a few of my questions and advise. It would be of great value to my MA project.

Projection design in theatre has been about since the 1930's, but I'm finding it difficult to find examples in Ireland. Is projection design a less common feature in Irish theatre? (So far only found 6 projection designers on www.irishtheatreonline.com)

Is becoming more popular, but I'd guess the main problem at present is budget

What type of theatre can it been seen in?

Couple of examples is Riverdance and also Mike Scott of the Waterboys recent show "An Appointment with Mr. Yeats" in the Abbey Theatre, Dublin and tour

Do you think there is a good market for projection design in Irish theatre?

Increasing. Budget is the problem in theatre, but certainly a good market in TV and live concert / events work

Your skills are not only projection design and include, for example lighting, therefore would it be more difficult to receive work in Irish theatre if the skill base was only motion design?

Generally comes in under the umbrella of the lighting dept and would be supervised by the lighting designer. However there are some designers who are specialising in this type of work and work with some of the leading lighting designers.

Can the lack of arts funding be a problem to introduce features such as projection design into a theatre piece today?

Definitely!

Do you have any recommendations for a projection designer starting up in Ireland?

Get in contact with as many lighting designers and production designers as you can. Go to see shows and try to get involved

Your opinion on these queries would be greatly appreciated.

Thank you in advance for taking the time to read through my email.

Kind Regards

Lisa Kelly

MA Motion Graphics Student LYIT

Email 1: FROM john@johngallagher.tv

Hi Lisa

Really interesting to hear from you and to hear that you are interested in this. Projection, LED screens and custom content really is an emerging market and proving very popular in TV (which is my main area) but also live concert / event work and increasingly (budgets permitting) in theatre. Motion graphics are used in many TV shows now, often custom content, e.g. X factor, Dancing on Ice and our own All Ireland Talent Show. Standard / stock content was much used initially, then TV graphics editors were used to create content, but we are increasingly finding that it is worth employing designers who specialise in this type of work with custom shaped screens and content.

Although more expensive, high and low resolution LED screens in various configurations, are much more effective than projection, and are becoming both more affordable and commonly used. Something else that is becoming popular is projection on buildings etc. Some people are doing some incredible work in this area and the work of the graphics designer really comes to the fore here. See High Resolution Lighting Ltd website, a good example is:

http://www.highreslighting.com/projects_d.asp?PROJ_ID=227

Peter Canning who owns this company provided and operated screens for us for the All Ireland Talent Show. He is probably the best at this type of work in the country and would be worth contacting. Details on his site.

Other Lighting Designers are:

Andrew Leonard (also television LD)

<http://www.lightingdesign.ie/>

Ciaran Bagnall (theatre LD)

<http://web.mac.com/ciaranbagnall/iWeb/Ciaran%20Bagnall%20lighting%20design/home.html>

Email 1: john@johngallagher.tv

Hi John,

Thank you for your quick replay. The advice is great thanks.

Also thanks for the links, looked at High Res lighting - very impressive outdoor projection work.

This is a link to my blog - <http://lisakellydesign.wordpress.com/category/main-project-development/>

It shows the development of my project so far and clips from the play I worked on.

The play was my first time working within a theatre/live environment, and a lot of problems occurred. For example the HD projector went an hour before the show. Which meant having to use a low quality projector, that never got set up correctly - I would have liked to have seen the projections much larger on the screen (as seen in image on blog - handwriting scene).

The play was a mix of shadow play (Dancers), puppetry (Flower scene), film and motion graphics. I worked on the motion graphics and film.

If you have any advice on the design, it would be greatly appreciated. It's still at early stages regarding motion.

Again thanks for your time.

Lisa

Email 2: Reply

Hi Lisa

Had a quick look at the blog. Looks great! Great to see motion graphics and film so well integrated in to the show.

A couple of practical pieces of advice would be to consider how you project. Back projection in that case would have given you a cleaner image where the actors wouldn't walk through and not have required so much keystoneing. Although I know there may have been reasons why this was not possible. Also what you project onto is important. Something like a roscogrey would have been ideal for this. However, while quality mightn't be the same it is also interesting to experiment with different textures / materials. Bad luck with the projector - all too common a problem I'm afraid. We would normally have backup in the form of a double-banked system and some of the larger projectors have up to four bulbs - so it is not the end of the world if you lose one. You might also want to look at different ways of delivering your graphics - we use systems like Catalyst or Hippotiser which can be driven by lighting desks, timecode or MIDI, etc so that everything is cued exactly. They also allow for manipulation of content - change shape, colour, position, keying etc, as well as taking live inputs - may for example have been interesting to experiment with this for the handwriting scene.

Hippotiser

<http://www.green-hippo.com/>

All in all though, it looks super! Delighted to see someone showing the interest to study this as his or her MA. Keep up the good work - I'm sure you'll get plenty of work in the future.

John

Appendix 2

Email Correspondence - Andy Cummins

Email 1: andycummins66@gmail.com

Hi Lisa,

No problem, I'll be delighted to help you with your project.

Projection design in theatre has been about since the 1930's, but I'm finding it difficult to find examples in Ireland. Is projection design a less common feature in Irish theatre? (So far only found 6 projection designers on www.irishtheatreonline.com)

If Yes – Is there room to introduce more projection design into Irish Theatre.

Would Irish directors be willing to work motion designers, animators and filmmakers more?

If No – What type of theatre can it been seen in?

Projections are quite common in theatre today; a lot of shows I work on will have projection involved to some degree. The more relevant questions are whether projections are necessary for the show and whether they add or distract from proceedings on stage. I would only use it where necessary and to be honest I find that sometimes it is over used and distracts from the show. It entirely depends on the show in question. The short answer is that it must be treated on a case-to-case basis and be discussed with directors and designers. It can be appropriate and necessary, or it can be an easy shortcut for a designer or director to employ.

Irish directors would certainly be willing to work with professionals of this discipline to achieve the best possible results for their shows and in my opinion there is a shortage of expertise in this particular area of theatre design.

Do you think there is a good market for projection design in Irish theatre?

Again I think we have to refer back to the previous answer for guidance here. There is a market as you call it, in so much as some directors will employ it to some effect in a show. I couldn't say for certain whether the market is growing or not as it is only employed on a needs must basis. I know there are not a lot of people who exclusively work on projection for theatre.

Your skills are not only projection design and include, for example lighting, therefore would it be more difficult to receive work in Irish theatre if the skill base was only motion design?

I always recommend to people new to the business that the more skills they have to offer the more likely they are to be kept in employment. I have trained and worked mainly as a lighting designer as this is my primary focus and the discipline that I am most interested in. But I have branched out to other areas in order to be more useful to companies who are always seeking more value and skill sets from employees. To be honest I don't know that there is a huge market for people who only offer motion design for theatre and would certainly say you would have to look for work in TV, the music industry and corporate event industry too. Again, the more areas you are interested in and the more skills you have to call on, the more likely you are to be employed. Keep all your options open.

Can the lack of arts funding be a problem to introduce features such as projection design into a theatre piece today?

The lack of funding is probably the single most issue the theatre industry as a whole is facing at the moment. Not only for projection designers but also for lighting and sound designers, actors, directors and producers. There isn't anyone in Irish theatre not directly affected by this at the moment.

Do you have any recommendations for a projection designer starting up in Ireland?

Be the very best that you can be and strive for the highest professional standards in your art. If the talent is there and the work ethic matches it than the work will come. And like I said, keep all options open instead of concentrating on just theatre. There is a lot of satisfaction to be had in the other arts too and probably more money to be made in music or TV etc. Try to find work placements where ever you can as getting to know people in the industry is probably the best way to find more work.

I don't have a website but if I have attached a couple of photos of a show I designed both lighting and projections for. They are not very clear but it's all I have on this computer.

Anyhow, best of luck with your project and if I can help in any other way let me know.

Andy.

Appendix 3

Interview – Jeff Burke

1. When approaching design for projections, do you need to keep it simple? As I noticed that imagery needed to be of high contrast?

When designing the detail does not have to be simplified. As the projector will pick up the detail and texture – ensuring the contrast is high. Best to approach a project about Artaud will be less precious, don't worry about being pixel perfect as the result should have freedom, to reflect his personality. The subject matter is madness, therefore this gives room for distortion with the projections on the actor, and therefore the change of projector on and off the actor would work – taking on the textures from the graphics. Projecting on the actor would suit the subject matter.

Resolution with projection does not matter.

People are visually sophisticated therefore the audience has the ability to take on more information at a faster pace. Although directors worry that the audience will look at the image and not the actor. As the eye is drawn to the motion. But the audience is visually aware and capable of taking on the fast paced imagery.

Because the motion graphics is competing with the detail of the real on stage, therefore, if it is overly simplified it can look out of context.

The use of extreme is suitable to Artaud – a subtle approach would not suit the script and his extreme personality.

2. There has been a sort of revival in projection design in theatre in the last 15 years. You have been working in this field since 1999. What are the advantages today compared to 1999?

Josef Svoboda worked in theatre up until a few years ago. He is a good source to research

The 60's and 70's video became a big part of performance art.

Look up Wooster Group – earliest use of video in performance during 70's and 80's.

Technology today, gives more scope.

3. What research is being undertaken in participation in theatre today? Example in the UK – Frankenstein – had a cross media platform?

Participation within theatre, where the audience acted as authors. The audience member was encouraged to use a website which gathered information. The information was recorded and logged to build up a profile of the audience member, which was then tied to the physical presence at the theatre. At performance the information gathered was integrated into the play

for example mentioning places the audience were from. Motivation was to increase the emotional experience. The structure of the story changed but the overall arc never changed. But I don't think has to incorporate participation in this way, It all depends on the script and if it lends itself to this interaction with the audience. I am interested in adding information into a theatre piece and there is room for further research in this.

Roger Waters has done something similar, where people emailed through photos of loved ones in war – the photos were then projected during the show. Are you interest in this technique of audience participation?

Yes. It's adding something that the audience members can relate to.

What cuing system to you use for the live performance? Can sensory technology offer automatic cues?

On a budget Q-Lab is a good option, it has the ability to chance scale, rotate, mask and overlay alpha channels, in real time. The ability to make simple adjustments automatically is a most during tech rehearsals.

Touch Designer – Free –, which can be complicated control. Best to keep the set up simple, as its time consuming setting up complicated systems.

Max MSP – Jitter video playback – mixes consoles well, mainly for music. Again complicated with the need to programme.

All the above have the ability to use multiple projectors and mix alpha channels. Ability to mix to rendered files together using masks and overlaid alpha channels. So room to mix with only one projector.

Yes cues can be set up through sensory technology, with lighting and sound. Although the cost can be expensive as a programmers needs to set up the system and be available for tech rehearsals to amends tech hitches which can occur, which can be costly, especially if it is a small production. Simplicity is key sometimes, especially if time is limited, the simple idea of clicking the button on cue has been the most successful.

4. Is technology rejected by some theatre designers or is it gradually becoming the norm?

Not becoming the norm, still a bit to go on the digital media theatre. The cost is a big factor – the cost of hiring a projection designer is not always in the theatre budget, especially small theatre groups. Theatre as an art form can struggle to receive funding. Projection design can be seen more on Broadway were money is available. To learn the skill, working on Broadway – great way to learn.

5. Do you recommended theorists who are researching digital as a tool in theatre?

Article – The Emanicabalied spectator by Raciere.

Theatre designer – Lobrat Letauge, video in performance.

Research the progression of theatre.

6. What new research is undergoing today with digital media and theatre?

The integration of external information. The ability for the audience to contribute and engage, through social media. Community engagement.

7. Do you think theatre as an entertainment competes with media driven entertainment such as television, film and Internet?

Difficult question to answer. It does on a certain level but the entertainment type is very different. Theatre always stood differently within entertainment. They would say there is a demand for live concerts but not for theatre. Theatre v concerts.

On the other hand theatre competes for peoples time. To go to the theatre it requires investment in time and money. An audience member will have to commit to travelling, as theatre is location based, investment in money and time is the challenge theatre faces. Therefore the audience expectations are high. Concerts don't have the same problem, as there is a demand for live music today.

8. A part of my project is about motion graphics working with traditional methods such as shadow puppetry. Have you any advice for this process?

I have never mixed motion graphics with shadow play, but I have mixed it with video. The video acts as a texture to the silhouette, which can work very well.

Have mixed projections with puppetry – projected on cardboard to act as grass.

During your talk you mentioned, “the designer as a performer”. Is the designer's role becoming more accepted role within theatre?

No. Usually the designer will collaborate with the production company; design based on the script and attends rehearsals. By the live performance the designer's work will be completed and rendered. Problem etc would be solved during the tech rehearsals. Therefore the designer can pass the files over and not be present for the live shows. Therefore not acting as a performer during the live performance

A designer is more involved in the actual live performance for concerts and a VJ hold the role of performer, as the design is created live. VJ has a very different role, as the designers are created live.

Appendix 3

Talk – Imagine Create - Jeff Burke

School of theatre, film and television – University of California, Los Angeles

Organised by Northern Ireland Skillnet Media Academy

Talk Imagine Create –Tuesday 29th March – North West Regional College, theatre, Derry.

Live Performance as collaborative digital media research

Opportunity if research in digital media in theatre – for large and small productions.

Process: Relationship between technology and creativity, media, people and the stage.
Research and Production.

Live performance collaboration.

Can digital media encourage innovation in theatre productions?

REMAP: Project in Jeff University to research and experiment with digital media in theatre.

What has been researched?

1. Interactive media in theatre
2. How to engage with the audience
3. Tomorrows experience – what is the future of theatre through digital media – distribution online theatre outside etc. (innovative ideas)
4. Interwoven components – the merge of different elements working together
5. Participatory – today different from 60's – The Internet means it can be personal and specific. Eg. Got audience info through Internet and showed it within a show.
6. Multiscale –
7. Relationship with the space

Why digital media in performance?

To think outside traditional formats of theatre

Provide an exciting and creative approach

Quoted – Mamet and Brooke

Sensory

Why connect body to stage?

Through sensory technology, similar to that used in the Xbox connect and Nintendo's Wii, the body can affect the lighting, sound and video.

Sample:

Macbeth Production:

Sensors attached to the actors prop, which was a staff. Movement of the staff controlled lighting and effect. A swirl of the staff changed the colour of the stage and gave the actor super natural control. Effects such as lighting bolts where also connected to the sensor.

This process changed the performance, as the actor had to work and control the sensor. This work was a collaborative work from the lighting designer and programmer.

Participation

Can the audience change the experience each night – researched 2003?

Can characters be changed each night based on the information gathered from the audience? (Disney were interested in this concept)

Sample:

Information gathered online from the audience through the Internet. When audience member purchased ticket, they were invited online to answer questions. Information was also gathered from their mobile phones on their location (may not be legal today). On the night the story was adjusted based on the audience present, making the play relate to the audience. Actors felt free, based on the idea. It was a dynamic approach, which made them feel connected to the audience.

This concept is still being developed. Twitter and face book can offer further developments today compared to 2003, when project was done.

Video Projections

Can media be created on stage (time to render a problem)

Amendments during rehearsal cannot be done on demand and time is needed to create and render. For example sound design can be edited during rehearsal.

Jeff's solution:

Dr. Mel Shapro (2006)

Created 3D environment using Maya. Using the camera, zooming into sections of the 3D environment, to provide multiple digital scenes.

The Blogger Project (2006) – Large Production

Multi disciplinary collaboration between; cinematographer, architects (3D Environments). Importing multiple rendered files into a 3D environment in Maya. Enabling the move between multiple rendered scenes, in real time. Using the camera, zooming into sections of the 3D environment.

Filmed actors and mapped video in 3D world. Textures added to video.

Actors shoot against green screen, which was only possible to do with pre-recorded rather than live.

Challenges:

The flatness of the projections. (Solution can be floating cloth rather than a rigid screen).

Projection on imperfect surfaces. Projecting on cloth for effects – Jeff tested this on banners, which were controlled by gesture sensors.

Can projection be gentle?

Sample 1– use in production ‘The Reader’ – were the projections use was very subtle

Sample 2 - Three Noh Play (1 simple motion piece for length of the show – 30min)

Graphic flowers – created through a mix of live action and post-production – shoot of flower being crushed. Simple effect that worked well.

Photography shoot – was actor with projection.

Does digital media belong in the theatre of fusion (Puppetry)?

Rhodopi International Theatre Lab – mix puppetry and ballet. Jeff is researching how these traditional methods and researching how digital technology fits into this.

Primer/LEM 2009 – Puppetry techniques mixed with different material (cardboard for grass), which can be projected on.

Designer as Performer?

Not a familiar site in theatre. (Discussed further in interview)

Jeff researched this process, giving the designer full creative control within a live performance. The designer drew on a graphics tablet to map actor’s gestures during the performance. Very different role for a designer.

Experimental Theatre;

Not industry driven. Experimentation is mainly happening within universities. As universities provide the time to find materials, experiment and time for rehearsals.

The nature of the performance experimentation is important and needs to happen more. In order to discover the how best to interleave the digital with the physical.

Examples; Builders Association, The Journey 1969; Josef Svoboda "can the media be emotion on multiple screens" e.g. Their Day 1955

Architecture

Burke's students experimented with pupated architecture (pop up sets). The focus was a pop up stage, which was a platform for motion media.

Can we integrate the pupated set with the human form?

Connection between architecture and theatre. Control of the synesthetic environment, the audience, the space to work with projections. Architects experimented with cloth, mirror and wood in theatre.

Collaboration

Important!!

1. How context drives the nature of technology (risk & time)
2. Technology chooses – depends on nature of rehearsals
3. Time & expertise eg. Lighting, programming
4. Hands on experimentation, real venue, space
5. Interest in new ideas
6. Live performance is challenging, convincing the director regarding the difficulties
7. Terminology & roles – negotiate
8. Fields of possibilities
9. Designers as performers
10. Study the physical space

Experiments

Where are we now?

1. Audience expectations – once projection shown its expected throughout the show. Balance is important.
2. Experimentation - learn what works
3. Collaborations – may have different goals - learn to negotiate
4. Should the performance be subtle
5. Should the technology be acknowledged – eg. Yes. Making it clear that it is interactive. (Brecht)

Audience Questions

Does Media in theatre achieve what can be achieved in film?

Jeff – Open Question

In a way yes, but it does not happen physically. Audiences carry expectations from other media into theatre – this can be seen as positive and an opportunity for theatre to now experiment.

How you worked on External Projections?

3D Mapping – Future

Projection mapping – looking at 3D structure – this is something that I will be looking at in the future.

Focus group after talks by Jeff

Todd McCover MIT Media Lab – technical opera –

In Jeff's opinion the projects are not arts driven, main focus is computer science.

Jeff opinion – arts should be present, it should work with the art form of theatre and opera without detaching from it. Digital media is the future of storytelling in live performance.

Participation;

Ticket had sensory – which tied audience identity from web to the physical identity at the theatre.

Built up profile on audience.

Story didn't change arch of story – structure changed.

Motivation – increase emotional experience

Working with director:

Collaboration easy if working with a visual director.

Need to work with the director to understand the process.

Motion – how does that get integrated with action;

Sometimes the visuals need to be subtle.

The projection needs to work like lighting.

Rehearsals using the space – is important to the practice.

Rear projection used more often – ability to mask out sections of the graphics.

Need to have an ability to adapt and know where shadows are cast.

The designer is creating the environment.

Can project on people and costumes – Sample; **Invisible Coat** – were projections created costumes.

Tech – Organic LED Screens and new textiles can create flexible displays and even costumes.

Material – Halapro – allows the projected image to be transparent. Although it is expensive.

Appendix 4

Christopher Norby – Interview March 8th – 6:00pm – Derry

Composers Feedback

Quest 1:

**As a composer how did you find the process of collaboration with a motion designer?
How can this collaboration be improved?**

Good. The music in theatre is only one part of the overall production. Working with the visual designer, means you have to compose in a different way, as the designer can sometimes tell part of the story better than the music.

Quest 2:

Do you think the motion graphics complicated the production?

No. Not at all. Its an other element of the process and is just as important as the music and acting. Its another skill that needs to be picked up and learnt – and learn how the motion designer works.

Quest 3:

Do you think the motion graphics were successful on the night?

Yes they worked well. And I think they added another dimension to the play. The only problem I found is that we needed more personnel controlling the system, as I was unfamiliar with the process. (Chris controlled the visuals during the 1st few rehearsals – It was a last minute decision that Lisa controlled the visuals) and also more rehearsal time was needed.

Quest 4:

What improvements or changes would you like to see in future productions?

More time. So the motion designer has more time to get an idea of the overall production. I think it's important that the motion designer should be on board at the very beginning of the process – when discussing the script.

Quest 5:

What was the reason behind making the graphics smaller on the screen?

Director's idea, he didn't want it to look as if it is just placed in the space. He wanted the set to avoid having the rectangle shape on the stage. He wanted the visuals to blend seamlessly onto the stage – getting rid of the hard edges, so it is more integrated.

Quest 6:

Do you feel that the motion graphics complemented the performance?

Yes definitely. Every element of a theatre piece should do that. Whatever is being used should affect all other elements – music will affect acting, the visuals should also affect the acting and music. This is an ideal process.

Quest 7:

Do you feel that the motion graphics complemented the narrative?

Yes. Lots of the audience commented on this, saying that the visuals helped the narrative during more abstract areas of the script. The visuals helped make more sense of these abstract parts.

Quest 8:

How do you compare the technique of motion graphics to puppetry techniques?

The live element of puppetry has more chance of going wrong. The puppetry in 'Artaud' was experimental and the team (the dancers and stage manager) controlling it had little experience in this art form. Whereas a motion designer is visually and technically trained, which can make a piece look really impressive.

Also when the motion graphics and shadow puppetry worked together in the Mexico scene, it worked really well. This is something we would like to explore further – combining the two elements.

Quest 9:

As one of the creators of 'Artaud' do you feel that the tech used meant that you lost creative control? And were you happy to leave it in the hands of a motion designer?

I didn't feel as if I lost creativity. I was happy to put this design in to the hands of the motion designer. I would like to see this a bit more. But the time of the production was too hectic for you the motion designer to complete the visual piece to the standard you wanted.

Quest 10:

How would you like to change the collaboration process to ensure full creative output from all the team?

Again having the team together at the beginning of the process to discuss ideas. Ideally concept development would normally take a couple of weeks or even a month. During this time we would work out how each element can be used effectively. It's good to discuss these ideas even before the script is finalised to give ideas on how the script is written.

Quest 11:

What was the benefits of Motion Graphics, in your opinion?

It gave it another dimension. For example the Mexican scene worked really well with the mix of shadow and motion graphics. I think scenes like this can be made into a full piece on its own. Eclectically and interim of narrative it worked really well.

Quest 12:

Would you consider the use of motion graphics again, within theatre or a composition? Why?

Yes, and defiantly composition. As I work mainly with classical concert music and all that there is musicians are sitting and playing. It would be interesting to have an orchestra with visuals such as motion graphics. This is something I have always wanted to try.

Quest 13:

Do you think digital media can encourage innovation in theatre and other live events?

Yes. It's another way of lifting it out of tradition. It's a way of interaction between players with digital media. This is something that is not done very often with classical music. Its something I would like to try.

Quest 14:

When the actor ripped the screen/set, was this intentional, as I wasn't aware of this action and the graphics on the screen then became distorted due to the rip. It made it difficult for the audience to read important text?

Yes it was planned. Because we had no budget, we couldn't do it in rehearsals. And because the schedule was so hectic, it slipped our minds to discuss.

It was intentional that the would rip it down, and the idea being that it showed theatre as a set up – it is a set. It is inspired by Brecht. The idea is to show the mechanics behind the stage, such as the lights.

Lisa: So the error in shown PowerPoint at the end, could also be part of showing the mechanics.

Yes, because some audience members thought this was intentional and Brecht inspired.

Appendix 4

Interview – Paul Moore, Director AnNua

11-04-2011

Quest 1:

**As a director how did you find the process of collaboration with a motion designer?
How can this collaboration be improved?**

I found it interesting. The reason why I am interesting in using a lot of imagery comes from my experience of working in shadow theatre in Asia especially Indonesia. Here I worked with visuals, but only in the form of shadow puppetry. I have also used stills through the use of PowerPoint. But I have no idea what you were doing in terms of the technical side of motion graphics. This was a big learning experience for me. It was very good.

Quest 2:

Do you think the motion graphics complicated the production?

No. I think the puppetry mixed with the Motion graphics within the Mexican scene, worked extremely well. I feel like we hit new ground and very interesting new ground.

Quest 3:

Do you think the motion graphics were successful on the night?

Yes. We hit snags with every element of the production. The pressure in the last week was immense, because I'm used to working on a 4 week basis and 1 week technology rehearsals. But because everyone working on Artaud was working on a voluntary the whole production process slowed down. So we did have technical glitches. But audience members I spoke with enjoyed the show. They could see where we were coming from, even though it wasn't a perfect production?

Quest 4:

What improvements or changes would you like to see in future productions?

A four weeks session with yourself a motion designer, Sylvia the stage manager, who have become very interested in puppetry and Chris who cut and designed the puppets? I think together we could come up with something that's visually very beautiful.

Towards the end of the process in 'Artaud' I had to take on too many roles. Which was too much work. I was designing, building, acting, writing and directing. What I want to do I would like to use this type of digital media in Irish theatre, which means training people, such as yourself, so you can understand how theatre works.

Normally there should be a week of technology rehearsals, we only had two days, and so problems such as the actor interfering with the projections did not get solved before the live performance.

Quest 5:

What was the reason behind making the graphics smaller on the screen?

I get bored with rectangles on stage and projection designers who do not use the light creatively in the three dimensional space. I think within 'Artaud' when we got it right it worked well and it didn't look as if the projections were just placed there.

Lisa: I would like to see the projections bigger on the screen – would you consider this?

I think we could have both. If we had more technical time we could experiment more with the projections, for example; I would like to try projections on small objects on the stage.

Lisa: I think the cells would have worked well large – as they would of acted as a light source as well as visuals. Projecting the cells on the actor would also of worked very well.

Yes we would of like to have used more than one projector. And using PowerPoint was a problem, and as you have researched there is better programs to use, were we can set up multiple projectors.

Quest 6:

Do you feel that the motion graphics complemented the performance?

Yes. In theatre we call this the "mise en scene" the complete picture, and yes it did.

I think it's contextual as well because I don't think its being used in Irish theatre. A typical Irish set usually consists of a room with 3 walls, with the 4th wall open to the audience. I want to move beyond that; motion graphics can be an interesting instead of a static room.

In Australia and Asia, this technology is being used a lot and it is very rare to see a box set on stage there.

Quest 7:

Do you feel that the motion graphics complemented the narrative?

Yes. And it can be used in different ways. Sometimes it was used to tell part of the story and other times it was giving historical background, it also expressed what was going on in the characters mind.

Quest 8:

How do you compare the technique of motion graphics to puppetry techniques?

Skipped.

Quest 9:

As one of the creators of 'Artuad' do you feel that the tech used mean that you lost creative control? And were you happy to leave it in the hands of a motion designer?

More than happy. And the process meant that you showed me elements as went along. (Storyboards, Animatics, Motion tests)

And elements were created that I didn't expect, which is important with collaboration, were everyone comes together and tells the story together.

Lisa: You as a director would normally have full creative control. But the technical aspect of the motion graphics meant that you weren't familiar with graphics process. Did you find this process difficult?

I would love to learn the programs, As AnNua work on an experimental basis, and used the programs to experiment and test would be great.

Lisa: Are you ok with the Motion Designer coming adding there vision to script elements.

Yes as the problem we faced with the overall production – I brought in ideas from outside (Puppetry), which means I need to train the team, which lead to me having to see the idea through. Which is not good as I end up with too much to do. So yes, I am happy with the Motion Designer taking control of the visuals – which would then be may need amended based meetings with technical rehearsals and myself.

Its important to let everyone do there job. Getting a good team behind the production is important. The motion designer would normally have to work with the set designer, lighting designer and costume designer.

Lisa: Which didn't happen in 'Artuad' due to budget restraints. The lighting designer was only available on the night of the show. My projections caused a few problems for his set up.

Quest 10:

How would you like to change the collaboration process to ensure full creative output from all the team?

To pay everyone.

When paying people you have a creative development stage, which is important time with the script. Realistically the motion designer would have the script 6 months in advance. This time would then be used to come up with concepts. (Lisa: During Artaud the script was received approx. 2 months before the show, but the writing changed and only received final script 1 week before production)

The Motion designer would then work with the team for 4 weeks for tech rehearsals.

Lisa: Do you think it's important to get the team together at an early stage to discuss all aspects within the scripts?

Yes. Chris (Composer) and I want to work on a really collaborative way and we can't expect everyone else to work our way, because they aren't getting paid. It's a material problem. No funding is the problem.

Quest 11:

What were the benefits of Motion Graphics, in your opinion?

Lead to new discoveries for me. I'm now interested in directing design. And have the designer on board at a very early stage.

Also, touring – Irish products sell well overseas and if you're touring the cost is transportation and cast. We have a very small cast and everything can be packed into two suitcases. This makes the product attractive and cost effective to festival directors. They buy in products from around the world. So everything we do should be transportable and cheap to transport.

Jonathon Mills, festival director for the Edinburgh festival and the Fringe – made a recent statement that he wants to bring in international products and mix with traditional products. He will look for big shows (expensive) and satellite shows (not mean attraction, low cost but high quality).

Quest 12:

Would you consider the use of motion graphics again, within theatre? Why?

Yes. What I have used up to now has been stills. In another production 'Rain' we used a little film. So I have only begun experimenting with the moving image.

I originally trained as an actor (15years), but began writing and directing in universities. So now I'm trying to mix my skills with other skills such as motion designers. There is an experimental nature to this theatre; the added moving image can add a visually exciting element to the production for the audience. Also the moving image is a great way of storytelling within theatre.

Quest 13:

Do you think digital media can encourage innovation in theatre and other live events?

Yes. Also I think the traditions of theatre can have an effect on this technology.

Quest 14:

Is Artaud still being developed for further productions?

Yes. If we all had a further four weeks to work on 'Artaud', using what we learnt on the night, we could put together a really good show.

Quest 15:

As a motion designer I want to create graphics that work seamlessly with the art of theatre, I don't want them to take away from the performance on stage. Is this difficult to direct all the elements combined?

Yes, I don't want that, I don't want the motion graphics taking away from the performance.

Lisa: I need to ensure that the audience don't just watch the screen and take away from the performance. As a motion designer this is a challenge. I want them to work seamlessly.

It's important that they inform each other and interact with each other. Ideally that's the concept. Gordon Craig – 1920's – wanted a stage that was only visuals – this is not what I want.

I would like to create a new production, with a single actor, a prop and projections. Just something very simple. When it all really comes together – when the actor makes intelligent decision during rehearsals and when the designer can extend this, good sample of the process working fluidly.

Each art form has a tradition and what I like about the process is that we are bringing together different art forms and making them work in a three dimensional space. Which makes it interesting.

Quest 16: The actor sometimes watched the graphics on the screen during the performance. Was this a conscious decision?

This goes back to a Brecht idea. The actor is showing awareness of being in a play. We did this on a few different levels. Yes Brecht has inspired me in this production. We commented on him in the play (song), which is a hint of the inspiration.

I would want to stage designer and motion designer working together during the script development. Where ideas can be conceptualised early. Unfortunately on 'Artaud' we didn't get enough time to experiment. It's a script in motion – where it can always change.

Quest 17:

Because script about Artaud and he envisioned the use of projections before the technology was available. So do you think that it's important to use such technology and visuals when 'Artaud' is the subject? It lends itself to Motion graphics?

Yes. He was ahead of his time in terms of the directions theatre would take. He wanted giant faces and giant puppets (Jet of Blood). We can do this today. He didn't have the technology to do it or the skilled people around him.

The script – The jet of Blood, is very confronting. He constantly wanted to shock through images, moving away from naturalistic theatre. (He theorised – Theatre of Cruelty). He wanted to wake up the audience. I think a rock concert is very close to what Artaud wanted to

achieve in theatre – flashing lights, anarchy, audience participation, no naturalism and music – sound was also very important to him.

Quest 18:

During the ECT scene, I think it need sound effects. It was too quiet. It needed a build up of sound and electricity?

Yes. It should have been a big bang and then a very quiet song by the doctor.

We knew this, so that's why we put in the air raid siren at the end of the scene. Here the sound told a part of the story, it reminded the audience that it is set during the war.

It is also important for you as a motion designer to work with the sound tech to set up the sound. The director again would have a big say in the sound, ensuring that it all works seamlessly, going back to the 'mise en scene' again.

Quest 19:

Any further comments?

We (AnNua) are on the edge of the arts market. Our work is part of high art and not popular art, which is known as Avant Grade theatre. Avant Grade theatre is a small market. Popular theatre would have more money and is designed to please a wider market.

Avant Grade theatre is not well developed in the North of Ireland. We had nearly 200 audience members on the night of the play, which shows potential of this market in the North of Ireland (Derry/Donegal).

Quest 11:

I want to look into moving off the screen. As a graphic designer I enjoy dealing with paper and texture. I now want to look at the possibilities of cloth, for example adding texture with the versatility of the cloth, such as wrinkles, floating effect when hanging?

Yes. I have done this. Yes cloth opens up different possibilities.

Appendix 4

First Meeting AnNua

Interview

Present: Director/Actor Paul Moore and composer Christopher Norby from An Nua Productions, Derry.

Date: Thursday 18th November 2010-11-18

Meeting with Christopher and Paul to discuss using motion graphics in a theatre production. The play in question is called 'Artaud' and is based on the life story of Antonin Artaud (September 4, 1896, in Marseille – March 4, 1948 in Paris), a character well known in the theatre world. The play is based around war times and includes scenes about the time Artaud was institutionalised by Nazi power. The overall theme to the play will be dark comedy accompanied by the composed sound of dark cabaret. My interpretation on dark cabaret would be for example Duke Special. A sound that is dramatic and theatrical. The score for the musical will consist of 8 songs with characters break into song at stages in the production.

Christopher and Paul the creators and driving force behind AnNua, would like to see an identity for this show. An identity which will be carried through branding, promotional material and stage design. They would like this identity to have a 30/40's feel looking at sepia toned or black and white imagery. I suggested injecting colour into pieces also. Colour could be added to signify moods and tones of the music. A more dramatic scene may see the introduction of a colour to captivate the audience and create a mood.

AnNua have been experimenting with the use of shadows and puppetry, Balinese dancing (inspired by Artaud) and actors. But have an ambitious idea of introducing Projection screens in a 3 dimensional stage space. Moore (2010) mentions how it's important to look at a theatre performance as 3 dimensional, making the most of the space available. Norby and Moore (2010) have researched light and shadow in traditional puppetry, for example in ballet. This will feature in 'Artaud' were they would see traditional puppetry mixed with motion graphics.

An Nua want to introduce a modern approach to theatre in Ireland, through natural expression, abstract form, strong characters and animated projections.

At the minute the strong characters will be portrayed through actors. The main characters are Artaud and the Doctor. Both with big personalities. I would like to look at creating animated versions of the characters to use in scenes that can not be done on stage, taking inspiration from The Monkey Opera by Damon Albarn and James Hewitt. An Nua want to take the theatre experience to another level, they feel that this is a new approach and something

that can be “introduced to production throughout the North West and even Ireland” (Moore 2010).

I mentioned to AnNua that I like the handmade look of graphics. They both responded to this positively, as they want to piece to have a natural, handmade approach and would like film to look old and jumpy. Chrispher has also mentioned a style that he likes, a game limbo which consists of a black puppet, with a misty and dark background. My initial design thought when I think dark I refer to the images of Tim Burton. Which I think is a great visual refer for this piece. Characters such as Edward Scissorhands spring to mind when I picture Artaud in an asylum. As Artaud like Johnny Depp was very handsome as a young man. And when Moore (2010) mentioned a scene that he would like to see animated; of skeletons in a graveyard, I initially pictured Tim Burton’s “Nightmare before Christmas”. A style that I very much like.

The play is set to take place in February 2011 in the Waterside Theatre Derry. Although this timing is too early for me to have any finished pieces. But AnNua are willing to use only a small amount of motion graphics for this first production, as a test. As the aim for ‘Artaud’ is to tour in the near future. The February production will be a chance for me to test the audience reaction to the motion design within the theatre production. Giving me a chance to evaluate the practice. Working alongside AnNua for the February production will give me an insight to how the theatre business works and how a motion designer fits into this industry. It will also give me a chance to detect any potential problems that may occur during a live performance. It will be a learning experience myself as a motion designer to work with a theatre director and a composer and how we can work together to create a theatrical experience that will hopefully make people want to go to the theatre. This will also mean looking at the marketing of the Play and letting the public see a glimpse of what to expect from ‘Artaud’.

AnNua also created a play called ‘Rain’ which was staged in Sandinos at first. Because of this night being a success, it then moved to the Waterside Theatre. This play also used projections showing only a little movement. But Moore (2010) now wants to take this further with ‘Artaud’.

Appendix 4

Feedback on Developed Design from Norby of AnNua

Quest 1:

Do you think the development designs would have enhanced the production any further, compared to the visuals used on the night of the play?

Everything looks more polished and has a very definite style. Your design choices in conjunction with the music, script and shadow work would have made for an interesting blend. The play was performed about 2 or 3 months too early in my opinion. Nothing of the play – script, acting, music, visuals – was complete. It's good to see what you would've done had we held off for a while.

Quest 2:

Would the developed design of helped with the narrative further within the Mexican scene and the E.C.T scene?

I really like the ECT design. It reminds me of Dave McKean's artwork for the 'Arkham Asylum' graphic novel which, funny enough, is set in an Asylum. I think your design choices really help to create a sinister and clinical atmosphere to that scene.

In terms of the Mexican scene, it is very different to the shadow projection used on the night, and if used would've led me to make different musical decisions. This scene was very problematic for me musically. I always felt that the music shouldn't try to sound 'Mexican' because the visuals and lyrics did this enough. With your new design, I think the accurate timings of the movements etc would have made it easier to construct the music for the scene. Together they would make for a tighter more synchronized interaction between the elements, which was missing on the night for various reasons. I always felt there needed to be something constant in this scene – everything was too 'improvised'. Your animation could anchor the scene in loads of well needed ways, and would've given me an interesting and clear structure to work with. I prefer to work like that. If we combined some of the shadow elements (as we did by accident in this scene during rehearsals) with this it would look really interesting.

Quest 3:

Any further comments based on the developed designs?

You took your own direction and I like that. I get a sense of a coherent and informed style running throughout. Nice work.

Appendix 4

The Play 'Artaud' – Working Dairy

The Preparation:

With 3 weeks before the play the work became intense, even though, I had already been working on the scenes from January the 25th. The process began with reading the script, and storyboarding ideas based on the script and the directors notes.

The director worked within the theatre when it was free. During this time he built the set and rehearsed with the actors. I visited on a number of occasions to test the graphics on the ACCO projector, although the quality was low on this projector. The director had organised to rent the use of a HD projector for the live event. On each visit I received instructions from director on changes and additional Motion Graphics for scenes.

At this stage I was worried about the extra work and the time to complete the project for the 25th February. I felt that the director was unaware of the time that is needed to design the graphics, download materials, edit, add effects and render. During the process I realised the importance of communicating this information to the director, ensuring they are aware of the time it can take to work on the Motion Graphics. The pieces used in the play are rough cuts that I will develop further based on the research gathered.

Wednesday 16th February

Nine days to the play.

Wednesday was spent shooting video footage of the actors. These videos will be projected during the play. Before shooting I created storyboards of the two scenes I would shoot. Scene one, is a close up of handwriting. This is to be projected when the actor is writing a letter. Scene two is a close up of actors, who are commenting on Artaud, as if they just seen him perform. Both scenes I prepped for, but on the day I had additional material to shoot, which was not planned.

The additional scene, scene three, included two actors in dialogue. Additional time had to be spent to equip the actors with mics. Sound was important for this scene, as it was approximately five minutes of dialogue. The scene was shot a number of times, due technical reasons and the actors missing lines. This scene took up a lot of time, time that was precious at this stage. This scene was not used, as the final shoot faced technical problems, the broadcast camera fused. The other scenes shot could not be used, as the director was not satisfied with the results, as acting mistakes could be noticed. This scene was eventually cut, which resulted in the scene being acted live on stage. The director wanted this seen on the screen originally; therefore the actor's shadows were used instead of projections. The setting up of the broadcast camera proved time consuming and the keying out of green was not as smooth as with the Canon 5D camera or the JVC camera. The overall shoot proved difficult, as the production was not scheduled effectively and time was lost.

Shots used in play:

Handwriting – although shorter than I anticipated.

Heads close up – this was storyboarded to be lips only. But the actors talking looked well, and I thought it looked better when the full expression of the face was shot.

Back Up Projector – ACCO – NOBO – X20-M

Good Projector – Infocus HD Projector

Thursday 17th

Thursday was used to edit footage from shoot. I edited all footage in Final Cut Pro.

The edits of the actor's expressions were put together in a montage, then rendered and imported into After Effects. In After Effects I added 'old time film' effect, with several filters from Magic Bullet. This was to match the video with old film clips of the 1930's. I also added a distort filter, bulge, to create a nightmare feel. I also added a soft focus, as the HD Camera (Canon 5D) I used to shoot gave a look that was too sharp and clean.

Time was also spent downloading old footage of Artaud, which was edited and mixed with the shoot footage. (Films edited – Joan of arc and Napoleon)

On Thursday I also spent time creating silent movie style screens. These screens were important as they held text that helped narrate the story to the audience. Typography was important, as the layout and font type needed to match old 1930's silent movie screens.

Friday 18th

I spent Friday morning rendering files to prepare for a technical run through of the projection at 2:00pm in the theatre with AnNua. At this stage I tried to keep the majority of the work in Final Cut Pro, as the files render faster than After Effects. I placed the movie files into PowerPoint for testing.

I went through all files with AnNua on Friday evening and tested their appearance projected. It was important to get all the files to AnNua at this stage, as they needed to practice with the projections. I received feedback and changes at this stage; I also noticed that a few files needed more contrast added to work better when projected. Also the director needed the Vignette (What is this) enlarged and darken, so that the projection did not sit in a rectangle on the backdrop. The feather of the vignette enabled the edges to bleed into the dark light. At this stage I was worried that this work could not be completed in a week, I had approximately 30 movie files to amend and render. To save time I created a vignette in Photoshop and imported it into PowerPoint to place over the movie files. This was to avoid having to rendering 30 movie files again.

During this meeting the Director at this stage decided to keep the motion graphics smaller on the screen as he was worried it would look like a movie backdrop, something he wanted to stay away from. Although I think the motion graphics looked best when they filled the backdrop. Although, at this stage time was an issue and no run through with the projections had taken place, this was my main concern. The first run through was to take place on Wednesday morning.

Friday 18th – Tuesday 22nd

I found out on Monday that the vignette template, from Photoshop, did not work once placed on the movie, the movie would not play. I sat with the stage manager on Monday night trying to sort this problem, but found no solution. The vignette would need to be added to the movie file and rendered again. At this stage I needed an assistant to help. The Actor Colm, was familiar with Final Cut Pro, he offered to help out. Although, he had many other roles within the play, so I was unsure of the time he could dedicate to the Motion Graphics. Help at this stage was crucial as approx 30 clips had to be amended and re-rendered.

When I was finished with other amendments – e.g. Adjust contrast, I would drop to the stage manager, as she was working on the timing and layout of the PowerPoint file. All still imagery and Motion Graphics was set in PowerPoint.

Wednesday 23rd

Wednesday morning a run through took place with the actors and music only.

I arrived in the evening for the 2nd run through with the projections and shadow play.

Before the run through I tested projections with shadow and lighting. e.g. the harp shadow play mixed with projections. (See Visual Dairy)

Got a quick run through with scripts only, to get my prompts. Prompts from the text, actor's movement, music, dance and shadow.

Wed evening was the first time I seen it all come together and first chance to see the graphics working with music, actors and shadow play. In theatre from 4:00pm until 9:00pm, two rehearsals took place on the stage. After rehearsal I needed to add blanks before and after each slide, to ensure a blank (black screen) until the next prompt.

Thursday 24th

On Thursday I was in the theatre from 2:00pm in the afternoon. Needed time to go over prompts with composer. Rehearsal took place in room upstairs, as the stage was in use for a show. The play was rehearsed three times on Thursday evening. Mistakes were occurring, as PowerPoint only showed black screens, so it was hard to determine whether it was a blank screen or a movie to play. Missed a few cues due to this. Also files were moved to my computer from the stage managers – so files were missing, so the Sex Pistols scene went wrong twice – When it worked the actors got into the moment.

Thursday was a late night; it was 11.30pm before we finished rehearsals.

I left the theatre with a list of changes to be made to the PowerPoint, arrangement and blanks needed fixed. Also the vignettes on all the files were not completed.

I also received changes from the director,

The Day of the Play

Friday 25th

Friday morning was an early morning. I spent the first few hours fixing PowerPoint files – ensuring files playing ok, ensuring blanks in correct places.

Fixed tech errors e.g. Clips exported with green pixels – needed to export again – render. Had to cut actor from nightmare scene and limit the time of the black fade at the beginning and render again.

Needed to edit two separate movies and render.

Had to Photoshop images – feathered edges.

Worked with the Motion Graphics assistant to ensure we had the vignette on all files. We rendered all files and ensured all new files were in correct place in PowerPoint.

Run through was aimed for 12:00am, but our files were not ready until 1:00pm.

The projector then needed positioned, with brightness and sharpness adjusted (Infocus Projector-HD) Once projector was set up, I tested all files. The projector was then covered for tests of shadow play. When the projector was uncovered, problems occurred, an error appeared on the screen 'waiting to capture image'. It seemed to be a connection problem between computer and projector. The video was also appearing with lines. I had a back up computer with the PowerPoint set up, which I moved the projector, but the same problem appeared. It was now 3:00pm and no run through.

The lighting designer suggested that the projector might be overheating. It had been placed on a soft surface, which can cause over heating much quicker. The projector was then switched off and left to cool down. The run through had to go ahead without the projections. I clicked and watched for my prompts as if the projections were taking place, I made notes when needed. I tested the projector a few times during the run through, but the error still appeared.

The projector wasn't the only problem during the run through. The projection position was in the way for the lighting set up and my position caused problems with the stage black outs, a gapping hole could be seen from audience position. This meant I had to move my set up, to a position closer to the front of stage, with little time, as the projector needed my attention. The time was now 6.00pm, two hours to the play.

The lighting designer provided a backup projector, although this projector was not of high quality. I didn't have much time to set up the back up projector, it got put in place, plugged in, connected to my computer and it was time for the run through. The images were looking very dark, so the brightness was adjusted and the image sharpened.

Time was up; the second run through had to begin. Although at this stage there was no time for a full run through. A tops and tail run through took place. The projector set up was wrong during the run through, as the rectangle was clearly seen. The brightness had to be brought down again in order for this to work, meaning that some detail was lost in the video. Especially within the handwriting scene. But the show had to go ahead with this.

The top and tail took approximately thirty minutes at 6.45pm. Just one hour and fifteen minutes until the audience would be making their way into their seats. This gave 30mins before the show to fix the projector.

Time was up...the doors had to be opened and the crowd entered. Relieved that the projections were not pulled at the very last minute, I was now nervous and excited. Whatever happened now, happened; there was no turning back. It was time.

The Play

When the room half filled and people were getting seated, this was my first click. Part of 'Artaud's' film *The Clergyman and the Seashell* played while people entered the room. The composer played live music based on the original film to this scene.

Once the audience were seated, this was the actor's cue to begin and my cue to click onto a blank slide. The play had begun....

I watched the script and my notes carefully for my prompts. My prompts were based on the music's tones, the actor's performance and the script's text. I noted on the script when I was to react, watching carefully and ensuring screens were blank for shadow play and lighting. Shadow puppets were created from front and rear overhead projectors with lithograph, film and glass. Shadow play with harp and dancers took place behind the screen.

Everything was going smoothly. One video was missed, a slow motion clip from 'The Seashell and the Clergyman', although the scene did not suffer, as the actor was the main focus here. Another scene was nearly missed. But I covered the projector with placing a black card over the lens, the composer, escaped from the slideshow, retrieved the file and hit slideshow again to play the clip, I slowly revealed the image by removing the card. A rescued scene with the moon flickering. The actor and moon were placed in position and the actor looked to the moon, while he turned into a dog. The motion graphics was important to this scene; I was relieved that it was rescued with the help of the composer. I do think that the Motion Designer needs an assistant on the night to help. I worked with the composer on the night – although in some cases it would not have been possible for him to help, as he had a lot of work himself, he composed the entire play live and controlled several sound effects.

During a rebellious scene of 'Artaud' going mad, the actor tears the screen/stage backdrop. The script did write, "As he continues, he eventually destroys the wall also" but it was never discussed during the rehearsals I attended and therefore not brought to my attention. This proved to be a major fault for the projections. The screen was torn too much, which meant that the next few slides, that held text to inform audience of the narrative was not legible. If I knew of this action I would have designed the text to work with the tear.

Although, this was only one of my major problems. The end scene was never practised right through with projections. Meaning that I thought that the last slide had text. But the composer prompted me to click to a blank slide, a blank that wasn't there. But due to pressure of the moment, I clicked to reveal, disaster. Pressure made me fumble at the computer, so instead I dashed to projector and replaced the cap – we had a blank screen again for the actors to take their bows.

A slide with "The End" inspired from movies of the 20's & 30's should have been added to the last slide to let the audience know that it was the end of the show. The play did not have an

interval – so a few audience members did mention that they were unsure of when it was heading – one audience mentioned that the PP indicated to them that it was over – so it wasn't all bad. But a slide to indicate the end will be used in future. When the play was over I should have been relieved but the last scene of the PowerPoint screen was disastrous. But I survived the process. As a graphic designer, live design is a new experience.

I was prompted by the composer to step onto the stage and receive applause with the actors, dancers and puppetries. Not an opportunity a designer will experience much. But I missed my cue as the tiny corner I worked in, proved too difficult to get out have and enter the stage. Maybe next time...

The director and composer didn't seem relieved either. They thought a lot of mistakes occurred, not only with the projections, but the actors stumbled slightly, the actors stood in front of the projector a few times, blocking the projection. But I think that the actors pulled it together really well. The composer did a great job. The music was seamless throughout.

On talking with the audience afterwards, I gathered feedback on the play. The audience enjoyed it the play and thought the comedy and music was great. On a critical note some felt that too much was happening and the narrative jumped a little to fast to understand the scene. Maybe simplifying the show a little may help bring out the performance. Ensuring then that the Motion graphics used is used in scenes, for which it is needed. For example the moon sequence, the nightmare scenes – where the actor himself interacts with the projections, watching them as if they are his visions. The ECT machine to magnify the props potential. On feedback the Mexican was enjoyed – this was a mix of Shadow and Motion Graphics. I will now work on scenes further based on feedback on the live performance.

All in all it was a great show, with an ambitious outcome. That worked well, but would of worked better if we had more time. The show was full of drama, great music, comedy mixed with creative shadow and projections. AnNua should be applauded for the efforts to try something different, especially with no budget. The main issue was timing. The director had so many creative ideas, but there wasn't enough time to perfect. Although AnNua see this as stage one of 'Artaud'. They are now applying for arts funding to perfect the project.

Appendix 5

| Timeline (15 sec) | | | | | | | | | | | | |
|-------------------|----|----|----|----|------|------|------|------|------|------|------|------|
| | 00 | 15 | 30 | 45 | 1:00 | 1:15 | 1:30 | 1:45 | 2:00 | 2:30 | 3:45 | 4:00 |
| Que | | | | | | | | | | | | |
| Stage Action | | | | | | | | | | | | |
| Music | | | | | | | | | | | | |
| Script | | | | | | | | | | | | |
| Costume | | | | | | | | | | | | |
| Lighting | | | | | | | | | | | | |
| Shadow Play | | | | | | | | | | | | |
| Puppetry | | | | | | | | | | | | |
| Props | | | | | | | | | | | | |
| Sound Design | | | | | | | | | | | | |
| Motion Graphics | | | | | | | | | | | | |
| MG - Colour | | | | | | | | | | | | |

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Nam June Paik, Merce by Merce by Paik (1978). Collection of New Art Trust (NAT)

Picture 10

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