

https://dspace.org/

The use of new media and interactive media in South-African contemporary dance: the work of Athena Mazarakis

Foli, Jessica Phililе Mawuiena

2013-06-06
http://hdl.handle.net/10539/12767

Downloaded from a DSpace repository. https://dspace.org/

The Use of New Media and Interactive
South African Contemporary Dance: The
Athena Mazarakis

Jessica Philile Mawuiena Foli

A Research Report submitted in partial fulfillment of
requirements for the degree of Master of Digital Arts
(In the field of Interactive Media)

Abstract

The aim of this research thesis is examination two selected dance pieces as case studies, focusing the use particular technological elements employed in the respective performances. This exploration will be undertaken through the use of the terms cross-media, interactive media and performance.

This research will examine the considered fusion between media and interactive media within the context of contemporary dance. Particular attention will be paid to the manner in which technologic such as projection and projection surface as well as various kind media technologies employed and whether they further develop and enhance the meaning and intention of the performance.

The collaborative process will also be addressed wit This includes the collaboration between the choreographer as and the well as collaboration between the two mediums choreographic and the technology. This will be done in order to address the question the various and respective technological and choreographic order to achieve a state of equilibrium within the performance as whole so that one is not overshadowed by the other?

Declaration

I declare that this Research Report is my own unaided work. It is submitted in partial fulfillment of the requirements for the degree of Master of Digital Arts (In the field of Interactive Media) at the University of the Witwatersrand, Johannesburg. It has not been submitted before for any degree or examination in any other university.

30 October 2012

Jessica Philile Mawuiena Foli Date

Acknowledgements

I would like to thank Athena Mbaezat, Jeremie Crane, Tegan Bristow and Naomi van Niekerk who kindly gave of their time for the interviews.

I would also like to thank my parents for their tireless support throughout my degree.

I would also like to thank Professor Gary Minkley, Professor Gary Minkley, who was a lecturer at Rhodes for leading me to key articles for this research.

My thanks also to my supervisor Tegan Bristow for her guidance and timely feedback.

Table of Contents

Abstract 2
Declaration 3
Acknowledgements 4
Table of Contents 5
List of Figures 7
Introduction 10
Chapter One 17
Introduction: 17
1.1 New Media 20
1.1.1 Early Developments: New Media in Performance 21
1.1.2 New Media Developments in the United States 26
1.1.3 New Media in South African Dance: 36
1.1.4 New Media, Collaboration and the Collaborative Pro 43
Conclusion 46
1.2 Interactive Media 47
1.2.1 The Development of User Friendly Interactive Media Technologi 54
1.2.2 Collaboration 56
1.2.3 Collaboration and the Performance Environment 60
1.2.4 Interactive Media in South African Dance 64
Conclusion 68
Case Studies: Chapters Two and Three 69
Chapter Two 70
Case Study One: Coming To 70
Coming To: Overview and Description 70
Interactive Elements: Intention in Relation to Content 74
Collaboration and the Collaborative Process in Coming To 85
Challenges Faced in the Creation of Interactive Media 91
Concluding Points: 94
Chapter Three 96
Case Study Two: Fiwoke 96

Smoke and Mirrors as a Precedent to Flicker 98
Flicker Overview and Brief Description 101
New Media Elements: In Relation to Intention and Content 105
Mobility of the Projector: In Relation to Content and Proj 112
Collaborative Process: The Creative Process in Flicker 121
Challenges Experienced working with New Media in the Cr
Flicker 126
Concluding Points: 130
Conclusion: Closing Remarks and Recommendations 131
Works Cited 135
Appendices 142
Appendix A 143
Interview Transcript: Athena Mazarakis 143
Subject: Smoke and Mirrors 143
Appendix B 153
Interview Transcript: Athena Mazarakis 153
Subject: Flicker 153
Appendix C 165
Interview Transcript: Peter Jenkinson 165
Subject: Flicker 165
Appendix D 173
Interview Transcript: Gerard Bester 173
Subject: Flicker 173
Appendix E 181
Interview Transcript: Athena Mazarakis 181
Subject: Coming To 181
Appendix F 194
Interview Transcript: Tegan Bristow 194
Subject: Coming To 194
Interview Transcript: Naomi van Niekerk 206
Subject: Coming To 206

List of Figures

Fig. 1. Set design by Traugott Erwin Piscator's We're Alive 1927. Photo Credit Unknown.

Source: Giesekam, Greg. Staging the Screen: The Use of Film a in Theatre. Hampshire: Palgrave Macmillan, 2

Fig. 2. Dumb Type, 1996. Photo Credit: Emmanuel Valette.

Source: Valette, Emmanuel. Dumb Type. Spin Idemic. 1996. Web. 18 Aug. 2012.

Fig. 3. ONCE Group, Inter-Action, 1966. Photo Credit: Peter Moore.

Source: Kirby, Michael. Films in New Theatre. Tulane Dr Review 11. 1(1966). 56. Web. 26 Aug.

Fig. 4. Robert Whitman, Shower, 1964. Photo Credit: Howard Agliesti.

Source: Agliesti, Howard. Robert Rauschenberg Collection. Museau d Art Contemporain Centre de Documentation. Web. 17 July 2012.

Fig. 5. Written in, 1998. Photo Credit Unknown.

Source: Ginslov, Jeanette. Written in. JG Works: Stage. 1998. W 10 Dec. 2011.

Fig. 6. Zondi, Mlu. Spot, 2009. Photo Credit: Stivi Stamm. Interview with Jeanette Ginslov.

Source: Zondi, Mlu. Interview by Jeanette Ginslov. M Interview with Mlu Zondi. 2010. Web 10 December 2011.

Fig. 7. Nelisiwe Xaba. Uncles and Angels, 2012. Photo Credit: John Hogg.

Source: de Swardt, Mervis. Uncles and Angels at Dance Umbrella Artslink. Web. 2012. Web. 18 August 2012.

Fig. 7. Nelisiwe Xaba, Dancers: Umbrella, 2012. Photo Credit: Mack Magane.

Source: Allen, Lindsey. Umbrella Dance: From Chorus Line to Chorus Magazine. 30 Jan. 2012. Web. 18 Aug. 2012.

Fig. 8. Troika Ranch, Revolution. Photo Credit: Author Unknown.

Source: Krastev, Kristin. Human. 30 Nov. 2007. Web. 18 Aug. 2012.

Fig. 9. Bill T. Jones, Ghostcatching, 1999. Photo credit: Author Unknown.

Source: OpenEnded. After Ghostcatching. 2010. Web. 18 Aug. 2012.

Fig. 10. Janette Gilsdorf, Ecstasy, 2010. Photo Credit: Author Unknown

Source: Stern, Nathaniel. Elicit and Emit. Accessed. Nathaniel Stern. 2001. Web. 10 Oct. 2011.

Fig. 11. Athena Mazarakis, Tango, June 2007. Photo Credit: Christo Doherty.

Source: Doherty, Christo. Athena Mazarakis: Tango. Flickr. 29 Jun. Nov. 2001. Web. 29 Feb. 2012.

Fig. 12. Athena Mazarakis, Tango, June 2007. Photo Credit: Christo Doherty.

Source: Doherty, Christo. Athena Mazarakis: Tango. Flickr. 29 Jun. Nov. 2001. Web. 29 Feb. 2012.

Fig. 13. Athena Mazarakis, Tango, June 2007. Photo Credit: Christo Doherty.

Source: Doherty, Christo. Athena Mazarakis: Tango. Flickr. 29 Jun. Nov. 2001. Web. 29 Feb. 2012.

Fig. 14. Craig McTricks, Sep. 2012. Photo Credit: Christo Doherty

Source: Doherty, Christo. New Physical Theatre with Athena Mazarakis, Craig Morris and Andrew Buckland. 21 Sep. 2011. Web. 29 Feb. 2012.

Fig. 1.5. Craig Morris, Sep. 2012. Photo Credit: Christo Doherty.

Source: Doherty, Christo. New Physical Theatre with Athena Mazarakis, Craig Morris and Andrew Buckland. 21 Sep. 2011. Web. 29 Feb. 2012.

Fig. 1.6. Athena Mazarakis, Sep. 2012. Photo Credit: Christo Doherty

Source: Doherty, Christo. New Physical Theatre with Athena Mazarakis, Craig Morris and Andrew Buckland. 21 Sep. 2011. Web. 29 Feb. 2012.

Introduction

Within the context of South African contemporary dance, this research is considered to be one of the first forms of interactive media specifically, the manner in which these technol forms manifest themselves within a contemporary dance w research into the collaborative process as the manner in which collaborative approaches shape and inform the development of a performance work.

This research argues for a collaborative process in which bo technology as well as choreography are given equal attention, both media are sustainable for each other throughout the developmental process.

Through examination of two examples of the work of Mazaras (works which will be considered as case studies) To (2007) and Thick (2011), this paper argues for a developmental which conceptual[1] thread through all the elements of the con dance work from the preparation up to performance, so that the technology and the choreography are seamlessly in and coh order to guard against the technology becoming what Seaford (2004) superficial digital icing .

[1] Within the context of this research, the conceptual thread is the choreographic or gestural language; the set and costume design working in tandem with the technological as

This research calls for a symbiotic relationship between the collaborators learn from one another and develop new ways of opposed to a relationship in which one merely dictates what the technologist should do. Negotiating this kind of collaboration process, which requires patience and constant dialogue between choreographer and technological artist.

In terms of the implementation of new media in dance performance, this research focuses on the use of projection surfaces as well as manner in which projection surface is used. observation of dance performance works, it is that come to many works which make use of new media are pre-occupied with the use of back projection. By back projection I refer to the projection takes place on a flat surface behind the dancers. The dancers perform in front of the projection, as opposed to light of this observation this research calls for the use of projection surfaces that deviates from the commonly used flat back projection surface. Attention needs to be paid to the relationship between the dancer and the projection. This could potentially be achieved through the integrated collaboration favoured, for example, in and by this research

The interactive component of this paper seeks to uncover and illustrate the potential this particular medium holds for contemporary dance works within the context of South Africa in contemporary dance because it is a medium which is very rarely used. The mechanics and outlining both new media as well as interactive media are explained in greater detail in Chapter One.

This research is of interest to me because of my personal background in dance. Thanks to this background I have not only been involved in a number of productions based on or involving interactive media, but I have also been involved in productions in which the use of new media had not been carefully considered. From my experience of the works I have observed, there is often a relationship between the dancers onstage and the projected imagery that is less than optimal. In the works in which I have been involved, performers only came into contact with the projected image at the final dress rehearsal when the actual image was projected onto the performer, and were thus greatly affected by the projection. The effect on the performer, as well as the audience, was that it would be hard to tell any difference to the work had the projection not been used. This is essentially due to the fact that no relationship has been established and maintained between the performers and the projected image. As performers, the interaction with the projected image is viewed largely from the perspective of the projected image as a discrete entity and not as an integral component of the work.

This research is significant within the particular context of South African dance because only a few examples of works which adequately use new and interactive media can be found in this case, which refers to the capacity of the media to become some part of the content and enhance its development rather than simply remaining an element in the background. Within the context of dance in South Africa it appears that there are merely a few choreographers, if any, who have the knowledge and skills required to program interactive media elements at both a technical and a practical level. I will be working in collaboration with choreographers who are both technologically and artistically skilled.

The report will be structured in the following manner. Chapter One provides a brief historical overview of developments in new and interactive media, using selected examples from both dance as well as dance. The characteristics and mechanics of these forms

(historical developments within international context) in order to establish a theoretical framework for the discussion. Examples are employed because it had become clear during the course of this research that extensive discourse surrounding interactivity, new media exists within an international discourse surrounding interactive performance has yet to be widely developed in a South African context particularly within the context of dance. Furthermore, a chronological documentation of the use of these mediums established in a South African dance context. However there are some examples of South African contemporary dance works that made use of new media and significantly of works that have made use of interactive elements. Chapter One explores examples of works of South African dance which were considered relevant to of this study.

The objective of Chapter One is to establish the differences between new and interactive media. This is important for those who operate under different mechanisms, creating different possibilities for the generation of meaning. This ultimately affects the desired reading of a work as well as the audience's expectation of a form of work. By unpacking the difference between the two forms this paper hopes to expose where the potential for innovation and new methods of thinking lies. This is exemplified through the examination of case studies, which are used in order to highlight the kind of approach to the collaborative process as well as the seamless integration between technology and choreography recommended by this study. The aim of this research is not to establish a list of properties which would guarantee success, but rather to uncover the manner in which technological and choreographic processes inform one another through the element of collaboration, suggesting how the considered approach to integrating these elements into work case studies.

The case studies in examined research are works by choreographer/performer, Athena Mazarakis. The first case study, To examines interactive media as well as elements used to d performer's interaction with the perf The second case study, Flick, considers the use of new media particularly projection and projection su Through examination of these case studies, techniques employed in the respective works are considered in order establish the process involved in creating these works, as well as process involved in creating other works which similarly u

These case studies form Chapters Two and Three of thi respectively. They analysis of Cunning (2007) make use of video documentation of the live performance. Athena Mazarakis thes Body of Knowledge: Interrogating Physical Intelligence an memory into motion. Cunning. The discussion and analysis of Flick (2011) is based on the live performance which I viewed. For both these case studies the collaborative team involv the work was interviewed. Following Interviews were conducted with Athena Mazarakis as choreographer/performer as well as with the designer, Nathaniel Nikles. Nikles has interactive artist Tegan Br Gerard Bett, the director of Flick, was interviewed about Mazarakis for her role as one-of-the-creators of this work. Jeremy was interviewed for her role as Flick's lighting designer. These interviews were conducted in order to uncover the particular thought processes used in and met the creation of the two works.

Within the questions for their interviews the following themes were addressed:

- The reason behind the artist's choice of new or intera media.
- The technological choices and the creative journey to t movement.
- The development of the collaboration between various corresponding technological aspects.
- The advantages and challenges of each medi
- Collaboration and the creative process.

These case studies were selected because the manne creative team approached the collaborative process is illustrative o integrated approach between technology and choreography research. The case studies further insight into the manner in which collaborative process aids in extending and pushing the b form (the technological and the choreographic). These bo limitations of technological form and the choreographic limit physical body. Negotiating one's way between seemingly different mediums and trying to find the middle ground betwee its own difficulties. Theatre namely, choreographic difficulties which are based in a history of immediacy and physical conta technological difficulties which although programmed by a human b remain a-living machine able to exhibit a certain level of response explained in greater detail later in this chapter.

An analysis and discussion of the case studies covers and reveals the manner in which choreographic aesthetics work with the new and interactive. The relationship between technological components, such as elements of new and i

choreographic components, such as structure and aesthet
examine. The function of these is seen as studies understanding
and in-depth examination of the creative collaborative process itse
Furthermore, it is intended to provide insight into this process for ind
interested in undertaking projects involving choreography and techno

This research serves as an attempt at locating the
between the technological and performance components. In this study
to determine the value or significance of collaboration[2] in the
collaborative process and whether a cohesive relationship exists
the two forms. Through examination of case studies, this research
investigates the nature of the relationship between the two mediums
as well as the relationship between the collaborators. In
uncover the extent to which a collaborator could possess and exerc
shape the direction of the work. Mazarakis' style of work
has been actively evolving and shifting over time. Is this progression
therefore, whether the collaborators end up creating the same kind of
addition, how are they able to free themselves from their already
established working process in order to grow and evolve?

The research concludes by providing a summary of the research
findings and the relevant closing points. Recommendations based on
findings gathered from the conclusion of the studies are also included as
part of the conclusion.

[2] To clarify the use of the terms 'collaboration' and 'collaborative process'. Collaboration refers to
between the choreography and technology. The collaborative process refers to the collaborative pro
between the choreographer and collaborator.

Chapter One

Introduction:

This chapter is divided into two subsections

1.1 New Media

1.2 Interactive Media

The intention of this chapter is to provide an introduction into the characteristics of new and interactive media through the examples. This chapter is structured as a theoretical framework and consequently forms the foundation of this research as it introduces concepts as well as the operational mechanisms required to analyse new and interactive media. These concepts and operational mechanisms will be expanded upon through the analysis and discussion of Mazarakis's work. Due to the brief discussion of the historical examples mentioned in this chapter, a more in-depth examination of these studies in Chapters Two and Three will follow for a greater engagement with the concepts in this chapter.

I have approached the theoretical framework of this chapter by examining historical developments within the fields of new media and interactive media practitioners within the fields of new media. This has been done in order to identify trends and developments within these technologies. By briefly identifying historical developments in the respective fields, this aims to provide insight into the ways in which these technologies are used. Examples will be drawn from an international context, although I will discuss mostly those from the United States, as during the sixties and seventies the most

developments in the conjunction of technology with theatr
performance took place in the United States (Dixon 2007).

Historical developments and examples of specific wo
practitioners are discussed to establish the idea of the mechanism
in the use of new and interactive media. These examples
provide an introduction to the development and working proc
interactive media. The work of selected South African practitioners wh
explored these mediums will also be discussed.

It is important to note that the theoretical readings to
this chapter were themselves the source of the examples
mechanism of new and interactive media. The theoretical
enabled a comprehensive overview of developments in thea
and performance. This chapter decreases the number of e
in the theoretical readings, focusing on those which are r
development of this paper. The readings are also used to
to working with new media in contemporary dance works.
are presented and discussed at length in this chapter.

Given the limited scope of this paper, it is not possible to conduct an
in-depth study of every single development in the field. It is
for this reason only key and influential practitioners relevant t
mediums have been selected for examination.

New and interactive media are discussed separately
an understanding of the two terms as an attempt to avoid
distinguishing one as superior to the other. Both forms have im
are conceptual as well as those which are related to the execution of a work.
New and interactive media allow the performer to engage

in different ways. They both create different kinds of perf
environments, thus influencing the relationship between
choreography and technology. This will be explained in greater detail
throughout this chapter.

1.1 New Media

New media within the context of art makes use of pre-recorded data mostly in the form of video projected on surface.

In contrast to new media based works, interactive media do not use pre-recorded data. Projection in case of interactive media is used to display the effects of the interactivity which is happening in real time. The mechanics of interactive media work require specialized equipment such as computer software, sensors, Arduino, Mac computers and various customized electronics equipment sensors programmed to exhibit visual response of the body. This will be explained in greater detail with interactive media.

The technical components necessary for the new media work to be realized are the projector, the artificial and the video to projection surface. The projector and the use of projection the potential for experimentation within the performance ultimately practitioners in both dance and theatre those whose work relates subject of projection as a choice for experimentation have been selected for this research

As mentioned in the introduction of this chapter, parameters of a research paper it is not possible to chron

practitioner and theorist in the evolution of new media in d[3]
While the two examples of Mazarakis works will be regar
and will be examined in depth, the historical examples ar
provide a brief but comprehensive overview of new media as a
so doing to enable an understanding of the use of this tec
Mazarakis works.

1.1. Early Developments: New Media in Performance

The use of new media in performance dates back to the early
during the 1900s (Dixon, Digital Performance 3). It is important to note th
the developments in the use of new media in dance did n
the genre of dance. Developments and experiments were
arts as a whole, with theatre, film, and visual art forms
early as 1900s and filtered into dance (Dixon, Digital Performance 3).

The initial development of light and film projection o
different surfaces, from architectural backdrops to dancer
choreographer Loïe Fuller's work as early as 1911 (Dixon, Performance
73). Fuller created works that experimented with the projection of
light and film onto fabric. Dixon credits Fuller as the first to
integrate film with performance (Dixon, Digital Performance 3), which
regards as another most significant contribution to innovative approac
to projection surface and scenic elements, particularly
fabrics as a projection surface was characteristic of her work.

[3] For many of the international artists and works discussed in this section, video and image recordings are not easily accessible; descriptions of these examples are therefore based on secondary accounts. It is for this reason that in some instances it was not possible to give a detailed description of the way in wh

instance, Fuller used as a prime example to illustrate other pioneer within the use of projection.

In light of Fuller's experiments with projection surface, o significance is the use of film projected onto a variety of switchbacret and mu half performance during the two Dixon's Digital Performance). Whereas Fuller's concern was experimenting with the aesthetic possibilities and capabilities of projection, Piscator was more interested in music hall projection was used to explore the idea of illusion and Onstage action was combined with projected illusory effects (Dixon, Performance Technology). The early French magician Georges Méliès, for example, performed a juggling act in which he juggled a combination of fil and real objects (Dixon, Digital Performance).

One of the key influences on the use of projection as a medium i theatre during this time was Piscator's experiments with the use of documentary style within performance (Dixon, Digital Performance). Piscator's Hoppla, Wir Leben! (1927) (Hurray, We're Alive) used a multi storied, scaffolding structure, designed by Traub (see fig. 1). This structure consisted of a large central screen, flanked by three projection on which were six rooms, with transparent screens onto which were projected (Dixon, Digital Performance). Alongside this, the onstage action of the actors was interspersed with films. These fi documentary footage from World War I spliced with image character in one onstage scene, where the main character Kurt Thomas imprisoned for a period of eight years, a projection was used to provide a visual history of events that had happened (Giesekam, 2004). The central role and events of Hauptmann's rise to power was juxtaposed with footage of boxing matches, (Giesekam, 2004). Onstage action was directly related to the c

film projection. Piscator introduced the idea of using projection
traditional set items seen in Hoppla Wir Leben! which
onstage action were projected on two rotating cubical screens
Performance). This contributed to the projected image
being used to represent a physical theatre

Fig. Set design by Traugott Müller for Erwin Piscator's Hoppla Wir Leben!
Alive, 1927. Photo Archive Unknown.

The relationship that Piscator created between the o
the film projections is of significance as this aspect directly informed the
development of Wilson's own work. What is particularly interesting to note is
inclusion of media elements in his work as a whole had attracted a
of negative responses accused of focusing too much on the
film aspect rather than on the acting component of his wo
However Piscator dismissed critics and continued with his exp
and theatre techniques he used in his own work continue to be

today. Thresh de his categories for the use of film in theat
48):

1) Didactic: in this instance film is used to enhance t
by providing additional information and facts (this
characteristic of Piscator s work)

2) Dramatic: in this instance film facilitates the developm
onstage action. Film is used in place of a live sce

3) Choric: in this instance the film bears the same fu
the chorus. Similar to the chorus found in Greek tr
role is to contextualize the narrative from both a moral
perspective.

According to Giesekam (47) & Piscator s experiments
use of film in theatre considerably, and anticipated many
practitioners work with video.

Although the development of Piscator s work as in the
genres of cabaret and music hall originate specifically from the field
dance, the influence in the film and video use in theatre
performance is significant as it is particularly relevant in terms of the
manipulation of content and space, and the relationship between
the onstage action and the projected image. This is illustrated through
Piscator s integration of documentary style footage into performance and his
of projection as a scenic device as well as the reference
music hall and the use of the illusory quality of film proje

When early experiments with new media the performan
allure of corporal timing in performance was central in the fact
that it allowed for the introduction. For film and video also actions
allowed for the representation of characters unconscious

such as their dreams, fantasies and backstories. The use of new media elements of video and projection allowed for the juxtaposition between rea fantasy (Giesekam, 2007). In other words, it allowed for/the interplay with time that made it possible for current stage practices to intersect with older/prior, referenced examples.

The trend involving back projection in dance may be attributed use in theatre and straight drama practices. Piscator's work. The use of back projection in his work in dramatic theatre is one of the first theatre is shaped by changing environments and dramatic states. H theatre and dance differ in that dramatic theatre is driven by the movement of the body. In dance, the site at which change occurs is the body. It is for this reason that the ways in which projection is used in dance needs to be reviewed and experimented with. Foster insists this as the principal concern of dance, namely that attention needs to be paid to the relationship between the body and the projection surface. This surface refers to the need for adequately considering the role of collaborat mentioned earlier. The collaborative process with new media is not solely reliant on the appearance of the film in the work. The relationship between the component forms of dancer's body is crucial to the formation of a cohesive relation technological and choreographic is significantly informed by the type of colla relationship between the choreographer and technological arti

Through analysis of case studies of Mazarakis' work, to highlight the possibilities that projection holds as both a med collaborator of sorts during the process, to more than merely being used as a trick or gimmick for showcasing the video elem discussed and developed in Chapter Three.

1.1.2 New Media Developments in the United States

Significant influential developments in the new media art took place in the United States. These new developments were an extension o experiments and developments by practitioners such as F Experiments with new media became more widespread dur and sixties (Sasalter 115).

Abstract experiments with media objects took place most notably in the United States (Pixel Digital 98), which can be attributed to the release of the Sony Corporation's Portapak in 1965. The Portapak was the first model of the portable camera (Salter 1 development made video more accessible to artists, more prevalen which encouraged artists from all fields to begin experime medium (Salter 115). These experiments with video pushed the boundaries of new media as a technological forum for artists from all fields to use video in ways and contexts that had not been seen

The experimentation with new media technological was influenced by early experiments by artists such as Nam June Pa Nam June Paik was influential in the realm of new media experimented with the medium of video by creating works s (1974). This work consists of a Buddha statue gazing at its reflection through a videotaped image on a television set This video reflection was created via a live camera feed t (Nam June Paik). This work addresses the idea of video reflexive medium and as a medium that has the ability to alter time

The development of video by artists such as Nam Jun Paik, had significant influence on the way in which dancers and choreographers worked. The appeal of video was its ability to

capture a specific moment in time, which could be replaye
any time (Salter 1979). In the context of performance, meant
that the action of the live body could be juxtaposed against
which ultimately does the early experimentations of both Pisc
Video allows for the manipulation of time in that sections
rewound and stopped in relation to the movements of the
(Maletic 1987). In relation to the chronological progression of
the manner in which video could be used within performance,
would like to deviate from this chronological history and
choreographer Wim Vandekeybus (touring since 1987) and
to illustrate this point. In this work high energy choreogra
conjunction with projection screens create a relationship betwe
the physical body and the projected image.

Giesekam provides a description of the manner in which projection was
used in this work:

> &striking effects were achieved through using the sc
> underwater scene, into and out of which dancers leap
> precise synchronization between their physical disap
> stage and their appearance swimming underwater.

The use of video in performance became widespread
sixties. The novelty was to merely include video in a work bec
was new. Today, the mere inclusion of new media is not
enough and for this reason the approach to the inclusion of these
choreographic performance needs to change as the novelt
the newness of the form. A relationship needs to be established between
new media, the performers and the choreography that is different

aspects become cohesive. This is illustrated in greater detail throughout the analysis of Mazarakis' work in the case study chapter.

Despite the increase of affordability and availability of video and computer developments such as Photoshop, editing software and programmes remained unaffordable for most consumers during this time (Dixon, Digital Performance, 2007). Editing software only became more affordable during the late 1990's (Dixon, Digital Performance, 2007).

Today, developments in film and editing techniques as well as the increased accessibility of editing software have opened up previously unpossible ways in which video can be manipulated and worked with. Many artists making use of new media rely heavily on editing software in order to create the video component of the work. This can add an additional layer to the relationship between technology and the human body. This is demonstrated, for example, in the work of Dumb Type, a Japanese artistic collective, who focuses on combining aspects of performance and technology. They are known for their innovative approach to the incorporation of their works, (Digital Performance, 2007). One of their works, S/N (1992-96,) combined dance, projection and video to address the themes of mortality, homosexuality and AIDS (Dixon, Digital Performance, 2007). The stage was set up to consist of two tiers, a lower level where the projection occurred and an upper level where the performers danced and moved

Fig. 12 Dumb Type, pH, 1996. Photo Credit: Emmanuel Valette.

The work made use of separate screen projections on th
wall of the performance space. The words MONEY, LIFE
SEX, DEATH were animated on screen, sometimes projec
inserted into images of actors. These subtitles read, Can you s
which one has AIDS? Above the screen projections was a space
performers enacted their agitated movements. Throughout this work the
content of the projections was suspended in the space between
Developments in editing software have incorporate text and
animation in the Dumb Type work continues to produce work today.

Returning to the chronological structure of this section
it is important to mention that social changes occurred during
the sixties marked a break away from traditional means of rep

within the arts as well as movements such as the gay liberation and feminist movement in the United States at this time (Dils and Albright, Performance 89). These were marked by a shift from text driven works to interdisciplinary pieces, in many cases demonstrated by a move away from classical technique driven choreography. The shift away from traditional technique driven works provided the impetus for choreographic practitioners to begin experimenting not only with new vocabulary but also with representations of the physical body (Banes 99).

Experiments were conducted at the Judson Church during the sixties play an important part in the direction and development of as technological forms, particularly within the context of performa Concerts were held at the Judson Church in Washington Square including performers, musicians, artists presented works that combined a number of unconventional elements with (Banes 99 the framework of this research works that made use of vid and projection were held at the Judson Dance Theatre mentioned was here that various experimentations with projection in moving bodies took place (Barrier, Performance Technology). In addition, there was also a movement away from conventional techniqu choreography to choreography incorporating everyday ped[4] (Banes 99).

The work of Trisha Brown, who was a Judson Dance Theatre, is of significance in her treatment of the projector and surface. For her work Homemade (1966), she strapped a projecto her back and danced around, the resulting image which she and darted around the (Barrier, Choreographer). The content of

[4] Everyday actions such as walking, scratching one's head et cetera (Banes

the film projection was of Brown herself. Brown herself experimented wit
functional capabilities of the projector, not only in terms of the images
the projector physically by strapping it to her back. With this
projector is released from its usual stationary position. The significance of the
experimentation with the projector in this work is that it c
of the first instances in which the projector was positioned in this
context of a dance work.

A work by Al Hansen making use of projection also t
Judson Church during this time. In this work performers moved around the
space at different speeds with hand held film projectors, directing p
airplanes and parachutists around the walls and the ceilin
Performance). With this work the confines of the screen were breached
in which the films were projected onto the Airplanes and parachutes
objects traditionally are, in order to create that, the movement
of the body was offset against the parachutists and the
airplane. These movement of the body affected how the proj
images were displayed. This work allows to integrated
relationship between choreography, projection and provides a body content
this research.

Trisha Brown and Al Hansen s work both consider
nature of projection, though they express this in different ways.
a link can be evident between the content and the projected images.
created by the way the projector was manipulated in the s
create moving images, which contributed meaning of both
works. The significance of both these works was that they fo
first experimental attempts with the projected image in relation to the movi
The projection was not confined; instead the projected ima
itself was mobile in the performance space.

The importance of these two works is not that they were the first developments and experimentations that the respective artists were making that had never been seen before. What these two works illustrate is the ways in which projection can be used in order to create meaning through content of the video, as well as through manipulation of the projector itself. This is the kind of relationship between the projector and the projected image that is encouraged by this research, a relationship in which both these elements are used to create meaning related to the content and intention of a dance work.

The sixties saw the formation of collectives and spaces for experimentation in the United States. The aim behind the formation of collectives was greater creative possibilities with wider scope. The fusion of experimental collaborations highlighted artists from different disciplines coming together in order to create a different and often unexpected product. These collaborations will be explained in the discussions that follow.

Valsuka's Kitchen was an artist run initiative that created a space for experimental video at the Mercer Arts Centre in New York during the seventies (Salter 121). Valsuka's Kitchen and Judson Dance Theatre (Banes 16) are similar in that they both provided space for artists and artists to experiment from all disciplines experimented with creating a theater of video and electronic interface between performers and projected image (Salter 121). They provided a space for experimentation in a way that was unconventional. This paper is calling for the introduction of greater experimentation with projection within dance performances that is not limited to mimetic use.

The ONCE Group was a collective that formed around the theatre projects
experimented with the projection surface and the performance space in their work
Interchange (1966). The projection surface was a large film screen
consisted of portions that could slide open and close, simultaneously revealing
(Dixon, Digital Performance, 100). During the performance of this work, the
action of the performers was contrasted with the film projected behind them.
Astaire and Ginger Rogers in Top Hat (1935). As parts of the film played
on the screen, sections of the film screen would open, the performers slid
performers to reveal the live performers enacting a scene from the film
(see fig. 13). In this way the live action of the performer was juxtaposed with
the content of the film. Gene Youngblood (1970), in his book Expanded Cinema, describes the
way the work unfolded as follows:

> While a couple dined by candlelight in one corner of the
> screen, a man read into a microphone from a pornographic novel,
> Story of O, the opposite end of the space, periodically a
> girl walked across a catwalk on the screen and hurled
> custard pies in his face. Meanwhile, a man played a piano
> over all of this Fred and Ginger made their way through 1930
> Hollywood romantic escapism.

This work illustrates the use of the live performing body in
tandem with the shifting projection surface and the content of the
projection.

Fig. 3. ONCE Group, Once Over Inter, 1965. Photo Credit: Peter Mo

Robert Whitman was a key figure in the sixties developments in multimedia happenings, particularly his u Whitman juxtaposed the real with the projected image in his work titled Shower (1965), in which a woman taking a shower onto the separated billowing curtain of a (Dixon, Digital Performance). The projection surface and the projected woman create the illusion of the physical presence of a h 4) Whitman was amongst the artists who utilized the illusor conjunction with the projection surface, to create seeming (Dixon, Digital Performance). This work illustrates the impact that a ne media work can have when the projection surface and video conten carefully considered that they complement one another.

Fig. 4. Robert Whitman, 1964. Photo Credit: Howard Aglies

This section highlighted the necessity of experimentation and development in different ways of using new media. The examples discussed in this section indicate a history of experimentation is crucial to the discovery of new methods of working with new media. They demonstrate the ways in which technology could be used in order to convey meaning within the performance space. Rauschenberg's projection being utilized by Dunn as early practitioners were bold in their exploration of what a new attitude should be in dance by highlighting these selected examples, this research proposes that current dance practitioners can find new ways of experimentation with new media in a similar vein and with the same spirit of discovery demonstrated by the early pioneers. A return to this kind of

experimentation that led to the movement away from large flat b
surfaces being used for projection in contemporary dance works

1.1.3 New Media in South African Dance

In a South African context it appears that the video and
predominant focus of technological engagement that occur within
performance works. This could possibly be attributed to t
accessibility of tools needed to create new media works such as proje
video cameras. Interactive media works, on the other hand
financial demands and require specialized and therefore often expensiv
technology in their creation.

There exists a history of South African dance practitioners
with and explored the element of projection. Some of the South A
choreographers who have created new media works include Jeannette
Ginslov, Jay Pather and Mthuthuzo Collaborative film maker Mark Mocke
van Veuren and dancer/choreographer Nelisiwe Xaba. The
are well-known and visible within South Africa and their work
internationally. It is important to mention that the following observ
the works of the practitioners are based on video footage of the
therefore from a visual perspective rather than the expe
live performance.

Jeannette Ginslov is a choreographer as well as screen[5]
Her early work with projection was titled Wunderlust (1998), which was
performed by the State Theatre. In this work the stage is divided in ha
the area where the projection takes place and secondly th
dancers move. This work projects static and interactive elements

[5] A screendance choreographs and creates dance specifically for film. The end product
a dance film.

together with the six drawings, portray a work that was inspire
farm killing that took place in a town called Bosrus that y

Fig. 5. Written in 1908 Photo Credit: Author Unknown.

The shape that this work took was attributed to the time period which it was produced. This work made use of an overhead projector transparency sheets to create projections that were available today, were not available at the production of this work. This work made use of an overhead projector transparency. The images used

in the projections possessed a narrative quality in that th
elements of the narrative (see fig. 5), while the projectio
of a screen that occupied one half of the stage. Small
include the mention of New Media developments in the United State
such as the work of Pipilotti Rist, as well as the ONCE Group who used p
alongside live performers to offset the content of their projections. Within
early use of projection in South African context

An example of Ginsburg's work is a dance piece
(2005). In this work three people were filmed in a medical theatre as
happy, sad or traumatic event. This was done in front of a
and projected onto a screen behind the performers. While most of the
dancers danced in the space, physical response and interpre
or enactment of what was being projected, with elements of the
reflection on their whiteness

The use of the live feed to magnify the performers
magnifies the telling of a traumatic event. Dual focus is cre
large screen and the performers on the stage. The emphasis appear
be on the content of the stories being told. The scenes are similar in
style to documentary, visually static, the video projection
appears to overpower the live performers. Although back projection was use
this work, the stories told by the performers are magnified by the live ca
feed and the zooming in on the faces of the performers. I

focus was on the content of the live camera feed, and the
alba emoting[6] in terms of the performers sum total impact on the viewers.

The two work examples of instances in which the
the driving force behind the work. For the work Stigma was the
performers recollection of trauma written in Bible verses, Bible words in the
story of a farm murder.

Ginslov has also collaborated with interactive media
Stern. These works, which make extensive use of the camera, will be
discussed in the section Interactive Media.

Choreographer, dancer and 2010 Standard Bank Young
Winner, Mlindi Zondi works with multimedia including video, text
His work titled Red spot (2009) was a performance installation in
was clothed completely in white, including white face m
had written regarding the process of the Zimbabwe authoritarian
leadership was projected onto his body and face area
extending slightly past the area of the body. The projections were created
by the projector itself framed (this body) as
manner in which text was displayed on his body shifted and
time (see fig. 4). At times a section of the text would expand and co
other times the projection would flip over like a page being tu
book. Zondi's body along with the rectangular area aroun
for projection.

[6] Alba emoting refers to a somatic approach pattern of triggering emotion, develop
emoting uses systematic breathing, body language and facial expressions in order to
body (Alba emoting).

Fig. 2. Zondi, Mbuso. 2009. Photo Credit: Still from MoveSteam Interview with Jeanette Ginslov.

The manipulation of the video content also played a
nature of this work. What was interesting about this work
narrative and the attention in the manner in which projected words
interplayed with his moving body. What becomes more int
work is the form of its self-reflection as it takes the form of a choreogra
installation. Zondi's work can be considered to be in dialogue with
conducted at the Judson Church as well as to the work of Nam June Paik. In
an interview conducted with Jeannette Ginslov, in 2009, Zondi explains his reason for
experimenting with new technology in creating the following: The
body has its limits and technology is (Zondi, interview with).

Mocke van Veuren and Nelisiwe Xaba began their col
2006 with They Look at Me and That's All They Want to
compiling the sound production (van Veuren). van Veuren initially

began by composing and formatting the sound for Xaba s
as Black Whip (2008) and Sakhozi says NON to (2009) Xaba as
Brings). Their early work with the duet of a working history
between them as collaborators. Often collaborators maint
relationships and continue to work together as long as th
environment within the collaboration Xaba and van Vreuren
collaborated Undoubtedly on the 2012 Dance Umbrella in
Johannesburg. This work explores the relationship betwee
projected body. van Vreuren was responsible for the technical component
of the work Xaba was responsible for the dance and choreography.
work produced by Xaba and van Vreuren demonstrates a successful
collaboration between technology and choreography.
documentation of this work at the Film and New Media Co
place from 28 August 2011 in Cape Town, Xaba s projected
self acts as performer (see fig. 7.1 and 7.2). She interacts with her
video self, exploring the notions of traditional ritual,
controversial virginity testing.

The use of new media in her work further enhances the the
works which is the politics of the representation of the bl
(Sichel, Moving). The focus is not so much on the projection
on her interaction with herself in order to portray a narrative

One of the reasons why performers and dancers work
technological elements such as video and projection is to
different dimension to their work. Choreographers and
technology led Xaba to perform with a projected version o
Similarly, Xaba s presence activated the technology. This work
as an example of the symbiotic relationship between the c
and technology called for interaction

Fig. 7.1. Nelisiwe Xaba, Umbrella, 2012. Dance Umbrella. Photo Credit: Mack Magane.

Fig 7.2. Nelisiwe Xaba, Umbrella 2012. Dance Umbrella. Photo Credit: John Hogg.

All the works mentioned in this section highlight South African practitioners' utilization of video to create a relationship between the live performer and the projected image in the video. This relationship can either be contrasting or complimentary and be used to highlight the content of a work. The introduction will explain the conceptual thread that runs through the work. Two examples of works by South African choreographers illustrate the use of media when carefully considered, in a local context. These works are examples of the ways in which direct relationships between the projected image and the physical body.

1.1. New Media, Collaboration and the Collaborative Process

The concept of collaboration will be introduced as an approach to the collaborative process will be introduced in this section. This section will provide a brief explanation of what the development entails. This will then be discussed further in the section on Interactive Media. The case studies of Mazarakis, which will be discussed in Chapters Two and Three will be used to expand the notion of the collaborative process and illustrate how the development could be regarded as advantageous in facilitating a simultaneous development of the technological and the choreographic.

Collaboration refers to more than placing individuals with different skills together in a room. In the collaborative process it is also important to bear in mind that the role that technology plays in the shape that a particular work will take. As Povall (A Little Technology) working with technology in dance calls in the creative process "[p]rocesses that dance to the rhythm of technology cannot step to the beat of other drums" (2). Dance works cannot rely on the choreography (the steps) to make up for a lack in the technology.

Pova(llA Little Technfuncthonogy) explains that artforms danc
using technology need to be determined which is shared in th
researchere, it is necessary to add to his statement by arguin
terms of collaboration, the devised approach to working lends itself more to
incorporation of the technological elements.

The difference between a scripted work and a devise
fact that devised work does not have the use of common knowledge
the script to jump start the process (Bicât and Bald With this in min
it is important to note that although no script per se exis
dance, the choreography can be thought of as a physical
script.

In a devised work the overriding concept of the work i
beginning while the manner in which this concept manifests itself
through a process of trial and error improvisation (Bicât and Bald
7). In terms of dance this means that the choreographer may have
idea exploring a concept as a plan or memory for example, the
shape the choreography will take or interpretation of the idea
from the outset. From the start of a pre-determined outcome
members of the collaborative team engage in constant conversat
with each other in order to discover a work that is initiated.
uncertainty is advantageous to the formation of a collabo
between the technology and the choreography to the
choreographer dictating what the technology, the artist shou
devised approach to working allows the technological element to
through the creative process.

The devised approach to work emphasizes collaboration between all people involved in the creative making of the work, namely the director, choreographer, performers, set designer and others (Bicât and Baldwin 6). This approach allows for the input and creativity of the members of the company to influence the direction of the work (Bicât and Baldwin 6).

The devised approach to work creates a space for experimentation in which the ideas and discoveries made become essential to the formation of that work (Bicât and Baldwin 9). This environment of experimentation relates to the aforementioned emerging new media developments in the United States, as the university-to-site the attitude to experimentation demonstrated in the work of artists such as Piscator, Judson Dance Theatre, Merce Cunningham and Robert Whitman approach to collaboration creates a working environment disposed to experimentation. This in turn creates a way of working which is the incorporation of choreography and technology.

The case study of Blast Theory will be analyzed in detail to indicate the pivotal role which the devised process plays in shaping the direction of a work. Blast Theory will also be used to demonstrate the possibilities that devising offers in terms of the creation of new media.

Conclusion

In the South African dance works mentioned, a large fla
behind the performers is what is commonly used as the pr
which mimics the square screen or frame (Stalder, 160). Ba
discussed in these previous examples of using projection
had its origins in the elements of scenic devices in theatre.

Today, in terms of projection surfaces, it is common that
performers position themselves with the projection surface, behind t
thus mimicking the flat use of projection as a scenic device.
context of South African dance, more and more care and attention are
paid to the content and execution of the video in dance w
new media. However, it would seem that little is paid to the
projection surface. The projection surface is taken for
of video content. What is important is to realize projection surface
able to contribute to the performance with which it is related.
such as the size of the projection area, and the kind of surfa
could all be used as elements to potentially enhance the readin
a work and its content as well as evoke particular image
mind of the viewer. This research calls for precisely this
experimentation with projection and the requirements of surface.
research seeks to raise is that attention should not only
of the video, but also to the way it is shown in and on projection
surface.

The potential effect that the use of varying projection sur
have when thoughtfully integrated with the content of a c
illustrated through the case study Flicker

1.2 Interactive Media

This section provides an explanation regarding what constitutes interactive media. The various types of interactivity as cl will be explained in addition to developments by key practitioners with interactivity and performance from an international context. include Merce Cunningham, William Forsythe, Bill T. Jone The OpenEnded Group. South African practitioners who have worked with interactive media will be discussed as well. These choreographers such as Sabbagha, Jeanetta Cole as well as their collaborations with interactive artist Nathaniel Stern. These examples will be pointed in be regarded as case studies and discussed in order to identify trends a developments within this medium and to create a framework use and characteristics of interactive media can be understood. It is also important to understand that there is a vast range of which the accurate tec be used in a number of ways. This section however, addresses a some types of interactive technologies.

According to Bert Penny (The Art and Technology of Interactive Performance, 2004), the various types of interactivity can be classified into the following groups:

1) Interactive Environments: make use of sensors or motion tracking real-time outputs. Real-time outputs mean that the performer's ac as a trigger for particular actions within the environment.

2) Derived Environments: make use of motion information, where from the dancer's bodies is captured as separate data and then re another form such as an animation.

3) Immersive Environments: use virtual reality based and incorporate the by making use of devices that create the illusion of the user moving through particular space.

4) Networked Environments: over long distances through tele[7] telerobotics or online environments. These allow users t interact with work via avatars, remote robots and rem networks

5) Mixed Reality Environments: environments in which both recorded audio or video material are used together with

This research will be focusing on interactive environ environments, networked environments and mixed reality environments.

As mentioned in the section on New Media, the new and interactive media make use of projection however, the manner in which projection is used is respective form. The examples cited illustrate how new media based works make use of pre or film that is projected another surface. With interactive media based w projection is used to display the effects of the interactive tech on the physical body. The input of the physical body is mediated via digital means or computational processes which result terms of digital output. After (Choreography, 1999) the main difference between these two forms of projection is the aspect of time. Interactive media uses projection to display the effects of the technology in real time, while new media uses projection to display pre-recorded video footage in relation to performance

As mentioned in the section on New Media, the increased experimentation and developments between technology an have been evident from the 1960's. The development of collaboration eme

[7] Telepresence, or presence at a distance, is a term used in connection with technology to indicate the presence of a subject being in two places simultaneously (Causey

during this period, particularly the collaboration between
technology. One of the earliest experiments with performa
was entitled 9 Evenings: Theater and Engineering
scientist Billy Klüver and Robert Rauschenberg in 1966 in New York
(Bissinger, Performance Technology). The significance of this event was that
it brought together scientists, engineers and artists such
performers and musicians (Davis, Dixon, 2007).

These experiments with performance and technology
direct relationships between the roles of the performers and the interactive
technology in the form of real-time interactions[8]. Two works from
Evenings made use of choreography and interactive techno
discussed below, these are Variations V and Open Score. Variations V was
a collaboration between David Tudor, Merce Cunningham and John
Cage. For this work computer sonic stage were triggered by
interactions with the technology. The interactive technology
employed in the work form photoelectric cells[9] which were used to
trigger sounds (Variations V). This worked in the following way:
light were shone in the direction of, and shone on the path
between the photoelectric cell and the beam was broken by movemen
the compositions where Cage (Variations V). There were other
sensors around the stage in the form of antennas. When dancers
came into close proximity with these, the compositions were
triggered.

---

[8] Real-time interactions are interactions where the performer's actions on the interactive performance environment can be seen immediately as they occur.

[9] Photoelectric cells are a type of light sensor. They can be programmed to trigger a cer to the presence of light or to darkness (Photoelectric cell).

The technology detected movements in the space, wh
triggered the compositions by Cage, thereby creating an a
dance (Dixon, Digital Performance, 2007). In contrast to new media, one of
key factors related to interactive technologies is the creation of an e
that is directly affected by the actions of the body. This immersion results in
the creation of an interface between the body and the technology (Malloy and
Interview app. 1E3, p. 181).

Robert Rauschenberg's performance piece Open Score is another
example of a work from which made use of interactive media
elements. Open Score took place in a partially darkened space, w
hundred volunteers involved. The basis of this work, which was a
was turned into a game. The gestures made by the dancers
tracked by infrared cameras and projected onto screens.
performance this work included a full size tennis court in
Frank Stella played a tennis match with professional tennis player M
Karanek. The tennis rackets they played with were design
wired so that they emitted sounds as the players played.
controlled the lighting and the video images (Digital
Performance, 2007). In comparison to new media, the use of projec
reflection of the media, as the content that is controlled by the
physical action of the body.

These examples from Nine Evenings show that the mechanism of
interactive technologies as well as the possibilities within
the performance environment. The significance of it
opened up avenues for communication and collaboration b
engineers individuals from both scientific and artistic background

Unpredictability is a characteristic of interactive works. Even though a certain number of digital reactions can be cannot predict with certainty the digital which will occur. Bur ringer addresses this unpredictability in two the way in which bodily movement produces data and the way in which engagemen environment is open to unpredictable (Anto emergent state Choreography 118). The unpredictability in the contiext of inte in the manifestation To of the work is a regard how to use the technology may exist from the perspective s emerge through the development of the in relation to the physical not until the interactive artist, the choreographer and per with one another that a relationship between the body and be developed and es Unpredictability the context of interac media influences the nature of the collaboration between choreography. It is for this reason that this factors must be do in the creation of interactive media based works. There w discussion related to the issue predictability and analysis of the case studies in Chapters Two and Three.

In order to elaborate on the concept of Sunpredictability Rubidge s Work Sensuous Geography (2003) will be used an example For Sensuous Geography a choreographic environment was created in which the viewer was placed in The role of the choreographic installation could be tracking and. The resultant choreography was created by the movements of the participant as they engaged with the work. There were four different scenes which the user could wear a body tracking was used to trigger a different composition (Rubidge 3 The). computer was present in the space shifted and altered the composition in real time at each person entered the space had a diff. Although experimenting during this work it was not possible to determine the result that the viewers

would have. Such new compositions constantly emerged participants' practice and direction. The ways that digital output would be in the form of (Rushkoff 373).

Sensuous Geographies is a system in which the concept unpredictability is made manifest itself. Interactive environments examples are unpredictable because the audience's entry into the various compositions differed each time.

In terms of Bolter's notion of unfreedom (Bolter and Grusin 118) this regard is while interactive technology allows for the extension of possibilities, performers to a certain extent are dep the technology. Interactive technologies have specific parameters under which it can operate (Coniglio 4). The performers have to move in a c direction or within specific parameters in order to trigger from the technology. This was demonstrated in descriptions of Variations V and Open Sky, where the performers were told a specific path in order to trigger the interactive technology. This does not suggest that the interactive technology be viewed as a hindr that performers understand the implications of the technology. The integration of interactive technology into performance cal have a dual focus on the physical body. There is a tension between the choreographic elements and the interactive t in that a balance needs to be reached between activating the the choreographic, and that these aspects work collectively to s content and intention of a work. Given the complexities of integration of choreography and interactive technology, these will be explained in greater detail throughout the examination of the study. Coming. To

Although technology can be programmed to react in particular ways, it is difficult to predict the aspect of unpredictability during the interaction between the interactive technology and the performer. According to choreographic As explained through the theories of Bicât and Baldwin in Media, the process of improvisation in approaching the devising work provides a way of negotiating between these simply parameters because improvisation provides a space for experimentation Richard Povall, in his creative process involving the collaboration choreography and technology as experimental practice (Art Technology), the device approach towards work proposed as an approach to negotiating the parameters. This is oriented towards attention to the fact that approaching works itself to experimentation through the process of improvisation.

The objective of this research is to emphasize the s experimentation as which is crucial to the development of int media based works. Povall further explains that in creating th technology and the choreography need to be developing a in order to enable an ongoing conversation between the two f Technology)

The technological parameters influence and shape th movement, gesture or choreographic language. It is highly possible that the performer who has worked within technological parameters positive results in terms of his/her performance. The dependency of the choreographic on the technological new movement possibilit Evidence of this is in the work of Sita Poppat and Scott Palm authors examine the interactive relationship between the studies. The first refers to the collaborative work between Performance Robotics Research Group and Merce

which took place in December 2003. At the start of the improvisational proces
the dancer was asked to interpret the movement of the ro
embodiment experiment (and Paul Kaiser and Shelly Eshkar, Common Ground, 2003). The range
of movements was limited to those of the robot. The end result o
collaboration was the creation of new movement possibilit
the dancer was also able to extend her movement capabilit
authors, collaboration holds the possibility of producing som
that neither of them could have done alone (Penny, Laurel and Pa
Sprites, 1997.)

Due to the predictability of technology, a close relationship between
the choreographer, performers and the technology has to
interactive artist and the choreographer need to establish
relationship in which an understanding of the mechanisms
collaborative working process is developed.

1.2. The Development of Interactive Media Technologies

The release of MaxMSP during the nineties made software
use easily accessible and Max/MSP user-friendly because it
does not require expertise of computer programming. Max/MSP is a
programming language which allows for the control of audio within
interactive environments by means of symbolically called objects (
Puckette, 1988). This allows for greater manipulations of ele
video in relation to the physical body.

Pioneers in the field of software development are Mark
Coniglio and Dawn Stoppiello of Troika Ranch Dance Company.
What is significant about these collaborations is that they

dancæs well tæschanologiecraIpective; with Stoppielo as a choreographer and Coniglio as the interactive developer. working processes that led to the creation of interactive s MidiDancæmIsadora

Coniglio devMidiDanc1989. This is a wearable hardw sensing system that uses flex sensors which are powered microcomputer worn on the(DixonDigitalPerfor1997) nce This enables signals, based fonxtiomen,degbeesofnt and interp via computer. Tisabdatrigger various outputs such as live sound or(DixonDigital Perfor1997)Troika Ranchesnwtonekd The Chemical Wedding of(2005)nkexpulorestheeideaof between computers and humaMidiDanc,setusiactivate and mutate video project,iDingsita(DPxeorfo2n5e6n5c).

Conig,liinocollaboration wit,lesydpisedoSaftware Isadoirsa a programme fumticarainMaxoIn compatroMax thoughs,adoirsa affordable and-fnicerdlyserfor choreographers du the fact thaevolved over tmaittaBETA testers were choreograp(Dixon,Digital Perfor1997)Troika Ranch s 16[]Revoluti(2005) ulseadotroa control and manipulate graphic projections ,(DDigxtoanl Perfor1997)(seeee fig. 8)

Troika Ranch DanceisCtmplaaytive today. They create which incorporate a wide variety ovfedtiegchanloadgies,terrancging from the manipulationtofthrojesatiefnactive surfaces (Dixon, Digital Perfor1997-1998).

Fig. 8 Troika Ranch [R]evolution 2006 Photo Credit: Author Unknown

Isadora and Max/MSP Programmers continue to be instrumental in the development of interactive media works. The ready-for-purchase software in the Unhatched Series makes this medium more accessible to choreographers as they have extensive tech support enabled choreographers to be actively involved with the technology.

1.2. Collaboration

The process of collaboration is particularly important when making use of interactive media. Choreographers and the performers develop an understanding of and a familiarity with both the interactive technology as well as the conditions under which it can be operated (or played). A Little Technology. Since the technology has parameters as to under which to operate, there are specific path or part of the performance in which the dancers need to move to activate the interactive technology

These parameters, in conjunction with the unpredictable nature of media, make experimentation and improvisation key to the final work.

Similarly, interactive artist needs to be sensitive to the body and its relationship to the performance area. There is a conversation between the choreographic structure and the interactive technology, establishing a relationship between the dancer's body and the performance area. According to Camurri (4):

> While the number of parameters that a performer can might be limited, the range of those manipulations may enough to allow the performer to express her personal stamp on the material.

In light of what was mentioned above, Camurri's statement implies that parameters of the technology should be they do not restrict the performer's ability. The interactive technology should also provide room for the performers to highlights and supports Sawhney's (1.1 New Media experimentation and improvisation being necessary in the using interactive technology.

Technology could also be perceived as a partner with whom the performer is engaged in a process of discovery. Broadhurst technology as an instrument to which the body adapts and relationship between the interactive technology and the choreog

likened to a contact improvisation[10] duet, where the physical body could be thought of as one another and engaging in contact improvisation presents itself and the other party responds, creating a mutually beneficial relationship. This characteristics of contact improvisation provide a choreographer dancer's relationship with the interactive technology. In contact improvisation, it is possible, and indeed, for one to have particular interests generally only through and working with technology is made aware of its possibilities and constraints one's own.

Technology well as parameters enable influence choreographic language. This is relevant to this research and demonstrated in the analysis of the case studies, which will manner in which technology guises the direction of the collaborative process, playing significant role in the way the work emerges (Birringer, Interfacing Choreography).

The quality of the relationship between the technology choreographic needs such that neither one overpowers the other. Richard Povall describes this: "The following should be absorbed in the performance technology, not the gee whiz effects." ("A Little Technology") The collaboration between the respective forms needs to take form of an alliance, where that the integration of the two forms brings strength to the collabo

[10] Contact improvisation is a framework for an improvised duet dance. Since it is investigation of weight, touch, and communication, it is one of the dance forms program (CQ Contact).

Richard Povall stresses the necessity of time within
between choreographic and technological. Time is required for t
to develop, and for the choreographers to become familia
(A Little Technology).

Time also needs to be devoted to the successful integration of these
aspects with the essence of the choreographic work (3)
stresses the importance of providing the performers room to improvise
with interactive systems and technologies. This is necessary because
making use of interactive media in contrast to screen based media
to technical challenges and difficulties such as the structure
venue. For example, it is possible that the placement of the technology m
affected by the shape of the performance venue or the ac
the type of interactive technology being employed may
that rehearsals take place in the performance venue with
technology. Of course, it is also essential that adequate rehearsal
rehearsal time with the technology as a prototype and, ultimately
complete system (Pacquet, A Little Technology).

Time within the collaborative process allows for the
cohesive relationship between the choreographer and the
relationship between the technology and the choreography. F
relationship to develop and flourish, it is important that artists have
to learning, growth and development of the collaborators (Poval
Little Technology).

In section, New Media, it was proposed that approaches devised
to working lends itself to the creation of dance works maki
Reference is made to the process of working because it is

particular creative process. It is used to explore the area that allows for conversation and improvisation between the collabora Baldwin 9). In this way, the concept provided by the director/choreographer provides a starting point and impetus from w the collaborators to work (Baldwin and Bicât 7). Within the process there are no preconceived ideas of what shape the work should take. Rather, development of the work depends on wha and Bicât (9) describe as and changes that occur in rehearsal. It is for this reason that working in a devised way first. However, once the direction of the work has been establi a degree of control in the choreographic tasks can be created (Baldwin a Bicât 9).

1.2.3 Collaboration and the Performance Environment

Interactive technology creates an environment to which body responds. Likewise, technology responds within the body. (After Cohen 1988), views the body as a vessel, which is released through the actions of the body. For choreograph taken and mediated using interactive technologies. Exper the mediation of bodily data. The collaborative work betwee Open Ended Group and early dance practitioners such as Bill T. Jones and Merce Cunningham. These experimentations involved th representation of the body through animated movement, thus creati environment. The effect of the derived movement was such that the movement (data) from the performer's bodies was cap represented onscreen in the form of animated lines that a form. This will be discussed in greater detail below.

The OpenEnded Group is a collective of media artists con
of Paul Kaiser, Marc Downie and Shelley Eshkar. The four
Kaiser began experimenting with computer animation techni
nineties (The OpenEnded Group). They experimented with
representative of the body, Eshkar and Kaiser worked and
collaborated with choreographers William Forsythe
T. Jones and Merce Cunningham. Eshkar and
Kaiser s collaboration with Cunningham in 1999 and Bill T.
Jones Ghostcatching will be discussed in detail below

In Biped and Ghostcatching, sensors were attached to key parts
body and used to trace the momentum of the dancing body, whi
stored on a computer. Extensive experimentation by Kaiser and
Eshkar in order to determine the form that the dancing body should ta
This resulted in a scribbled aesthetic which was characteristic
of these two works (The OpenEnded Group).

In Biped, the digitally mediated bodies of the dancers w
onto a translucent screen which contrasted and enhanced the on
presence of the live dancers (Broadhurst 139).

Ghostcatching represented Jones dancing body using th
aesthetic, which abstracted (see Figure 19) the form. This abstraction was
such a nature that one was able to distinguish the animation as
of the human form. A poem written and recited by Jones formed t
of the work (The OpenEnded Group). Biped, however, broke away into
Ghostcatching was represented solely through the interactive d
technology; he was not present on screen as images. What this
movement of Jones body was represented digitally and p
medium of the technology.

Fig. 29. Bill T. Jones, Gnosis, catch, 1989. Photo credit: Author unknown. Top to Bottom: The transition from the body to the representation of the human form using line.

The two works demonstrate the way that interactive technology could be used to represent the human form. They are examples of the manner in which information from a human body could be represented through the technology.

The unpredictability of the resulting shape that the representation of the physical body would take is created

form which alluded to the human body without depicting the human form. This point is significant because it illustrates not o the technological artists to both the technology and sensitivity to the representation of the human form.

The importance of the collaborations between The Open Ended Group and these practitioners is that they presented new ways for the repr the dancing and performing body. The momentum from the body could be captured, represented in another form.

The Bill T. Jones/Arnie Zane Dance Company was formed with Zane in 1982 to continue work that experimented with inte and digital technology. Forsythe also continues his experim with interactive and digital media demonstrated, for example, since 2006, in collaboration with Ohio State University s Ad for Arts and Design. A program was created to visualize of dance from various (pedestrian, ballet, and S. Dawn, 2012) the dancers' bodies was used to explore new ways of interpreting the structure of the choreographer's body. The dancers' bodies as they moved in the performance were tracked by geologists and arch and re-represented visually. For the geologist interpreted the sh made by the dancers as they moved, and re-presented them as a moving geographical landscape. This closely relates to Birringer's concept of c which is captured from the body and represented in another f collaboration of experts from different disciplines to bring the from the dancers' bodies to be represented in new ways, extended beyond the realm of dance performance. This work points to understanding of danc and the manner in which it is created, to appear unrelated forms such as architecture and geology

A mind shift and a new perspective are needed in what approaching the collaboration between dance and technol that there is an openness to experimenting with this possibilities. illustrated through the example of William Forsythe's wor the bodies of performers was interpreted and represented throu as geology and architecture which would not usually associate dance. It is also important to note that they be view-ed as collaborators and that the relationship between the technological artist, th and performer is one of equality in which each is given equal attention within the collaboration.

1.2.4 Interactive Media in South African Dance

A history of the use of interactive media in South African dance is not as developed as in the United States of America. Experimentation with this form is not as prevalent either, as Europe and the United States have extended to countries such as China, Japan, Germany and Europe.

To date, there are few South African dance practitioners Mazarakis who have worked with interactive technologies in the area of dance. South African artists working in interactive media are Nathaniel Stern, who was trained in New York. He was one of the first people to use of interactive video and media performance in South Africa (Mazarakis, Interview app. 8E1). Stern's first collaborations were with chor PJ Sabbagha and The Forgotten Theatre Company, followed by his work with Jeanette Ginsburg. These South African choreographers u interactive media as some, in interactive media combination with new media.

The analysis of these works was based on written reviews descriptions sourced from Stern's website, which formed the discussions of his collaboration with the Forgotten Angle. For Stern's collaboration with Chinese to access a video exce this work from hewho subtitled me to discuss their collabor aspects of the work in greater detail.

An in-depth interrogation of the possibilities working with interactive technology could be conducted through analysis of Mazarakis's work Coming, Two which makes use of interactive me elements.

Sabbagha and Stern collaborated from 2001 to 2005. collaboration saw the production Double R (2001), There's no Room in this Box (2003) and Petra (2005). Double R (2001) was a work created PJ Sabbagha and The Forgotten Angle Theatre Collabora incorporated animation and interactive video employed by Stern as This was used to explore the subject of approaching death HIV/Aids and the experiences of the protagonist, DJ (Single Circle).

Petra (2005) made use of textured and animated background together with a live dancer. These elements, in combination with the choreography and address used to explore HIV/Aids and its eff relationships, (Mehrabar Multimedia).

No comprehensive description of the work was available and I therefore relied on three reviews which indicated that the tech choreography was sensitive to the movements of the performers

performance space, thus demonstrating the relationship between technological and the choreographic.

Ginslov and Stern collaborated on a work entitled Entwined (2001). This work was an extension of Stern's (2001) work entitled Electronic Quartet. This interactive environment involved a responsive screen text which emerged in response to the presence of a person passing. The text worked according to the pace of the body in movement of the passer-by. The text is actually part of a passage which from a specific person passed by quickly the text moved quickly for deciphered (Stern and Ginslov). This encouraged viewers to enter the space, and in so doing added to the work by creating stuttering text (Stern and Ginslov). This work addresses the notion of unpredictability mentioned earlier in this chapter. The control of this work is located in the fact that conditions of the interaction were by Stern. The unpredictability of the work is in the presence of the viewer as their engagement with the layers varied responses from technology.

Fig. 10. Jeanette Ginslov, Entrance, 2000. Photo Credit: Author Unknown

The collaborative aspect of this work required a trained body to move in the space determined by Ginslov (Steve, Elicit and Enter). The speed pace and nature of Ginslov s movement sequences in which included the text movement (see fig. A10) intriguing aspect of this work was the r which the interactive technology allowed the text; it was almost as if the text was reacting to (Steve, Elicit and Enter) movements En/Trance). A dynamic relationship between the physical body and the interactive nature of the Texits demonstrates the relationship with technology for in this research in which there is interplay between the technology and the choreog

Conclusion

The use of interactive media technology in performanc
a new performance space and which calls for a new approach t
the creative process. Discussion has highlighted
in which the devised approach to working could be used to approach and
navigate the complexities of using interactive media in da
attitude of the choreographer, performers and the designer to be active
one of openness and a willingness to explore in order to fully
this new collaborative which they are aiming to create.

Merely grouping technology and choreography together in
not qualify the work as collaboration. It is crucial that the mediums
are involved in a dialogue with one another in the performa
necessary that there exists a relationship between the technology a
the choreographer rather than either element overpowers the other.
of collaborative relationship will be described in relation
the upcoming chapters.

Case Studies Chapters Two and Three

The case studies will be presented in a chronological order of Mazarakis work with and interaction with technology in order to highlight the development in Mazarakis style of working with technology. This has allowed the process and collaborative relationships to evolve.

Mazarakis exposure to technology in dance to performance and her involvement in Stabat Mater, a production which involved collaborations with interactive artist Nathan Adams (Mazarakis interview app. E p. 1). These works were discussed in Section 2 Interactive Media. It was Mazarakis involvement in these works that sparked his interest in the relationship between media (Mazarakis interview app. E p. 1). Mazarakis first experience of working with interactive technology was in Coming, which is the first case study to be analyzed in this chapter (Mazarakis interview app. E p. 181). Thereafter, Mazarakis created another interactive piece titled Fold (2010), in collaboration with interactive artist Nathan Adams. The third collaborative piece Coming.

The works produced by Mazarakis which made use of new media prior to Flicker (2011), the second case study, Eleven (2010) and Smoke and Mirrors (2011). When dealing with the study of case studies it is important to bear in mind that Flicker is a result of Mazarakis experience in working with new and interactive media. Therefore, Flicker should be seen as a reflection of Mazarakis and development with new media form

Chapter Two

Case Study One: Coming To

This section provides an in-depth examination of Athena Mazara
work entitled *Coming* (2007). This work was selected because it
of interactive media elements. A brief overview will be provided
and description of specific instances of interactive media in
relation to the content of the work and the interactive media
elements. The creative process will be discussed, particularly
with regard to the collaborative process. An examination of this
study will aim to shed light on the process and the manner in
which this has influenced the integration of technology,
choreography and content. This study seeks to examine the
various elements involved within the collaborative process and
the manner in which these influence the relationship between the
technological and the choreographic. The question that this
study seeks to address and answer is related to how a cohesive
relationship is created between these elements.

Coming: Overview and Description

Coming was created as a performance piece for the graduate
practical component of Mazarakis' Degree Master Dance (Athena
Mazarakis, Interview app.). This piece is significant and worth
mentioning because the creative vision of the work was guided by
Mazarakis. Mazarakis collaborated with interactive artist Tegan
Bristow and designer Naomi Cass. The discussions regarding
Coming that follow are based on an analysis of video recordings
of the performance which I viewed. A brief description of the
work will be

as an introduction and in-depth discussion will follow in the section Interactive Elements.

Coming Takes use elements of new and interactive The focus this research will be on the interactive elements the work these are combined with projected texts spoken by Mazarakis.

The work begins on an empty with the image is only the mannequin like figure which embodies the physicality of Mazarakis grandmother. Adjacent to this figure is the projected text the work and explaining that the viewer is about to witness a reconstruction of her grandmother s narrative.

Mazarakis appears on stage and that she is unable to speak However as soon as she begins slapping parts of her body, s bouzouki[11] are triggered, through sound activation. The work continues with excerpts of Mazarakis story and memories, narr movement and spoken text performed by Mazarakis. This enables Mazarakis to express a dialogue between her grandm and her own (Mazarakis, 2012). The work continues to portray the meeting between Mazarakis grandmother and grandfather which represented by a duet between two miniature puppet head Niekerk, Interview 07). The movement of the puppets is cont Mazarakis and through her movements and the puppets meaning Mazarakis movement with the puppets combined wi assisted in the portrayal of the narrative.

[11] A stringed Greek instrument, similar to a mandolin (Mazarakis, 2014).

This continuous section includes each section which uses the motif of mapping. Mapping is a concept that runs throughout the entire piece both thematically and visually. In this section of the piece, Mazarakis maps the journey her grandmother made from Greece to South Africa. Mazarakis maps points on her body through movement that is then extended into projection of a moving map which alludes to distance and time. This motif of mapping continues to Mazarakis' body via motion tracking as she uses her silhouette[12] to map and trace parts of her grandmother's journey to South Africa. Mazarakis' silhouette is then filled with footage from the projection of the moving map.

This continuous section of the work sees Mazarakis reminiscing about qualities of her grandmother, through physical action. Her grandmother's actions and secrets are then explored through the process of Mazarakis kneading bread dough and recalling her grandmother's baking and recipes. The memory is magnified through a link to performing this action.[13] The process of baking is explored though the use of props through Mazarakis' body. The significance of the Greek Orthodox faith remains a component of Greek culture, and Mazarakis explores both cultural and personal memory. The miniature puppet heads, as well as the bread dough, are objects which play a role in the progression of the narrative.

Mazarakis' silhouette then reappears, but this time it is filled with old cine footage of her with her grandmother. This allows the narrative to contain parts of the grandmother's journey. Mazarakis' then

[12] Mazarakis' silhouette was created through a motion tracking device, which displayed the projected real-time effects of this interaction.

[13] A traditional Greek dance, performed at weddings, celebratory events, where dancers form a circle and moving backwards and forwards (Mazarakis, Body Politic, 2010). This dance, also known as the last dance, that the women of Souli danced before flinging themselves off a cliff, avoiding Ottoman enemies, who had slain all the men of the village (Mazarakis, Body Politic, 2010).

physically the performance space with potatoes on the stage from above the stage. The potatoes represent food carried daily by Mazarakis grandmother to (Mazarakis, n.d.) survive (Mazarakis, 1990, p. 5). Mazarakis also uses these potatoes to transform her into the performance space.

Footage of Mazarakis grandmother is projected onto the wall performance space. Mazarakis then inserts herself into this foo her white silhouette, created using motions that mimic her grandmother. This allo revisit a moment in history through her appearance as a w video footage of herself and her grandmother. In this way, Mazarakis tells grandmother's story through the adult self.

The work ends with Mazarakis triggering a combinati images as well as images of her grandmother via a sound act short claps.

The final image is Mazarakis' sole silhouette with proj consisting of comments that conclude the narrative. This Mazarakis' silhouette occupies its own space.

The structure of this work and the progression of the performance space can be with the aim of the use of interactive media elements to enhance narrative. Specific of interactive media in this case include the use of sound, projected texts, mapping, film and the silhouette.

Interactive Elements: Interaction to Content

In dance works that use interactive media, the key focus is
creation of an environment, the way in which the body res
environment as well as the way in which the interactive e
to the body. Interactive environments as defined by Sermon (see
section 2, Interactive Media in Dance) could be categorized
as a work which makes use of derived, interactive and mixed re
environments.

Interactive environments consist of a motion sensing or motion
tracking, in order to trigger pre-set visuals (Bevan, Performance
Technology 1999). This means that the performer's movements trigger
actions or reactions in the interactive environment, often
seen immediately (real-time). The real-time sound activation used at the begi
Coming Provides an example of real-time interaction. Mazarakis star
front of a microphone and claps and slaps his body; the clapping
slapping sounds trigger the sound of a bouzouki. The effect of t
appear as if Mazarakis is making music with his own body (Ma
app. E1 p. 4). Technically this was achieved in a computer pr
Max/MSP using a technique involved frequency analysis (Bristow,
Interview app. F1 p. 197). Bristow assigned each of the sounds
from the slaps on specific body parts to a bouzouki sound (Bristow, the
Interview app. F p. 198).

Physically engaging the body through touch and the
body as a site where information is stored are the concept
of the body holding (Green, after Choreography 1998). Mazarakis
choreographic intention was to explore the relationship b

memory (Mazarakis Body, 81). The sound activations allow the body to communicate through the medium of the interactive technology. The action of hitting the body serves as an introduction to the body carrying and storing information (Mazarakis Body, 83). Throughout this work the interactive technology and the c together and enhance the portrayal of the narrative.

In this work a recurring motif is the mapping of the body to a map (Mazarakis Body, 382.) Mazarakis also uses gesture[14] and movement vocabulary which identifies parts of her body as landmark destinations, story (Mazarakis Body, 83). This continues into a video projection map behind her with Mazarakis s physical body (see fig. 11). The projection of the moving map reflects onto Mazar unifies her body with the projected image. The movement map in conjunction with the movement of Mazarakis body feeling of being on journey. The unification of Mazarakis body with projected image of the map allows Mazarakis grandmother s physical/personal journey which is to be interwoven with Mazarakis journey/story.

All the elements used in order to excavate the grandmother s through the body.

[14] Movement that makes use of everyday gestures, and stylized gestures, to create a new choreogra that differs from movement that is codified in technical steps (Banes 99).

Fig 11. Athena Mazarakis, June 2007. Graphics, June 2007.
Photo credit: Christo Doherty

Mazarakis uses potatoes to map the audience's performance spa
trajectory of a journey (Mazarakis, Interview appendix 1, p.1). The potatoes
are representative of significant events in Mazarakis' life (Mazarakis 2007, p.
118). As each potato is placed on the stage, Bristow records an individual
component as a Flash animation, which corresponds to the potato (Bristow,
Interview appendix 2, p.3). Each potato is represented by a yellow circle in
animation, which appears as each potato is placed in the stage space (see
12).

The animation is complete when all the circles form an image circle.
In the animation, these circles objects in one another's orbits, until
the space is filled with lines. These instances of mapping illus
presence of a visual and conceptual thread which runs through the whole
work. This conceptual theme offers a framework for the content and th
technology as well. The concept of mapping is followed between
the content, choreography and technology and the work is example o
the integrated approach to working with technology which is
research

In terms of the various interactive environments discu
in Chapter One, Coming Together could be categorised as an example
of derived environments. Derived environments use motion capture
capture information from dancers which is then represented in
another form such as an animation (Paradiso, 1999). In Coming Together
In Coming Together, this was achieved through motion tracking by Bris
in order to create Mazarakis' silhouette.

Fig. 12. Athena Mazer parking, June 2007. Photo credit: Christo Doherty

Mazarakis silhouette becomes a message and a metaphor. The silhouette is used in various ways and its significance wi discussions that follow.

Bristow uses the technique of motion capture and motion capture Mazarakis body (Bristow, Interview 1, 2012). This is achieved by means of Max/MSP, which works due to the fact that camera acts as a sensor to feed information about the bo program (Bristow, Interview 1, 2012). This information from the body or dancing Bristow (After Choreography 1) is used to represent Mazarakis silhouette in various ways. The silh create both visual and conceptual connections between Mazarakis silhouette to the video and to the meaning of the word dark. Bristow (2012) links

Bristow then suggests that the white silhouette is embedded into the video footage of Mazarakis and grandmother (fig. 13). This enables Mazarakis to digitally interact wi grandmother as well as events from her childhood. According to Bristow, this was done because it was more of a challenge to map the white silhouette into a historical form, she s not really there an be there but that was about capturing (Bristow, Interview app. F p. 203).

Mazarakis white silhouette provides a strong contra video footage, which further emphasises that Mazarakis is history - inserting herself into an interactive narrative that Mazarakis places herself in her grandmother s historical world back in time through the medium of the interactive techno Mazarakis - view of her story from a different perspective, refl period to interact with her grandmother through the eyes o

It is the interactive technology which enables Mazarakis to re enact the past. Mazarakis body and movement also activate the the space. Mazarakis choreography should not only be held by the technology but actively alters (Mazarakis, Interview app.). Her focus on the excavation of embodied me (Mazarakis, 2008). The interactive technology together with Mazarakis movement vocabulary enables a deeper engagement with h grandmother s story as well as enables a layered reading of this work.

Fig. 13. Athena Mavromatis, Thessaloniki, June 2007. 07.
Photo credit: Christo Doherty.

Coming Take the idea of motion capturing two different way. s These include the use of a webcam - responsive Flash animation of the action of mapping - in - real - time. The interaction of individuals involved in the manner in which shows a Flash animation to represent Mazarakis on stage action of mapping the performance space with th

The webcam used by Bristow to capture Mazarakis silh is used in conjunction with pre - recorded video material from Mazaraki childhood. The pre - recorded audio and visual material also used in this wo of the bouzouki and the video footage from Mazarakis ch In terms of Bullinger s definitions of interactive environments Coming Could therefore also be categorized as an example of reality environments. This is because elements of interactivity as well as derived environments are present in this work and together with live and pre - recorded audio and visual material.

The interactive technology could not have worked wi of Mazarakis body. Similarly, the threads of the work cou expressed had it not been for the presence of the interactive technol created by Bristow. This case study thus illustrates the n between the technology and the choreography and further i in which synergy could be created through the close relationship b choreographer and technology. The interactive system allows Mazarakis to have a mediated version of himself to play with; another - collaborat performer through the technology (Mazarakis, 2012, Interview a

This also demonstrates the kind of approach working with technology called for in research. That is, an approach in which technology is not used merely for the sake of it but rather to be both which

technology and the choreography to enhance the content and action of the work.

Although this section specifically deals with the projected image, interactive environments inherently make use of p display the real time effects of the technology. Therefore, a relationship exists between the live body and the projected image. It is therefore necessary briefly discuss some authors dealing with the subject of the live body in relation to the projected image. Their ideas could be divided into two sections: Coming. The principle examples of these authors and th respective theories are Causey's concept of technology and t theatre, Steve Dixon's (Digital Performance) and his concept of the digital double as well as segments of Grau's Virtual Reality in the Screen (2003).

Causey (17) addresses a few issues to the double, which he describes as the instance in which a live actor [performer] confronts h mediated other through the technologies of reproduction (Coming, 17). The presence of Mazarakis do is essential to the development of the narrative of the work. Mazarakis's double could be viewed as essential to both the con visual development of the work.

Dixon (Digital Performance) elaborates on this and divides concept of the digital double into four categories; the re-projection, the spiritual emanation and the immaterial. Dixon elaborates on these terms by referring extensively to Artaud's The Theatre and its Double as well as writings related to this essay. This essay focuses on his cate of the digital double, using this work regarding the psych

not relevant to the context and is set aside for the purpose of this discussion. The reflection refers to the reflection of the performer being present in the refers to the dark side of a character or a portrayal of their inner Spiritual emanation refers to the portrayal of the spiritual or supernatural such as ghosts, astral beings, out of body experiences and soul projection to name a few. The manipulable mannequin is the idea of the puppet leading to the online avatar, which can be controlled actions of the user. Combining it is possible to identify reflection, the spiritual being manipulable mannequin. The reflection presents itself through the childhood footage of through her silhouette through motion capture technology. silhouette could also be regarded as spiritual emanation because mentioned earlier, the interactive technology allows her silhouette back in time and insert herself back into the childhood footage. Dixon's categories are limiting as they are somewhat subjective interpretation of the various categories which Dixon defines have characteristics, particularly with the last spiritual emanation, and work may not clearly fit into Dixon's categories. Nonetheless, concept of the digital double does provide an entry point of the relationship between the live body and the projected

Greg Giesekam's assessment of the relationship between the live and film within a theatrical context is also compatible with Dixon's In his description of the use of film in theatre, Giesekam (2014) was used for the following reasons: to expand the theatrical temporally, to indicate time passage, to portray subjective experience of the onstage character, to bring the outside world into the world theatre. All of these elements are applicable to the use of Coming. The film allows Mazarakis to interact with her childhood mediated live body with that of film of her childhood self. In the passage of time she is able to communicate with events of another

throughher silhouetted edition, film of the moving map was used
indicate the passage of time. The new footage allow
to recall her memory of her grandmother; her subjective e
intermingled with her current journey. The element of film
is not merely displayed; it is mediated through the interactive
technology.

In light of this discussion of the relationship betwee
the projected image and the area used for projection in main works is
also important, particularly the size of the projection area and i
the physical body. The projection area is such that it d
overpower Mazarakis. This can be seen in the instance when
maps the stage area with potatoes as well as the instance
silhouette in the cine footage of her grandmother. As mentioned
earlier, this aspect of projection is specific to media works. The
size of the projection also plays a role in the representation
the real and the effects of the technology.

Collaboration and Collaborative Process: To

The creative process of Coming employed the devised
methodology of Bicât and Baird, which involves a step-by-step approach to
working involves a step-by-step process is driven by an
concept which develops over time (Bicât and Baird, The 7). In
overall concept of the work was set to uncover the narrative o
Mazarakis' grandmother. It was through experimentation a
the connection between the choreography and the interact
emerged.

Due to the unpredictable nature of the creative process the choreographer, performers and collaborators are part of the process of discovery which leaves the work open to a num

Improvisation was important in the creation and deve Coming out of it allowed for decisions to be made during the rehearsa Prior to the improvisation sessions Mazarakis discussed t the theme of her work and possibilities with Bristow and v improvisation sessions were held with the intent of these were structured differently (Mazarakis, Interview app. E 1 8). The improvisations with van Niekerk were improvisations which the rehearsal space is mapped or scaled according to ob Mazarakis, one starts to look at the relationship objects try to understand what is emerging through (Mazarakis, Interview app. E p 1 8). Commenting on the continued movement motif van Niekerk indicated, I think she would give an idea and I would give an id and then I would also like quickly cut up objects and then experiment and then see how she could use it. Something seve try things (van Niekerk, Interview 2 0 app. G p.

Mazarakis was open and willing to allow possibilities to eme experimentations involved a kind of balance between play and improvisation which also involved Mazarakis giving van Niekerk particular images that she wanted (Mazarakis, Interview app. E 1 8 4). The nature of the relationship between Mazaraki Niekerk was one of constant conversation and improvisation l emergence of creative solutions. This relationship supports the importance of improvisation to the creative process that allowed possibilities to emerge

The collaborative relationship between Mazarakis an
in that Mazarakis was unaware of the possibilities of inte
the ti(Mme.azarakis, Interview 15 Jan. 2014, App. E p.
input has significa(Mntazarakis, Interview 15 Jan. 2014, App. E p.
relationship involved during which Mazarakis would explain the
kind of image was interested in creating would love to play with
idea of making music out of (Mazarakis, Interview 14 Jan. 2014, App. E p.
This ultimately how the sound activation with the sounds of th
came about. Bristow was able to Mazarakis ideas and translate them
the medium of interactive technology. Bristow also create
form of prototypes for Mazarakis to try out, and improvise
Interview app. E p. These prototypes allowed Mazarakis to
simultaneously work with the as she would in her practice
technology. This is an example of kind of experimental approach to
and technology discussed by Richard Povall (Povall, Little Tech); an
approach in which the technology and the elements of the
Collaboration between Mazarakis and Bristow was a learn
of the other. This collaboration allowed them to something different that
neither of them could have (Pcompleted alone, Palmer with
Sprites 4-17).

This experience provided Bristow with insight into the working
environment of performance and allowed Mazarakis to gain ins
into interactive technology and its potential in this collaboration to
collaboration did not only result in a product, it was also a
learning experience for both of them.

The experience allowed Mazarakis to create meaning
the choreographer, theatrically in other ways [by with the
technology (Mazarakis, Interview 19 Jan. 2014, App. E p. Mazarakis

technology became another collaborator, an important
(Mazarakis, Interview 2, app. E p.

It is also worth mentioning that Mazarakis had a kee
interactive technology as a tool, but also allowed it to influence the
development of the work as a whole. This reflects Mazara
technology as collaborator (Mazarakis, Interview 2, app. E p.
describes her experience of working with technology as follows:

> & what s always kind of enlightening is to see how oth
> idea and image that you have and translate it through
> and then to come back to your own medium and then to
> resonates and what kind of relationships are found that that
> constantly pushed my own excavation, my own interrog
> doing by having engage through the (Mazarakis, Interview
> app. pE 191

In Chapter , One needed expressed a new approach in
choreographic work involved with the incorporation of technological
elements. Coming Presents a mutually beneficial collaboration
collaborators able to learn from one, and both discover new
made regarding processes, possibilities and new ways of working
the success of their initial collaboration, Mazarakis and Bristow
continue to collaborate with one another

Coming illustrates successful integration of technology in
the choreographic. The movement of Mazarakis body tri
interactive technology has enhanced the content and the re
of this work. The concept of mapping also extended to th
technology inhabited the performance space. Spatial orientation

as the mapping was both functional and related to the readi
The technology, through its placement, mapped areas of
Mazarakis the same way that Mazarakis mapped her own b
movement and gesture. The images with the technological
components were to be placed was demarcated and mapp
(Bristow, Interview 2, app. F p. 200) trigger the motion trackin
devices and the sound, Mazarakis had to be positioned or h
move within a certain radius of the technology. This
Mazarakis movement was the interfaces started defining th
organisation of movement (Mazarakis, Interview 1, app. E p.
Mazarakis movement and spatial orientation had to be in
relationship with the technology, which allowed for a true collaborati
between the technological and the choreographic.

The mobility of the technology and the space was also
of choreography itself. The interactive technology was
mobile through its placement on wheels and the movable stan
dancing body is in a state of constant change, the mobilit
the space creates a dynamic shifting environment, an environmen
In this way the interactive technology was in conversation
with the performer s body. This was made possible by Bri
presence on stage. Bristow was not only in control o
technology, but also acted as a performer alongside Mazarakis,
through her control of the interactive technology space
Thus a performative relationship was created in that both
Mazarakis had to an awareness of one another s performance

The nature of the collaborative environment[15] affects the way in which a work emerges. The director's attitude to the collaborati working conditions of the company. Mazarakis was open to uncovering possibilities with the technology (Mazarakis, Interview app. E15). This created an environment in which Bristow co contribute to the emergence of the work through the use o technology. According to Bristow, it was also incredibly spoilt working Athena because she was so open to ideas and not involved with somebody and it has just been choreographers, we're th directors this is what we do, we would have maybe completely different p(Bristow, Interview 20 April 05, F p

It is important that not more of the collaborators felt unha the collaboration. Although Mazarakis formulated the intention of the the designer and interactive artist did not influence the work restricted the fact that this work was created under the conditions o performance. Mazarakis' concept of the exploration and excava grandmother's story provided work and a space in which the collaborators could work. In a similar way parameters are improvisation. Set parameters shape the conditions under collaborators. Otherwise Mazarakis' clear starting point that creativity of the collaborators was ultimately able to emerge manner in which it did, open to the conversational appro that existed between Mazarakis and the collaborators. Openness and freedom with the collaborations encouraged collaborators to work within the space feel uninhibited.

[15] Within the context of this Collaborative Environment is understood as the conditions under which the technological artist and the choreographer operate. This is shaped by t the process of improvisation and whether he/she gives to the collaborators the freedom themselves

As mentioned earlier, the choreographic process could be likened to a contact improvisation. Points of contact were initiated by the interactive artist and the dancer responded. These sets of choreographic moments Mazarakis refers to as gem moments (Mazarakis, interview appendix, Ep.185). The more comfortable the improvisers become with the space, the more liberties they become in the sequence. This had been uncertain at first, but resulted in the creation of a show where there was a obvious cohesive relationship between the technology and the choreography. Neither form overpowered the other; equal attention was paid to both the technology and the choreographic process.

Challenges Faced in the Creation of Performing Using Interactive Media

Although interactive media allows for several possibilities in an environment in which physicality can be explored, Bristow and Mazarakis have experienced challenges while working with this medium.

With Interactive media, the sensor limitations of the performance space need to be kept constant. The motion tracking element of Max/MSP was light sensitive and it was therefore a struggle to negotiate the light which was emitted from the projector as well as the light in the performance space so that it did not affect the motion tracking (Bristow, Interview appendix, Ep.19). According to Mazarakis, 'What was very difficult was the relationship between the projector, keeping the spaces dark enough to project on without spilling and distracting and keeping spaces lit enough for the camera to capture me thing' (Mazarakis, Interview 187-8). In addition, further

complications involved in negotiating the stage space to inc
technological elements of the projector, the microphone a

This problem was ultimately solved by the decision to allow these components to be mobile in the space; both the microphon activation and the webcam were on movable stands and th placed on a stand with wheels. This meant that direct control and positioning the technological components. The mobility of these apparatus allowed Bristow to focus the projection according to Mazarakis positio the stage (Bristow, Interview 2, Appendix Four). Although Mazarakis had initial concerns about having technology being manoeuvred by a backstag crew, this was addressed as Bristow involved technology and manipulating technology (Mazarakis, Interview 1, Appendix Two). As a result creates a closer relationship between the performer, the audience and technology, engagement between the two forms.

As discussed in Chapter One, the challenges regarding interactive technology for a dancer lies in familiarising oneself with the mechanism of the technology (Penny, Ali Wyatt Tech). Choreographic Tool, example, the performance space was mapped out into key areas technology was positioned. Mazarakis therefore had to keep her movements within the radius of the antennae in order to activate the interactive technology. The sound of striking the mat and the motion tracking using Mazarakis silhouette were triggered and a proximity to these devices. Mazarakis states, restrictions as, &interesting& because they open up possibilities and they choreographic possibilities (Mazarakis, Interview 1, Appendix Six). Similarly, the parameters of the technology, a restriction, influenced th choreography and the way in which Mazarakis was ultimately able to occupy the performance space.

When making use of interactive media it is important to control th conditions of the performance space. Interactive media based wo be tested extensively in the performance space, whether the nature of the space is such things as the acoustics interfere technology. This addresses Richard Pilbeam's (Technical Director) regarding the necessity of collaborations between dance and technology and Chong-ming, "The work had to be managed its development was not just about developing the technology." of the work was facilitated by its initial performance at the National Arts, Festival where the work had to overcome technical challenges (Mazarakis, interview 1.8.2012) and for Mazarakis to become familiar with the technology.

The use of interactive technology calls for a constant technological developments and advancements taking place. These developments often bring new ways with which technology the creative process can be used. Tracks created in 2007 and since th several significant technological advancements have been made. For example, if this work were to be restaged today Kinect[16] would be used, because it makes use of infrared technology for a performance in which variable lighting is used.

Awareness of new technological developments should responsibility of the interactive artist, however also needs to ta interest through researching the manner in which choreographers and performers are experimenting with the form. This cou collaborative relationships between choreographers and artists can

[16] The Kinect is a motion sensor for the Xbox 360 gaming console. It operates using a d which sees 3D and creates a skeleton image of the player (What is Kinect). The K conjunction with interactive software capabilities of motion sensing.

they begin to develop an understanding of one another s
processes.

Concluding Points:

The experimentation involved in the creation of Connecting Tissue process
well as the nature of the collaborative relationships developed in new
ways of creating meaning within performance.

The interactive technology enabled Mazarakis to make conn
between herself and her grandmother through the physica
interactive technology as well as the live visuals in the form of
her various silhouettes. It was this ability to integrate and
the technology to the fact that Mazarakis was constantly
conversation with the interactive artist. This allowed the
alongside the choreography, with Mazarakis initially expe
prototypes created. The success of the work would not ha
the same had it not been for the expertise of the collaborators combined w
their willingness to explore play in the creation of this work

This case study highlights the importance of the collaborative
environment itself. The expertise of the collaborators is just as i
collaborative and creative environment in which they work
through the nature of the collaborative relationships in Connecting Tissue,
collaboration is a constant negotiation, between interesting g
and openness to possibilities. This was demonstrated by the
collaborative help at Coomsing. To

Collaboration with technology in the initial creation
volatile environment. Working with interactive technology
is the attitude of the choreographer who can adapt and
these parameters to open up new choreographic and spatial
possibilities.

The careful integration of technology and choreography in
could be attributed to Mazarakis attitude and approach t
particularly regarding his willingness to experiment with
In this way, the work demonstrates collaboration between
choreography and content. Throughout the process, the
behind the work was never lost. The content of the
narrative provided the conceptual thread through the entire work,
allowing the technological and the choreographic to form
integrated relationship with one another.

Chapter Three

Case Study Flicker

This chapter deals with the second case study, Flicker (2011). This work was selected as a case study because it makes the form of projection as well as various projection surfa projection surface the movements of the performers are inf concept and content of the work. The relationship betwee content present in this work supplements the argument of experimentation with new media and dance works. and Mirror (2011) which was a pre-cursor to Flicker will be mentioned briefly, to the fact that concepts and ideas of projection and surface ex and Mirror were developed further in Flicker.

Regarding Flicker itself, an overview of the work will be followed by a discussion of the work and the form in which the work unfolds. This will be followed by a detailed description and instances in which projection and projectors are used, particularly as relates to the theory discussed in Chapter One, in the sec Media. The examination of this case study will illustrate the a mediums as well as the use of varying projection surfaces a the work.

In a dance work which makes use of projection, the focus does at time appear to be on movement to such an extent that projection is added on later, almost as an afterthought. Flicker is an example of a dance work which pushes the boundaries of projection through its innovative use projection surface and design, which in turn affects the

case refers to the use of back projection in a work in which the performers are unaware of the projection and the projected performance space with them, to such an extent that if the projection were to reading of the work would not be affected in any way. Wit context, it appears as if dance practitioners in Ireland have become of utilising back projection. Further examples, in light of the pro presented in this research, are the Fabulous Beast Dance Theatre s use of projection in Minutes of Fame (2011) and Junk Ensemble s use of projection in Fragile (2011). Both were used out of place in that it made use of large animation of an animal projected behi performers which they did not seem to interact with at all, there appeared to be no relationship between the video projecti of the dancers. In light of the findings of this research it is clear that performance would have benefitted greatly from utilizing Several area or having the dancer s interact with the projection in dance works, within a loose back projection theory framework manner of projection is a conscious decision or is projection used in because choreographers are emulating the always projection been used? The problem with back projection is that it separa from the projected video to such an extent that the project place. This research proposes the use of new immersive media the projected, including the projection surface, should be intentional and carefully considered

The use of the term the norm also refers to the handling projector as well as projection surface. Usually in performanc dance performances which I have encountered, the projec stationary in relation to the performers. The relationship between t projector, projection surface and the performers can be very Flicker deviates from this norm. This will be explained in gre chapter.

Smoke and Mirrors Preceded Flicker

Smoke and Mirrors performed in May 2010 following in September 2011 Smoke and Mirrors conceived by Mazarakis and performed by The Forgotten Angle Theatre Collaborative. the live performance of this work Smoke and Mirrors that of magic and illusion. Projection and projection surfaces we which enhanced the overall theme of magic.

In this work projection was used in a way that differed from the trend of back projection, which is characteristic of many dance works local contemporary new media. It was this engagement with pro surfaces which made this work exciting. The projection surfaces the form of circular hoops which could be opened and closed. These were created from wind socks where the ends and mouth could be via a spring system which allows them (Mazarakis, and Interview app. A p. 144). These surfaces also expanded and contracted w manipulated by the performers. This was partially inspired by Mazar hatred of people just being boring and [17] using the back, th projection screen (Mazarakis, Interview 4 May 2011, app. A p. 1 described the use of back projection as dehumanising the perf creating an imbalance between the live performing body body (Mazarakis, Interview, app. A p. 144).

In Smoke and Mirrors, the movement of the projection surface a sense of momentum within the performance space

[17] Short for cyclorama. In theater this term refers to the wall or drop at the back lighting effects (Cyclorama Define).

relationship between the movement of the body and the m
projector.

In the work like, choreography, the projection surfaces an
content inform one another, reinforcing the idea of magic and illusion to be
through all of the work. The video content takes the projectio
form of a fake documentary in which the performers descr
which they had supposedly performed this work before (wh
true). This meant to serve as commentary what the audience saw
the truth (Mazarakis, Interview app. A, pt. 1, p. 145). This adds an additional
dimension to the concept of illusion because the performa
orchestration of choreography is an illusion within itself. To
point, an audience who attends a dance performance allow
becomes swept into the seemingly effortless appearance of th
and the performance. This work purposely highlights the façade behind
the performance space the medium of performance (Mazarakis,
Interview app. A, pt. 1, p. 145).

The choreography as an integration of magic tricks, and
of appearance and disappearance acts using screens. The
movement vocabulary informs the theme and the content of ma
and illusion. One of the elements of the movement vocabu
of the bourreé, which is used in classical ballet, is one of
the classical bourreé. Mazarakis works with the classical
bourreé and looking at the bourreé was about the illusion
trying to create the illusion of gliding across the sta
we find a technique or technical capacity (Mazarakis,
Interview app. A, pt. 1, p. 145) that highlights the extent to which
careful attention was paid to the work, down to the style

This description of Smoke and Mirrors demonstrates the manner in which choreography and technology constantly inform one another, particularly in terms of this work.

A key element of this work is the mobility of the projector and the projection surface. The mobility of the projector allows for various relationships between the projected image and projection surface to be created. This is also true of the manner in which the projected image seems to expand to fit the expanding and contracting screens, which was discussed earlier. Mazarakis comments on this effect stating that this is how Smoke and Mirrors really started freeing up the projector and moving it in space and allowing that projection to happen elsewhere as a development (Mazarakis, Interview). The use of the mobile projector is developed and will be discussed further in Chapter 5.

The varying projection surfaces is also a significant development in this work. According to Mazarakis, performers to be in control of both the projection surface (Mazarakis, Interview). As mentioned in Chapter 4, this allows the performer to be in total control of the space which is significant given that this is not the way we usually see projection. Often it is the stage manager or even the audience who controls the projection, allowing the performers to be in control of the space. Mazarakis states that this enables them to have a greater connection to the technology and be able to integrate technology into the performance and a more direct physical relationship between the performers and the technology.

Having backstage members maneuver the technology creates a sense of dissociation between the new media element and the performer which could cause a disjuncture between the two. However, Mazarakis's use of new media in this work allows it to be an active partner in the creation and execution of the work, with both forms having a direct effect

one another. Mazarakis approached the discovery made in Smoke and Mirrors explored and taken further in Flicker.

Flicker: Overview and Brief Description

This description of Flicker provides a sequential overview of the performance in order to establish a sense of the manner in which the performance was able to unfold. An in-depth explanation of the instance projection will be addressed in this chapter. Instances where projection was used will be described and discussed. Although the use of projection is divided into specific instances, it is important to note that the use of projection in the performance was intended to form part of the performance as a whole. While reading this it is also important to remember that the description of the performance will never truly capture the essence and the experience of the

Flicker was conceived by Athena Mazarakis and directed by Bester (Mazarakis, Interview a, p. 155). This work was also co-created by all the members involved including Buckland, Athena Mazarakis and Craig Morris. Jo Crane was the designer for the piece.

Before commencing with the description of the performance it is necessary to provide a brief introduction to the relationship the cast have with one another. Morris and Mazarakis have history of working since their studies at Rhodes University in Grahamstown. Flicker, Mazarakis, Bester and Morris based on a work entitled Attachment 17 which was directed by Bester. Although Crane had worked with Mazarakis Flicker was her first experience working with Bester and Morris.

Flicker was originally performed at the 2011 National A
Grahamstown, South Africa as part of The Mazarakis Program
Interview appendix 5.3). The examination case study (Flicker) is
based on the live performance which I was able to view twice, on the
the Wits 969 Festival in September 2011 and on the Drama Theatre at the
University of the Witwatersrand, Johannesburg.

This work makes use of spoken text and movement of about
which are integrated with the new media element of projection
consists of a series of video blog entries. The content of the video
projections. The transitions between these video blog entries
with text spoken by the performers as well as movement.

Prior to the start of the performance, the only visible
objects on the stage are two sheets of paper, which hang
as well as a large box. The projected video shows a Facebook user's eye
projected onto the box and begins speaking about the beginning
performance and the idea of peep shows. As the stage lights rise,
Mazarakis and Morris collapse the box, fold and unfold it to
with which they are performing are not ordinary boxes, but rather can be
manipulated and folded in a number of ways. Mazarakis and
the box into various facades on which they perform a duet.

During the duet the performers vocalise and physical
insecurities and challenges associated with partner work,
relationships and trust needs to be created between the two people.
experiment with a range of lifts and counter balances, while
discomfort and initial distrust as to whether the other
sufficient support and hold them in a lift. Eventually, however, the

first instance of the projection, through a combination of ligh
and subtle movement of the performers. Mazarakis control
surface (the box), which has now been folded to resemble
book, side by side. Morris controls the projection in such a way
that the projected image of Buckland appears on the surfa
content of this video projection involves Buckland introdu
performance as a remote performer. Buckland's performan
show is delivered through a series of video blog entries,
physically present for the duration of the show.

When Buckland's video ends, Mazarakis and Bester begin a dan
sequence with the box, which involves folding parts of the u
box while engaged in hide and seek, using the box to conce
reveal themselves. This dance sequence ends with them s
which they align the folded box to the shape of a table. Then, just like a
married couple would, Mazarakis and Morris begin arguing over pe
household items. The argument then becomes one in which
Mazarakis character is humorously displaced.

The box again morphs into surfaces which the perfor
in order to look for the lost keys. Festively, the performers fold the box
such a way that it represents a table and then look on top of
the misplaced keys. Facilitated by a lighting change, the
projection involves Mazarakis controlling the projector. The conten
video projection is Buckland continuing his discussion of wha
remote performer entails. He speaks about his virtual pre
the audience's experience of an immersive performance. This video is
projected onto Morris' upper body as she moves out of the path of the
projection and allows the palm of his hands to act as a pr
the video. Morris' movements shift out of the path of the projection,

the projected image of Buckland by moving his arms up and
first, and then Buckland's video is revealed through Morris

Through a seamless transition of lighting and the pe
movements Morris now projected onto the end Mazarakis controls the
projection surface of the box. The content of the projected
Mazarakis reflecting which he wanted. While this video plays,
Mazarakis manipulates the box, like the image of a book,
its pages. This is followed by a change and Mazarakis and Mo
return to their sequence of finding the lost keys. This moves
the next projection where Mazarakis controls the projector and Morris us
long sheet of paper as the projection surface. This is a projection of Buckla
in which he discusses the things that he has lost in life.
another projection where content is that of Morris's Mazarakis,
discussing the things he thought he wanted. While this video
projection takes place, Morris folds the projection surface of the
and smaller, until the projected video falls onto his cloth
changes and Morris and Mazarakis arrangement of the lost
keys. Mazarakis starts retracing her actions to find the lost keys.

This then moves into the next occurrence of projecti
Mazarakis controls the projector and Morris' body acts as
surface. The video content of this projection is of Morris recalling the thi
in life that he does not want. While this takes place, Morris shifts his
head, which acts the projection surface, subtly to the sid
forward. This shifts into a projection of Buckland, with Mor
the projection surface of paper and Mazarakis controlling
content of Buckland's video, taking on the role of the performer and
control which the video offers, able to capture, store or redo a
particular moment as the performers return to the sequenc

involving the misplaced keys, which then moves into the r
which Morris controls the projector and Mazarakis shapes a la
which is the projection surface. This video projection is a
which emerges from a close up image of him. This then moves into a
Mazarakis which she recalls all the things that she has lost
plays she begins tearing at the white fabric of the projection
surface, later Morris begins tearing at the projection surfa
end of this video the performers return to the sequence in
This then moves on to the next box, which Morris controls the project
and Mazarakis manoeuvres the box as the projection surfa
this last video projection Bucks and discusses the duality
performance, and letting go of the need to maintain time.
The lighting then changes and the performers return to th
balances and lifts, performed at the beginning of the work

New Media Elements: Relationship to Content

This work developed through a devised approach to working. This
creative process is driven by, and driving, the manner in which that
concept manifests itself is initiated and found through a p
improvisation and play (Bicât and Baldwin, 2002). Jeremy
Crew, working particularly with these people it's not ch
devised it's not about making a show rather the movements as
concept and how you unpack that (Crew, pers. comm., 2 Nov. 2011, Interview app.
p. 161-168).

Mazarakis conceived of the work from the beginning; she wanted
with new media, specifically video projection (Mazarakis, Interview app. B p.1
155). Mazarakis admits that at first she was unsure how

component of her works and that she would keep developing it so i
find new ways to work with these media and learn to add
new dimension to (Mazarakis, Interview 3, p. 1). This indicates
her awareness as a choreographer and performer of the in
form.

The starting point for this work was the concept of t
and time running (Mazarakis, Interview 1, p. 1). Mazarakis concept
was that the exploration of new media and projection and
manipulating projections, playing with projected images
(Mazarakis, Interview 1, p. 1). Regarding the medium of projection
Mazarakis states, that s something that I knew that I wanted to
and really explore the idea of surface more and to make it a
I had done Switch and Mirror (Mazarakis, Interview 1, pp. B p. 154
Mazarakis drive was to work with projection and images i
and its form. Mazarakis had a clear intention to work with
decision to make use of new media was delivered. This well
intention was constantly present in the creative process
Jennifer Crewe, informing the choreography and the directi
Regarding these remarks that was part of the brief that we need
projection surfaces (Crewe, Interview 1, p. B. Sept. 2015). Discussions
with Bester, Mazarakis, and Crewe the intention to use new
media was not only made clear and emphasized from the beginnin
working process but also that it continued their working proces
is this engagement with new media from the beginning of the
creative process is called research.

Mazarakis decision to use video in this work allowed th
technology to develop choreographically. The experimentation
and varying projection surfaces shaped the direction of the

well as the co-ntent of the two. The video projections signal this work
the concept of running out of time (Mazarakis, Interview 3a, Type B p. 1
projection surface in relation to the content of the projec
enhanced and expanded on the concept of time.

The projection is used as a way with which further
enhance the development of the work. The decision to hav
as a remote performer, a projected presence of Mazarakis
desire to work with him and was physically unable to take pa
production, however, and this was solved by performing him in the form of
projected presence (Mazarakis, Interview 1a, p. 3. Type B p. 157). One of the
complications in this work was finding a link between the
remote presence of Buckland and Mazarakis and Morris live presence
stage (Mazarakis, Interview 1a, p. 5. Type B p. 154).

Buckland is introduced to the audience as a remote
beginning of the show, through the medium of projection.
made in the form of a close-up of Buckland's eye which is projecte
projection surface to function as a box. The content of this video rela
the idea of peeping through a hole, in anticipation of a pe
establish the size and scale of the video entry also relates to pre
performance as it was filmed, has feelings and experienced with it

The performance given in this video projection is notewor
because Buckland can now be viewed as a reflection of himself
Mazarakis and Morris are about to experience as the show
presence of Buckland as well as the content of his video blog ent
allude to what is physically happening in the live perform
Mazarakis and Morris as the work runs through the show and

is important because it is a relationship between Buckland's remote presence and the live performers onstage.

The thread of the video blog which is introduced thro character is continued to the video blog entries of Mazaraki The content of the video projections all deal with the eler establishes between the content of the projections as able t act as components which enhance the work as a whole. Although not an interactive media based work, it nevertheless environmen demonstrated the form of Buckland's presence as a remote p

The physical, stylistic and choreographic choices in this work were informed and driven by the new media. Mazarakis and Morris initiated the creative process through using the body to broadly explorat This then means that they were physically and kinetically working to establis the choreographic movement. Following this, projection and camera were introduced into the rehearsal space. As Mazarakis and I tried to find the work, the physicality of the work started understanding what it was we started to find (Mazarakis, Interview app. D p. 155). The fact that the work is intended as a collaboration between movement and technology, the appr choreography likewise was clear from the beginning and guided the direction of the work.

The design elements likewise informed the conceptual development of the choreographic movement. The element of key stylistic and functional element which was guided by Crew, that the set had to be suitable for (Crew, Interview app. C p. 169). It was through the process of looking that the medium of paper as a projection surface of the box emerged as important to take into account that the idea of the box an

solutions did not emerge immediately; the idea emerged f
sessions and improvisations with prototypes created by C
Interview app. C p. 1).

The multiple possibilities of paper were made through imp
and discovery. This relates to the notion made by Bradley and Baldwin (9)
regarding revised work that discoveries made in rehearsal ca
unexpected outcomes. The creative work involved Mazaraki
and Morris projecting unrelated drawings onto paper (Mazarakis, Interview app
B p. 1-5). This process in the initial experimental phase l
discoveries. This willingness of Morris and Mazarakis to p
the projected form by allowing the projections onto surfaces to
key to the development of this work. Crewe describes this
following way: we would be in rehearsal and we would have th
with us; paper and cardboard and then a projector and the
so then we would go What happens if You know that question
So we would just keep trying different things and some
some things (Crewe, Interview app. C p. 6).

Regarding the element of paper Mazarakis just had the
idea of paper then played with projecting different things o
started to think what would work? What would the content be
really the other way around with this piece to really play
to engage with and project (Mazarakis, Interview app. B p. 15). This
statement indicates that projection was a starting point for this
work, as well as impetus for play and experimentation. What
statement also indicates is that projection was not forced to fit the
and content of an already existing choreographic work. Th
projection were allowed to inform the development of the work
an interesting approach to working because it left room for experimentation of

the technology in this case study primarily with the manner in which dance performers might approach work from a place of physical exploration. Experimentation with the projector allowed performers to find the physicality of the projector and the thus making these elements more integral to the work.

Based on the statement of Chrysanthi Maza rakis, it would appear that improvisation and play were central to the development of the work and the creative solutions discovered. This addresses Richard Povall's (All Little Technology) statement regarding the necessity of "experimental approach" in collaborations between dance and technology. This case study further supports the proposition of this research and improvisation to be viewed as crucial to the creative process.

It would appear that this initial experimentation with the initial constraints freed up the projector and allowed for performers to really play and improvise with the medium itself. It was argued that this allowed for the emergence of unforeseen possibilities in the initial stages of the development of the work and the technology to be a player in the room (Mazarakis, Interview appendix B p. 159). As the work developed, so did the projection and its possibilities. There was therefore a parallel development between the technology and the choreography and the creative process (Mazarakis, Interview appendix B p. 156).

Regarding Frigid, the parallel development of the projection and choreography allowed for the projection and the projection to intertwine in such a manner that they did not overpower the movement sequences. This successfully illustrates the manner in which new media and choreography can enhance a work.

What this research aims to highlight is that projection needs to be treated not only as a functional device connecting computer and medium but as an active component in the creative process; an active component in conjunction with the projection surface. A meaningful connection is formed between the projection and the medium.

Flicker makes use of recorded video for the content of the projection, and in this way comments on video as a form and address the main concept of time and the recording of time as a medium allowing moments to be captured and replayed. The video also allows for alterations in time, certain sections and aspects can be created and looped to create a desired effect (Maletic 3). Morris and Mazta make similar use of their video blog entries in which they address the things in life they do not have time for as well as the things they wanted in life. The content of the video, in contrast to the video entries, addresses the experience of time within the performance. Hesse discusses the futility of absurd performers wanting to replicate moments which had occurred in the previous. The contrast between the loss of the present moment and capturing of a moment in time in the video is added to by the expressions and actions of the performers. The live enactment of losing track of the sense of Flicker, while video is not only used to show the content form and mechanisms of the medium, the feature of video is used to emphasize and strengthen the concept and work of the content.

What this case study demonstrates is not only a link between projection and projection, but it also addresses the need for attention to be paid to the nature of the video as a

Mobility of the Projection Into Content and Surface

Throughout this work the projector was not a station
moved and manipulated in conjunction with the projection
was clear regarding her intentions in that she wanted the action and st
illusions created by the performers that always were in
control (Mazarakis, Interview). The projector served as an active
element throughout the creative process of the work as it
choreography and movement of the performers.

The two key design elements in this work are the fle
multifunctional cardboard box and the sheets of paper tha
ceiling. During the production these elements were used and projection
surfaces. Through Flick, Mazarakis and Morris alternate between
controlling the projector and controlling the projection su
the paper in order to create a unified image. The mobility of the
work allowed for greater control over the projected image. According to
Mazarakis, it is the mobility of the projector in conjunction with t
the body which creates the relationship between body, image ar
(Mazarakis, Interview, 16 April). Each element begins to interlink, t
an extent that one cannot exist without the other.

This is demonstrated in a manner in which Mazarakis controlled the
projector and the projected image, in relation to the proje
body. In this instance, Morris' physical movement appeared to be
with the content of the video projection. The content of th
that Buckland discussing the characteristics of himself as
performer and the process of becoming present through his absen
The link between body, image and projection is demonstrated by
which this projection unfolds. Mazarakis positioned himself in such a way that pro
that the image of Buckland is reflected on Morris' body a

This is followed by a moment in which Morris steps out of the pathway of the projection, so that the image of Buckland disappears. Morris then makes the image of Buckland appear in the palm of his hand by moving of both his and Mazarakis s arms through the beam. Buckland s image in the palm of both Morris s hands is lost as Morris creates and forms the image through the movement of his body in relation to Mazarakis movement of the projector and the projected image.

Morris then drops his arm and the image disappears. As Morris slowly begins to move his arm up and down in the pathway of the beam, the speed of his movements increases and as he does so Buckland begins to appear through his arm (4). The movements (see) movement of his arm causes the projected beam to flicker and the combination of movement and flicker of the projected image enables the image of Buckland to appear. As Mazarakis explains, it is the movement of the performer that allows the image to become, to manifest (Mazarakis, Interview a). This is also to do with the idea of time and timing which runs through the show, because Morris has to move at a specific speed and Mazarakis expands on this when he says The image is not there if his arm is not there it can t contain the and yet if he moves his arm rapidly enough it creates a surface becomes a projection (Mazarakis, Interview b). It is therefore possible to begin to identify the relationship between the timing of moving body and the timing of the projected image and the manner in which these concepts begin to connect with one another

Morris body was also used as a surface for projection in one of his blog entries in which he describes the things which he does not have time. Mazarakis controls the projector and the projected image on the surface of Morris bald head. Throughout this section, Morris rotates his head to the side and in doing so the projected

projected onto his bald head and Wahad (see figure 15). Wahad's interaction with this use of projection is a continuous negotiation between controlling the projection and Wahad's head acts as the projection surface. The moving body becomes the projection surface.

Fig 14. Craig Morrison, Frisk, Sep 2012. Photo Credit: Christo Doherty.

Fig 15. Craig Morfitt, Frisk, Sept 2012. Photo Credit: Christo Doherty

The significance of installation lies in the manner in which moving bodies become a projection surface which activates the projected image. The projection on the moving body in pushed the boundaries of the form of projection in that th movement of the technology in order to create images. This is significant because suddenly the projection is dictated by the movements, dictating the choreography, the kind of movem make the image, you have to change your movement to create specific movements in order to have a true collabo movement (Mazarakis, Interview 2010). B p. 159

In the example mentioned in Chapter Two, the moving body in performance was constrained by the environment created by the Judson Church. In contrast, Flocking uses the moving body to enable the appearance of the projected image, in this case the projector, the projected image and the body are active through a proces

The mobility of the projector in conjunction with the also enhanced the notion of time passing through the physical manipulation of the box and the paper by Mazarakis and M imagery of time passing or time disappearing. An example demonstrated in the installation where the box was used as a projection for the video blog entry in which Mazarakis lists the things that she wanted in life. Here the projector and the projected image Morris and the projection surface by Mazarakis. As the co unfolds, Mazarakis maneuvres the box in such a way that the fla drop from top to bottom and then open from left to right, of the pages of a book. The flaps of the box could be regarded as an allusion to a previous time. In the same way that a story progresses the pages of a book turned, the content of Mazarakis vid time that has passed through which once existed but may not exist

anymore. This illustrates the relationship between the techn
media, the content of the work and the physical action of

The use of paper as a projection surface shifted acc
content of the video blog entries of Mazarakis and Morris. The physical int
between the performers and the space mapped to the content of th
video blog entries of Morris and Mazarakis. Paper was us
surface for the video blog entry in which Morris listed the
he wanted. For the duration of this video blog entry Morris began to fold
the sheet of paper, making the projection surface smaller
paper is scrunched up in a ball. This action of making the
smaller size also parallels Morris' perception of the things h
altering and changing completely. This illustrates the use
projection surface as a design element conceptually linked to
the content of the work.

The projection surface of paper was also used for th
in which Mazarakis lists the things that he is missing most in life
Morris who controls the projector and the projected image
controls the projection surface. This is when the projector is moved
the positioned, and Morris begins to tear the projection su
Mazarakis tries to keep and hold onto the sections that h
maintaining the projection surface (see fig. 16). Mazarakis
states, 'as Craig starts tearing at my things
wanting to lose, but things that are feeling like taken away from
me' (Mazarakis, Interview appendix 2). To expand on this Morris actio
tearing the projection surface, which Mazarakis said
to elicit the feelings of loss, the helplessness or desper
feels when trying to recover after the loss of a friend.
addressed though the manipulation of the projection surfa
the movement and content of the projection.

Fig. 16. Athena Mirzakhani, 2014. Photo Credit: Christo Doherty

Time is also addressed through movement and choreo as the pace of the movement performer who is manipulating th projection. In this way, manifestation projected images a direct relationship to the choreography. Flicker, the way in which the image is viewed on the projection surface is also influenced by the movement of the performer controlling the projector (Matzaraki, Interview 6A, App. B p.

Their movements have to be continuous and controlled in order to prevent the appearance of a shaky image. The ability of the projected adds a new dynamic to the movement language of the work, as the performers are involved in a dance with each other and the projector and the image (Matzaraki, Interview 6A, App. B p.1

This work becomes less about the speed and steps of choreography and more about the which is found between the content, movement and projection. In this work, the projector functions in relation to the surface. It is important to note that the projector cannot function unless positioned and manipulated in relation to the surface. The manipulation of the projection surface also engages with the content of the performers. From the perspective of the performer, working with the mobility of a projector, which is usually stationery and not designed to move around, as well as the challenge within which potential possibilities. This will be discussed in greater detail in Challenges Experienced Working with the Moving Projector and Flicker.

In terms of movement and choreography, the moving possibilities for future choreographers in that the idea of filter into the operation and the mechanism of the technology in Flicker. What begins to emerge with this work is that the co

manner in which the projection surface is manipulated. The
projector also illustrates that the deviation from back pro
this work it is as if the image becomes performed by the
movement of the projection surface introduces a new type
a result, collaboration between movement, projection, projecti
content becomes visible in this work.

Collaborative Process: Relationship to the Creative Product: Eisker

The collaborative process in which Eisker involved constant
conversation and improvisation between the performers, d
According to Bester, ...In a sense this is becoming more of
collaboration through the process and we [with Mazarakis
Sunday night to sort of hammer out these ideas about where the
piece was going (Bester, Interview 23 p. D p. 1

In terms of authorship of the work it is important to distinguish be
the fact that Mazarakis conceived the work and Bester directed
authorship of the work means that Mazarakis conceptualised the wo
and brought the creative team together, Bester's practice
through his role of director in guiding the content and its
sight of Mazarakis style of working with the performers.

The joint authorship of this work allowed for a const
and brainstorming between them as they tried to find the c
In devised work it is important that there is a clear idea of the
direction in which the work is headed in order to steer the creati
(Bicât and Baldwin 9). Bester comments essential to find
Ultimately, Bester narrowed the ideas down to the focus on Ma
references to appearances beneath Mazarakis (Interview app.

p. 155). According to Mazarakis, the idea of disappearance and the idea loss became the driving force (Mazarakis, Interview app. B p.155

This concept was carried through all aspects of the w design to the movement and the projection.

In Flicker, the devised approach to working allowed for open communication between the collaborators. As the work evo a sense was evident in the direction of the work to change as discoveries were made during improvisations. Bester initi sessions or by example, asking the performers to create lists of th they thought they wanted in which they had. According to Crewe, Gerard was very amazing in that he kept asking qu he's actually sitting there saying what if we do this? (Crewe, Interview app. C p.157). This illustrates that there was consta questioning as well as an engagement and willingness to things in the creative process. It is also evident in the way th thorough integration of choreography, content and techno

Crewe contributed a number of ideas for possible designs fo Even though her role was that of the designer, she and the people would film. So Craig would say, what if you did this? You know wh mean? So even though you have your roles there's a sense o working towards the product, and, you know (Crewe, Interview app. C p.161). This creates a sense of a creative space and environment which is activated between members of the collaborative team. It is important to note constant conversation combined with physic experimentation and dialogue enabled the creative process t develop in the way that it did.

The devised approach to working also allows for ideas that do not need to be discarded, but instead to continue to work can move on to a new improvisation where they continue to develop. The director plays a significant role in this process as follows: Being part of being a director and part of these processes of editing is editing is being precise. Allowing yourself to do that (Bester, Interview app. D p. 175). Designer-led Creative shared the same sentiment, as it was almost a process of reduction that happens a lot when I work with Matthew with lots of ideas, (Interview app. C p. 151).

A prior working relationship between collaborators has its advantages in that it influences the creative process as the nature of the collaborative relationship exists. A long-term collaborative relationship exists between Bester, Mazarakis and Morton. Creative Head worked with Mazarakis before with the other members of the collaborative. Having a prior working relationship allows Creative Head to describe speaking the same language (Interview app. C p. 170). This type of understanding between collaborators is pertinent to the creative prior working relationship allows for what Gibson terms as affordances up for play, experimentation and a sense of what they characteristics space. Participants feel free to absolutely anything as boundaries of uncertainty and insecurity do not exist. Mazarakis comments on the ease of creating, Craig and I have worked together for twenty years since first at Rhodes University, so we have an understanding on many levels that is no small thing (Mazarakis, Interview app. B p. 158). The element of trust is important within a relationship in that it shapes the efficiency of the relationship eliminates the necessity for collaborators to familiarise themselves with each other's working processes as they do. This is easier because one can, when working with a partner, rely on their

another is visibly reflected in their relationship with the stage in execution of the content.

The choice by Mazarakis to enter a direct but the work was motiv strongly by the element of trust. According to him Mazarakis, more probably than anyone else in the country, of guiding the proc and I trust his artistic (Mazarakis, Interview a, Appendix B p. 154 referring to his as well as to the capacity to provide a perspective on what was visually, Bester admits that he a Mazarakis would alternate between seeing what was onsta constantly swop, so, I would think this is really working I would hold the project together with Anta as the main author was very important for her to see how the productio visually (Bester, Interview a, p. Appendix D p. 175

In terms of having a prior working relationship there reverting back to that framework and this is something that Be Mazarakis and Morris were constantly conscious of. Havin Attachment, they were also conscious of not to fall into patterns on their earlie working patterns. According to Mazarakis, we were very conscious we didn t want to repeat ourselves that was kind of a driving force to m that it was something (Mazarakis, Interview a, Appendix B p. 158). In the light of this it becomes clear that within collaborations its disadvantages i that the performers the risk of reverting to working patterns. This is of course highly problematic in that the essential collaboration is bringing people with various skills together to create something new

The nature of the collaborators in a work is also highly influential in bringing about a favourable outcome of the work, a mere

plays an important role in the creative process. When referring to Flicker, for example, the designer comes from a history of physical theatre and performance and therefore has an understanding of the physical body and the manner in which it moves and occupies space. She agrees that her performance background influences her movement and thought processes, (Crewe, Interview appendix 1, p. 171). This is influential to this particular case in that Crewe knows it is important that what was anything the performers needed to lift in the space had to be manoeuvrable. In addition, she is also able to conceptualize her work in relation to the body and not solely for the purposes of the working process and philosophy from the beginning. Everything that objects and things that are in the space receive itself is always in relation to the body (Crewe, Interview appendix 1, p. 170). The designer who understands this is advantageous because the projections and the physical objects would not have been so seamless if the design elements had been complicated or difficult to move.

As mentioned above, the approach to collaboration with both the devising process of working, allows for discoveries to be made (Bicât and Baldwin, 2002). The process of discovery through experimentation was important within the process of Flicker. However, it was also the relationship that existed between the collaborators and their familiarity with one another and the space for these discoveries. This is ultimately highlights the essential element that collaboration extends beyond bringing people with different skills together, it includes the collaborative environment as well as the relationship between the collaborators which guides the creative process. The success of the collaboration rests on existing between conversation and open communication between the collaborators. This provides the space for movement and all other aspects of the performance.

Challenges Experienced Working with New Media: The Creation of Flicker

Having examined the advantages of using such new media possibilities in terms of this case study, it is also important take into account that working with new media also presses This is primarily due to the fact that the projector, which is normally a s object, was being moved. This caused various technical problems such as the bulbs blowing during the performance as w Mazarakis recalls, In [Pretoria] 1969 the projector broke ten m before the end of the show, so we had to change bulbs because it really relies on the projection. The three videos we had no project only had so (Mazarakis, Interview app. B p. 160).

Technical difficulties such as these often raise certain questions are raise the event of such an occurrence. Where does it leave the perform What are the allowances made for human error? Thanks to the ease with one another, Mazarakis and Morris were able to improvise w technology stopped and to make sure this only occurred within the l ten minutes of the show (Mazarakis, Interview app. B p. 160). For performances in 1969, Mazarakis was able to set up a second projector as a backup in case technical difficulties occurred with th first projector (Brester, Interview app. D p. 179). Choreographers tend to avoi projection and new media, as this involves a great deal of planning and consideration for technical difficulties. This is contra to the manner in which traditional choreography is approached, everything relies on the perfect execution of the performa possibility of error being out of the question. Working with new media there calls for a different approach to the choreographic proces

prepare the performers for to respond to events of any kind.

Recapturing spontaneous moments in devised work c problematic. Despite its advantages in terms of its capacity to and improvisation, this approach to working is also tricky in that recording improvised moments is a difficulty akin to that of improvised sound by performers are then unable to recall exactly what they did because they were driven by a parti comments on this difficulty, in discussing the task you have wonderful improvisations, then to try and record it, then t then the process of rehearsing it to create what was initially that's always the hard part. (Bester, Interview 2, pp. D p.17

This then, serves as a reminder of the importance of video as tool to record and review rehearsed material as well as using t to create work.

Having Buckland as the remote performer also presente initially that he was working in his own space away from th performers. Bester & Imeta said, beginning it was difficult with A We had to set him questions in the beginning working alone in h office in front of the computer. Eventually Athena then scripted text for hi suddenly that seemed better, (Bester, Interview 2, p.1). Despite a 78 risk involved in contrasting the video presence of Buckla performers in an attempt to find links between the two which incorporate media, there is always some form of overlap with the live body onstage. What becomes a compelling find a way to link recorded information with the live The performin challenge itself lies in the link between the content of the vid its relationship to the performing body in the actual or

physical. In Flicker, the content of the video projection correspon
the actions of the performers. This can be seen, for example, in the segment
which Buckland's projected image is made visible through th
of Morris' arm. The content of this video projection is Buckland speaking
about his presence in the space, that he says, 'I am not
really here.' The link between the recorded information and the live
performing body here, where the action of the physical body, M
body, is in direct relationship to the content of the video. The
relationship between the projected image and the live bod
through sections of Matthew Causey's text Theatre and Performance
in Digital Culture: From Simulation to Embodiment in Virtual Reality, as well as through Steve
Dixon's concept of digital doubling (Dixon 2007: 124-144). Causey
(16) interrogates the relationship between the live body and techn
from his work, two distinct points are relevant to this res
earch: his description of technology's ability to reconfigure
physical, and the convergence between the human and the
the machine dominating the human subject. Causey's
argument regarding the machine dominating the human subject is a
which this research is arguing against. Through the use of case studies,
Causey (17) addresses what he refers to as 'the instance in
which a live actor [performer] confronts her mediated other
technologies of reproduction', the performer face to face with
their personal information projected onto the projection surface
holding previously disavowed, is held the surface onto whic
video blog was projected, thus creating a relationship between
body and her mediated self. Morris held the surface onto w
video blog was projected.

Causey refers to this as a moment of transformation, alte
the manner in which we represent and subjectivity, as a
and temporal image (38). In Flicker was not solely the narratives ex

through the video blogs, but also the improvisation of the bo
projection surface facilitated viewing of the narrative. I would like to
supplement Causey s static reading by Fiske, in
addition to the projected image, the performer s body also plays significant
role in the manifestation of the digital double. As discussed throughout this
chapter, the movement of the body of the performer significantly influenced the
reading of the projected image, as they had the position it
handling by the other performers on the projection surface.

As discussed in Chapter Two, Dixon has categorised his
concept of the digital double into four categories, as expl
the reflection, shadow, spiritual emanation and the manipulab
mannequin. The notion of the reflection, Fiske, across the applicabl
characters interact directly with their reflection. One coul
to the character s portrayal of their innermost feelings in
had though they wanted in life, that there is also the pres
As mentioned earlier these categories, particularly spiritual
emanation, are limiting in that they are subject to the opi
Furthermore they impose ways of viewing and interpretati
performance. The concept of the double, however, does provide an entry poi
into the understanding and navigation of the live performe
surface.

Film editing also plays a part in the development of new
media work. Existing is involved in getting the image to fit into a
projection space in order to guard against masking, image distortion (
app. A p).1 Video editing becomes another tool in the
choreographer s kit that allows for many ways to alter the cutting and
splicing of time to create the desired effect. The video projection
relationship to the performance shows how it is important for projection

video is as much a part of the choreography as the editin
content and the manifestation of careful thought as well a
thoroughness.

Concluding Points

The detailed discussion of Eddy Kasey's various important points. This case study served as an illustrative exam
the argument of this thesis: the use of new media. What this research
argues for is the necessity of a link between projection and content. In this
study, this link between content and projection surface was de
the manipulation of the projected image over the projection surface. This
case study was particularly significant because of the curved surfaces of
projection which indicated a deviation from the use of back projection.
particularly significant was the use of the moving body as the projected
image and the visible addition of these elements to discussion on the
devoted to an examination of new media, projection mapping, the us
dance and the necessity for inspired by and be a reflection of th
movement of the body. The concepts of presence and awareness of new
from the beginning of the creative process supports the
argument of this paper that new media use should be care
before implementation. Within the constant experimentation
with this form by members of the ensemble, the need for the creation
a piece which consciously took the risk of making the projector mob
mobility of the dancers created a new kind of mobility of the
performers.

Conclusion: Closing Points and Recommendations

What became apparent during the course of research was the lack of information on South African dance works making use of new and interactive media and an obvious need to make relevant South African knowledge and archives of South African works need to be created and to increase and ensure video access footage of these works. This problem could, for example, be solved if choreographers have the web page agency to have video excerpts of their works on their respective web pages. Out of all the South African a Jeanette Ginslov's website proved to be the most comprehensive works were chronologically arranged and there were descriptions as well as video excerpts from the performances.

A conscious effort needs to be made by dance practitioners to document their finished works and make them accessible, being long-term developments concerning choreographers working with technology should be documented as it is important to have these records available. Within this research I came across short articles and reviews of works, but not much in the way of critical writing or collaboration between choreography and technology to establish a discourse on this subject.

Furthermore, in order to further the use of technological forms in dance in South Africa it is necessary for drama departments in tertiary institutions to actively expose their students to interactive media technologies within a choreographic context. Due to the expensive nature of interactive technology, it would be sadly unfair and unrealistic to expect drama departments of universities to invest in new technology. This problem could, for example, be addressed by raising awareness of the

possibilities of interactive technology done, for example, hosting extensive skills workshops in which interactive artists introduce choreography students to the mechanisms of a movement capture for example. There exists a need for choreography students to be made aware of interactive media technologies in particular media and video projection and to explore and research how new digital forms Interactive media technologies could offer great potential of choreographic The University of the Witwatersrand (Wits) offers courses in Digital Arts in both undergraduate and postgraduate. There are two undergraduate courses in Digital Arts a practical semester course to be taken as part of a degree with Wits School of Arts. These courses equip students with the technical and conceptual skills to create work in digital and interactive media. Students are then free to create which ever works they wish using which they have acquired. This provides the ideal starting point for exploring how to integrate from various disciplines to digital art and in particular.

In order for the development of technology in South Africa and, the ideal scenario would be one in which the choreography departments of tertiary institutions have access to digital choreographic laboratories. Here, the focus would be on the use of technology towards the development of choreographic This would imply that focus would then be on exploring the potential of the body through the use of Isadora and Max/MSP. Additional work would be on the creation of wearable technology using a wearable circuit such as the LilyPad Arduino[18]. In this manner, choreography students would be able to explore the effects of technology on the choreographic process. Likewise, dancers would be able to directly test the effects of their momentum on their interactive technology

[18] A LilyPad Arduino is a controller board designed by Leah Buechley, for the use creation of e-textiles (LilyPad Arduino)

rehearsal space. A specialized digital choreographic laboratory
this in order the development of such a facility to occur, resources and
funding are needed and intensive and thorough training is required.
initial steps to expose choreographers to interactive elements and technologi
would provide a starting point for creating greater awarer
of the form within a choreographic context.

Having discussed collaboration, this research would like t
emphasize that the mere combination of two forms does not qual
collaborative. It is one of utmost importance that there exists
combination of both hand choreographer and technologist could
be said to overpower the other in the performance space. The
examined in this research is the juxtaposition of the merger betwee
technology and choreography. Through involved in the
creative process were able to integrate technology
and choreography.

The mere addition of projection to a dance work does not qua
new media work. Similarly, the inclusion of interactive media work
does not qualify it as new media work. It is essential that the
technological forms are carefully considered, as well as t
they are able to inform the work. The use of technological eleme
the work cannot be added at the last minute. This is highlighted through the tw
case studies of Choming and Flick, the interactive and new medi
elements respectively were involved in the conception of the work fr
outset. The technological elements were developed alongside t
choreography.

Different implications are and will be raised in the use of interactive new media respectively. The use of interactive media involves the negotiation between unpredictability and control, while on the other hand is concerned with the elements of projection and the surface projected on. Both technological forms call for a relationship to be created between the technology and the body. In terms of media, this is the relationship between the body and the projection surfaces. The success of Filmic Creatures can be attributed to the use of the body, paper and the box as projection surfaces in the creation of meaning in this work.

In terms of interactive media, it is the relationship between the physical body and the interactive technology which needs to be established. In Coming, Too for example, the interactive technology in Mazarakis body with qualities which could not have been realised or made possible otherwise. The interactive technology also intervened between the live movement of the performance body and the old footage of childhood.

This research examines case studies of Mazarakis work in order to unearth the creative processes involved in the creation of these works. The case studies demonstrate a cohesive collaborative process. This has attempted to add to the discussion to intricacies of the use of technology in doing, illustrated that this process needs careful thought and consideration. This research has attempted to highlight the way and interactive technologies when integrated with the art form, can be applied to yield unforeseen possibilities which could potentially enhance the development of a work.

Works Cited

Alba Emoting: Breath Xpress. n.d. Web. 1 Mar. 2012. <http://breathxpress.wordpress.com/alba-emoting/>.

Banes, Sally. Democracy's Body: Judson Dance Theatre and Performing Arts Journal 5.2 (1981): 1-107. Web. 27 Feb. 2012.

Barnhart, Clarence L. and Barnhart, Robert K. The World Book Dictionary. Vol. 1. United States of America: Doubleday & Company

Bester, Gerard. Interview. 22 Jan. 2012.

---. Flicked. Dir. Gerard Bester. Perf. Andrea Whena Mazarakis and Craig Morris. Downstairs Theatre, University of the Witwatersrand, Johannesburg. September 2011. Performance.

Bicât, Tina and Baldwin, Chris. Devising and Collaborative Theatre: a Practical Guide. Ramsbury, Malborough: The Crowood Press Ltd, 2003. Print.

Birringer, Johannes. "Performance, Technology & Science." PAJ: A Journal of Performance and Art 30.1 (2008): 118-132. Web. 5 Sep. 2011.

---. Performance, Technology and Science. PAJ Publications, 2008. Print.

---. "Interactivity: Testing Participatory Art." International Journal of Performance Arts and Digital Media 1.2 (2005): 73-87. Web. 5 Sep. 2011.

---. Dance and Interactive Art. Dance Research Journal (Winter 2003 Summer 2004) 36.1 (Winter 2004) 41.2 (Summer 2004): 28. Web. 27 Feb. 2012.

---. Media and Performance: Along the Border. Baltimore: John Hopkins University Press, 1998. Print.

Bristow, Tegan. Personal Interview. 19 Jan 2012.

Broadhurst, Sue. Digital Practices: An Aesthetic and Neur Virtuality and Embodiment. Performance Research 11.4 (2006): 137. Web. 5 Sep. 2011.

Causey, Matthew. Theatre and Performance in Digital Culture: Fr to Embedded. London: Routledge, 2006. Print.

Coming. Dir. Athena Mazarakis. Perf. Athena Mazarakis. The M University of the Witwatersrand, Johannesburg. Novembe

Coniglio, Mark. The Importance of Being Interactive. 2011. 1-8. Web. 5 Sept. 2011.

CQ Contact Improvisation Resource. Contact Quarterly. Web. 12 Dec. 2011.

Crewe, Jeremy. Personal Interview. 18 Nov. 2011.

Cyclorama: Define Cyclorama. Dictionary.com. Web. 1 Mar. 2012.

deLahunta, Scott and Shaw, Zuniga Norah. Choreographic Archives, Scores and Instructions. Performance Research 15.1 (2010): 131-133. Web. 5 Sep. 2011.

deLahunta, Scott and Bevilacqua, Frederic. Sharing Descr
International Journal of Performance Arts and Digital M
16. Web 5 Sep. 2011.

Despotic. By Mlu Zondi. Perf. Mlu Zondi. South African Young Gate
Durban. 2009. Web. 10 Dec. 2011.

Dixon, Steve. Digital Performance: A History of New Media in Th
Performance Art and Installation. Cambridge, Massachusetts: The M
Press, 2007. Print.

---. Theatre, Technology and Time. International Journal of Performance Art
and Digital Media 1.1 (2005): 29-41. Print.

Everitt, Dave and Robertson, Alec. Emergence and Comple
Observations and Reflections on Transdisciplinary Res
Performative Contexts and Innervation. Journal of
Performance Arts and Digital Media 3.3 (2007): 239-249. Web 5 Sep.
2011.

Giesekam, Greg. Staging the Screen: The Use of Film and Video
Hampshire: Palgrave Macmillan, 2007. Print.

Ginslov, Jeanette. Written in Blood. Dir. Jeanette Ginslov. Perf. State Thea
Dance Company. South Africa, 1999. 2011. Web.

---. Fear and Laughter. Dir. Jeanette Ginslov. Perf. First Physical T
Company. Grahamstown, 2005. Dec. 2011. Web.
<http://jeannetteginslov.com/works>

Kolcio, Katja. A Somatic Engagement with Technology. Journal of Performance Arts and Digital Media 1.2 (2005): 125-131. Print.

LilyPad Arduino. Arduino 23 Oct. 2011. Web.

Lycouris, Sophia. Choreographic Environments and New Technologies: Movement-Related Artistic Work. Butterworth and Liesbeth Wildeschut. Contemporary Choreography: A Critical Reader. Routledge, 2009. 311-316. Print.

Maletic, Vweinda. Odam Tech: Technology: Attitudes Shift. Research Journal 192 (Winter 1988): 7-13. Web. 24 Feb. 2012.

Mazarakis, Athena. Body of Knowledge: Interogating Physical Intelligence and the Translation of Movement. Thesis. University of the Witwatersrand, 2009. Web. 5 May 2011.

---. Personal interview. 12 Jan.

---. Smoke and Mirrors. Athena Mazarakis. Perf. The Forgotten Theatre Collaborative. Main Theatre, University of the Johannesburg. 14 May 2011. Performance.

Mcmeel, Dermott, Brown, Carol, and Dr. Sarah Lloyd. Digital Gestures: the In[ter]ference of Meaning: Reframing Technology s and Place Through Performative Encounters. International Journal of Performance Arts and Digital Media 7.1 (2011): 21-30. Web. 5 Sep. 2011.

Muller, Leizz Petra, multimedia physicality. Time Magazine, June 2005. Web. 5 Oct. 2011.

<http://nathanielstern.com/2005/petra>

Nam June Paik: Fluxus and Media Art Net. n.d. Web. 22 Mar. 2012.

Open Screen: A 9 Evening Tribute to PIX Microcinema International, 2006-2008. Web. 22 Feb. 2012.

Photoelectric cell: Definition of Photoelectric cell from the Tech Encyclopedia. 1996-2012. Web. 10 Mar. 2012.

Popppat, Sita and Palmer, Scott. Dancing with Sprites and Approaches to Collaboration between Dancers and Digital Technologies. eds. Joanne Butterworth and Liesbeth Wildschut. Choreography: A Critical Reader. London: Routledge, 2009. 416-432. Print.

---. Common Ground: Dialogues Between Performance and Digital Technologies. International Journal of Performance Arts and Digital Media 1.1 (2005): 45-57. Print.

Povall, Richard. A Little Technology Is a Dangerous Thing. Ed. Ann Cooper Albright. Moving History/Dancing Cultures: A Dance History Middletown USA: Wesleyan University Press, 2003. n. pag. 2012.

Rubidge, Sarah. Performing Installations and the Understanding of Choreography and Performance in Interactive Installations. Ed. Joanne Butterworth and Liesbeth Wildschut. Choreography: A Critical Reader. London: Routledge, 2009. 357-362. Print.

Salter, Chris. Entangled: Technology and the Transformation of P
Cambridge, Massachusetts: The MIT Press, 2010. Print.

Sichel, Adrienne. Circles in. Nathaniel. Stern Star, 13 Dec.
2001. Web. 5 September 2011.

---. Moving into Virginia: The History Tonight. Independent Online. 21
February 2012. Web. 22 February 2012.

Stern, Nathaniel. Elicited and Evoked. Nathaniel Stern. 10 October 2011. Web.
Oct 2011.

The Modern Language Association of America. MLA Style Manual and Guide
Scholarly Publishing. 3rd ed. United States of America, 2008. Pr

The Open Ended Group. The Open Ended Group. Web. 10 Dec.
2011.
<http://openendedgroup.com/index.php/publications/old

The Purdue OWL. Purdue U. Writing Lab, 2010. Web. 10 Aug. 2

Van Niekerk, Neal. Phone interview. 20 Jan.

Van Veuren, Mocke. Screen Dance in the Shifting Landscap
Media. Proceedings of the Film and Dance: Innovative
Gordon Institute of Performing Arts, Pace University, New York, Aug 26
2011. Personal notes.

Van Veuren, Mocke, and Xaba, Nelisiwe. Real Place-Video-Virtual S
and Choreography. Proceedings of the Film and Dance

the Rise, Gordon Institute of Performing Arts, Tuwin, 26-28 Aug. 2011. Personal notes.

Variations. E.V.A.I.T. 9 Evening Gallery. PIX Microcinema International, 2007-2008. Web. 22 Feb. 2012.

What is Kinect? - Definition from WhatIs.com. TechTarget, 2012. Web. 1 Mar. 2012. <http://searchhealthit.techtarget.com/definition/Kinect>

Xaba Brings Solo to the Market. Sowetan Live, 1 Sept. 2011. Web. 14 Dec. 2011.

Youngblood, Gene. Intermedia: Thinking the Past. Publications. Web. Accessed 4 Aug. 2012.

Zondi, Mlu. Interview by Jeanette Ginslov. Movestream 01. Zondi. YouTube. Web. 10 December 2011.

---. Despot. YouTube. June 2010. Web. Sept. 2011.

Appendices

Appendix A

Interview Transcript: Athena Mazarakis

Subject: Smoke and Mirrors

Personal Interview
16 January 2012, Johannesburg, South Africa

Jessica Fowler: With Smoke and Mirrors what was the inspiration behind the use of projection?

Athena Mazarakis: I suppose coming from Think Early Dance Theatre I really was quite hooked on working with new media or interactive media, however you know with a digital artist because of Smoke and Mirrors I wanted to work with projection and I became quite interested in a sort of interviewing; offering different version of the performer to see what I was interested in kind of & again I suppose whenever I do work with digital or projection work it's to offer another layer, to reveal another reading. Smoke and Mirrors was really to try and delve deeper into a sense of the illusion. So for me the first thing to play with was the illusion of the performer that they are not this indestructible dancer, they are people and that they have other thoughts and ideas that you don't always rarely see onstage. Because even if we present self on stage in Wuppertal's kind of style, Pina Bausch's style it's still performance of people's first names et cetera there is a performance of self that you're invited into or a into that performance of self which is not in the level of the dancer's projection to try and strip or open up or put the spotlight on various versions of self.

J.F: What was the inspiration behind projecting onto various surfaces?

A.M: Again thematically driven I suppose, but before I get the
of little pet hatred I suppose it is, of people just being borin
cyc [cyclorama], as a projection screen. And I suppose, from
that tends to dwarf the performance and there s an imbalance
performing body and the projected body. So that was one asp
was the piece dealt with illusion, smoke and mirrors, I
and there is a magic and there is a sense of magic to project
can appear and disappear on stage. So that was the
I make an image appear where there is something
and then it disappears and rather that have a surface that is
if the projector is on and you are constantly projecting you w
to have something that was malleable that the that performer
So I m coming to that idea of the thematic concern driving th
where the performers are very much engaged in revealing an
images that the audience sees which speaks to that idea of i
everything on stage is an illusion and is controlled either by the pe
director or the choreographer on some level. So the screens
me to, give the performers that control but also allowed imag
different spaces in the space and for me that was important, to
overarching image that is projected on the back wall, but tha
appear and dance in the space. When I say dance I mean mov
in the same way that the live body does. So I needed something that had to
portable and something that had which was that idea of the
were really windscreen visors that keep the sun out that we
system and it s a round coil that you simply twist to open
close.

J.F: What was the reasoning behind the content within the vi
formed the projection?

A.M So primarily it was an interview with the performers that
all the imagery at But also was, was a fake interview it was tryi
idea that or an illusion work had happened before you see
what it seems, everything you see on stage is not necessarily tr
was interesting for me when we see a documentary on televisio
documentary is assigned to and so was playing with that medium
the device of the documentary on me. That that was on stage
allowing that to be a fiction as opposed to. So it is what I said, to
another aspect of the performers so asking them to imagine (I
prepare them for this) and interview session and I pretended to
somebody else, I pretended to be a BBC journalist and I asked
them several questions about this work that they had perform
with Athena Mazarakis and where were their favourite places
trying to create a myth around the piece in itself, which, was an
it was the medium which is normally that of truth was not one
instance. But even in the telling of the untruth the performer
something about themselves. Some of the questions I wanted
pushed the performers for throughout the process; was trying
smoke and mirrors were as performers. What are they do to
conceal something about themselves? What are their little tri
examples of myself. I know I ve developed a gestural vocabula
have high legs, I m not by nature limber and supple and so
else. So I was trying to find that information and they weren
that in the process so I had to create a device for them, another
which they could reveal themselves in a way even though tha
of that came for example Ivan even, was [ ] where
spoke about smoke and mirrors, that he jumps a lot because he
tremendous spring and so we used his jumping a lot in the pi
the reason he does that is that he doesn t want to look short
partly fake, set this idea of the show as having been. The thin
expect to be real is not real but also information about them

And strangely when they entered the space of fantasy, when
these questions about what is what happened and this problem that
with the choreographer that they no longer had to start to
to open up about themselves. To ask them honestly about th
not really capable of answering that, unfortunately.

J.F: What inspired the theme of magic especially with the de
specifically with the set and the costume because I remembe
various instances like the shifting of the screens and the pla
costumes and light?

A.M: I've had an obsession with magic from a young child; I h
boxes when I was a kid, obsessed with the illusion. At the
specializing and majoring in mime, I started to see a connection b
illusions of the stage and the illusion work. One of my honours mim
about a magician who cuts up a woman and can't put her bac
mime world we are playing with illusion and illusion of the il
to make this piece, I decided to come up with the idea that there are so man
instances in our contemporary life where we can't really trus
interpersonal relationships, we don't know what someone is
and what's not? What we see in the media, there is just cons
and smoke screens. So it then, for me, made sense to play w
theatrical sense as well really play with the audience's capa
disbelief. We do that in a way but we're actually the
illusionists, although of course they are working with a great
that and to divert our attention. I really wanted to play with
would, go 'Oh I didn't see that, how do that?' and then when they hook
in terms of illusion, to hopefully see that we are doing that a
degree, theatrically as well. And that of course there are all
happening theatrically by the time projection, I wanted that to be and

the magic as well, as much as we advance, it s magical for me t
project an image and it appears and there it is.

J.F. What led to the conscious choice of the theme of and the nar
exposing and revealing and concealing that kind of idea? How
vocabulary related to the theme of magic and also creating th
the wow factor. When I was watching it and the screens were movin
some people were coming magically from different spaces I was like
So creatively to arrive at that point, how did that work with t
Was it also a case of playing with the, you know, going to and from
go there?

A.M. I would love to say that it was through this magical mirror screens that whee
around. I mean it s a device that s been seen many times but I w
again because we were dealing overtly with this idea of conc
was so part of the thematics of the work. And we had
screens and how mirrors reflect reality, but it s not quite rea
also, they weren t flat screen they were edged so they refrac
version of the body. And so it is that simple magic, I mean we ha
seen it in theatre and in magic shows quite a lot, that kind o
conceals and reveals different people. I wanted to play with
does that it reveals something, whether it be a trick or taking your
attention away from something in the same way that a magici
attention one way so you can do something else. So it was tr
all those different levels from the reveal in like kind of how it wo
choreography. But it was quite hard for the performers to pla
hard to push those screens around. Unfortunately there I did
outside [and] I might you go and choreograph it quite carefully.
weren t really ready to be pushing the things around because
wasn t such fun for them they thought that stagehands should
weren t really happy to do that, so for us, that was something

had to choreographically dictate. But also one sees it from t
that s also quite different to the other illusion work because
of hand. A lot of those were his own tricks with the, the magic ba
brought thAcrosse.so on the first improvmwe as, magic and lick of them
and even if you didn t know a magic trick you had to make up
interested to see well what is the mode of presentation not w
really want to see tricks, wanted to see them as magicians and il
So I don t think I m really answering your question...

J.F: I think bits of it have been answered before as we ve be
the questions.

A.M Ja I suppose is just trying to explore that idea of smoke an
concealment or subterfuge in order to take your attention on
levels. Looking at magic on all those levels and illusion, not
using the device of drawing your attention to the sleight of hand all the
time. So light of hand and Nico s newspaper and red ball motif,
to try and use illusions of the screens; bringing people on taki
introduce sections so that that is not necessarily the importan
what comes after it. So for example in that sliding screens it
Dada and Songezo to come together to do a duet, which was
slippery and that she was wearing a wig was setting up this woman who w
of artifice I suppose and disguise because disguise is anothe
mirrors so it was a link to bring her on more than anything a
frame the duet that followed. So what follows was that he would
head and the wig and the idea of slipping out of someone s
someone being slippery was really the duet. So that helped
that and then playing with illusion early on within the beginning a
Nico s solo with the newspaper and he retreats, the others e
front of the things and going into a bourreé action. Kind of
bourreé and looking at actually the absurdity of it was trying to

create the illusion of gliding. To create that ethereal quality
that even in dance vocabulary there is a sense of illusion; pe
the stage and yet we find a technique or a way to create that ill
So I suppose I was trying to investigate illusion on all those lev
vocabulary, in a theatricality, in a technical aspect and the i
hand.

J.F: Was there a specific reason for the use of the colour red, because
remember it was used for different elements?

A.M: Well first there was the ball which Nico made appear and
duet with Dada, and then there was the big tall lady that Dad
there was red in that dress. Now actually a design was the design
so I had the performers in these black hoodies which was als
and covering. They would often come to rehearsal wearing th
found stage. So we played with that strange sense of conceal
really accentuation and playing with the theatrical, because
theatrical colours and really playing with those ideas of thea
artifice suppose.

J.F: I find it quite interesting with your work that you kind of
of yourself within your work, is this a thread that runs throug
specifically with this one but with the works that you create,
happen?

A.M: I think it has been coming up a lot about myself so it was
overtly about that. Ja I suppose it's trying to find & I'm not in
not interested in straight drama really or theatre that deals w
aware that I'm always playing with a version of myself onstag
overt. It gets a bit limiting though, I'm bored (with it), tired of doing th
installation version, I was just myself in (a) space and then

version of that, I didn t think it was about myself until I had
playing with these two characters really, the person in the in
more academic voice who s speaking about the en installation. B
course I realised that it was largely about myself – the kind of sequence of event
that led to making that piece. So I think I make meaning out
the works that I ve made that means that I kind of step into
I think that it s myself and versions of myself, so I say that
character, but it s almost like character versions of self as v
are constantly drawing on your own experience is connected very
that and make that into somebody else. So yes I think I do, i
something that I m not really interested in. Smoke and Mirrors
needed to insert myself because I felt I needed to put the ch
when we talk about smoke and mirrors and let that be anothe
trust on screen. Knowing that there is yet another choreogra
performing, the choreographer who s actually constructing it
So I suppose ja I play with layers of, versions of self, that you
with.

J.F: How did using kind of a projector in this work push the w
enable you to do something different to what you had done b

A.M: I think Smoke and Mirrors really started freeing up the projector
a projector there was no camera. I really started moving it in
that projection to happen elsewhere and so that was a develo
me to do which I was playing with & just drive home the point that
playing with smoke and mirrors that you see is not what you get
borrowing the credibility of the documentary style and using
experience. So I suppose it gave me a lot more room to play in another foo
conceptually. Smoke and Mirrors specifically, the interviews with the da
helped me access something that I couldn t get them to acce
performance wise. They were quite uncomfortable, they were making in

more comfortable dancing only, they were far more comfortab
So it allowed me to access something more of those performer

J.F: Did using the projector and experimenting with it, did it
challenges?

A.M: Yes, technically. The projectors aren t made to move around
stage they are meant to be handled very carefully. So even t
moving them around a lot the projector bulb bursts after the t
hot so it s hard to handle, so some of the dancers didn t want to
felt like stage hands. Although for me it s quite important th
someone who manipulates the space and manipulates the con
them to engage with and move the projector. It gives & obviously
issues in a theatre in that it will cast a beam, the projector
the size that you need it to [be], the performer is not always
same thing, either they re going to aim it exactly right, there s lot of t
if you want to project onto one of those round screens, you r
spill so then one has to go back to the edit and experiment.
go gee I ve got a lot of spill [then] we ve got to go back to the e
out the peripheral, black out the image just around the head
want. I think the problem is that one needs to have those ele
the process unfortunately often one comes to that idea quite
doesn t have the kind of technical time and budget that s precision r
pit, you need to really be working with it from early on in the pr

J.F: From what you were saying, was the video editing then a large pa
work?

A.M: Oh Smoke and Mirrors

J.F: Yes.

A.M: Well yes in terms of capturing the content for sure and t
just make the projection aspect work that is also a possibility be
Jessica Denyschen was on standby to help me black out all t
but ja editing started to become a combination of me and Jessica
with Jessica Denyschen and do it or now that I have started
huge part of the choreography. So your work isn t just happe
happening at night when you re selecting what the material i

J.F: Ok, Thank you.

Appendix B

Interview Transcript: Athena Mazarakis

Subject: Flicker

Personal Interview
16 January 2012, Johannesburg, South Africa.

Jessica Wilson: What was the reasoning behind the title Flicker?

Athena Mazarakis: It's tricky you have to send proposals in way ah so before we even knew we were doing I had a vague idea about th I knew that, knowing the nature of creative process, things chang able to find a title that could hold big developments from the Flicker emerged because what I knew I wanted use projection again bec starting to become a stylistic component of my work and idea of the digital flicker. The initial idea was dealing with the no We're constantly being bombarded with environmental issues of clima globe, but also looking at it on a personal level that we all h time, within that, where there's a broader sense of time. So conceptual thrust. So ultimately, you know our lives are like a flick their either in or their out. So it was trying to hold of a few con course it moved on from there but that was the initial thing.

J.W: I'm just curious when I was reading in program, just to say that you conceived the work, what exactly does that mean?

A.M: Flicker is quite tricky terms of that because I knew I wanted the Arena Program for Graham, I knew [Fe is in a band] I knew again, I want to work with old time collaborators [Bes Clea and Da ster] and Craig [Mc and for a long time I've been wanting to work with Andrew [B

conceiving of the project was my doing and in order to write
come up with a concept. So it was an initial concept, which i
now, about having a kind of theatrical universe, and to play
interactive, well not interactive, this new media universe. W
manipulating those projections, playing with the body and proje
something that I knew that I wanted to work with and really e
surface more and take it a step further from what I had done
Mirrors. So conceiving the project knowing that I wanted to do this p
working within this universe, with the following people, on th
I also knew that I didn t want to direct the piece I wanted to
the luxury of being directed for a change, but doing that I knew that
becomes quite tricky. I approached Gerard and one of our first me
well how do we deal with this? I have this idea that I trust Gera
him implicitly, more than anyone else in the country, in terms
process and I trust his artistic integrity, in the same way tha
performer and creator, and to do it was handing over the reins to Gerard
this is the universe we are in, this is the kind of thing but knowi
going to shift [Gerard] can have the reins. But it was shifting that.
constant negotiation for Gerard and myself because what we
kind of ideas people use and not wanting first author and second auth
suppose I was first author, because I had the initial idea and
theatrical universe that I wanted it to be in and I was also p
in Jennie, knew the people I wanted to work with, Jasmin designer and
Carrie as the lighting person et cetera et cetera. Throughout
I would meet once a week, so I was both kind of performer in
working conceptually with them it was a very close negotiation tha
happened throughout trying to understand this work. I also s
challenging set up for us in that I knew I wanted to work with
was not able to come to Johannesburg because of Department
responsibilities. So Fred Andrew something and knew at the same
was a challenge that would need solving and the challenge th

would dictate the artistic connection or the what like artistic connect
would love you to work with us and the challenge I ll set is t
projected presence throughout. What that is, we still didn t
but It was a parameter I guess or a restriction. In the same w
[improvisation] works better when there are restrictions that
to solve the question of who is this man that is not here? W
to me and Craig? I m totally not answering your question no
with Gerard was constant in terms of I conceived and he dire
something that ended at a certain point. Once or twice a wee
we had papers up on the wall and we would try and understan
was a certain point at which, Gerard was writing, I said, that isn t what s
reading. One line of what you gave in that moment interested in which
disappearances beneath their feet. So the idea of disappear
loss became the driving force and at a certain point I had to say to
the reigns and take it conceptually and thematically where it
how I conceived of it.

A.M. I ve probably answered a couple of questions.

J.F. Yes.

A.M. But I ll answer them again.

J.F. As performers and actors of the work was the use of new me
of the creative process or was it introduced as the work grew

A.M. We knew that we would use it, we didn t start immediatel
physical place, we tried to find the work, the physicality of t
exactly. Then once we started understanding what it was we
those devices and what we would do is, we would actually br
projector into the room with us and we would experiment; quite co

always in terms of content, but we knew we wanted to play w
we had a design meeting and there were a whole lot of idea
that just taking the piece of paper, we then played with projecting diffe
paper and we started with what would work? What would the cont
It was kind of the other way around with this piece, to really
trying to engage and then from there try to see what that cont
But it was also developing at the same time because we were
find what the piece was, so it was actually developing at the
of parallel development.

J.F. How did the use of the projector influence your movements
during the piece it was quite clear that the projector had to
specific way at a specific point?

A.M. It was our intention and as coming through the material the
of the projector is visible that we we re not trying to hide [a
with theatre we try and hide and I, at that time, was trying to take th
idea of making the performer manipulate the material. At the
we were manipulating was visuals of ourselves, video, sound
blog entries as performers, so it didn t really restrict our mo
cabling to move anywhere we wanted, that was the point we
were able to move anywhere. In a way what is interesting for
just become a functional thing but it becomes an element of
to work together; that even if it is a simple action of function
and yet part of the movement. It was a very minimalist piece
important. you re talking about projection probably ask me the thing
the screen later so I won t say it [ ], we were actually trying the
device, the projector, and we found ways, it didn t limit us
back projection, we did front projection, what is limiting is how t
projection is visible to the audience, access and safety issues et cetera t
are good for the audience.

J.F: How did the particular kind of set, the box and the sheets
influence your working process and when were they introduce

A.M: I mean the first thing we did was have ideas, came up
with some beautiful ideas. It was a process again of prototyp
something to the room, we would play with it, it wouldn t wor
that we were going to create an entire paper room, we were playing with
this kind of almost Scandinavian, desolate landscaping that s
mind at first ,when we were playing, the idea of time running
isolated somewhere. But that idea shifted and changed and chan
paper remained and it was really about a set that could be us
was the driving imperative for the design and the playing
with this idea of these two people in a house and how things
the domestic space as a space of loss, because of repetition
the box emerged because, it could be a tablet, it could be ma
representative rather. So it really was a collaborative and an
merged with the process. Jenni would bring stuff we would pl
out, she made a whole lot of things, we had origami. Then we were
were many ideas of course that just get lost, popup books, w
idea of paper from the beginning, but in the end I suppose we s
to its most simple form. To find a box that could become ma
domestic space, whatever, a projection surface, just the box,
whatever.

J.F: I think I ve asked this but I ll ask it again. The decision t
a remote performer how did that come about?

A.M: It really was a decision that we would love you to be in the piece,
you can t come how would you be present in the piece? I mean in saying
that I was really intrigued by that challenge and so if we re

you re always dealing with a virtual presence. So what if you
choice from the beginning that the artist's persona would be
with that idea, in the beginning we were going to go to Graha
there was going to be a moment at which the real Andrew em
really worked when we figured out what this video was, this
performer an aging performer speaking about performance an
that and how the magic of the moment that is lost can never
of that idea. So ja it was really looking at the making overt that
performance, performer or mediated version of self whatever
would like to call it.

J.F Having worked with your collaborators before, did this affect the way in which you all worked together because you had a working relationship with one another?

A.M Well it assists us because we have an understanding and worked together for twenty years since we first met [at Rhodes University have an understanding and a working way together; there s immed trust which is not always the case exactly because we had worked toget we were very aware of the fact that, very conscious, we didn t war Attachments kept going. Attachments? Because we had made Attachments so that was also kind of a driving force to make su something else. But also Gerard was quite good in that he wa style of working, which is my style of working in the creative digital media, of projects that are at the same time a mode of wo that reflects on itself, a mirror to the work. So I suppose that respect of that and understanding where my works is going an project of mine a not necessarily a project of the three of us conceived of together, that helped us shift and not fall back that we worked in before. Also body shift and change; Craig same ways, I m not particularly interested in that kind of mo

only. The conceptual work that I've been doing with the new
interactive media has opened up other possibilities for me th
explore. There's points about questioning what the body is in relation to
body moves and for me those questions are very interesting a
process. And I suppose that also helped us shift from our us
working. So it helped us because we have that trust that even if we are
new territory, we understand each other and we find ways to
is also exactly the thing that helped us move, hopefully, to a

J.F. The use of projection in this piece is very interesting; I mean how di
reach those particular points, creatively? I remember there w
interesting things. For instance when Craig moved his arm up
the image of Andrew appeared and the play with distance wit

A.M. That was through improvisation, so using the technology
the improv. [Improvisation] room and trying to play with surfa
as surface before in my work in a production in 2007 with the W
called Touch and so I knew that that was a possibility. So we used
when we were playing one of us would hold the projector and
would try and create surfaces just to play. Craig just started doing that up and d
with his arm and it was just amazing because we, when I see it flicker
because there really is this flicker of the image and it starts
to work kind of with the black spaces in between the image,
happens there in a sort of fast-mo. So I started to kind of call back to those
modes. Why that image really works for me is that it is the mover
performer that allows the image to become, to manifest. The
arm is here, there, his whole arm can't contain the whole image and
rapidly enough it creates a surface which becomes a projecti
that was just a very exciting moment because suddenly the p
speed of the movement dictating the choreography, the kind of
order to make the image manifest, you have to change your m

to create specific movements in order to have a true collabor
movement. So the body also starts to form me and that s really inter
that it s not then about finding dance movements, but movem
an image that would not necessarily be there. So that was su
when Craig did that, because that was one of those gem mome
that s beautiful. The light starts to kind of create a dance in itself, th
between the projector and the projection and the body. So the body s
becomes in that moment of projection, and also one of
projection. Ja the movement becomes the projection surface,
not just the body, not just the skin it moves beyond skin to m
exciting for me.

J.F: I m just curious, was it a special kind of projector?

A.M: No it was standard little 2400 ANSI Lumens. But again te
because again in our run at 969 the projector broke ten minu
the show, so we had to improv. [improvise]. We had to share
on the projection. In the last three videos we had no projector we only

J.F: Oh I remember.

A.M: You saw that one? Did you see another version?

J.F: I saw another version, I saw it twice.

A.M: Thank goodness, ok good because that was a bit of a blind. We have a bee
standard projector, a small one. Small one so you can manip
enough to be able to direct the beam to be small enough, bec
has too much spill. Already we really had a problem with spil
were quite happy to have some spill onto the back wall becau

something interesting, when that image is fragmented and dis
of projection or from the subject itself.

J.F: I have a question about the entire video, both you and Craig and al
of Andrew. They were done in different, in different styles ar
about that?

A.M: Well you know they re going to be restrictions always, or
everything, so that s part of the game with the remote performer
Andrew had to work with the space that he had and the equip
we recorded ours on which was superior sound quality and imag
We could both do it in the same space, so the camera was in
the same but it was also okay that they were different for me, beca
Craig and I are quite different. In a way [with] Andrew s blog
character whereas Craig and myself were as he was saying as we
could be. Not only ourselves as performers but really those o
ourselves, we were both present as performers and then proj
our real selves. So that, you know, was different but it finally ended up
were different because they were very different things. Of co
over we would, it was, because we didn t have the money to get the material from Andre
we thought to go and hire a cameraman and then we would do it
kind of hooked onto the video blog format for all of us to hav
consistency and to have it in his office. But there were so ma
totally out of our control, you know, in the end Andrew would
improvs and we would try to use those. They weren t really wo
wrote a script, which he used and developed a little bit and
interpreted the script to camera. So ja of course I would get
had to do it over again. It was just about being in different s
we re so used to that image of the person blogging, the Skyp
different kinds of spaces. So I suppose to put Craig and me i
Andrew in another.

J.F So for Andrew s section, did he video it and send it to you

A.M He emailed it. Yes.

J.F Did it all fit in an email?

A.M Well we found a way to compress the files and then he p
drop box I suppose so we could access through the university and it was very difficult
to get all that stuff.

J.F The decision to manipulate the paper in various ways as a
surface, for instance Craig would scrunch it up at one point
tear and open and contract, was that also a result of play and

A.M Play absolutely, and then working with what was being sa
So Craig s one the example , you ve been sitting there with a very large pi
paper and it s printed out in large of the things he thought he wan
I suppose we tried that just as an experiment without that ma
and how small and what can you do with it? But then once we
this idea of loss and what you think, what you thought you wan
things you ve lost then started to couple the kind of the conten
with the form and that started to resonate and make sense th
really crumple this and it all in a ball. There s something about th
that action and the way that action, that has then resonated with
what he was saying. Similarly with my lists, I ve always made lists, use ha
do lists, [of] I ve lost this, that. Creasing again he s tearing my
things is not my wanting to , but the things that are really being tak
me. So again we had that as an idea, we had played with tha
we were just projecting really and either with live camera or

had. We thought wow that s really beautiful because that im
fragment and move away and then well if you re going to use
couple it to the content it s something else, but it s also pretty fun and tricky,
can connect it to content then the two start to talk to each o
meaning to both things, both the action and again that action is the dan
wasn t much dancing but there was dancing and it starts to speak
projection and what that s saying and hopefully the two toget
layer.

J.F: I ll ask this anyway but I think some of it has been answe
inspired the content of the video or the projections?

A.M: Well as I said with Andrew, I ll speak to his process late
Gerard kept giving us improvs; of just sit down and give me
me the things you ve lost, things you ve wanted, thoughts you don t have
for et cetera. And we really liked the lists but we didn t know
the kind of movement vocabulary, well the kind of images tha
the scenes that we were writing. So we think what we can
project other than Andrew? And we were working with Andrew as this bl
blogger, we suddenly thought well it s a kind of private acti
which then makes sense to speak into the blog, private space intended
for you? Is it intended for someone else? But there is somet
in the room that then makes sense of those private lists and
was, well we ve got these lovely images and projection what are?
and then how we find the pathway to that? Andrew was from th
be a projected image and it was a par journey with Andrew be
was he a character that was involved with us? With Andrew you
there s, for me, always a bit of reality to that. It s not fantas
space, it s a real something. So we were trying to engage the
disappearance in the act of performance sitself, looking at the lists
as a growing performer that s aging or whatever, the things h

musing, philosophizing on the idea of performance as a spac
and disappearance, it made sense then that this is where it starts t
we re doing in the live act.

J.F: Using the projector, I think we have answered this quite a
previous interviews, but specifically with this piece because
moving a lot and being, well from what I could see, untied
Did that pose any challenges? Did your movement of the proj
the same every single night?

A.M: Well the thing is that the surface was always moving, so
would be manipulating the box so the camera never do exactly t
same thing, it can never be the same. So there had to be som
kind of the same but you have to work together. It s like dan
medium of the projector and the surface, in reality we are connected.
might not lift it at exactly the same time and so there is a m
choreographed pathways of projection. So the projector woul
until a certain moment in the text and then it was used to move dow
obviously the fine tuning had to be adjusted in the moment, b
I m projecting on his head, he s not always going to be exact
will be different et cetera, but of course it was choreographed
rehearsed movement because if I suddenly make a jarring mo
the image wobbles. So rather than creating dance movement
to dictate how I move, when I move it, because you see all m
the image if I m holding the projector. So yes it did define how w
projecting. But of course there has to be some kind of openn
course there was wobble often when there shouldn t have bee
quite like seeing the breathiness of the performer. That it s a
performance; it s not going to be stable and exactly the same

J.F: Okay. Thank you.

Appendix C

Interview Transcript: Jennifer Crewe

Subject: Flicker

Personal Interview
18 January 2011, Johannesburg South Africa,

Jessica: The design elements in Flicker are quite interesting in that the
are multifunctional. Let s start with the box; how did you com
idea to create something that can shift from a box to multiple
within the piece?

Jennifer Crewe: We never actually started with the concept of a box, it
like a process of reduction that happens a lot when I work with
it s never a process of adding things in as much as taking away. So we
start with lots of ideas and actually I think Athena said to me
meeting. She said, of the sort of recurring images and somethin
struck me was that, when standing for a long time, underneath
these people that they are kind of losing time; and that if we can
they start with a certain amount of space or a certain amount
eliminated, so the space gets smaller and smaller and smaller. So
of different things before we settled on the idea of a folding
because that can open up and be compressed or whatever so
movement in the space. But actually what we did is we actua
material first, so we looked at paper and cardboard and thing
can fold a certain surface up. You can fold it up and it gets
smaller. So it started off quite conceptually like that and the
lots of versions before you see the simple box that can unfol
Gerard had said to me that there were a couple of things tha
needed a table, and so the box sort of conveniently goes into

It doesn t really have to look like, a wooden table but it has surface to play around. So ja it was a process of elimination work, what doesn t work, what doesn t work? lots of, Lots of research origami, lots of geometry and maths and popup books and tha Essentially it s about disappearing and appearing and losing moment that disappears, So how do you do that and most make it part of th theatre magic, because the theatre can offer you black outs a actually we weren t really interested in that. We were intere making that illusion. Not necessarily the theatre and its mac great surface for projection and because it s always changing changing in terms of where it is in the space, but also before the surface can change. The only thing for me I would do diff ishthat it s still very flat. So it s surface is still two dimensional, whereas when Athena projects on Craig s head it becomes mo quite interesting.

J.F What inspired the use of paper as part of the set design, the kind of paper, as well as the choice to have them hanging in the s show was starting and Athena and Craig would kind of pick th space as they needed them.

J.C The paper and the cardboard were very much part of it and the exploration or whatever it was. So I think going back to t like space disappearing, paper is easily folded, so literally the surface smaller. It s the action; it s what it can do as well as the kind of connotations of paper, what paper had? that s what s really so i in terms of the collaboration. So we would be in rehearsal an material with us; paper and cardboard and then we would project on to them and so then we would try things. What happens if? So or you k we would just keep trying different things and so some things things didn t. But the suspension of the paper is really of a kind of ab

practical solution, because in the beginning it almost seems
full circle; you re at an ending - so, which is the beginning
you walk in it s kind of like these bits of paper on the wall across
come in onto the stage and then they set up for the next round
gives you a sense of cycle. So the suspension really was about
have these things on stage, we never wanted to go off stage
paper. It kind of gave it a kind of ethereal look a suspended
could connotate a round of applause the wax paper was just so beau
that ordinary sort of cooking wax paper that you use in your

J.F Really?

J.C And it s so lovely because it s got such a nice quality and
so you can use the projector from the front or from the back
because it s quite translucent but when you scrunch it up it
retains its form, so it can be quite sculptural. So I mean a lo
practical decision, it doesn t work if you do this, so we re doing this.
was very amazing when he s asking What if? What if? What if?
What if? I mean he s actually tireless in his questioning, each n
did this, what if? in flight changes. The paper was part of that just
movements were; the things on the stage were shown the sam
questioning.

J.F I think you ve answered bits of this but I ll ask it anyway. Wh
working process involve, was it inspired by the movements o
and the content of the work? Or were you given a specific br
around?

J.C There was a specific brief. Particularly with these people
choreographed it s devised and there s a different approach.
series of movements but rather about a concept and how do y

concept physically. So there was a very strong brief, although it was very st
but it was very vague at the same time. Athena kept saying apologis
so vague, it s about vague really, that s what s so wonderful about
concept is enough that we all feel at some point we are running ou
time. That life, a moment or whatever is passing, it s fleetin
the concept. That this couple was losing ground, losing time
also a great challenge, in terms of what does that look like? How does it
feel like in the body? Very strong brief, but also very vague,
could ve gone anywhere. Then you just go through those proc
bringing things to the table so for instance, I did a range of peop
it s amazing. Athena introduced the concept to us and Gerard
a kind of an overriding vision for the work, but of course Ger
Athena dancing or moving. So she had to set the scene, collaboratio
was quite interesting like that and then she briefed me. Then
away and then researched and drew and came up with some i
presented to the group. Okay [I said], what I ve found and you
think? I mean there was quite a few things, so there was my idea
like these are all my ideas what do you think? Is there somet
could follow and chase it down? Instantly like that and though I mean e
my job is the designer for the piece. So Craig what did you do? Wh
this? So even though you have your roles there s a sense of yo
towards the product and the process.

J.F It s almost like a constant conversati

J.C It is and I must say for them I think it was quite pressure
the deadline of going to Grahamstown Festival. So they felt a
had a very different experience, it was one of the most, most what
depressurised experiences I ve ever had.

J.F Really?

J.C Ja, because it was often about work as a designer with a c
and they have a vision in their head, like as difficult for you as a
designer because you see what s in their head so in a way you r
making things in the dark and then it never matches their exp
quite stressful whereas this way there is no expectation, the
to bring your imagination and your talent and whatever th
There s no sort of like outcome except a great show, so it s
working.

J.F The next question, were you kind of aware from the beginn
design elements had to be as much that aesthetically that they als
to be a projection surface?

J.C Ja that was always clear, that was part of the brief that w
surfaces, that it always needed to be changing in terms of th
configuration. I know that about Athena s work anyway there
not a lot to it, there s a kind of history of working. So I know th
going to want a static set, she wants something that keeps m
and that the performers can move and change it doesn t happen magica
people dressed in black, backstage that doesn t happen. The
the work so, and that s what s so interesting about Craig and
whatever objects or things the space are in, those things, even if its pr
will impact their bodies and that s what s so exciting. So a c
something to sit on it s like the world of the couple or whate

J.F So then having worked before with Craig and the team on this
production, how did that affect your working process; becaus
worked with them before?

J.C Well in fact I ve only worked with Athena before. So it was new for me to work with Gerard and with Craig, I had never worked with Craig before. So I loved it, I mean it was bliss. But I am very familiar with what they do, I kind of w come like Craig, Athena and myself, from my heritage which is from Rhod Gary [Gordon] and Andrew [Buckland]. So there is a very, very, sha sharing of performance values I don t know how else to say i aesthetic necessarily but it is how you approach work I think working with Athena previously helped immensely. I really en someone who has a body of work, and that you form part of t relationship and you can understand why directors often go t because it's like you start to speak the same language so you c things easily or with ease and that s very helpful. It s very diff encounter a new relationship and, you know, it takes a little bit to find out what is it that you want? So it helps immensely and I m a big fan of Athena she's doing with kind of digital media, I mean it's breaking in this ki terms of dance in this country, well not even just dance any So ja it helps immensely you can start to have conversations a new language.

J.F And then the last question; does your own background in m physical theatre as well as a performer influence the way tha make design choices?

J.C Definitely, definitely without a doubt. I think I have an interest in the body that s always primary for me, and even though I design now a body is still the most important thing. Everything, all objects that space or even the space itself is always in relation to the body. So body becomes like the unit of measurements like you would u Instead of that you say a body will fit into this so it s like al matter at all, the things they do, they are not interested in the body o the absence of a body but still the body in that, you know, it comes from tha

training as a performer and as a dancer, more actually as a chor
choreography is just that it is designing the body in extended and
the same thing and in fact as a designer you often treat the
than as some kind of psychological identity with social issue
actually just treat the body as a sculptural object. So ja the
measurements, like that s the device with which you should make
That s how I think, so like often at times you re oblivious, w
show, to those decisions which you should make. Like at how big
you don t just simply work with that out of your head you go to the body;
how big is a body? What does one need to do with the box always
in relation to that unit.

J.F: Now that you say that, it is quite interesting because when as I was watching there was space for both Craig and Athena to fit in the box to close with them.

J.C: Oh yes that lovely moment. That s really about proportion classic design, it does not matter if you are designing a cup or packaging o show it s all about proportion and it s about the human; how with those things and images.

J.F: And also because the elements that they have to work with they re light and easy to move around in the space and play with.

J.C: Yes absolutely, how scale key, you make them like packaging or space quite practical problems that you are solving, that being said it always has absolute clarity and decision it s accidents as well, Oh look what this can do, Oh that s good. And the joy of being with those people, there s always a sense of play, you this? What if we do that? Lots of laughter and lots of , not even mistak

mishaps shall we say, so there s play and that s what you ne
have that spirit it s, you know it s done before its even start

J.F Okay, thank you

Appendix D

Interview Transcript: Gerard Bester

Subject: Flicker

Personal Interview
23 January 2012, Johannesburg, South Africa

Jessica Foo: Hi, how did the idea for this work come about, was t
specific intention from the beginning?

Gerard Bester: Well it was Athena s concept and she brought the arti
together so ja she essentially was main author, producer of t
came on board as director. In a sense it started then becomi
through the process and then we would on a Sunday night to sort of hav
kind of mad discussions on where the piece was going. Becau
started playing, improvising new ideas would emerge. Athena
proposed, sort of a narrative for that production, it slowly started going in
another direction.

J.F: Because the work was created collectively by you and the
you focus the all multiple ideas?

G.B: It becomes tricky and I think we even made a mistake af
of making work, I suppose the easiest way is videoing and videoin
then going back and watching that material or else it was lot
always tricky because you have wonderful improvisations, the
then to try and distil and then the process of refining it to create wh
was initially found and that s always the hard part of process
never give ourselves enough time to then rehearse the text t
Athena and I always, what I sort of said [is

we need to start creating kind of headings, categories and each section with thought had points and paper and then basically stuck it onto the wall. It was very important that it becomes becomes a mind map in a way and a jigsaw puzzle.

J.F So the kind of creation process, we ve spoken about the m planning and all of that but on paper, was the text that they used in video blogs and then eventually, what was written by?

G.B Well it was interesting we ve done a work before the thre seven solos on different stages of a relationship it was calle Attachment.

J.F Oh I heard about it, I didn t get a chance to see it a lot about it.

G.B So it was a constant joke, in a way in rehearsals, that w another Attachment. But in a sense we couldn t get away from bringing Craig and Athena together, bringing a couple on stage very difficult to get away from relationship. Maybe I m wrong improvisations I set was sort of a domestic encounter. So the of came up for me and for me the two of them improvising and a be and it was interesting because they both have movement background had any text, spoken text. For me suddenly hearing both of t exciting, I felt that we have something that we could use. So question?

J.F My question was; the text and the movement what drove th process, getting there?

G.B Well again improvisation, again Athena s concept and he concept is always to comment, to reflect on performance itself

onto the performance. So Andrew Buckland s text was going t
looking back, reflecting on the immediacy of live performanc
performance, the loss of self through aging and then playing
recording.

J.F The use of the projector with this work was really interes
were those discoveries made, I mean with the different angle
that moment when Craig moves his arm up and down?

G.B Through play and just playing and Craig and Athena are just fantastic a
playing and improvising. Look it was definitely a challenge ri
about what we were going to project onto and as soon as we
paper idea and projecting onto Craig s body there were some exciting
discoveries.

J.F So within those projection discoveries are there things tha
throw out or not use? Or you as the director visually, becaus
see how those things looked like?

G.B Well part of the director and part of the process of directing
editing. Not being precious. Allowing yourself to constantly
suppose it s always attempting to be clear to the audience about what one is
conceptually, just in terms of set ideas, threw out an enormous amo
suppose what one always forgets is , well for me, there is suc
and not get too cluttered and not to get too tricksy. Ja, but i
outside eye we would scrap it, I would say, I think this is really
working and then I would hold the projector etc. Craig and Athena
being main author it was very important for her to also see h
working visually. Ja there was a point where I had to step into the role a
performer and trust, but as much as possible it was attempti

J.F: Was it always the intention from the beginning to make u
projection?

G.B: Ja [with] Athena definitely it was making sense as something tha
excites her.

J.F: So it was very clear?

G.B: Ja and she always well she & Andrew was always going to be
then we started recording Craig and Andrew and I were not sure if that was g
work and what was going on in terms of the live performance also b
but eventually it felt right and ja it was.

J.F: The kind of idea to have Andrew as a remote performer, a
how did that come about?

G.B: Budget (laughs). Well again it was also Athena not sure what she
said to you, but she wanted to work with Andrew Buckland. A
and with Andrew being in Grahamstown and us being in Johan
of Athena incorporating him and then finding a way for him to be in the vi
this kind of this concept of him playing with time and space w
wonderful comedy.

J.F: I mean within this work how did you negotiate balancing th
element of the projection, with the text and the movement so that s
doesn t get lost within the other?

G.B: Well it was very tricky, and again going back to this ide
and constantly playing with the pieces and seeing how they w
know there were constant changes. There was never a set structure and I
for me what was very important was that eventually everythin

other, sort of dialoguing with each other. And I suppose stru
because I didn t want into be too tailoring and section and I suppose
projection you do get into that transition moment of picking t
it, making sure that it s focused. But I think in the end we m
throughline and a poetry of and this kind between all the elements
because we were playing with this theme of repetition, of dis
helped as well those silent moments allowed the audience to
settle. I always think silence is so powerful, and pause
became important moments.

J.F Because, I mean when I was watching it, I was aware of Okay now
they re picking up the projector, going to one transition.

G.B Good.

J.F And then stop it s another one, the transitions were smooth I didn
physically notice that okay there s silence now, which was
interesting thing for me to watch. Because often with project
sometimes there s a little& this was quite interesting for me t
Especially with the different surfaces and then back and how it
they tore it. Craig scrunched it up so there were some really
interesting things.

G.B I mean I was very excited by the work eventually, it was
do think we found some really beautiful imagery and I think t
Athena; the lists gave a very sort of private, personal, delica
thought added greatly to the work.

J.F Were there any difficulties that we encountered working with the video
projection as a medium?

G.B Well it was interesting because we tried to record as mu
possible. When we started doing the lists the first time we di
so beautiful because Craig and I just improvising, they were bein
brave and it was spontaneous, it was fresh and then we deba
lists or not. Then we eventually decided that alright we were
eventually recorded it at Athens and I found that it was very h
then once we had gone in front of the camera, set up the cam
find that spontaneity and that freshness and again not wanti
wanting to recreate what we knew was there before. So possibly a
lesson learnt that if one ever does kind of personal narrative
and record it at that first improvisation. The wonderful thing
can edit, you can pretend (laughs), you can cut stuff. So that w
interesting thing for Andrew [with] was hard, because Andrew was s
, as a director it would've been wonderful to have been in the
have been able to help guide that process from within. So in
difficult with Andrew. We met questions in the beginning. H
improvising alone in front of his computer and he would sen
And we would sort of say ja, err and even talk to him then
and suddenly that seemed to help Andrew and suddenly we ha
material. Then just bloody technology and things breaking do
not working or the computer doing something odd and then yo
and then you just want to go back to just performers, you kno
of all this machinery and technology. So that was our first tw
know if you came to our first performances?

J.F I came to the first one and then I came a bit later.

G.B Okay. Good. The first one we had technical problems [remember]?
But two of the performances we had technical problems and e
set up two projectors with two computers in case [one] messed

J.F So was there just one projector at first?

G.B Mmm, for the first two performances.

J.F I thought so. I was leaving the theatre, I was thinking first time I came here there was one projector now they are two.

G.B Now it was just as a backup.

J.F I thought it was intentional as part of&?

G.B No it was&ja all that cabling&

J.F As I was watching I thought about that and I thought Oh m

G.B Ja no it was& (laughs)&

J.F Having a prior working relationship with one another did this affect t way that you worked together on this work?

G.B Absolutely it makes it so much easier and ja I mean it s sense of trust, a lovely sense of play. Athena and Craig have years and years and years and years and we all just said it was back in the rehearsal space. So ja definitely, but on another challenge to then create something new.

J.F Okay, was there a difference between the performances in and the performances that were done at Wits, because I saw

G.B Well I think the work had been developing. I m a bit emb was partly budget considerations but I could only be there fo

Grahamstown; which was terrible actually because the work w
were developing it. So even after that first performance we c
was great to do it at Wits again and just to revisit stuff and
Nobig ones, but just again lighting and I don t think we cut a
it was again just finding sort of seamless transitions.

J.F-Last question, what was the reasoning behind the title?

G.B Again it was Athena (laughs), returning to this idea of los
that final moment before something disappears. Soit s that sor
trying to hold onto coming in and coming out and& I think
answered that better than I did.

J.F-Thank-you.

Appendix E

Interview Transcript: Athena Mazarakis

Subject: Coming To

Personal Interview
16 January 2012, Johannesburg, South Africa

Jessica Wilson: When did you start making use of interactive media in your works?

Athena Mazarakis: Take 1. This is the first time I used media in the making of Coming To. Coming To was in 2007, so that was about 5 years ago. I think the things that I've been involved in productions that used new media before. So I was in a production called The Forgotten And the Forgotten And The Forgotten And The Forgotten And The

A.M: No from the outset. I had made a piece, it was like a very sma
for Dance Umbrella it was ten minutes or something like that
explore the thematic and the conceptual idea of embodied m
the body and tracing memory of other bodies. But through the other
came to making this piece which was also quite important
creative project or my practical project for my for my M.A
Dramatic Arts] and ja from the outset I knew, it was not som
was something that I wanted to engage with because I suppo
said. I was quite daunted to work as a solo performer and j
needed collaboration, but I wanted to be a solo performe
budgetary constraints. So I knew that I couldn't employ other
but I could certainly engage with people like Tegan [Bristow]
a kind of conceptual level. So I knew from the outset tha
because it was that other than just thought, I did collaborate with a
as well, for me I wanted the piece to operate on many levels
outset the kind of first layer; the audience must be able to
you read it but I like that there to be many many layers and th
I imagine that the interactive element would give me that. B
really give me something to play with, I don't know how m
talking about the outset.

J.F: Yes.

A.M: So from the outset, absolutely yes because I wanted, I suppose
playmate, I wanted a collaborator in the same way that you
body in the space and through that engagement to feed that material
without the presence of another performer in a way I needed
myself to play with and the interactive element gave that o
give that.

J.F: Okay. If you can remember how was the collaborative
the designer and the interactive artist initiated, by that I
them an idea of what you were looking for? And then they k
and then you played or how did it work? Or what can you
that?

A.M: No I don t really remember, so you re in luck. I think the impo
each of those relationships was different and I think that the
with me and each of them. So in the end there s a collabo
interactive installation myself but primarily the relationship was
and Tegan and myself and Naomi. And those relationships we
I start with the design with Naomi, yes I briefed her as to
what the kind of environments were and I wanted to engage her
possible in the process. So very early on in my mind of e
improvisation based it was a real plan to bring someone else
room so it wasn t just me, not to play with. So I had sessions w
where we brought a whole lot of objects, kind of very typica
one starts to map a space, or sculpt a space through objects
relationship between objects and to what is emerging through
that she was quite active she was playing with me in the sp
outside giving input, we were both, there weren t many of thos
there were perhaps three or so. So we played, made kind of p
sculptures and installations in the space, I brought objects
clustering and allowing the installation almost to grow an
relation to that so that sort of exercise. Then when I wo
say to her, I have this crazy idea one of the first things tha
I was looking at the body as site specifically and subject, s
the body was quite interesting to me in terms of Greek
example was playing with the idea of the island that my family
grandmother came from, that Cloridi Town is on the island in
mythology where she emerged out of the ocean. So of course

don t make it into the final work but we had these like ideas o
structure emerging so the body is to the naked eye looks as
joint unfolds, the arm is folded in, as the joint opens a bit more we see as a
screen [of fabric]. We were trying to play with surfaces as w
we knew we wanted to project things on, so we thought well
that. So often I would set as a task and we say, Can I kind of
device that as the body extends we see that there is fabric o
the body increases? So I would often set her that task and
back bring something, a prototype and I would play with the
design. Sometimes it works sometimes it wouldn t work. Oft
images, like the image of that dress. I had an image of flowe
and we couldn t figure out how to do it on my own body. N
create that shape [through ropes which represents the grandmother
[she] found ways to let that emerge. So ja a kind of balan
improvisation together and then me giving Naomi very speci
like her to try and. So I would get the image and I would gi
task of trying to manifest it. With Tegan [Bristow] I suppose
Tegan didn t play with me in the space, we spoke a bit ab
wanted to do and I left a lot on Tegan because I didn t know
interfaces were possible. I would say for example, in my kin
around interactive media, I would say to play with the idea o
music out of my body. Facts about the image that I was playing
idea of culturally inscribed memory and not only personal memor
but a kind of bodily memory. So I thought, would, I create the
sound of a bouzouki playing on my body?

J.F The sound of a?

A.M A bouzouki, which is a Greek instrument, it s a stringed ins
Tegan would think about that. In instance she created that interfa
we had a microphone and every time I struck my body it pitc

She matched that with certain tones and sounds and created a kind of feedback loop, so that it would translate the pitch of my into a sound, so in that instance she kind of freed up parts of the had. Other times I didn t know what was possible and she br so I had gathered a whole lot of cine footage. A whole lot footage, my mom was a compulsive, so I had all this stuff and we didn t quite know how to use it. I suppose it was in discu what it is we were trying to do I think if I remember correc and I think Tegan would maybe remember better than me, b the idea, I think she called it the kind of mask. It s a silhouett time into which the cine footage is projected so it contain footage. I suppose it was quite hard for me to imagine wha could see it, so Tegan would work on something and then on get really excited and say, Let s try and push this, let s do that. So Te was hugely significant because I didn t know really what remember being so excited because the first time we tried th think she calls it masking, I m not sure if there s like a te Gerard Bester in the space with me ,for some reason he wa me, and I don t really see it on myself I was kind of being the stepped out and he happened to walk past the camera and took images with him of my childhood and that just excited m there were kind of these moments of discovery and then ther times where I said, I would like to have a duet with my grand can we make it possible that I can dance with an image, how of the cine footage of my grandmother that she found insert my kind of white silhouette into the projected ima relationships.

J.F: I m going to ask this anyway, but I think some of it was What parameters if any were established for the collaborators?

A.M Parameters? Explain what you mean?

J.F In a sense, I think you have mentioned it already about framework within which to work and then you came back and

A.M I suppose the parameters were made up kind of themselves, so I th we were quite open with what was possible especially becau was possible. So with the interactive stuff I was quite open emerge, but there were also some set parameters being imposed on a theatre stage at that time with the technical stuff. Wi there s some technical parameters; that in terms of lighting et cetera. So that kind of defined the interfaces that we used defines that because it needs to be very clear. What ever you do needed to be very clear for the audience that this is some need to see the interaction happening, it can t be just something movement and the sound changes because how does the aud onstage doing it and not the sound operator in the sound bo I m not sure if that s what you re asking, there were physi thematic and conceptual concerns kind of created the frame in So bearing in mind the first time I performed it was at Grah [National Arts Festival], so you re even more limited in ter seem irrelevant but those actually were quite clear paramet parameters anyway, within which to work. I suppose I guided was my work, I was kind of artistic director of the work if yo suppose, although it s a collaboration, I had final say as to w didn t and how it was shaped. So I suppose it was kind of m where it was going, that was what kept creating parameters a

J.F I just want to ask in relation to the interactive elements, I sound like I m speaking a different language, but specifical tracking elements and the camera things, because for that t

you have to move to activate very specific. So did you have t
your movements within particular spaces to activate th
interfaces?

A.M Ja what became very clear was that, that became a very
choreographic; they interfaces started to define the organisation of movement
space. Of course what freed us was the ability to move the
what we did. Tegan was quite free in the space, so she wou
we weren t locked into doing specific things in specific spaces
we could shift them. But yes I mean that it s both a restricti
are also interesting things because they open up possibili
choreographic possibilities. So for example the coming on to the
it s quite near the end of the piece and again it s the silho
the projected images of myself ,you know dressed as a kid
dance with my father and my grandfather. It was produced during
in quite a contained space and that I kept moving away in a
the action of the, She turns and that I kept catching the camera
actually started to work quite nicely it was but it was restrictive
work conceptually quite well, that one kept keeps getting pu
and one can move out of the circle but you come back to th
come back to the same point one is still aware of one s a
escape it; so I mean that s one possible reading and intent
many in that moment started to give possibilities. I can t reall
space without encountering the camera again and the came
back to the archive because it s going through the computer and
create possibilities, I suppose we struggled quite a lot in
because of lighting and the difficulty and I know Tegan t
technology has moved on so that we don t have to worry about tha
Kinect, I mean it uses infrared so you don t need lighting.
movement in space but I could What was very difficult was
relationship between the camera and projection, keeping spaces dark eno

project on without spilling and dissolving the image and kee
for the camera to capture, so that was the tricky thing. We did it the first time aro
in Grahamstown and that was actually quite a problematic space in w
wasn t entirely happy with. But I think we started to solve i
performance at The Nunnery, but still it was quite challengin
to really cut up the stage space, to work with my body and the proj
body in the same kind of frame a lot of the time, because th
be divided with light and darkness. But I think ja we got that
certainly defined the choreography quite a lot in a negative s
gave possibilities.

J.F: The process of writing a journal is it something that you d
works?

A.M: Ja I think I was more conscious of it during The Crossing because I knew that I had
write a research report. But it is something that I do. I suppose the
journals though, I mean I had that was because I was writing the
report and I was the subject so it became very complicated.
many filters as possible and keep a journal, I would probab
more of a workbook where I capture images, ideas. I think I
less because I start relying more and more on video, which I
because I think in the writing process of processes what you ve just e
and already start translating it and finding the theatrical e
doing or the theatrical possibility. I think when you re just c
capturing, recording, somewhat ahead you can redo it you re not
processing. But yes I find the workbook very important to pl
get what came out of it, but more so to try and pull im
everywhere else.

J.F: Well specifically with your improvisation sessions, I think in your
you call them open improvisations how do you, specificall

working by yourself how do you clear your head and allow y
be free in a particular space and moment in time?

A.M I mean that s very important to me, to be in that space, t
through a kind of physical preparation. When I say physica
preparation of stilling the mind and really tuning in to the b
outside world allowing yourself to be in that space in that momen
process like I was doing, for me it was really important. It w
without thinking about it for years [which] I really wanted to
aware of those connections between memory, stored experience
You really do need to be in a state of being able to listen to
process has its own preparation. I find different ways to tu
different everyday so you need to do different things. Someti
serious cardio for twenty minutes, just to shut everything u
more kind of meditative yoga style, breathing kind of focuse
thing. But I would call it kind of tuning in and listening because i
you want anything to emerge you need to let your everyday
they are going to come in. If you want to dig deeper and de
yourself to reach deeper and deeper and listen deeper and deeper and
tracked by what you ve just brought into the rehearsal room

J.F What was it like being able to interact with your grandm
childhood self through the medium of the interactive ?

A.M I ll probably not do it, it was quite astonishing because I was enga
that material I really did find myself remembering a lot more
speak about it in the thesis as well, I look at how you move
get to an understanding but it s strange I don t know what th
did find that my own memory of her was jogged by having t
with her. It was quite strange seeing myself as a child bec
remember any of those instances that I use the footage of.

to that place where that footage is, it was like a resort calle
used to go for picnics. I remember kind of a global thing
Mazelspoort, but I don t remember for example those imag
powerful and strange what happened in one of the improvs
material, I was working towards finding a way to start do
grandmother and what was possible and there s an image of my
year old eating a piece of watermelon and for some reason
over that little self. In a sense what I was dealing with now
and I walked up to that self and I just put my hand over her ey
quite a powerful moment. I still can t really articulate why
worked for me, but kept it. So it was quite & I mean I would be lying
affected by nostalgia, having seen a lot of the footage, I didn t use
but watching a bit of myself as a child I also, from this point,
versions of myself and it was like, Oh I ve always done tha
obsessed with myself, it was quite interesting.

J.F I m just curious why the potatoes?

A.M Because of the story itself that I tell that, my grandmoth
if I tell it properly [during the performance], if you had a wart she h
magic thing that she used to do. She would cook up a potato a
potato on the wart and say some things and then throw t
neighbour s wall. They must have had a whole lot of potatoe
it worked that they used to suffer warts and she did that and
me the connection is that the potatoes are the thing that re
thing that you don t want and growing up in a Greek househo
felt like that bit must be removed or that aspect that must be
often it feels like it would take a whole shower of potat
reference. Then I use them as kind of those key points and t
extension I suppose it is. I had done an improv. with my supervis
Pather and we were talking about key moments and kind of

been using any old object or different objects so we then tho
because then that object has a certain symbolism and they were already t
there's a process of transformation; from being this thing t
actually being significant moments or being representative o
things in my life.

J.F From working with interactive artist and the designer is ther
that, working with them did, did it bring anything new kind o
way or process of working?

A.M Ja absolutely. I mean of course always with the design
brings a different approach or a thought to set and so with choreography
digital artist. I learnt a lot and yes it started to make me e
very different way with my own work because it allowed m
making movement meaning to making meaning theatrically in other
with the technology, which I had never done. I was quite ex
always kind of enlightening is to see how other people take
that you have and it translate through their medium and then to come
own medium and then to see how that then resonates and wh
can that find. So I found that that constantly pushed my ow
interrogation of what I was trying to say through their medium.

J.F Had you worked with any of your collaborators before this

A.M Yes, I had worked with & well Naomi was a student of min
with her in that capacity it was the first time we worked pro
Tegan and it was our first working experience. We had worked o
one of PJ's [Sabbagha] productions which is how I met her a
academics at Wits and I knew that I wanted to work with her
right to work with her.

J.F: What did the use of the interactive elements in this wor
achieve beyond the physical body and the physical self?

A.M: How do you mean, achieve beyond the physical body?

J.F: I mean as opposed to adjust done a piece using solely mov
what did this kind of bring to the table for you? I think y
answered it in snippets...

A.M: Yes, I ll try and consolidate those answers. I think it
holding space for me t mean. I mov think what was important for me
technology didn t ever dwarf the movement, because I find th
had seen with interactive, not so much with interactive med
the kind of focus on the body projection when it s huge et cete
wanted to create a real collaboration and a partnership between the
and so it s kind of a long way around of answering your questio
what I said earlier really that gave me something to relate to and to
the movement will always have meaning and that s import
technology doesn t take over or that it becomes so conce
movement no longer has meaning. For me it needs to hav
meaning, every gesture is important in this case we are d
memories so it s about either accessing, expressing, engagi
experience in that memory. So it was important to me to create a so
allow that movement to sit in and not only sit in, not only b
but to actually have a dynamic relationship with it. So that
even more meaning and a life beyond itself because as we
ephemeral, the moment we execute the movement the trace is
something about the visual aspect and the fact that the dig
computer programme wherever it might be. That it also allo
that relationship to remain in a more kind of solid way; but
importantly that it gave me something to interact with and

layers beyond the movement meaning. For me that s importa
feel something as we watch a particular movement a
stay with us, but if we add an image to that we re engaging
visceral connection of the spectator, or the audience me
intellectual faculties, then I think that image is poetic and op
question in their mind, if it registers in the audience memb
kind of faculties then I think that image will be far more pot
with the interactive media that allow

J.F. What was the reasoning behind the title?

A.M. I suppose it was a play on coming out it was about yo
difficulties of being Greek and gay and trying to come to terms with
narratives; grandmother s, mythical narratives coming to terms with
of coming out and coming to like waking up and part of comin
consciousness, is about gaining consciousness of the past
understand yourself in the present and to have a coming to terms with
past and what you see as the future. I suppose it s about coming to, wa
becoming.

J.F. Okay, Thank you.

Appendix F

Interview Transcript: Tegan Bristow

Subject: Coming To

19 January 2012, Johannesburg, South Africa

Jessica Foli: To start off with can you tell me about your wo
Athena, were you given a brief or how did it work?

Tegan Bristow: For Coming To

J.F: Yes.

T.B: Okay, with Athena I mainly worked with Coming To luckily had a lot of time, we
because sometimes you don t have a lot of time, and because
me with a kind of outline of what it is that she was interested
understanding of sort of the general concept that she wanted
relationship with the grandmother and sort of this kind of fen
between moving and changing and coming to I suppose. So th
idea, she explained it to me, we discussed what kind of thing
technically together. I spoke to her about kind of the technology a
been exploring, so she was like, great let s make this
applications for her, which we then tested in studio, like in p
felt kind of fun and comfortable with just having me there all the ti
to take them and play with them. So I set her up with the can
software on a laptop and she played with them and she would
suggestions and then I would develop and then I would give it back to
very back and forth kind of growing for the different parts. W
about how the content and what she wanted to do kind of spo
how the media allowed for certain things to be said without them being sa

J.F: So from what you're saying, early on were the interactive eleme
introduced into Athena's movement process, was it constantl
beginning?

T.B: I think she had some ideas of some things she wanted to do, t
she knew she wanted to like have a dance in the Greek dance
where you kind of hit the body and it makes a very specific kin
very kind of traditional dance and she somehow wanted to in
aspects we developed together with the technology, so as sh
technology we realised that if she moved in a certain way it
certain way and there was adjustment happening in real time both side
particular sections she specifically that she wants, to get from t
this, that this is the kind of action she wants, she wants to h
or happening when she smacks herself. I came forward with t
from the ceiling and just picking up the sound. So ja, it was
beginning, some halfway through.

J.F: With the collaborative process how did you marry Athena's
the interactive possibilities, because she already had a lot of ideas of what
was possible and you also trying to put the ideas that you ha
kind of her vision and concept to be realised?

T.B: Ja I suppose I have answered some of that already, also
thing for her at that time, for her, to focus on that particular piece was t
understand collaboration. So the way she engaged and was o
open to trying things out really really helped a lot. I had nev
performer before then myself, so it was the beginning to get an
understanding of a language that did not exist, to understand whether
there was a language in movement before then. So it was a b
both of us and we were both very open to what was coming and to offer

and I think the discussion really kind of helped with that stu
particular piece I didn t contribute hugely to concept with re
this and then do that it was more what the technology could
concept. So there was a kind of understanding of the mood a
wanted and I would sort of help her make that happen, but no
reasons that we keep working together is because we now ha
undetrsanding of that and we have a strong understanding of ho
can come together. So it s much easier to then to contribute
because we have a stronger sense of how each other works.
that is not to say that Athena s piece is that one of the pieces
that I was kind of working on then, it was very very basic an
make it quite pretty, I wanted to experiment further. So I got
performer onto a projector that extended the software that I wrote
extended the idea that I wanted to follow through; that they
kind of enhance and change Tasja Camerons conception and
development, but once you work in that way you have brand new things
out of that.

J.F The next few questions are kind of about the technical pro
kind of thing. So the idea of the projected text right in the b
show, if you can remember, as it started it might be there was text
introducing that saying that Athena s going to explore this a
speaking about her grandmother. It was a brief summary of t

T.B Before the film part?

J.F Yes before the film part.

T.B Was that in DVD or on the actual stage?

J.F: It was on the stage, there's a screen and the words right next to it was the text.

T.B: Oh okay, what do you want to ask about it?

J.F: I just wanted to ask how both of you came to that idea or behind that?

T.B: Oh okay, I think there were parts which like I said we wo different exploratory form and she had some stuff that was k beforehand. So she had already started working on some of t came to me with some parts already established like the dance the beginning with the film like the kind of introductory thing front of the microphone and she's got the feather boa on and the car. So that was almost from an older way I think for Athe media and that's when her and I first started talking I think t would be more just projections and like that kind of thing. So actually did together was go shoot that little film and make it had already kind of started thinking about the beginning, you about things slowly. So that introduction was kind of part of had the black text that said something and I think it might hav because it was an M.A initially. But it was very much part of of media that Athena had around mixing performance with pro she was really surprised when I started doing other stuff.

J.F: I'm very interested about the sound activation in the begi microphone where Athena taps on parts of her body and claps about the mechanics of that, technically?

T.B: Okay, we did it in Max/MSP which is one of kind of the fundamental programmes for designing interactive media and at the time i

I used a lot. I have since changed but it s a very easy and n
and basically what we did was we put the microphone in front of her,
hanging?

J.F: From the video I could see that there was one in front; s
front of her. Maybe there were others hanging but I couldn t

T.B: No I think it was placed on it was at the moment. Sort of like where s
was beginning to perform and it fell into something else. So
frequency analysis where it was amplitude which is loudness
beyond certain loudness it would pick that up. But that was not good
enough because hit for you your head or if you hit your arm it will s
depending on how hard you hit yourself. So we did a frequen
very very slight difference in frequency when you hit the inside of your
arm versus your chest there s a different kind of frequency i
frequency analysis and then kind of worked it out with her, s
her arm quite a lot so that we knew that the matrix that is the sound
and then the chest is like a deeper breath so it would not trigger th
other one.

J.F: Was it a special microphone just out of interest?

T.B: No it wasn t a special microphone, it was a condenser mi
would pick up, it picked up sound in all directions which is a
because if the audience did anything at that moment it could
should have been using a monodirectional mic. But we just h
driven and because we were running everything off the laptop
the films or the interaction whatever was coming through the
so we couldn t use the mini jack for the microphone because
we found this microphone that was USB driven.

J.F: Can you tell me more about the use of the, I m not sure I know there was a camera used in different kind of instance different things?

T.B: The camera was kind of because and I think this was one of times me working with [Athena] I had done theatre before but part of the development I hadn t got kind of very closely invo such a small space and it was that to be so specifically focu because once we started working with the computer vision st kind of very specific kind of silhouettes and we wanted the r silhouette and the screen as the back of kind of in relationshi each other. It was really hard to just have one big camera lo because the camera would then pick up the projection and th start interfering with what the camera saw. So to do, because projection was going to be at the back, we had to kind of poi from the side so that the camera didn t see the projection, b light sensitive. We didn t know that so we were doing very very light sensitive stuff and for Athena positioning became a ver meaning and the content. So there was a place at the back o because it was very much about mapping as well, so her enga actual floor space of the stage became quite meaningful as w camera around a lot.

J.F: I saw that.

T.B: That s one of the reasons we decided to keep me onstage who was documenting, so it was not a human thing it was almost as a character that was reflecting back the historical was in the technology, So in a way I and the technology that represent something very specific and worked that way with the positions of the camera and moving it at specific times and t

included mapping. We kind of went and chose yellow tape spo
the camera positions should be, the tripod so that it became
space where things would be and then moved to different loc
one camera and then move it around a lot because of that bu
step, every single decision because it was there's no single, you
back into the beginning. None of it was arbitrary and we neve
any engagement become arbitrary in that it doesn't represent, it does
represent something so we let it kind of speak for an aspect.

J.F Can you tell me a bit about the video of the moving map, I
one of the scenes towards the beginning there's a map proje
and Athena is in front of it but the map is moving and it kind
illusion, well to me, the illusion of moving on a ship how did yo
achieve that technically?

T.B Technically, well ja Athena was looking for something tha
of mapping and travelling and changing movement and it was
that I had from a work we just reused. It was actually a map a
video camera and just slowly along so we made a very very
short film of like a camera kind of following a road on the ma
handheld [camera] and we just put it to run. I think when we
with Athena her movement and how she was moving was also
it and how it was changing. So it was very interactive with he
performing as well.

J.F Was it understood correctly was it based on timing and t
rehearsal then you kind of set the speed and pace of the vide

T.B Ja exactly, you know things you know that, working this,
remember it was so long ago, I mean there's a lot of rehearsal
rehearsal, lots and lots and lots and lots. So we have an ide

try it out and then we'd have a table read, we'd walk it through just to hear it and then we'd tweak it that way. Never is it just straight off the page in rehearsal because then it becomes about performing and practicing.

J.F: I just have a question about the various stands on the w different technological elements like the projector, the came come to that decision to have it on wheels?

T.B: Oh ja because the projector was on wheels because we n back and forth, was it just the projector, was the camera on wheels and the whole w else was on wheels?

J.F: It was just the projector and the camera I think?

T.B: No the camera was on a tripod that we just moved around on wheels and moved back and forth for the exact same reas on a tripod it was about positioning, mapping the location of space and how that began making meaning. Also we needed to f in and out, so obviously if you pull the projection more forwa bigger projection surface and if you push it right in you're g projection surface. So when we pushed it back it was a) to give u what was interfering with a location that we needed but wha was also allowing for a bigger projection, so some of the int but she could have more space. Especially if she was performing i stage we needed to push the projector back so we had a bigg was performing towards the back I would push the projector would cover her. Because also she's quite far from the audience we a to-it was almost like using a light in a way we needed to brin that kind of thing.

J.F: Can you tell me more about the use of Athena s silhouet
interactive elements? Her silhouette was used in many different way
where her silhouette was filled with the video of a map; there
where it was filled with the footage of her childhood, and the
another one where she was interacting with her as a child and
grandmother. I wanted to ask about those?

T.B: Okay and I think, I mean it was kind of a technique that I
was working with at the time. Max/MSP/Jitter was kind of, you
mapping, so you could extract a silhouette or you could put video in
and it was kind of interactive video that's why you could, the interacto
to somehow become part of the video through some change o
things. So what we was we took that principle of interactivity whe
acts as a sensor to feed information about the body into the
used it as a purely aesthetic form. So it was kind of interact
started looking at that kind of aesthetic and actions to see q
this actually rather than just information coming in. The relationship
between Athena now, Athena in the future or Athena that didn
grandmother and this presence between someone who is dead and in t
and someone who is alive. She was finding these connections
person so her body, and I think this is something very much
that the body very much holds memories and information and
kind of thing. So it was kind of an immediate and almost obv
the body in that the media became a connection to a hist
The media was the vehicle, the media was a projection of the past you know
what I mean so it was almost like a physical relationship bet
in the real world. Athena as a body like as a kind of a metaph
connection with her grandmother as well. So we just kept that
and allowed that to aesthetically begin talking to that. So th
instant the one where Athena she had these movies and she wa
we do with the movies? How can we use them? Is it just projec

them was to put them in her silhouette, so when you re watch
see her performing and see her like engaging and feeling wit
seeing a real thing. So for instance with the one we with her as
played and played with it, we definitely played with it, she k
specific moment that the movie changed and then she would
stood back up again. So she allowed the film to kind of beco
body through her performance. Then the one with her grandmother
because it was more of a nostalgic thing and it was more abo
not her so we put her white silhouette into a historical form
there and she only will be there; but the play was about conn
kind of allowed her to physically connect through media and
the video was.

J.F: The section where Athena maps the stage space with pot
behind her the projection where I think different circles appe
places a potato on the ground. I m just curious about that we
by anything?

T.B: They were triggered by me (laughs). It was a Flash anima
in compartments It was one of the few things that we couldn t mak
reactive. I would basically watch and as she put that potato
next piece in and then so it was very paced in that way whic
because you didn t have to rely on the media. She could kind of fe
through it and it was right at the end so she was quite tired
knew exactly...

J.F: The timing?

T.B: Ja so we just sort of paced it out like that and ja it then
at the end, that it was one long animation basically and I kin
it was a cheat.

J.F: There was also a section in the end where, well from wh
looked like when Athena clapped it triggered a series of diffe
this the same principle as with the microphone?

T.B: Yes.

J.F: Okay and then just feeding video into in?

T.B: Yes, so the first one she was using her body and so this
switched over to look for amplitude so it's just that so why she
was clapping quite hard and then it was changing pictures ov
the same idea, ja.

J.F: Then the last question, your experience working with a p
does it affect the way that you work in your own practice now, did
you learn anything kind of from this process of working with

T.B: Ja I learnt a lot actually because I had always been sort
person and working alone. Theatre is very much a collaborati
choreographer, a director, performer, lighting person and soun
never really worked in that environment before and it was fas
communication that happens. The kind of engagement and int
are allowed to in rehearsal, nothing is ever set in stone an
open to shift and change and practice like that was very exci
also incredibly spoilt I think working with Athena because sh
potential and I like in the beginning I think she thought that it w
to be videos and media; and then I came with all this other s
she didn't know about it; which is one of the kind of exciting
collaborative I say I'm spoilt because I approach well and say,
you do a projection for this, projection and I walk actually

just say no because not just interested in making a projection f
project on the back of your stage you're doing something else,
potential for it is so so much more. I m spoilt by working wit
with her some more. I think it taught me so much, I think if I
somebody and it be, we're the choreographers, we re the dire
what we need you to do it would have been a completely diff

J.F. Thank you.

Appendix G

Interview Transcript: Naomi van Niekerk

Subject: Coming To

Telephonic interview
30 January 2012

Jessica Fogel: Can you tell me about your working process with Ath
there a brief, did she give you specific instructions?

Naomi van Niekerk: Okay so the working process with Athena?

J.F: Yes.

N.N: Well, I have memories now because it was quite a long time ago. A
can remember it was like a real collaboration in terms of like
rehearsal was, it like in the Nunnery, she came to rehearsal with s
some things and then usually she did improvisations. I was kind of the
about giving her feedback about what I saw, what I liked she did lik
improvisation exercises like creating a map with objects and
about these objects or like I did it too do that kind of thing
own. So at the very beginning of the process that was kind of
giving her feedback on everything she did and then I would t
how she had to navigate which part of the improvisation was interesting and
part could be kept for the performance later. So that's how i
free and then in terms of instructions for the design, there was
thing like a standing pump. I don't remember how we came up with it, but
about her staying she wanted exactly that, something like that
she would kind of give an idea and I would give an idea and
quickly cut objects up and then myself would then see how she co
use it. She was very open in letting me try things.

J.F My other question is: the video footage of Athen and her grandmother, did that influence the way that you created that doll figure?

N.N Yes it was obviously very much influenced by the footage of her grandmother and the way she was telling her grandmother that is where the idea came fro

J.F I remember one of the things I saw in the video was that t two little heads that were close, I don't know if you can rememb that?

N.N What was that, oh ja the two little puppets.

J.F Yes the two little puppets.

N.N Yes I remember that, that was like her grandmother meet falling in love, if I remember correctly that was it.

J.F That was quite interesting because at that particular point and did almost like a dance with the two puppets and I thoug was quite interesting to create another scene in that way wit two design elements. How did you arrive at the decision to ha minimalist look of those two puppets?

N.N Just repeat that please? What was the question?

J.F I was asking how did you creatively arrive at that point?

N.N Well the thing at that time when I was working with Athen was my method of making puppets that was kind of what I was doing basically just brought them and it was first finger puppets an

put them on sticks because it was was making those sort of puppets time.

J.F: And I also wanted to ask about the yellow flowers on the c tell me a little bit more about that? Was there a symbolic me flowers of was it just an aesthetic?

N.N: There was something very significant about the flowers in remember what it was, because it was so long ago, but I think the flowers was kind of& You know it s also about this figure standing sti the dress (audible) about her story being told, because it s like th figure, you know, about heritage and retelling that to today. I flowers had a specific meaning but it was more about what it moment, this still standing figure and suddenly these flowers ap think& didn t she say something in the show about her dress h think later there s like a text- what would have to be, but it was mor about the this is her story that we are now going to tell. Yo about, sometimes an image doesn t have a specific meaning evokes.

J.F: Another interesting thing that I saw in the video was this object Athena, I thought it was like a spinning wheel- and it had b outs on it.

N.N: Yes, like the shadow wheel yes I remember that. Well it w figures that were on it was from a monument I think from& I s this with Athena, the story that she tells about the women th themselves off the cliff. I think on that site there was a monu of took pictures of that monument and put it on the wheel, th about you know time can evoke this wheel of time passing& it w about& Oh what did Athena say about that did you ask her?

J.F: No I didn t ask her about that.

N.N: Ja you should be because it was an important aspect. Ja it also made the shadow so it had the Did you see just the video or did you see performed?

J.F: I just saw the video, because I wasn t living in Joburg at studying in Grahamstown.

N.N: Oh okay, I understand. But the spinning wheel was& I thin Athena because she would probably be able to remember better was something specific it was quite an important, she ll be a more about that& Check with her, because I can t actually rem her whole thesis thing& there are many things that I can t real that well.

J.F: Ja because it was quite a while ago, also I wanted to ask; before this had you worked with Athena before at all and how together to work on this piec?

N.N: Well I did her set. She did a show at Wits, a student pro physical theatre students, it was Jamell did the set design with friend of mine, we were two. Then it went quite well with and I re Athena because she s really so open, she s like the dream di because she really sees the designer as a collaborator. She say, Ok I want this and then would give some, she would not know, but she s always open& She s a true collaborator in sense that ,you know, we would have these ideas like these wasn t sure whose idea it was because it was just such a col

ja as a stu we rk ed with ma ud la and then she kind of phoned me
then we just start we to re ur s where this proje (in wu ld go

J.F So then would you say that the easy communication and th
working that you had with Athena with this working process when
worked together coming? To

N.N Definitely, so I think that was (ma ud la) working with Athena [in] physic
theatre at Wits, having seen her productions, having played
also got a se of her universe, so her artistic feel. Then it also
easier when you make propositions because you know what a
and I mean her things are always quite playful.

J.F Thank you very much.

N.N It s a pleasure, Lu ck Good