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University of Central Florida



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THE DEVELOPMENT OF LOOP-BASED CINEMATIC TECHNIQUES
IN TWENTIETH CENTURY MOTION PICTURES
AND
THEIR APPLICATION IN EARLY DIGITAL CINEMA

DAVID SCOMA
B.S. Loyola University New Orleans 1990
M.A. State University of New York at Buffalo 1994

A dissertation submitted in partial fulfillment of the requirements
for the degree of Doctor of Philosophy
in the Department of English
in the College of Arts and Humanities
at the University of Central Florida
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Major Professor: Blake Scott

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David Scoma

ABSTRACT

For centuries, repetition in one form or another has been seen as a significant element in the artistic palette. In numerous formats of expression, duplication and looping became a significant tool utilized by artisans in a multitude of creative formats. Yet within the realm of film, the Griffith and Eisenstein models of cinematic editing techniques (as the most popular--and near-monolithic--narrative aesthetic criteria) effectively disregarded most other approaches, including looping. Despite the evidence for the consistent use of repetition and looping in multiple ways throughout the course of cinematic history, some theorists and practitioners maintain that the influx of the technique within digital cinema in recent years represents a sudden breakthrough, one that has arrived simply because technology has currently advanced to a point where their utilization within digital formats now makes sense both technologically and aesthetically.

This situation points to a cyclical problem. Students of film and video frequently are not taught aesthetic or editorial options other than standard industry procedures. Those who are interested in varying techniques are therefore put in the position of having to learn alternative practices on their own. When they do look beyond visual norms to try applying different approaches in their projects, they risk going against the views of their instructors who are only interested in implementations of the standard methods which have been in the forefront for so long.

Yet the loop's importance and prevalence as a digital language tool will only likely grow with the evolution of digital cinema. With this in mind, the dissertation addresses the following questions: To what extent can various forms of repetitive visuals be found throughout film

history, and are not simply technical manifestations that have merely emerged within digital cinema? How might current educational practices in the realm of film and video work to inform students of techniques outside of the common narrative means? Finally, what other sources or strategies might be available to enlighten students and practitioners exploring both the history surrounding--and possible applications of--techniques based upon early cinema practices such as the loop?

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TABLE OF CONTENTS

LIST OF FIGURES.....	vii
INTRODUCTION.....	1
CHAPTER ONE: THE LOOP TAXONOMY – VARIETY IN FORMS AND PRAXIS.....	18
CHAPTER TWO: THE LOOP IN THE 20 TH CENTURY – AN OVERVIEW.....	48
CHAPTER THREE: DIGITAL VIDEO PRACTICES IN CURRENT CINEMA.....	77
CHAPTER FOUR: THE STATE OF DIGITAL VIDEO PRACTICES IN INDUSTRY AND EDUCATION.....	101
CONCLUSION: THE TEN MINUTE FILM SCHOOL.....	121
APPENDIX: MEDIA.....	142
LIST OF REFERENCES.....	146

LIST OF FIGURES

FIGURE 1: CLASSIC LOOP.....	11, 143
FIGURE 2: SUPERIMPOSED LOOP.....	12, 143
FIGURE 3: DIVISION LOOP.....	13, 144
FIGURE 4: ICONIC LOOP.....	14, 144
FIGURE 5: HOMAGE LOOP.....	15, 145

INTRODUCTION

In 1915, D.W. Griffith released his film The Birth of a Nation. This movie proved to be important not only for its controversial portrayal of the Klan and the Civil War-era South, but also for its use of visual techniques. Griffith is credited with introducing elements to motion picture production such as the close-up, the long shot, and the medium shot. To the technique of mis-en-scene, he is credited with framing the action so as to facilitate concise editing procedures that would eventually lead to smoother “storytelling” on the screen. To the field of montage, he is given credit for utilizing a close-up of a face looking away, before cutting to another object that the face in the first shot must be gazing at (Gianetti 41). D. W. Griffith, of course, was not solely responsible for bringing these techniques into existence. Nor was he even close to being the first director to put into practice the individual elements listed above within the realm of film making. What Griffith brought to the cinematic equation, for which he has thus been given his due for over ninety years, was the way in which he captured and arranged those elements sequentially through both production and postproduction. In other words, Griffith was instrumental in the fusing of these rudimentary units to become interdependent. As a result, it was the way this melding ended up being viewed as an early stab at a coherent narrative “language” that is perhaps Griffith’s primary contribution to the field of cinema.

As just mentioned, numerous film makers had put these various individual elements to use within their films before 1915. Close-ups, medium shots, and long shots can be found in works ranging from those of Zecca in drama and Porter in early documentary, to the comedies of Mack Sennett. Prior to Griffith, though, the individual elements were implemented by directors primarily as tools for simply capturing the individual shots. In essence, before Griffith, directors

would strive to get the scene on film and then worry about how those shots would be thrown together in editing later. Within this mindset, the concern for capturing the action via the framing of the actors dictated where the camera was put--either right up beside the talent, or backed up far enough to take in a large panorama. If the initially desired original shot was not captured during principal photography, an alternate narrative solution would have to be found during editing. These approaches to mis-en-scene and aesthetics appeared to rule the day. Under that format, chaos, it seemed, was often the order of the day.

For example, Lillian Gish recounted in her autobiography that when battle scenes were staged and shot in movies previous to Griffith's, it was nearly impossible to distinguish one opposing army from the other within the bedlam onscreen (Gish and Pinchot 141). This changed with Griffith, she said, because during the shooting process he began to implement his ideas regarding how the final assembled shots would appear to the audience in the ultimate version of the film. By organizing the action on the set, Griffith could figure out how the scenes could best be filmed in order to facilitate, assist, and even enhance the storytelling options in the editing room. By staging the action so that the Confederate army always entered the view of the camera on the left hand side and the Union always entered on the right, the audience would be given a much greater chance to keep up with the unfolding battle scene (Gish and Pinchot 140). While shooting with this template opened up numerous stylistic options for Griffith, it also saddled him with a number of aesthetic rules for the editing phase. Since the Confederacy had always been filmed from the left, Griffith needed to continually assemble the individual clips so that they matched up to that directional flow. This he did--from the closest hand-to-hand combat to the longest possible shot of the battlefield. When audiences went to see the film, they eventually became used to this left-right pattern, as well as the ease it provided in distinguishing armies.

However, other innovations of Griffith in this film--though they are now part-and-parcel of the narrative toolbox - did not catch on quite as easily.

A number of Griffith's camera innovations were startling for the time. Take, for example, digging a hole deep enough to place a camera and operator in, then aiming the lens at the sky before having a group of horsemen gallop right overhead (Gish and Pinchot 146). Yet it may be the subtler, even preliminarily confusing implementations for which the director will always be remembered. The importance of the close-up technique described earlier was to the overall development of the cinematic narrative language cannot be overstated (Gish and Pinchot 146). Though initial audiences did not always catch on to this right away, Griffith effectively used both the initial shooting and the final sequential editing of the shots in a fresh manner. (For another example, a close-up shows a man turning his face and looking to the right. The next shot edited in shows a child on a swing. The two shots together leave the audience with the impression that the man in the first shot is looking at the child on the swing in the second shot.) This approach, combined with Griffith's manner of on-set filming, are well-developed early examples of critical developments within the field of visual narrative techniques (Gianetti 119). Though unknown to Griffith or anyone else at the time, these approaches would all but define the way that cinematic narrative entertainment would be shot, watched, and finally interpreted by both film makers and audiences for the rest of the century (Gianetti 117).

Griffith, however, was not alone in this developmental mindset. Soviet film maker and cinema theorist Sergei Eisenstein began creating the works--both celluloid and written--which would eventually bring him renown only a few years after Griffith completed Birth. Eisenstein experimented with, expanded upon, wrote about, and published cinematic theory based upon these techniques first started by Griffith. Even at that early stage of film history (not yet thirty

years in), the narrative traits of Griffith and Eisenstein had quickly developed into standard operating procedure across the cinematic world (Gianetti 42). In the decades since, application of the narrative editing techniques based upon those principles have become universally entrenched in the motion picture industry. As a result, they have also been “learned” by audience members who have repeatedly viewed the techniques through their consumption of films and television programs alike. The terms that were coined have themselves found their way into the vocabulary of individuals who will never pick up a camera or sit in an editing bay.

With this historical framework in mind, we can ask the question “What, in fact are loops, and why are they of any significance?” Though the cinematic “language” tools of Griffith (as well as those initial similar practices used by some of his predecessors, from Méliès to the short comedic films of Mack Sennet) have been the domineering force in motion pictures for nearly a century, they certainly are not the only ones available, and definitely were not the first. The loop (and additionally, cinematic visuals based upon kaleidoscopic principles) holds a specific and, in fact, vital role in the canon of cinematic expression. Visuals of this type have appeared consistently in motion pictures ever since the days of the zoetrope. The loop, in its classic pre-cinematic form, consisted of a collection of individual film frames. After running their course from start to finish, the celluloid strand would then repeat, starting again from the very first frame. (As a brief reference point, the projected image of Princess Leia as she called to Obi-Wan Kenobi for help over and over again in the original Star Wars would be akin to a short, classic loop.) This looping was instrumental in pre-cinematic and early cinematic times due to the manner in which the earliest motion pictures were set up to be played. In the case of nickelodeons, they could also be flipped through in some manner. Once cinema developed to the point where cameras were able to take on larger or longer projects (and projectors were able to

take on larger reels of footage), the loop moved from being the very manner in which almost *all* motion pictures were viewed, to a technique utilized by *some* film makers depending upon the needs of their projects. It was not long after this that Griffith and Eisenstein stepped in--and the long shot, close up, etc. began to have their day. The eventual abundance of these Griffith-inspired aesthetics (combined with advances in camera, editing, and projecting technologies), dominated the cinematic landscape. They became such a fixture that historians virtually stopped writing about or even tracking the loop and kaleidoscopic visuals entirely. Some theorists (to be discussed later) have gone so far as to suggest that the loop vanished entirely until the emergence of the digital era.

The problem is this: Cinema scholars and practitioners alike may have ultimately been shortsighted through their overwhelming adherence (and perhaps skewed allegiance) to a single set of visual storytelling “rules.” This has come about because so many experts and technicians have all but refused to acknowledge any other aesthetically montage-driven or editorial options aside from the “Griffith” standard. When artists do move from this customary model, the results are thought of as aberrations. Film production texts such as Rabiger’s Directing: Film Techniques and Aesthetics, essays from critical theorists such as Mulvey and Dyer, and even television production texts along the lines of Zettl’s Television Production Handbook all follow the Griffith example as the law. Almost no consistent mainstream consideration, explanation or investigation whatsoever has focused on the myriad of different techniques and montage options that developed throughout the century in cinema. The same appears to be true in animation and the Avant Garde as it is within the realm of narrative motion pictures themselves. Refusing to pay attention to, document, write about, or in many cases teach other mis-en-scene strategies in this manner may have shortchanged the cinematic landscape as a whole.

When I was a student of a particular film professor at my undergraduate institution, I assembled a project using a collection of short video clips recorded during a class session that he conducted with us early in the semester. A shot of an actress screaming stood out, and I decided to try something different with the image. It was something I knew I had seen somewhere before. Using linear tape-to-tape 1/2 inch editing systems, I took the shot and applied it once. I then continued to edit the shot in--again and again and again--until the scream happened five times in a row.

Ultimately, though, I had a nagging feeling that the clip was out of place in the narrative. The nagging feeling came primarily from the fact that at the same time, I was taking a television production class from a different professor. This latter professor had worked in both cinema and broadcasting during her career. She stressed to us in no uncertain terms that we must stick to the rules as stated by our textbooks and by her lectures, or suffer the consequences of a low or failing grade. No awkward cuts, no out of sequence shots, no crossing the 180 degree line--all of which stemmed from classic Griffith aesthetics that had developed into industry standards. She even balked at the use of any sort of homage techniques--not only those in our work, but also ones utilized by professional film makers and television producers. This individual was an extremely good professor, especially from a hands-on production standpoint. She made us work hard, take responsibility for our productions, and earn our keep the hard way--much like anyone looking to enter that difficult industry would have to do in order to survive. Most of my classmates and I listened to her declarations and took them to heart. We did so not just because we respected her, but because her opinions (especially those regarding visual aesthetics) were mirrored by almost every other production professor who instructed us within the department, not to mention virtually every textbook we were assigned to read.

As a result, I grudgingly decided to move the looping images into the closing moments of the project. They ran behind the credits, innocuous and as far from the original storyline as they could possibly be. It was almost as if the loops were being presented as bloopers. A week after submitting the final video, my film professor returned the tape. Along with the cassette there was an evaluation sheet which he had filled out for me. The following comment was scrawled across the page in red ink: “Why did you relegate the screaming girl to the end credits? The loop is strong, and it deserves to be in the piece.”

This is a cyclical problem. Students of film and video are frequently not taught aesthetical or editorial options other than the standard operating procedures. Those who are interested in varying techniques are therefore put in the position of having to go and find out about them on their own. When they do look beyond the visual norms and try to apply differing approaches within their own projects, they run the risk of conflicting with the aesthetic views of their teachers. This risk may also eventually stretch all the way to their potential employers, who may only be looking for implementation of the standard methods that have been in place for so long.

The Griffith model is a near-monolithic one, but not one without holes. However, the growth and development of digital cinema in the past fifteen years has brought back interest in the loop as a tool, and it is being used often within this medium in a number of creative ways. What was once on the fringe, barely acknowledged, and even banished is now being seen as a primary building block within the emerging medium of Digital Video. About this point, too, we can find historical and theoretical disagreement. There are theorists who, as mentioned earlier, believe that this Digital Video influx is not only a sudden one, but represents a sudden breakthrough, one that has arrived simply because the technology has now advanced to a place

where the utilization of techniques within the format now makes sense within the aesthetic equation.

Lev Manovich, for example, asks “Can the loop be a new narrative form appropriate for the computer age?” (Manovich 7) before speaking of current computer uses further in his article. The question Manovich asks is an appropriate one. It is, in fact, the exact same one that I, myself, ask within this study. The difference, however, is in our approach, and in our perspectives. He appears to believe that in digital cinema terms, the Classic Loop will be a starting place of sorts for the creation of a palette of tools within the realm of computerized technology and digital video expression. By doing so, he ignores the way the loop’s manifestations, functions, and effects have transformed and developed through the last one hundred years of cinematic expression since the demise of the filmic “Classic Loop”, as I have labeled it in this project’s taxonomy. Manovich appears to think that the loop function in programs such as QuickTime represents the extent of this digital developmental process.

In its simplest definition, a loop would be a shot that in some way, and in some portion of the screen, repeats, or is duplicated in some manner within the frame of the shot. What I call Classic Loop--a repetition that nearly or completely consists of the same visual repeating over and over again--derived initially from the structural make-up of early cinematic technologies which had to repeat the same collections of images time and again by their very design. Yet the Classic Loop, as we will see in the taxonomy developed for this project, is not the only manifestation of such repetitions that can be found spread throughout cinematic history--long before digital practices of any kind. That said, the loop--or variants of repeating cinematic on-screen visuals--may actually turn out to become an important language tool for digital forms (not only for the computer age, but the digital cinema age as well). Theorists in this camp who

believe as Manovich does that these repetitive techniques are on the horizon of regular usage may actually rejoice in the fact that the loop has already evolved within traditional cinema far beyond the limited scope he placed it in. And why shouldn't the loop have developed? It has had over a century's worth of practice and implementation backing it in cinema alone--not to mention the other arts, the sciences, psychology, as well as in human ritual.

Cinema historians and theorists alike--from Eisenstein to Robert Allen--appear to have taken a similar attitude toward the loop and other pre-cinematic techniques. Their approach, however, leans more toward a tendency for omission. This has even stretched to the realm of video theorists such as Mike Wayne. His book Theorizing Video Practice, though it had a goal of showcasing "out of the ordinary techniques" sounds more like a typical college television rudimentary textbook in terms of the actual "practices" discussed. Even in video, references have been made to the technique in the field of pre-cinematic and early cinematic research. Yet as mentioned earlier, in this field few researchers to my knowledge have attempted any significant tracking or documenting of the techniques in the manner currently being approached.

Is it correct, however, to say that the loop ever left? Does the fact it was not a "go-to" technique in the way that the close-up was mean that its usages did not develop over so many decades? Or in fact, did the very way in which the loop was overlooked allow its usages to progress in a way that the close-up--so "important" and defined and statically unchanging by both definition and practice--never could?

All of this leads to a number of the specific research questions that I will address in my work. First, to what extent can we demonstrate that repetitive visuals did in fact appear within motion pictures during the last century? Would it be viable to show that they are not simply technical manifestations that have just re-emerged within the digital arts, especially digital

cinema? If so, how has the manifestation of the loop and other pre-cinematic techniques--as well as their functions and effects--been transformed or developed within cinematic expression? Additionally, how has digital cinema technology been drawn specifically from pre-cinematic techniques? Is it possible for one to study the modern digital aberrations of any pre-cinematic techniques (as well as the artistic and technological situations leading to the usage of these visuals) in order to find any data corresponding to their development? How might current educational practices in the realm of cinema and video work to inform students of techniques outside of the common narrative means? Is it possible to determine why (even with the “supposed” resurgence of the loop and other previously considered alternate practices in digital video) it appears that textbooks are devoting even less time to discussing alternative visual usages outside of the realm of conventional narrative structures? What other means might be available to inform students or practitioners of both the history of, as well as the possible practical applications of, pre-cinematic based practices such as the loop?

My ultimate research goal is not solely to determine that the loop--as a tool--occurred on far more than a casual basis within motion pictures throughout the 20th century. My contribution to this area will be showing from this particular vantage point that the language of film was certainly not set in stone following Griffith and Eisenstein. I will attempt to do this by looking to see if these particular pre-cinematic techniques actually did vanish over the course of film history, as suggested by Manovich. I found that a great deal of research has been done on the appearance of repetitive visuals during pre and early cinematic times. However, there has been very little written (in fact, hardly anything at all) that tracks the development of these techniques throughout the breadth of the last century. I would like to bring more light to this subject with my work here at UCF, and even after my time at this university has come to an end.

If you are reading the PDF version of this dissertation, you will find the portion where I describe each loop is preceded by an embedded video example of the specific technique from my own work. Though Manovich sets up a good visual parameter for what I call the “Classic Loop” with his Dziga Vertov example, I found myself coming across a variety of different types of repetitions as well. After numerous screenings of films from a variety of genres and time periods, I was able to develop a standard taxonomy which I then used to code the loops that I found within the film samples. The following is a brief description of each type of loop I looked for. In the electronic version of the dissertation, the portion where I describe each different loop is preceded by an embedded short video I created to demonstrate what an example of that loop would look like. (These links to videos can also be found in the Appendix.)



FIGURE 1: CLASSIC LOOP

(Scoma Editing Exercise)

The Classic Loop: As mentioned briefly when first defining the loop a little earlier on, this variation is called “classic” because of the visual similarity it holds to pre and early cinematic continual repetitive techniques inherent within the projection and display devices (such as the zoetrope). The Vertov, Star Wars, and Screaming Girl examples discussed earlier

would each be considered an example of a Classic Loop. Dorothy clicks her heels three times at the end The Wizard of Oz, and the film makers repeated that exact same shot within the space of a few seconds for greater emphasis. Travis Bickle drew his pistol a number of times while shouting “Are you talking to me?” at a mirror in Taxi Driver. At least once during that sequence, a shot was looped during the editing, again for the purpose of achieving greater dramatic affect. Another recent example of this type of loop was seen in the repeating videotaped segments that were a key plot device from the horror film The Ring. Within my own work (and displayed within the media enhanced PDF version of the dissertation) the aforementioned clip of the girl screaming from my Loyola editing production will represent the example of the Classic Loop that will serve as the primary visual reference point for this particular looping trait throughout this project.



FIGURE 2: SUPERIMPOSED LOOP

(Scoma Flag Waving)

The Superimposed Loop: This was an early derivation of the Classic Loop, found primarily in silent-era films (particularly in German Expressionism). Utilizing developing techniques, double exposure, and eventually optical processors, two similar or identical images

are melded together into one single shot. An example of the Superimposed Loop was recently used in the promotional material for The Queen of the Damned. In it, the character of Lestat was shown performing within a music video with a style meant to evoke styles present within Expressionism. Within my own work (and displayed within the media enhanced PDF version of the dissertation) a clip of numerous repeating superimposed flags eventually dissolving into a shot of the White House from my piece entitled Flag Waving will represent the example of the Superimposed Loop which will serve as the primary visual reference point for this particular looping trait throughout this project.



FIGURE 3: DIVISION LOOP

(Scoma Swiss Guard)

The Division Loop: This type of loop takes on many forms. It is the one which I will be able to document most thoroughly in terms of developmental progress throughout the project. Examples range from montage set ups such as the multiple mirrored characters from All About Eve, The Man With the Golden Gun, and the works of Orson Welles. Included are the kaleidoscopic visuals from the dance numbers of the Carmen Miranda films from the 1940s (including water ballet) and the split screen doubling of characters from The Patty Duke Show,

Dynasty, The Brady Bunch, and numerous daytime dramas. These three elements merged in the digital arena to help form the techniques of crowd multiplication and CG character animation on a mass level in films such as Forrest Gump and The Lord of the Rings, respectively. Within my own work (and displayed within the media enhanced PDF version of the dissertation) a clip of a digitally divided statue lit from behind and spreading out across the screen from my piece entitled Swiss Guard will represent the example of the Division Loop which will serve as the primary visual reference point for this particular looping trait throughout this project.

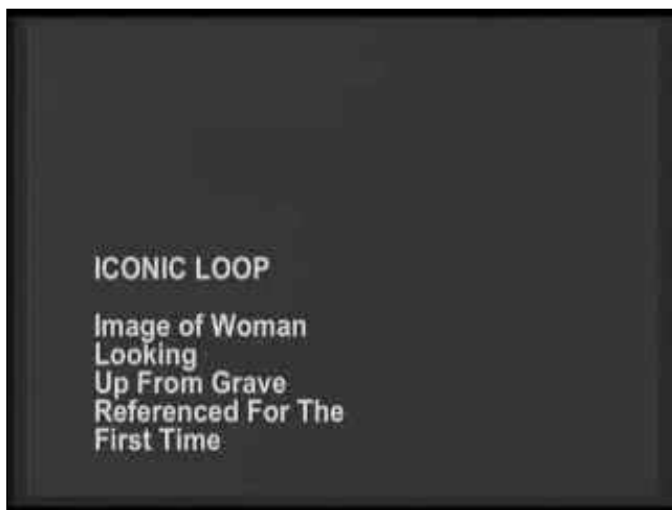


FIGURE 4: ICONIC LOOP

(Scoma Cellulite Thin Man)

The Iconic Loop: This loop can also be thought of as a form of visual metaphor. It is a specific shot used with the purpose of evoking or reminding the viewer of an earlier scene or plot point. In many cases, the exact same piece of film may be reprocessed and edited into the reel in order to solidify the fact that the same exact shot is being shown, yet in a different part of the movie. Examples of this can be found in Woody Allen's Crimes and Misdemeanors, Godard's Contempt, and Kubrick's 2001. The infamous shots of the door to Reagan's bedroom which began each major possession scene in The Exorcist (placed deliberately and systematically into

the narrative by the film makers to help increase the audience's dread) stand as excellent examples of the use of the Iconic Loop. Within my own work (and displayed within the media enhanced PDF version of the dissertation) a clip of a mourner in front of a grave referenced multiple times at different points in my piece entitled Cellulite Thin Man will represent the example of the Iconic Loop which will serve as the primary visual reference point for this particular looping trait throughout this project.



FIGURE 5: HOMAGE LOOP

(Scoma and Walters)

The Homage Loop: In its broadest sense, the homage is an extremely well-known and rather frequently written about referential technique in the cinematic world and in other realms of the Humanities. Utilizing the homage could be thought of as the lifting or evoking of a shot by a director of another film maker, photographer, or painter's work. This is done for reasons ranging from gratitude and respect to attempting to channel the feel of the original shot into the thematic needs of the film in which the homage is placed. For example, the appropriation of "The Scream" by both the film makers and marketers of Home Alone, and, appropriately, Scream. Jodie Foster included a homage to Scorsese's The Color of Money in the pool shots from her

film Little Man Tate. Those examples are broad versions of the homage. As such, examples such as those would be cited in my project only to show ways in which such references are now (and have been for some time) freely made within both cinematic and popular culture. The Homage Loop is much more precise, and has to be strictly and unequivocally tied to another specific visual cue in order to fall within this category. However, even within the narrower confines which define a visually based Homage Loop within the realm of this project, examples are still numerous. Spike Lee placed an homage to Night of the Hunter which will be discussed in Chapter Two. The films of Quentin Tarantino have been lambasted at times because of the copious uses of visual homage from classic films. A good number of Tarantino's individual shots are broad references, as he readily admits. Though most are too broad to fall into the scope of my work, certain shots actually would qualify as Homage Loops. Most recently, Alfonso Cuarón stepped into the realm of intertextuality when he made an homage to himself. He did this by appropriating the image of the three main characters hugging from Y Tu Mama Tambien and transported it into the world of Hogwarts when he set up a shot with the young actors from his next film, Harry Potter and the Prisoner of Azkaban. This Homage Loop is also extremely common within the world of animation. For example, within the chase scenes that are so prominent with in the animated Warner Brother's cartoons of Bugs Bunny or The Road Runner, there are several varieties of chases that are utilized time and again. Within my own work (and displayed within the media enhanced PDF version of the dissertation) a version of those Warner Brother's chases are utilized as an Homage Loop through a scene in which two characters chase a third over and under a bridge, just missing one another three times in a row. This particular clip will represent the example of the Homage Loop that will serve as the primary visual reference point for this particular looping trait throughout this project.

This project has offered a number of potential interesting pathways in the way of research sites aside from the more obvious possibilities attached to a project dealing with cinema. The primary research site as expected will be the actual motion pictures themselves. The movies have been screened not only at theaters and cinema clubs, but also through VHS and DVD copies out of my own collection, and those primarily borrowed from the Winter Park Public Library and Stardust Video and Coffee. These films have been viewed and documented in order to distinguish whether or not they contain examples of one of the five types of “looping tools” that I look for (each to be described in more detail further on). These films will play a pivotal role in several sections of the project. The examples that I feel are most prototypical for representing a particular looping tool or an implementation of a technique within a certain cinematic genre will be highlighted within the project. In most cases, this will be done with a brief rhetorical analysis tying the film and technique in question and linking it to the theme of the chapter portion in which it appears.

At this point we will move directly to Chapter One. The first chapter contains a detailed investigation of the manifestations of the various looping techniques that this project has followed. This will be demonstrated through detailed descriptions and examples of the five main repetition tools that I will am using for categorization. Woven into each of the five major descriptions will be an assessment and analysis of the major theoretical works that were researched and documented over the course of preparing for this project.

CHAPTER ONE: THE LOOP TAXONOMY – VARIETY IN FORMS AND PRAXIS

Repetition.

Is it always a prescription for monotony? In many cases repetition is conceivably just that, and little more.

What if, however, the very act of repetition in and of itself was able to be viewed as an entrance leading to something perhaps far more subtle, and possibly more powerful as well? For centuries, repetition in one form or another has been seen as a primary element in the artistic toolbox--be it musical, visual, or even as a visceral expression of the sacred. In this sense, repetition became a significant means used by practitioners and audiences alike, potentially working to lull the mind and the body out of ordinary and less-reflective thought patterns.

This first chapter will showcase a preliminary investigation into the manifestations of the various looping techniques my research with this project has been following. These will be demonstrated through building upon a more detailed set of descriptions and examples of the five main repetition tools highlighted in the Introduction. Woven into each of the five major descriptions will be an assessment and analysis of several major theoretical works that were researched and documented over the course of preparing for this project. The investigation into theories will continue throughout Chapter Two.

It is important that the current chapter unfolds in the manner described above for two reasons. First, my descriptions of each technique must be as all-encompassing as possible so that later chapters can refer back to the taxonomy as the development of each technique is described. Secondly, I need to briefly demonstrate how these techniques were utilized during the earliest of

cinematic times as well as through a few scattered examples from 20th century cinema. This will be done so that I can lay a basis for showing that all film makers did not, in fact, send these repetitions packing, but instead creatively found ways to integrate them into narrative structures. I will attempt to show how those techniques *have* been heavily utilized in film throughout the last century in a number of historical cinematic contexts. I will also argue that these manners of usage have actually strengthened the links between film and digital cinema (in the new art form's earliest developmental stages). These discussions will take place primarily within the framework of the systematic descriptions I will provide for the five looping techniques.

To this end, Jennifer Van Sijll has written of the very dichotomy between practice and practitioner which I outlined in the introduction. In her book Cinematic Storytelling: The 100 Most Powerful Film Conventions Every Filmmaker Must Know, Van Sijll points out the exact problem that I realized as an undergraduate in a communication program: that the skills of screen writing and the skills of technical production were rarely, if ever, taught together. In fact, she argues that when it comes to both low and high budget motion picture productions, companies go out of their way to keep these two types of artisans separate at important periods during of a film's creation. As a result, a gulf tends to form between what is written on the page and how it can potentially be presented on the screen in a manner best suited to the visual arena of cinema. The words go one way through written narrative. They are then represented through a distinct, time honored means of visual vocabulary as they are recorded on celluloid and edited either on flatbeds or digitally. The public translates these cues accordingly as they follow the progress of a film's narrative from the perspective of viewership (xii). It is Van Sijll's contention, as well as my own, that despite this apparent dichotomy between writer and director, and despite the well-established visual storytelling means utilized faithfully for decades, a number of techniques

managed to find a place somewhere between those two factions.

In this chapter, and throughout this project, I will attempt to show how at least one of those techniques *has* been heavily utilized in film throughout the last century in a number of historical cinematic contexts. The development of the loop will be the lens through which I will also argue that these applications and usages have actually strengthened the links between film and the burgeoning field of digital cinema. Later, this study will show where the instances of the loop can be found in films and videos of widely varying styles and budgets. The possible reasons why these techniques are now being taught even less in traditional film and video educational settings will also be addressed, as will the alternate learning situations to which students and artists appear to be turning in order to learn about unconventional narrative techniques such as the loop.

There is a particular overall angle, or rather, a broader perspective, from which this investigation will also attempt to approach the material. This stems from the difficulties that arise when attempting to separate distinct artistic periods into neat little boxes. As always, in this project the loop will act as both the common denominator, as well as the ultimate standpoint, from which this information will be presented.

With that said, my primary guiding theory will be drawn from the work of Peter Hanson. Hanson does not write specifically about loops, but apparently, as I mentioned earlier, very few scholars have. What Hanson does cover, in a manner parallel to my own thoughts, is the recent onslaught of various repeating and referential techniques within film at the end of the last century. In contrast to the belief that the loop is now just returning to the scene, the very prominence of looping images throughout the visual and cinematic culture of the 20th century has in fact acted as the *catalyst* toward the diverse and multiple applications of the technique now

seen across the board in current digital cinema. In The Cinema of Generation X, Hanson asserts a variation of my own thoughts with regard to various postmodern techniques utilized in filmmaking during the last three decades. Though his own thoughts are aimed generally at narrative storytelling techniques in film, Hanson's arguments can also be adapted to the visual means used to relay those stories within the motion pictures themselves.

In brief, Hanson argues that a mass public audience in the 1970s may not have been ready for the narrative and stylistic repetitions or time-shifts from a film like Pulp Fiction. That is primarily because, though mainstays in the Avant Garde, during that era such techniques were not being applied on a regular basis in an upfront, consistent manner within mainstream cinema and video visuals. Compare that same scenario to one involving an apparent mass audience viewership shift from the 1990s (Sitney 409-411). Following a decade saturated with MTV, music videos and advertising with techniques from the Avant Garde, and New Wave--crowds not only sat through Pulp Fiction, but turned it into a blockbuster. Hanson points to the continued implementation of such techniques in a growing number of mass media projects from the late 1970s on. He argues that their gradual exposure over time to a larger audience (as well as individuals who, at the time, were future film and video artists) allowed for viewers to take greater notice of those stylistic devices on a more consistent basis. This is especially the case when it comes to techniques that might not have been used in such an obvious, upfront, or even brazen manner--as they were within early music videos (Hanson 7). When read the loop and other pre-cinema techniques in mind--all of which are heavily utilized within music videos--Hanson's argument parallels extremely important questions from my work. For example, are we now seeing the loop used more and more in the works of film and video makers because the trait has started to surface in the toolbox of artists yet again after a supposed absence of roughly ten

decades? Or, rather, has it ever ceased to exist? Though on the one hand I will be trying to show that the loop has always been a part of cinema, I will also argue that much of the reason this tool is being applied in digital cinema is because the artists themselves have been exposed to it so often since the 1980s. With that in mind, Hanson has, to date, been the author who I believe has best developed that particular train of thought. The other main theories I will be working with also come from the field of film theory. In addition to the theories of Sergei Eisenstein as mentioned earlier, I will draw from a range of theoretical film and artistic application sources.

In his forward to Margot Lovejoy's Postmodern Currents: Arts and Artists in the Art of Electronic Media, Carter Ratcliff argues about the dubious nature of setting boundaries between artistic historical periods. Ratcliff admits in his opening that in the grand scheme of things, it would probably be capricious to try and spend too much effort trying to pinpoint which exact work of art or stylistic innovation separated two distinct periods from one another (Lovejoy xix). Take, for example, the distinction between the Dadaist era and that of the Surrealists only a few years later. Each school had its rules, its adhering philosophies of practice, its own manifesto. Seminal pieces ("The Flower Hammer" in Dadaism, "The Embalmed Forrest" in Surrealism) or primary artists (Man Ray, Max Ernst) may have been associated with works done during the early "crossover" maneuvers that happened within the time between the two aforementioned periods. Yet fixing the absolute moment when the first era ended and the other began to just one singular work or one a specific person (even André Breton) would ultimately turn into a futile exercise. That is because within art, Ratcliff contends, a historical period cannot be defined strictly through the artifacts or the ideas created during that span of time alone. One style or technique may taper off while another arises in its formative stages. One may bleed through long after a dominant age has come into the forefront. A primary artistic movement may even be

comprised of techniques that were acquired by artists as they trained, found their voices, and experimented during their apprentice years within a previous style--one that had long vanished by the time they reached their prime. However, as Simon Penny asserts, advances in technologies, practices, and aesthetic sensibilities must also be considered in comparing styles as they arise in divergent time periods. This is especially relevant to the realm of current cinematic and digital media representations (Critical 3).

As mentioned in the Introduction, scarcely any writing or research tracks the pre-cinematic techniques at the core of my study through the entire first century of film making. The paltry amount of information concerning loops and kaleidoscopic techniques stretches into the realm of theory as well. This has posed a specific challenge for me. In trying to align my ideas to a body of theoretical work I have been left wanting. I had to compensate for that lack and still find a way to develop the theoretical concerns of my research within this project.

To this end, I have had to widen my scope in the area of theory, while at the same time look a little closer at the nature of certain techniques and practices that are actually discussed in the articles and books I have found. In the remainder of this chapter I will strive to show--through writings about parallel trends in other art forms and close analysis of specific film writings--that there is in fact a theoretical basis to the pattern manifesting with the use of pre-cinematic techniques in digital cinema. In addition, I have found that one of the areas of film theory that has most consistently addressed repetition within both form and practice is, ironically, a field that Manovich disregarded among his list of low-grade filmic forms to which the loop was banished--the Avant Garde. As a result, a number of the core texts discussed in this section will be drawn from writings focused upon this distinctive film territory. These discussions will take place primarily within the framework of the systematic descriptions I will

provide for the five looping techniques within the remaining portion of this chapter.

With the previous thoughts regarding repetition in general in mind, the individual looping tools I have found in my investigation (and which were briefly addressed in the Introduction) will be examined in greater detail. The Classic Loop, both in its original format as well as its developmental variant, will first be analyzed. That material will then be tied directly into the loop that takes the next step in the overall developmental sequence of the looping tools: the Iconic Loop. Following that discussion, a brief transition will analyze the similarities and differences between the Iconic Loop and the Homage Loop. The Homage Loop itself will then be covered. Since that particular loop is an aberration of the cinematic entity known as *homage*, time will be taken to note the important distinctions, as well as to define just how the homage in this context fits into the looping category. The Homage Loop segment will be one of the longest of the five since it is here that I will discuss my belief that some of the traits which lead artists to borrow and acknowledge one another with visual references are tied to the uses of distinct tools such as loops (Osborne 156). The chapter will finish with the final pair of parallel loops. There will be short look at the “narrowest” loop category, the Superimposed Loop. This will immediately be followed by the loop that has evolved, changed, and possibly adapted the most over the course of film history and within the as yet brief time-space of digital cinema--the Division Loop.

Classic Loop-type repetitions within the first five years of the 20th century (which would involve the looping of a single strand of film, or the repeated flow of a synchronous set of images be they flipped, twirled, or otherwise moved in some form of chronological progression) were tied most often to the nickelodeon and other parallel devices in viewing arcades. (In metropolitan centers such as Chicago and New York, it should be noted that nickelodeon

viewing by mass consumer audiences lasted well beyond even that point in time.) Within projected films before 1910, instances of the Classic Loop began to be utilized in the realm of primitive special effects. Inserted repeating visuals were put into play as inset special effects. Optically processed additions to the primary scenic components can be found within the Melies magic shorts, along with 1902's A Trip to the Moon, Pathe's Reve A La Lune, and the Edison 1906 studio creation Dream of the Rarebit Fiend (Musser 458). Interestingly, Dream of the Rarebit Fiend directly borrowed numerous visual cues from Reve a la Lune, which was produced one year earlier. As such, and specifically because of the tight visual continuity between the two stories, there are several shots within Dream that constitute Homage Loops derived from its French predecessor (Musser 462).

The Mack Sennet comedies and other similar filmed entertainments during the middle portion of this period took advantage of the fact that most of the viewing audiences were still well versed in the use of the loop. This was due to the general public's exposure to the technique through the nickelodeons and other rotating or flip-based cinematic devices of the time, while in nickelodeons, the repeating process was mechanically necessary in order for viewing to take place at all. This was due to the structure and functionality of the devices, as discussed earlier. However, within projected films such as Sennet's, the addition of a loop was an aesthetic choice. The longer reels available and (for the time) "modern" projection techniques at the film makers' disposal, soon allowed hundreds of feet of film to be utilized within singular cinematic pieces early in the 1900s. A Classic Loop, if applied within the editing structures could be included to enhance a scene, not simply because it was the only way to get the film back to the original starting point, as with nickelodeons. As a result, the types of films produced by Sennet utilized looping structures in shots featuring repetitive chases around buildings, or second glances at

distinctive pratfalls. These Classic Loops were applied as a means to creatively and easily achieve (within the Sennet films) a greater comic end. Two important of my arguments are illustrated in the films of the early 1900s.

First, a parallel may be drawn with the way early cinema audiences became conditioned by one film technology in their reaction to the introduction of a more advanced one. This point ties directly to the theory made by Hanson regarding late 20th century audiences and the time shifts of Pulp Fiction mentioned in the Introduction. Having watched film loops throughout the earliest years of cinema (both in short projected loops in a theater setting and through the mass saturation of nickelodeon shorts), the viewing audience was adequately familiar with the basic looping visual structure. As a result, when film makers like Sennet then applied the loop (through editing techniques), within features that no longer required repetition as the mechanical functional basis for existence, the audience had no problem seeing and processing the Classic Loop visual mentally. These were viewers who had been inundated with the structure of the repeating visual for a long period of time (Bowser 111). As such, when these people then saw an edited loop on the screen in longer features, it did not take them out of the story or make them question “Why am I seeing that visual again?” Thus, the early devices appeared to inadvertently train the audience. Spectators thus became, over time, well conditioned to seeing loops. The Classic Loop, as a result, became a distinct part of the visual vocabulary of cinema at that point. Had nickelodeons and early films not operated on a loop format, but on far longer, non-repeating reels, it might be a different story altogether. In such a scenario, imagine the very same type of audience (now not conditioned to see loops) being shown the application of a Classic Loop in a Sennet short. As they watched the Keystone Cops tumbling out of a truck time and time again, the reaction from the viewers might have been much closer to confusion rather than acceptance

and recognition of a common cinematic trait. Though the Classic Loop would begin to develop into the other forms discussed in this project within the first thirty years of cinema, this original looping visual would appear regularly in this original form within narrative and Avant Garde productions throughout the remainder of the century.

At this juncture following the description of the Classic Loop, it would be beneficial to comment on the development of cinematic loop practices more generally once they were freed from their early projection roots and developed into more visual tools. Such an examination can connect these practices to other traits in areas of the humanities and to the nature of repetition, signs, and signals, within the modes of human communication and expression. Although an in-depth examination of the fields mentioned above would not fit into the scope of this particular project, a brief glance into some of the parallels mentioned will hopefully prove helpful. As the chapters continue, one of the facets that will be brought to light will be that, in our postmodern era, visual artists--just like creative individuals from other fields--choose and appropriate material from multiple divergent sources. Additionally, developments occurring in one field of the humanities sometimes seem to be paralleled in a totally different field. In other words, the overlap described previously between individual arts regarding style within a particular practice (drawing, portraiture) shows a cross-pollinating of techniques and traits among divergent art forms. With that in mind, let us look at some of the areas outside of film where repetition could be found, and some of the ways that cinema may have picked up and reflected these external uses.

Tied specifically to the example of looping at hand, one can find the appearance of repetition in an increasing manner throughout the 20th century in a myriad of art practices. For example, the manifestos of the Futurists during the early 1900s regarding repetition ended up

influencing the practice of synthesizer-driven sequences from the 1960s to the present day (“Cycles”). Those exact same Futurist ideals, however, also found their way into practical application within the performance arts during the same one hundred year span of time (Goldberg 11). Take, for example the “onomatopoetic artillery” used to describe Marinetti’s “Zang tumb tumb”, or Russolo’s The Art of Noises manifesto in the field of music, both sequenced, sampled or otherwise (Goldberg 20-21). The themes of repetition derived from these works can also be found in performance art applications such as Joan Jonas’ “Funnel” and “Delay Delay”, or Gilbert and Georges’ “Underneath the Arches” and “The Red Sculpture” (Goldberg 166-168). This occurred even when the artist was not a student of Futurism but was merely influenced by other artists or works derived from the ideals (or even from similar practices, regardless of any initial ideology). An artist may even be drawing from such thoughts or ideas without realizing their works have ties to any grounding principles. That does not negate a basic precept within this project: the moldable tool of repetition has appeared within multiple art genres and disciplines throughout the past century, and it continues to be put into action in current works and practices to this day. The significance of this enduring aspect of the Classic Loop tool itself, as well as its utilization during this time of cinematic development, will be discussed further in Chapter Two.

With the Iconic Loop, we have a tool that has apparently found several specific niches within the practicalities of narrative from the standpoint of both editing and viewership. These have manifested in a couple of noteworthy techniques ways within popular cinema in particular. For this study we will look at two techniques in particular. The “chapter break” will be examined in Chapter One, as will the potential similarities between the Iconic and the Homage Loops. The “reminder” version of Iconic Loop will be discussed in greater detail further on in Chapter Two.

The Iconic Loop, as presented in the Introduction, stressed its typical incarnation in narrative as an application of visual metaphor that acclimates or reminds the viewer of a particular point within the story. Depending upon the needs or even the artistic goals of the movie, the exact same strip of film may even be reprocessed and spliced (or in the case of video, simply applied to the editing program's timeline) in order to accomplish this. An example of this can be found in Battleship Potemkin during the Odessa Steps sequence. As the Russian soldiers are marching down the stairs to attack the civilians, shots of the falling bodies are literally interspersed with the other shots of the soldiers' boots marching in sync. In far more than one occasion and angle from this sequence, the shots of the soldiers' boots are identical. Within the narrative, this adds continuity to the mechanical, almost non-human drone of the marching. This was heavily patterned as well through the cadence between the alternating crowd/soldier shots provided within Eisenstein's editing pattern.

The chapter break version of the Iconic Loop can literally be just that, a particular shot that breaks up "chapters" or segments of the film. The most direct form of such a shot would be an actual repeating shot of a book--the story of a film--being moved through chapter by chapter, after each major act in a film. Babe stands as a melodramatic example of such an application. Similar modern incarnations of the same technique can be found in Wes Anderson's The Royal Tennenbaums, (another use of a book) and Rushmore (a curtain opening and closing on a stage, a different card displaying the title of the Act about to be seen).

The "break" does not necessarily need to be consistent or evenly spaced throughout a film for it to be an Iconic Loop in this sense. Take, for example, the character of Delores from Woody Allen's Crimes and Misdemeanors. Within that film, eyes, sight, and blindness are symbols often used through a number of characters. For Delores, the Iconic Loop is tied to the

eyes. At one point in the narrative, she asks her lover (ophthalmologist Judah Rosenthal) if the eyes are the window to the soul. A chapter break occurs with Delores staring out into the distance, lost in a memory of Judah and herself on vacation. At the conclusion of the flashback, the film returns to the exact same shot of Delores staring into the distance. What makes this a strong Iconic Loop, however, is the fact that the visual is repeated in variation further in the film. Judah visits Delores's apartment--now a crime scene, after the woman has been shot in her home. As Judah looks at her body on the floor, the camera pans to her face, which is holding the same gaze, complete with open eyes, that was shown in the Iconic Loop earlier on. The result is that in this case, we have a "break" version of the Iconic Loop then strengthened further on by the repetition of the exact same image. While the "break" would have been effective as a stand-alone usage, the final variation adds the potential for deeper resonance with the audience.

There are times in which the borders between versions of the Iconic Loop and the Homage Loop may seem close. This is especially true when one director references images from his or her own works. However, there are distinct differences, even in the grey area that separates actual instances of both types of loops. Take, for example, Krzysztof Kieslowski's Three Colors trilogy. In each of the three films, there is a minor, barely noticeable extra character, a frail little old woman. Every film--Blue, White, and Red--features a scene in which the main figures in each of the respective movies walks past the hunched over woman as she futilely attempts to place a bottle into a roadside recycling canister. At first glance, it might seem as if Kieslowski is paying homage to his own cinematic visuals, much like Alfonso Cuarón did with the Homage Loop he made to himself between Y Tu Mama Tambien and Harry Potter and the Prisoner of Azkaban. Yet in Kieslowski's trilogy, the old woman is closer to an Iconic Loop--one in which the image is closely replicated rather than one in which the exact same strip

of film has been reused. The director placed the old woman purposely in each film for a specific reason. The manner in which each of the main characters interacts with the old woman (one ignores her, another notices her casually, a third finally stops and helps her) was set up in order to give the audience a subtle clue into the nature of the inner life of the main character in question (Andrew 45). In other instances, a repeated character or image may be used simply to bring continuity to a separate set of scenes, or even various episodes in a series.

Within Kieslowski's canon, this latter application of the Iconic Loop for the purpose of continuity has been utilized as well. Each of the ten segments of his series The Decalogue takes place in the same apartment complex in Warsaw, though the characters from one segment do not interact with those of another (Haltorf 75). Though there is an entirely different cast for each of the episodes, they are linked by three items; setting (the complex), theme (each based in a loose, mysterious way upon one of the Ten Commandments) and a visual cue (a little girl). It is the little girl who is of interest. In each segment, the little girl is seen at some point in the background, bouncing a red ball. This repeated use of the same girl and same red ball acts as a bonding agent, fusing and weaving the stories together in a subtle yet undeniable way (Andrew 47).

As proficient as Kieslowski is at molding images and carefully tying his works together with visual clues and Iconic Loops, he is also gifted when it comes to utilizing other types of loops. In addition to utilizing a Division Loop in The Double Life of Veronique, Kieslowski himself has applied at least two direct instances of an actual Homage Loop within his own films. Two shots from the director's White (one involving main character Karol lying bruised and beaten on a garbage heap, and another where Karol stages a fake shooting in a subway station) were purposefully staged to match images straight from Andrzej Wajda's Ashes and Diamonds

(Haltorf 137-38). On this point of visual and directorial influences, the focus will now shift to the specific characteristics of the homage and the Homage Loop.

This is a looping practice which, though it is based upon a well-defined and implemented cinematic practice, is specifically defined within the realm of this project. Studying the Homage Loop, as with the Iconic Loop, has the potential for moving into grey areas. These involve the differences between a deliberate nod to motion pictures or visuals in the broad realm of homage and the type of images that fall into the classification of the Homage Loop within this project. In order to address this problem thoroughly, the Homage Loop will be addressed in a particular way. The definition of homage will first be addressed in order to then differentiate and specify why only certain images could fall into consideration as being Homage Loops. This discussion will also touch upon the nature of the practice of referencing within the arena of film. This brief inquiry will be focused exclusively upon film examples from the final portion of the 20th century.

The opening paragraph from Wikipedia definition of the term “homage” is presented below to show just how ingrained the notion of artistic borrowing and referencing has infiltrated the public domain.

Homage is generally used in modern English to mean any public show of respect to someone to whom you feel indebted. In this sense, a reference within a creative work to someone who greatly influenced the artist would be an homage. It is typically used to denote a reference in a work of art or literature to another, at least somewhat widely known, work. (Wikipedia, “Homage”)

The three sentences in this brief web-based definition go a long way in pointing to the

key areas for which I have chosen to include and address the homage in this chapter, and Homage Loops within the project. Though it would have perhaps been far easier to disregard the homage altogether, the research and the reading for this paper included such an overabundance of references to artistic honoring, borrowing, and at times flat-out stealing, that to leave this material out would have perhaps been a miscalculation. The homage, as defined above, and as practiced in both the artistic and filmic worlds, seems to cast a knowledgeable glance on the very way in which students and professionals seem to be going beyond the classroom to learn the intricacies of their craft from the works of their fellow artisans. This practice, not limited to cinematic referencing, is utilized by the novice director and the auteur alike.

Martin Scorsese frequently references other movies and makes specific nods to other directors. At the same time, he allows examples from visual arts other than cinema to filter into the homages that appear within his films. Scorsese often and purposefully draws upon classic paintings to inspire various shots, framing decisions, and aesthetic choices within his films. In this light, his films are a good example of an artist becoming inspired by an outside artistic medium and then implanting that image right into his own vision. He does this by drawing upon existing paintings and well-known traditional images in the realm of painting.

Two specific examples of paintings can be found within Scorsese's The Last Temptation of Christ. For the march through Jerusalem to Golgotha, Scorsese drew inspiration from "The Ghent Christ Carrying The Cross" by 16th Century painter Hieronymous Bosch. The director intended to "recreate" the painting from a front view, audience perspective (as compared to Bosch's severe angle) as well as through his own cinematic sensibility. He first sketched out his initial approach to the cinematic shot based on a rough sketch taken from Bosch's painting. This was practically accomplished through lining up the crowd in segments around Willem Defoe,

utilizing guiding ropes so that they would all march along in parallel union with one another. The illusion created as the director orchestrated the scene was rows of extras ambling along in an awkward harmony with one another. The purpose of such preparatory detail was to imitate the rudimentary structure of the figures around Christ in Bosch's painting. Scorsese then filmed the scene in extreme slow motion. The single shot, which lasts over a minute, gives the impression that you are watching a cinematic painting come to life. A few scenes later, Scorsese also referenced Antonello da Messina's 1475 painting "Crucifixion". Working with setting designs sketched out from the painting by Pierre Dilfer, Scorsese staged and framed the mount of Golgotha within his film. Both of these cinematic situations qualify as homages, even though their initial text of reference in each case was a painting, not a movie (The Last). A student, or even a casual audience member, viewing such a work and scratching just beneath the surface, would be able to find the references from which the director purposefully drew to inform his work.

Turning to the broader area of thematic scope within the world of painting, Scorsese drew from the one of the most traditional images ever when framing a shot from Kundun. The Madonna and Child is an often replicated image in Western art. The archetypal nature of the Madonna and Child was not lost on the director, and in the case of Kundun, he molded the power of that image into a setting that would probably be initially foreign to Western audience. In the scene during the Dalai Lama's boyhood where his father has just died, his mother calls him to their house so that the child can oversee the funeral rites. When the Dalai Lama enters his mother's small house, he sees her beside the corpse. Without saying a word, he solemnly walks up to her and stands in front of her. She bends down slightly, and when their foreheads touch, the pose bears a purposeful likeness between one often seen between Mary and a younger Jesus

in a variant of the Madonna and Child canon. (Examples of similar poses in art history include the “Madonna and Child” of Orazio Gentileschi, the 1508 “Tempi Madonna” and “Madonna della Seggiola” of Raphael, or in modern times in the realm of carving, the silver “Mary and Jesus” by Federick Sanchez.) The actors pose briefly in this stance, one not foreign to the Tibetan culture, two different times before the scene moves on. In that moment, Scorsese accomplishes an interesting cross-cultural homage. Drawing upon an artistic tradition from the West, he melds the image within a regional setting and a specific behavioral trait--all inside a storyline drenched heavily with the customs of the Himalayan East.

It must be noted again that the importance here is what a viewer, and in particular, a student, sees. A student sees an icon in the form of the critically-lauded Scorsese turning to art, music, sculpture, painting, and other films to add resonance, depth, and deeper visceral connection to the images within his already dense cinematic canvas. Courses in technical film and video schools deconstructing the individual images and scenes within the films of Scorsese and others may be dwindling compared to the technical classes. However, the after-hours conversations about the movies, the post-screening debates about their content and form, and the now taken for granted ability through the VCR and the DVD player to rewind, pause, and analyze mis-en-scene time and again in a manner unheard of just over two decades ago has never been more prevalent. The first day Quentin Tarantino ever spent on a film set was the first day of filming for his first movie. Everyone on that crew had far more technical experience than he did. Tarantino, however, did not need that type of experience. He would have been lost, however, if he had not seen, dissected, and categorized in his mind the thousands of films which he saw growing up and during his years as a video store manager (Bernard 35). The artistic peer, as well as the home theater, has become almost more prevalent--if not in some ways more

essential--than technical expertise.

So if the previous discourse has sought to answer the question what is a homage, then what, in particular, would fall under the category of a Homage Loop? To answer this question we will actually dissect a particularly well know instance of filmic referencing that I find to be a prime example of this type of looping technique.

Spike Lee famously borrowed from the film Night of the Hunter in one of the key monologues from his third film, Do The Right Thing. In Hunter, Robert Mitchum's devious preacher tells his soon-to-be step children a tall tale about love and hate. The story is a wrestling match between the two and is enacted out in front of children by Mitchum with his clasped hands rolling back and forth. Adding poignancy to his story is the fact that the letters L-O-V-E and H-A-T-E are tattooed to his knuckles. The story began because one of the curious children asked why the tattoos were there, causing Mitchum to launch into his tale in the first place--holding both sets of knuckles in clenched fists out before him as he showcased the letters.

Lee purposefully referenced not only the scene and the tattoos, but also the basic premise of the story Mitchum told in an exchange between Lee's characters Buggin' Out and Radio Raheem. Raheem has two sets of knuckle rings emblazoned with the golden words LOVE and HATE, and upon Buggin' Out's question as to their origin, tells a story parallel to the one Mitchum relayed in Hunter. In ordinary cinematic terms, these items alone qualify the sequence as a direct homage in the classic sense of the word. However, the way in which the visuals are applied in the first film, and then presented with distinct intention within the mis-en-scene of the second, are what are of interest to this study. Though there are slight differences in the framing of the tattoos of the preacher and the rings of Raheem, the letters on their knuckles and the clenching of their fists--especially at the start of their respective stories--are identical. The

reference is specific not only in the borrowing of the narrative, but specifically and identically duplicated within Lee's film. While Scorsese in the earlier portions of this section was shown to identify works of art (or other cinematic works) to add gravity to a certain scene, the end product of those instances of homage were still original cinematic visuals—despite their origins. Within the current example from Night of the Hunter and Do the Right Thing, a visual line of identity has been crossed. The item referenced is so specific, so tied to an earlier cinematic visual, that its appearance upon the screen carries an intentional visual weight linking one to the other in an unmistakable way far beyond the range of the casual reference or the homage nod. There, within the specific unmistakable cinematic tie-in manner, narrative weight, and strikingly similar visual set-up—lies the distinction between the ordinary tipping the hat and the Homage Loop.

This next short section will be comprised of a short investigation into the most minor of the looping tools, the Superimposed Loop. This type of repetition is, in reality, an early developmental version of the Division Loop, which will be addressed immediately afterward.

The Superimposed Loop may be the first tool to have been used, or thought of, as an applicable “technique” aside from the Classic Loop. In other words, the Superimposed Loop early on became a staple within cinematic work. This is because the Superimposed Loop could be manufactured in a number of ways comparable with early shooting and editing practices. During the production phase of a film, double exposure procedures could be applied in order to make a subject or object in front of the camera appear to “double” on the developed strip of celluloid. This was crudely done in-camera during the first part of the century, and was a tricky process to execute correctly at best (German Expressionism took to this trait in particular) (Gianetti 278). The development of cinema optical processors allowed the possibility of combining one film image with a separately shot image into one final shot. Though devices such

as this were often used in the special effects fields in films from King Kong to Star Trek: The Motion Picture, narrative films outside the range of science fiction utilized this device as well. The Superimposed Loop truly was the forerunner to the complex and widely used Division Loop to be discussed next. However, as a link between the Classic Loop and the Division Loop, they stand on their own as a distinctive link in the developmental chain. As mentioned earlier, the Superimposed Loop was often used as a visual orienting technique by the director. Commonly, the overlap of similar or identical images would be used in scenes where a character (whose P.O.V. was typically, for the duration of the loop, the view from the camera lens itself) was either dizzy or had just woken up from a deep sleep or prolonged illness. This type of application can be found in abundance in the comedy shorts of The Three Stooges. In a typical scenario, Moe hits Curly in the head with a blunt object. The audience watches the blow from a camera angle that suggests a third person, distanced perspective. The next shot is a close up of Curly's face. He looks noticeably confused and wobbly. The following shot takes up Curly's direct point of view, as if the audience can now "see" through Curly's eyes. The audience watches, through the eyes of Curly, several overlapping versions of an identical moving image of Moe. The images are placed directly in front of his face (i.e., through a camera angle that suggests a direct point) while the multiple Moes swirl around in a circle. That basic premise would form what in this project I have labeled a basic Superimposed Loop. These basic types of Superimposed Loops, which have found their way as a technique all the way from The Three Stooges to Wyle E. Coyote cartoons to Saturday Night Live skits, are truly the initial building blocks for the extremely important Division Loops.

What makes the loop, or visual cinematic repetitions, such a ripe form for investigation is the challenge involved in trying to locate the reasons why these occurrences, in fact, did not

vanish once the mechanical filmic means (from the praxinoscope to the nickelodeon) developed and advanced technologically beyond the point where their presence was a perfunctory necessity. It is one thing to notice and investigate repetitions when the very structural nature of the projecting device is based primarily upon the need to filter celluloid through the spindle time and again in order to work properly. This notion is at the heart of a tremendous amount of the research and writing that has been done in the field of pre and early cinematic devices. That can also be seen as a possible reason why cinema scholars have not accounted for the loop in the historic periods immediately following the age when longer reels and more complex projection devices were finally invented and implemented. That is because the original “looping” piece of film went from being the center of the cinematic universe to a somewhat archaic technological footnote in a short span of time. However, it is another thing altogether to then notice how the repetitions themselves--no longer merely mechanical, but now embedded into the cinematic visuals and grafted montages--continued to appear, and in fact, seemingly morph into versions of the loop categorized and described within this project. The dilemma inherent with assertions such as Manovich’s when he writes that the loop vanished is that they are not coming from a historical perspective. At the same time, neither are they arising from a wholly aesthetic viewpoint. If Manovich were discussing pre and early cinematic devices alone and were to make such a statement, he would, in essence, be correct. The projection devices based primarily upon looping celluloid strips were, in fact, withdrawn from mainstream use very early in the 20th century. However, a large reason for this disappearance is not based on the fact that the projection methods outgrew the filmic means. Instead, he argues that the loop itself was inappropriate for the early technology, and as a result had to wait until the time came when the promise of its potential could be fulfilled. It is for that reason, he states, that the loop, in essence,

went underground until the current digital cinematic climate was able to resurrect the technique in the form of computerized movies and special effects. In taking this stance, Manovich seems to be putting a thin historical veil over a claim that then attempts to draw strongly from an aesthetic and artistic viewpoint for currency in its evaluation. It is a curious position. Looking closely at individual genres, or broadly at entire styles of film making (as will be done in this project), it becomes apparent that there are numerous instances of the allegedly truant repetitions and loops in all of those cinematic arenas throughout the 20th century. As a result, the aesthetic argument Manovich makes as to why the loop supposedly ceased to exist becomes almost more problematic than the technological assertions he provides to try and explain their assumed ninety-year hibernation.

To that end, it will be shown in this project that Division Loops, in their modern digital implementation, will end up being at the heart of the major motion picture and low budget practices. In Chapter Two a specific focus will be placed upon how within the last two decades of cinema history, this manifested particularly in the form of digital character manipulation and crowd multiplication.

The Division Loop is the type that has both the most variation in cinematic history, as well as apparently the widest range of uses. In short, the Division Loop is the tool in the taxonomy that is the easiest to track, find examples of, and link to various parallel themes within the writings of cinematic theorists. While Chapter Two will show a vast sampling from the major types of the Division Loop found in my investigation, several of the most prevalent will be discussed here as a form of introduction. In this section, five variations will be observed: on-set multiplications, mirroring, split-screen, individual item/entity multiplication, and crowd multiplication.

As mentioned above, the Superimposed Loop seems to be a precursor to the Division Loop (at least in certain aberrations). These similarities are tied primarily to loops that are constructed either in-camera (by re-processing celluloid two or more times through optical processors) or strictly in post-production. This distinction must now be made because there are versions of the Division Loop strictly created through manipulation and set up during the very on-set shooting process itself. An early example of this type of Division Loop can be found in the broad category of the Hollywood spectacle films of the late 1930s and 1940s, featuring everything from an enormous cast full of synchronized dancers (almost any film featuring Carmen Miranda has at least one dance number which would fit into this category). Alternately, this particular source of repetition could also be found in films of the same caliber that featured the then popular water ballet spectacle numbers. In both instances, numerous extras and entertainers would move, dance, or swim in either complete synchronization with one another before the camera, or in reflection of one another (i.e., a group of swimmers moves in one direction while a second group mirrors them in the opposite direction). These types of numbers became so common in Hollywood that they became cliché. It is important to note that the staging of the Division Loop in these examples was done specifically with actors and choreography, and not with any sort of effects. Dozens upon dozens of extras were needed, with the requisite hours of training and practice, in order to pull these delicately timed synchronizations off in front of the camera perfectly. We will see that this unique human element, and the difficulties faced when trying to create such specific multiplications, will play a specific role in the evolution of the Division Loop as cinema continues to develop.

To give an example of how set-pieces worked to incorporate/inform design practices both based upon and developmentally essential to several variations of the Division Loop, we will

now observe the genesis and application of one particular version of this tool—the mirror. Mirroring, either by utilizing actual mirrors and reflections, or putting processes into the effects realm that utilize mirroring, has proved an essential element in the utilization of the Division Loop.

One of the key images from All About Eve was the shot of the character Eve holding Bette Davis' award and staring at herself in a three-sided mirror. Within the narrative, this brief scene early in the film acted as a clue into the dubious nature of Eve's intentions. She wanted the same fame and glory for herself that Davis' friends and colleagues enjoyed, and she was prepared to go to great lengths to achieve them. Though acting innocent and naïve, this mirror scene foreshadows the actual goal that Eve has in mind, no matter who she has to step on to achieve her ambitions. Near the end of the movie, as Eve receives an award of her own and makes an acceptance speech, the other characters sit around and listen at tables in the audience. They now know what she is all about, and they see right through her magnanimous words from the podium. It is an act similar to those played by Davis and the other characters in order to reach their successes in show business. Eve has played her part in the artistic community perfectly, and in many ways has actually reflected the tactics of the others in doing so--effectively beating them at their own game. The final moments of the ending titles visually utilizes this key scene from the narrative to comment upon the actions of this character openly. This was done through replaying a variation of the scene with Eve holding the award in front of Davis' mirror. For this last image, the shot was composed using a special effect. The final result shows Eve in a direct point-of view shot, multiplied over and over again in the mirrors. She holds Davis' award and acts magnanimous, in a way that increases the number of Eve images shown while at the same time removing the actual film camera from the shot.

Mirrors have been put to use similarly in a number of narrative films from both classic and contemporary cinema. Scenes incorporating these types of multiplications can be found in The Man With The Golden Gun, Manhattan Murder Mystery, as well as several films of Orson Welles. Recently, this same type of application was featured in a chase scene from the onscreen rendition of Andrew Lloyd Webber's The Phantom of the Opera. Several aspects of Lacanian philosophy on the topic of mirroring tie directly into this matter. However, seeing as how the thoughts of Lacan that are often tied into film theory are connected with several key aspects of spectatorship, this discussion will be saved for the concluding portion of this chapter (McGowen and Kunkle xiii).

The next type of Division Loop found is fairly common in both television and film production, the split screen. This variety was used in shows such as The Patty Duke Show and The Brady Bunch in order to take one actor and allow him/her to appear as two characters in the same scene. With the type of optical processing used in producing The Patty Duke Show, staging had to be very precise. One cousin was always on the left side, facing the cousin directly in front of her on the right side. The set on which the action occurred needed to remain exactly the same for both takes. The "split" was right down the middle, hence the name for the technique. In video processes such as those used to tape soap operas, a similar version of events would occur--except that in video there is nothing to develop as in cinema. As a result, the division would be created either through a control room switcher or a video editing bay. With this process, as with the film techniques used with Patty Duke and The Brady Bunch, the split still needed to happen right down the center of the screen. As technology, techniques, and time progressed, it became possible to apply multiplications of the same person without having to resort to a split-screen.

Interesting aberrations of this format would develop utilizing optical film processors to place more than two images of a person into a post-production shot. Advanced videotape editing systems could similarly create more than two images of a person using television technology. In both cases, graininess and clarity issues presented problems in the final product, as portions of the film or video footage would have to be manipulated or exposed multiple times to get to the final product. It was this type of split-screen that allowed the primitive techniques applied to Patty Duke to now manifest a slightly more tangible final image. Take, for example, the “evil twin” or “evil triplets” in soap operas, played by the exact same actor or actress. In video, this was done by virtually all of the daytime dramas, for example, in The Young and The Restless (Cassatta 161). In a filmed variant, this was used for the sequence in which Linda Evans fought herself as her own evil twin in the primetime soap Dynasty. The various technical applications of split screen and minor multiplications within this type of Division Loop described here remained in use for decades. The process used to create them remained virtually unaltered in terms of techniques and even technologies utilized until the advent of digital video and computer-operated camera technologies.

At the onset of the digital era, two things appeared side by side within the continuing formation of the Division Loop. The first to be discussed will be digital crowd manipulation and multiplication. The second, in which the division technologies were themselves adapted and then applied as a visual tool within the mix (for example multi-screen, multi-perspective, such as in Oh Beautiful and the television series 24) will be addressed in Chapter Two.

Forrest Gump was mentioned in the Introduction within the broad Division Loop umbrella, for the reason of digital crowd manipulation in particular. The film contained several sequences in which crowds of extras were multiplied in order to make them occupy scenic

spaces so large that budget and time considerations prevented filling them with actors. Hollywood epics such as The Ten Commandments and Cleopatra turned the phrase “cast of thousands” into a cliché. Inflation and budget concerns made the prospect of loading a stadium with extras for a football scene where Forrest runs for a touchdown at a university game was cost prohibitive at best. In addition, the middle of Forrest Gump featured a scene at the Washington, D.C. Mall prior to Martin Luther King Jr.’s speech. To line the entire Mall with actors in order to match the breadth and span of the crowds who heard the original speech would have been impossible. The solution was found in post production. Effects specialists took the several thousand individuals who were at the location, “grabbed” them digitally, and multiplied sections of the crowd until they covered the entire Mall area for the final production. As a result, both the stadium sequence and the Mall sequence used the Division Loop multiply entire sections of people and place them in several scenic locations at once. As detailed in the bonus features and discussed in the Forrest Gump DVD commentary, the range of the final master shot footage was so large, and the individuals in the crowd so miniscule, that a viewer of the film would be unable to recognize just how often the exact same people were appearing on the screen all at once (Forrest). The producers of Forrest Gump multiplied actors, yet the procedure used for accomplishing the divisions quickly found many uses in not only cinematic works, but commercial and artistic works as well. In addition, the digital technologies put the division tool right into the editing programs themselves, especially popular selling commercial ones such as Adobe Premier and Avid (Hamlyn 26). These particular manifestations will be investigated in greater depth throughout the next two chapters.

In drawing this portion of the study to a close, it might be helpful to briefly review how the five techniques in the looping taxonomy have been addressed in relationship to several of the

key areas that will be touchstones throughout the project: 1) educational concerns, 2) budgetary concerns, and 3) historical concerns. In the area of education, we have seen that the current trend of removing or de-emphasizing aesthetic practices in technical coursework as they tie to works of other artists not only seems to be growing, but apparently is being mirrored and implemented within the Hollywood studio system as well. As a result, discussion has begun regarding some of the ways in which students have compensated for this lack—primarily, though the seeking out of films and film references on their own. This referential manner of learning, and the types of artistic communities and aesthetic values it appears to cultivate, will be taken up later in the study. Within the realm of budgetary concerns, examples have already been given from both high and low budget films utilizing the loop--spanning the scope of historic cinematic reference along the way. Be it the classic application of the marching feet in Potemkin or the no-budget replication of that very scene on the Tulane steps for my undergraduate editing project, the loop in many of its variants (high tech digital multiplication aside) appears to be applicable in virtually any instance desirable, despite the budgetary means of a project, or the lack thereof. And finally, when it comes to spectatorship, we have looked in this chapter at the way in which the repetitions and cinematic application of the looping tools in the various examples spanning numerous time periods and genres discussed throughout (to be expanded upon in greater depth during Chapter Two) have offered a chance for audience members to look deeper into the visuals being presented. Not only that, but in many cases, audience members are also even given broader clues for how to interpret the very work they are watching, as well as specific references for the primary references used by the director to craft his cinematic visuals in the first place. With this, we now move into Chapter Two, where examples of the five techniques within the loop taxonomy will be shown in cinematic pieces from the 20th century. The loops will be

shown in their primary forms, defined forms within films and videos, and through examples that identify the way they appeared to stretch, develop, and even cross boundaries with one another over the course of the past one hundred years.

CHAPTER TWO: THE LOOP IN THE 20TH CENTURY – AN OVERVIEW

This chapter will focus primarily upon what was found upon locating, analyzing, and labeling the extensive variety of 20th century loops that fell within the five categories of the taxonomy during my research. The examples will be broken down to highlight genre, type of tool, and historical place (i.e., during what segment of the last century the example emerged). This approach will not be strictly formulated as a timeline per se. The examples will instead be presented in chronological “waves” of progress so that the reader can get a general idea of the developmental design of the particular loop (as well as the type) within the overall scheme of film’s technical progress during the past 100 years. The final pages of the chapter will end with examples from the current digital era. This last section will serve to bridge past cinematic techniques directly into modern usages and will serve as the transitional point into the direct loop usages which will be investigated in detail within Chapter Three. Of the aspects of film discussed in this project--education, budget and historic--the one to be focused upon primarily in Chapter Two will be historic concerns, highlighting in particular how examples of the loop taxonomy can be found throughout film history.

An entire study could be done focusing on nothing but tracing the development of the loop throughout the last century in the most minute of detail. Such a feat stands well beyond the broader scope of this project, though, and its narrow practical aim of demonstrating the overall general metamorphosis of five specific techniques from cinematic beginnings to digital fruition. However, the notion of the loop having gone into some type of hibernation--especially after the paper-lined drum of the zoetrope and the king sized flip-books known as nickelodeons were no

longer en vogue, can be shown to be an erroneous one. The key to doing so is to look back at examples of the five techniques that have surfaced throughout the past century in a wide variety of genres and applications. This issue needs to be addressed in some detail before delving into the two digital artists at the heart of this study further on in Chapter Three.

The particulars surrounding the working mechanics of historic looping devices--such as the zoetrope and its progeny--have been thoroughly documented numerous times (Ellis and Wexman 10-25; Musser 42-52; Toulet 27-41). This section of the study will instead strive to focus upon a singular aspect of cinematic history as a means of laying the groundwork for the study as a whole. It has been decided that the current segment should therefore reach for a more practical goal than documenting, say, how a zoetrope works. The result has been the construction of an extremely simple "timeline", one designed to chart the course of looping and repetitive techniques--along with a few of their numerous applications--over a period of one hundred years. Please keep in mind that this collection represents a general overview focusing on shots (or sequences of shots) that have appeared during a select portion of cinema history and that are of a looping or repetitive nature in line with the tools from the taxonomy. As stated at the start of the study, the causes behind an artist's decision to use this technique could potentially be as vast and individual as the creators themselves. However, it must be kept in mind that sometimes a repetition is just a repetition. In many cases, there may have been little or no underlying message meant to be sent by the artist via the visual--other than perhaps he or she liked the repetitious quality of the image and felt it feasible to include loop at that certain place or time. What has been put together for this portion of study is merely a broad glance at the various looping tools forms as they appeared and developed throughout the 1900s. Numerous references to other works will be provided as appropriate. However, the commentaries that

follow are based primarily upon my observations, taken from the impressions and thoughts gathered during viewings of the works in question. The sampling that follows strives to present a handful of the diverse, yet innovative, ways that the loop has consistently been put to use in the cinema of the last century.

The first period to be looked at will be the one spanning from 1900 to 1920. As discussed in Chapter One, The Mack Sennet comedies and other similar filmed entertainments of this period took advantage of the fact that most of the viewing audiences were still well versed in the use of the loop. This was partially due, as previously stated, to the general public's exposure to the technique through the nickelodeons and other rotating or flip-based cinematic devices of the time. The types of films produced by Sennet utilized looping structures in shots featuring chases and pratfalls as a way to creatively and easily achieve a comic end (Gish and Pinchot 70). This led to the period in 1915-1918 involving Griffith discussed in the Introduction. During the creation of Birth of the Nation and Intolerance, other narrative tools such as the close-up and medium shot were implemented in both production and editing. Griffith's own additions though, were built upon earlier initial narrative linkages from the first part of the 1900s. Here it would be appropriate to note several important links among these distinct periods of developing editorial styles.

The most common editorial link between shots at the start of the century was the dissolve (for example, Zecca's Crime Story and Porter's Life of an American Fireman). After 1903, however, Méliès tended to be one of the only major directors to consistently utilize the transitional dissolve exclusively (Toulet 124). By then, other directors had experimented with, and grown fond of, connecting shots with a single simple edit as a way of moving the action from one section to the next. Porter himself was an advocate of the necessity to use this new

found freedom (i.e., no longer having to shoot live action in order) as the shots could later be arranged into a story sequence utilizing simple edits during postproduction. Two significant things happened as a result of this discovery.

First, for a vast number of directors, the practice of dissolving moved from being the main transitional technique to simply one tool that could be chosen from a number of possibilities during the editorial phases of a film's creation. Secondly, though, is the way in which the film makers utilized the practice of direct shot-to-shot editing to "teach" the audience how to read their films. They did this through the way in which such cuts were ultimately used to narrate the visual action onscreen.

The Classic Loop, therefore, like the dissolve, started to become a more occasional choice for film makers in the narrative realm. The Iconic Loop, instead, began to make headway. This happened initially as subtly as an editor placing the exact same strip of film into the narrative more than once, for example, in a character's reaction shot. Eisenstein would delve further into the exploration of this type of Iconic Loop implementation in his own films and essays starting in the next decade (Eisenstein, Film Form ix).

Next will be the ten year span from 1920 to 1930. As just noted, Eisenstein was both a philosopher and a practitioner in the cinematic arts. As the most well-known and influential member of the Soviet school of cinema (initially funded by the Communist state) Eisenstein published essays such as "Word and Image" and "Film Language". In these works, he detailed theories intrinsic to the development of the narrative language tools--tools that had quickly started to be put to use by film makers and enjoyed by cinema audiences.

The first film to be observed is Battleship Potemkin. Eisenstein discussed his many roles in the creation of this film within the essay "Synchronization of Senses." One of the greatest

advantages to Eisenstein being both theorist and director is that he is able in his writings to comment directly upon his own work. For instance, he has much to say about the subject of interest to this project, repetition. In fact, Eisenstein divides his own theory on the subject into two specific functions of repetition. He first refers to facilitating the creation of an organic whole within a work. The Odessa Steps sequence features a return, time and time again, to a recurring shot of boots marching down stairs, edited together with reaction shots from the crowd. This represents in film history one of the best known early instances of a single set of shots being looped over and over again in a scene in order to achieve a dramatic effect within a narrative piece. As a result, this type of repetition in Eisenstein's work stands as a prime example of the Iconic Loop (Eisenstein, Film Sense 95). The second function of repetition according to Eisenstein is to build dramatic tension through showing a particular visual more than once in an edited sequence. Another instance in Battleship Potemkin would fall into this category of repetition, as discussed by Eisenstein in his essay "Form and Content: Practice". In mourning a character named Vakulinchuk, a nondescript "extra" in the production is shown over and over again in sequential, mounting shots. The character displays the look of anguished grief time again, the camera moving a little closer with each splice of film. For the purposes of this study, the shot would also fall within the range of the Iconic Loop, especially as the camera draws nearer to the same image of grief and despair with every edit (Eisenstein Film Sense 172). Discussed and dissected for nearly eighty years, various shots from Battleship Potemkin, and the Odessa Steps sequence in particular, have also been captured and looped as background materials within video and performance art pieces (Eisenstein, Film Sense 220). Eisenstein's written analysis of form and content in cinema extended far beyond his own cinematic achievements. His essays took the works of Griffith et al and synthesized their technical

practices into a workable study of cinematic vocabulary. Eisenstein's own editorial experiments began years before. He was known for looping repeated clips of the same initial "neutral" shot with alternate objects to draw a predetermined reaction from the audience (mother's face, baby; mother's face, coffin.) In Eisenstein's essays, these shots and practices were deconstructed thoroughly by the artist himself (Eisenstein, Film Form 10). This body of work was to become an important referential tool that focused liberally upon the very defining of the grammar of narrative cinema itself.

German film of this time period not only brought Expressionism to cinema, but also the application of techniques such as the loop. This device and others were used for the purpose of saturating the screen so that the spectators would take in the visual information all at once. The primary technique featured in this area includes multiple images presented in a manner consistent with the Superimposed Loop. Two examples of films that fit this category are Looping the Loop and Secrets of a Soul. The application of the effect in question was starting to shift when it began to be applied during the post-production phase through optical processing, instead of exclusively in-camera on the set during the actual shooting of the feature, as was formerly the case.

Another prime example of this type of loop in an American work of the period can be found in The General. During one sequence, the audience views Buster Keaton hiding beneath a table covered with a cloth. He looks out at the heroine through a hole in the fabric. What the audience is actually watching is a base shot of the cloth. On top of that is a shot of the woman's reduced figure--as if she were far away--which has been superimposed onto the image. This form of optical processing was not a new process (i.e., works such as Trip to the Moon). However, the shot from The General is still

noteworthy. This is an exemplary dramatic use of the Superimposed Loop in a narrative piece, and not as a flashy effects gimmick. Eventually, advances in optical processing of the kind put to use in Keaton's film would become the primary effects basis for films such as King Kong (and thousands of films from all different genres during the six decades that would follow). Much later, parallel advances in digital rendering for post-production allowed artists to add Classic, Superimposed, and most frequently Division Loop creations into their master shots in a similar fashion.

Though this study is aimed at uses of the loop in the world of cinema outside of traditional hand-painted cartoons, a smattering of classically animated examples will be examined for extremely specific reasons. The fame--and near iconic stature--of the shot showing Mickey Mouse in Steamboat Willie as he mans the oversized steering wheel in a back-and-forth animated Classic Loop, would probably be enough to justify its mention here alone (Finch 38). However, it should be pointed out that this very notoriety is one of those potential points where those who contend that the loop left cinema for decades may have gotten off track. As noted in the Introduction, animation was one of the places Manovich argued that techniques such as the loop were relegated to once film began its movement toward narrative. Even if that prospect were true, the amount of looping done in most cartoons (and the high saturation and visibility of animated works through the middle of the 20th century) still gave the viewing public ample opportunity to accept and assimilate the technique into their visual vocabulary. This animated saturation--when coupled with the film-based looping that actually *did* exist in the world of cinema--is important. It ultimately helps further Manovich's argument about the "sudden" resurgence of the loop in the 1990s onto the digital visual landscape (and into spectator consciousness) after a supposed prolonged absence.

The sophisticated animation of Disney in the 1930s and early 1940s would ultimately spearhead the practice of moving the Classic Loop in character movements to the background and setting elements instead. This was done in favor of producing a more detailed and lifelike movement within the foreground figure--and was a trend that proved to last for quite some time. However, the Disney animators sent this type of character looping into the shadows with a bang. In "The Sorcerer's Apprentice" from Fantasia, the brooms multiplied and synchronized their movements under Mickey's unpredictable command. These animated actions represented both the Classic Loop and the Division Loop, en masse. All of that action happened to the deft cadences of the Dukas classic. The repeated broom images continue to march in offbeat, almost asynchronous time to the rigid and increasingly overbearing rhythm of the orchestra as the tension of the narrative mounted (Finch 98). It could be argued that this film--and particularly this piece--was one of the first true modern music "videos" in the sense that audiences know them today. If nothing else, the strong and constant correlation between sound and image (what is seen and what is heard in a loud, repetitive manner) could be looked upon as a precursor to the tightly constructed audio-visual packages that became staples of the recording industry forty years later. As will be seen further on, George Lucas himself seems to have also drawn inspiration from this style of multiplication while constructing his own clone armies within the Star Wars universe utilizing both Classic and Division Loops.

Having briefly observed animation, it is now time to view how looping tactics were utilized in other features of the era. The documentary film, and in particular, the propagandized pieces of Leni Reifenstahl, provides unique access into viewing how even in documentaries, images can be manipulated and repeated through deliberate shot choices and the process of Iconic Looping.

In both Triumph of the Will and Olympia, there can be found purposeful repetitions of the same or similar shots. For example, there is the continually referenced descent of Hitler's plane from the clouds down into Nuremburg. Instances abound of Hitler in various stances, shot at low angles or from a visual vantage point that implied power. Those images are cross-cut time again with near-identical shots of the masses. Examples of this would be the crowds along the parade route, and the ever-present long shots featuring thousands of soldiers aligned at attention. The overall effect of a number of these editorial decisions does appear to have fallen in line with the utilization of the Iconic Loop in a "documentary" setting, at least within certain instances. Though highly stylized, Triumph manages, through sheer repetition of the images, to place a dominant, powerful resonance on the figure of Hitler each time he is shown in juxtaposition with whatever the following reaction shot happens to be. Ironically, it is the "reaction" shot of the massive audience that takes on more of the Iconic Loop nature than any singular image of Hitler. A more natural looping of shots (closer to the traditional manner of Iconic Loop) seems to have been captured in Reifentahl's equally stylized rendering of the 1936 Olympics, as shown in the documentary The Wonderful, Terrible Life of Leni Reifentahl. These loops are especially noticeable during the long shots, particularly within segments where the athletes are shown training in the stadium (Jacobs 136-140).

In the 1950s and early 1960s the French New Wave directors in particular threw many of the accepted narrative film making rules to the wind while finding other innovative visual means to tell dramatic stories onscreen. Cinema artists such as Truffaut and Godard started questioning time honored visual structures within their own movies. Then they dissected the films of others-- both in writing, interviews, and through their own film practices. André Bazin and the Cahier du Cinema journal began to document and analyze the changes and development within the art form

as a whole (Buckland 52-54).

Godard himself created films and videos that utilize the looping tools in numerous ways, and continues to do so. His career has spanned the second half of the 20th century and beyond (Godard 14). From Breathless to Alphaville to King Lear, this French film artist has specialized in the dismantling of narrative cinematic vocabulary (Buckland 57-61). Godard has done everything from looping a few 35 millimeter frames at a time in Classic Loops, to repeating entire scenes repeated shot for shot in an amalgam between both the Classic and Iconic Loop forms. Examples of all the aforementioned techniques can be found in Contempt (Dixon 41-52). In that film, Godard actually found a way to take repeated clips from earlier in his movie and flash them onto the screen at unexpected times in collections of Iconic Loop shots. This usage brings us to the second type of Iconic Loop to be discussed in this project, the “reminder” version of the tool.

The “reminder” type of the Iconic Loop can most easily be explained as a key image, or a strip of film, that has been placed strategically back within the narrative of a film through editing at least one time (though this can be done an unlimited amount) after its initial usage. For example, this technique is often used to reinstate a setting within a storyline and to re-acclimate the audience to where the action is taking place. In the British television series The Adventures of Black Beauty, the exact same shot of the family farm location (itself an actual manor in Rickmansworth, England) was used to denote that the scenes that followed would take place on the farm. Though other locations and sets were used for filming the actual scenes within the show, this particular establishing shot was always used to set up the action. Establishing shots of this nature are common in film, though often several angles of the building or setting are put to uses, such as the Jeffersonian Building in the television series Bones or the multiple-overhead

helicopter footage of the Princeton, New Jersey hospital complex from House. Budget, cost effectiveness, and ease are usually why these same images are used time and again. However, as with the homage, not all such setting shots are “reminder” versions of the Iconic Loop. The Black Beauty farm example would stand as a “reminder”, since it was the only one used, and thus throughout the series the outside of the grounds seemed to take on a particular referential weight. The same is true for the door shots outside of Regan’s Georgetown bedroom in The Exorcist.

Outside of the realm of setting, however, there is another use of the “reminder” which stands directly in line with the name it has been given--to remind the audience of something shown earlier in the story. A memory sequence, or a brief flashback to a portion of a previous scene would qualify as long as the exact same shots were used. Both are standard practices and often used in both film and television. It is sometimes the more creative uses of the “reminder” that stand out. Examples can be found in Memento (during multiple sequences, and even within the Iconic Loop “chapter breaks” provided by director Christopher Nolan) the end of The Sixth Sense (in which Bruce Willis re-sees the scenes in which he thought he was having conversations with the living) and the aforementioned surprise “reminders” from Godard’s Contempt.

During the same period when the New Wave directors were prevalent, another place where loops could continue to be easily located was in animation, both the shorts presented before main film features in theaters as well as within animation for television. Production companies such as Hanna-Barbera needed to provide dozens of animated episodes a year for shows such as Yogi Bear and The Flintstones. The demand for output and cost effectiveness led to what could be looked upon as a loss of quality in the manipulation of the primary figures.

Animation in this category would be limited primarily to eye blinking and lip movements of characters. That is because it would feature the exact same repeated animated portions moving while the “animated” trunk of the body remained exactly the same throughout the scene.

An even more obvious looping is found in the animated backgrounds. For example, the Classic Loop is applied in the way within “The Flintstones” that the same scattered cave-houses, palm trees, and mountains would seem to fly by time and time again. (This happens whenever Fred and Barney drive down the road in their primitive automobile.) The Spider-Man animated series from this period loops the same series of shots featuring their hero swinging through the city in Iconic Loops of both the “chapter break” and “reminder” variety. This repetition is shown nearly every time Spider-Man moves from one side of the city to another. Through syndicated re-runs, animated programs such as these were seen by generations of viewers in the decades that followed their initial broadcast. Mattel went so far as to develop a View Master-like toy as a tie-in to Spider-Man. The device was constructed to play three-minute Super 8 loops of footage taken from various episodes in the series. One particular cartridge even included footage of the Spider-Man swinging shots, thereby creating a loop within a loop inside of the toy.

It would now be prudent to spend a few moments discussing the Avant Garde, and in particular its influence in the period of time between the late 1960s and the advent of the music video in popular culture. Though the Avant Garde existed long before this time, a large and diverse number of works in the field emerged during this period. Examples ranged from Chris Marker’s experimental Sci-Fi still-frame nightmare La Jetee, to the low-key spectacle of Yoko Ono watching John Lennon place one chess piece after another into his mouth. Avant Garde artists on either end of the spectrum were comfortable enough with the loop to apply it in

numerous creative ways throughout the decade and beyond (Rush 26).

A good example of the diverse ways in which the Avant Garde and the looping practices presented had an effect on artists in parallel genres during this timeframe can be found in creations such as the “black box”. Performance artists, along with early video artists, would record short pieces. These works, which were once captured exclusively on film, began to be created on primitive home videotaping equipment as their source on a larger scale for the first time during the 1970s. Artists began setting up installations within galleries and art spaces to display their works, utilizing continuous program loops in a manner evoking the Classic Loop, especially the earliest incarnation from the nickelodeon. They did this so that one patron after another could see the exhibit from start to finish simply by waiting for the video to repeat. Many artists, such as Joan Jonas and Bruce Nauman, added this very looping mechanism (again, akin to the Classic Loop) into their actual performance material (Rush 27-29).

There were even artists and performers during this period who would mesh video, film, animation and repetition in order to make a particular point within their work. Monty Python stands as an excellent example of this combination. There were prominent repetitions within Terry Gilliam’s animated shorts from the Flying Circus on television. Up on the movie screen, Monty Python and The Holy Grail audiences witnessed the multiple Classic Loop shots of Sir Lancelot as he humorously charged up the hill to the Castle Anthrax more than five times with his sword drawn and ready for battle. John Cleese and his associates saturated both British and American airwaves with an organized hodge-podge of French New Wave techniques and an anarchistic assault on narrative devices. Their mixture of high and low comedy, along with a grab-bag of multiple cinematic techniques--usually in quick succession of one another, and including the Iconic and Classic Loops--helped prepare viewers on both sides of the Atlantic for

MTV visuals.

Another film from this time period, Jacque Rivette's Celine and Julie Go Boating, is worth noting for its creative amalgam of looping. Here, the director merges a visual and a narrative technique. This storyline is set up like a set of magician's rings--each ring representing one of the two diverse storylines with a unique, yet definite, link at the center. The audience watches one story for nearly an hour; then suddenly a set of near-subliminal film frames flash on the screen. These flashes are repeated miniscule portions of film, a Classic Loop. The flashes start to re-occur with greater frequency--each time the shots are the same (parallel to Godard's technique in Contempt). In time, the flashing shots lengthen. In fact, they lengthen to such a degree that the loops actually become Iconic in nature. That is because those initial strobe-like frames begin to stretch out to such a degree that they become as long as the shots in the first part of the film, making their own distinct scene. Eventually, the scenes from the first half of the film begin to shorten into Iconic Loops of the "reminder" variety before then becoming strobing Classic Loops--completing the cycle. This swapping of stories continues until finally the audience is left watching nothing but the storyline that was at first encased within the initial flashing frames. This is important because it represents an innovation in narrative that is distinctly played out through filming and editing. It exposed the audience to alternative methods of experiencing narrative in cinema, and thereby once again loosened the hold of the three-act traditional narrative cinematic construct.

It should be noted on the heels of this particularly innovative film that the cinematic looping of this period continued to parallel other art forms of strikingly differing content and budgetary ranges. In particular, this parallel can be seen with Zbig Rybczynski and other video artists who expanded the ways in which technology influenced and infiltrated their craft. Artists

such as Rybczynski (in particular, with his visual work Take Five) and John Baldessari continued to practice innovative uses of the loop and other techniques in video, animation, and film, as well as hybrids of the three forms. Their creations are not the performance pieces of the black box discussed earlier in this chapter, but complex narrative and non-narrative visual concoctions. These programs capitalized on the uniqueness of the video images' quality. They also benefited from the relative ease of utilizing linear editing and manipulation equipment to enhance and strengthen their stories. Another parallel artistic movement on the other end of the financial spectrum was the development of computerized cameras. The creation of navigational systems, in particular those developed by Lucasfilm, made it possible to document exactly where a camera moved. Once recorded, the crew could repeat this path endlessly, exactly the same as the first run-through. This was a turning point for the use of all the Loops in the taxonomy within film, DV, and digital video media of all varieties. The perfect replication of those camera movements, and the resulting ability to record several moving objects within a frame on the same strip of film, would become an important development in the coming decade with regard to the practice of looping. This will be discussed in more detail throughout the second half of Chapter Three.

But the digital arts and film special effects were not the only places showcasing looping in the 1970s. Narrative film directors, both commercially and critically popular, were starting to incorporate this type of practice into the editing strategies utilized. An example of a film that fits into this category is All That Jazz, a successful, popular, multiple-Academy Award nominated film (including Best Picture). Fosse created "chapter breaks" between main sections of the linear portion of his narrative. These divisions were formed with a collection of extremely fast shots showing lead actor Roy Scheider washing his face, brushing his teeth, adding eye drops, etc.

This collection of shots was then repeated--with little or no deviation--whenever key sequences in this section of the film end. The interspersed grouping of Classic Loops featuring Iconic Loop images was used to signifying the main character's passage to another stage in the story. Two decades later, Requiem for a Dream director Aronofsky crafted a perfect homage to the aforementioned "chapter breaks" of Fosse. This time, however, the lightning-fast collection of shots--featuring needles, eye movements, and bubbling liquids--were applied whenever the main characters get high. Aronofsky's take upon the breaks was soon after parodied in The Simpsons during an episode paralleling the drugged reaction of the Requiem characters to the bodily reactions of Homer as he ingested fast food.

Another outlet shortly after this phase in the late 1970s and 1980s was the more frequent projecting of filmed loops in public concert settings. While numerous visual and video artists during this period took to commercial and advertising ventures for expression within their careers, many did not choose to go that way and found different outlets instead (Rees 107). Artists like Issac Julien took advantage of the continuing advances in video technology, further developing their various installations and visual projects. Musicians such as R.E.M., The Tragically Hip, Rush, Yes, and David Bowie utilized filmed and taped loops of various subjects to accompany their live shows. The visuals were designed to be projected either behind, over, or in the case of Bowie, in front of the band. David Bowie, for his tour supporting the retrospective song collection Sound + Vision, had his entire band perform behind a sheer scrim-curtain. The curtain was porous enough that the audience could see the band through it--yet on the front of the enormous screen, films and images from all of Bowie's career were projected throughout the concert. The video programs created for R.E.M., the Tragically Hip, and Tool were often interchanged and therefore not projected with the same songs at every show. Tool continued to

take this technique even further. They did this by projecting multiple looped film and computer-generated images. This purposefully obscured the band members in favor of the images. A technician behind the scenes controlled the speed of the looping images, as well as their movements forward and backward. The overall effect altered every single concert viewing experience, making each performance of the video loops unique.

The most notable venue for the practice of looping between 1980-1990 was the cable network MTV, with its inundation of the modern music video into the popular culture of the time. Music videos in and of themselves were not new. However, their sudden importance, prominence, and saturation in the cultural landscape made them a force in the entertainment industry rather quickly. A Flock of Seagulls performed “I Ran” on a stage that looked as if it were a life-sized praxinoscope. The visual reference came complete with the lead singer revolving in front of mirrored walls that appear to rotate in the background. Though this may not have been music video’s first homage to a technique from early cinematic history, what is certain in hindsight is that many more tips of the hat were destined to follow.

Viewers and future visual artists were suddenly being influenced by, and eventually appropriating, shots and techniques long ago explored during the French New Wave (as well as by Avant Garde artists both new and old). In the world of 1980s music video, narrative--be it following the storyline of the song, or any sort of A-B linear progression in visual storytelling--was no longer a prerequisite. State-of-the-art recording equipment rapidly replaced the more archaic cameras of the 1970s. Music videos by The Cars and Yes such as “You Might Think” and “Leave It” appeared in maximum rotation during 1983 and 1984. Those two works demonstrated the aesthetic possibilities of the current videotape medium. In another key area of particular importance, the public at large slowly but surely became more used to seeing mixed

media within music videos. Shots could change from color, to black and white, and then back to color again within a matter of seconds. This technique, among others, accompanied other visual and editorial looping feats that had not been seen on television in quite the same manner or with such frequency. Music plays a prominent supporting roll in this study because of this. The inherent rhythm and time signatures involved--be there a specified beat or not--opens the door for syncopation between audio and visuals. As will be shown within the context of music video creation, the repetitive cadence innately woven through melody presents itself as a capable handmaid for the edited repetitive visual. And while the public's eventual adjustment to these techniques increased, artists became more drawn to this field of video expression after a great deal of resistance, once it was seen that the techniques and media could be mixed without automatically dumbing down the content simply to reach a larger audience. This allowed artists to continue to produce distinct works in their primary media and actually use digital technologies to broaden their scope, and not necessarily have their vision truncated through this new technology into a chunk of "megamix culture indiscriminately shared between TV and popular culture" (Rees 113).

In the realm of the music video, the loop can be found in videos in the 1980s and early 1990s from all of the following musicians, and many more not listed here: Fleetwood Mac--"Big Love"; Fred Stuhls' "Tool" videos, imitating perfectly the short films of the Brothers Quay; REM--"Fall on Me", among others; Eurythmics--"Who's That Girl?" ; Depeche Mode--both before and during their long association with photographer and film maker Anton Corjibn; Seal--"Crazy" and "Prayer for the Dying"; Desiree--"Gotta Be"; Derek Jarman's frenetic short film for The Smiths' "The Queen is Dead."

The homage to motion pictures, through the replication of shots and scenes within music

videos, became quite common place as well (such as Paula Abdul and Keanu Reeves recreating key portions of Rebel Without a Cause for “Rush, Rush”). With a century’s worth of material, styles, and cultural cache to reference through visual means, modern film and digital artists were able to pick and choose material to bolster their artistic endeavors. As Vira Dika states, this type of appropriation as listed in the example above mentioned scene points to two interesting movements. First, the move to copy iconic images in this way is moving into its second generation, and second, throughout the next generation, the copying is cross pollinating the original sources of photography and film with areas such as music, painting, dance, and other art forms across the spectrum (Dika 1). As is being demonstrated within this current analysis, it is a partial aim of this writing to show that such crossing over has stretched into the aesthetics and techniques applied to digital cinema as well.

And to that end, at this juncture in the study, we will further illustrate the difference between homage references and the Homage Loop in several films from the end of the 20th century. Take, for example, the works of Quentin Tarantino. This director has become famous in part because of the way he references popular culture items, cinematic genres, and direct images from other movies. D. K. Holm has even written a book annotating all of the film references from Tarantino’s 21st century movie Kill Bill. Many of Tarantino’s references, however, do not fall in line with a Homage Loop. The director might make a character, (Mia Marsellus in Pulp Fiction made up to look like actress--and former wife of Godard--Anna Karina) a situation, (the first conversation from Reservoir Dogs, which alludes to Harvey Keitel’s monologue at the start of Mean Streets), or an aside within a line of dialogue (Jules’ proclamation at the end of Pulp Fiction that he was going to “...walk the earth, like [Kung Fu’s Caine]), all of which are ripe with references to other sources. However, these particular

references of Tarantino's, as with a great number of similar instances buried within his movies, are not in line with the direct visual allusion inherent in the Homage Loop. Yet ironically, the very fame of Tarantino's individual films has made them the subject of a number of genuine Homage Loops in the films of other directors.

Graeme Turner asserts that the buried homage references within films such as Pulp Fiction fulfill and satisfy a particular appetite of film spectators--the pleasure that can be found in remembering the familiar. Turner states that this can do so when the overall theme and makeup of a movie purposefully parallels another film (such as Sleepless In Seattle with An Affair to Remember), or it can happen when multiple references from all manner of movies are strewn throughout the plot and dialog in particular instances to accent the text (such as in Tarantino movies) (Turner 143). Yet a director like Tarantino doing so is not the end of the line. For his practice of referencing is not only then copied by later film makers, but they at times even mention his very notoriety for having put the homage into play so often. The same can be done not only for a line, a scene, or an image, but to an entire genre--such as film noir--as well (Sheen and Davison 79).

To this end, in Swingers, director Doug Liman has all of his characters sitting around a table actually discussing the difference between the film-making styles of Scorsese and Tarantino. As they talk, the camera circles the card table in the same way that it does during the aforementioned opening conversation from Reservoir Dogs. The Swingers conversation itself, interestingly, is actually about the cinematic habit of borrowing currently being discussed. Sue, after having heard several great Scorsese shots lauded by his friends, throws a Tarantino visual out to the guys:

Sue: Dude, dude...Reservoir Dogs with that shot...

Mike: Oh stop with that.

Rob: Which one?

Sue: The one at the beginning where they're walking in slow motion...

Mike: How can you even compare the two? Tarantino completely bites everything from Scorsese. It's true...

Sue: He's derivative.

Trent: You've gotta admit, that did look money.

Charles: You know, I heard they did that whole thing for under ten grand.

Rob: I don't know what the big deal is. I mean, everybody steals from everybody...(Liman, Swingers)

The banter of the characters, as well as the way the camera rounds the table just as it did in Reservoir Dogs, is tied in content to the topic at hand within this study. However, both of those components are only the set up for the actual Homage Loop, which Liman has been building up to throughout the entire scene. The moment after the debate about Tarantino's cool shot concludes, Liman proceeds to duplicate the very visual in question. He has his own Swingers characters walk side by side down a darkened road in the exact same way – and shot with the same stuttering film exposure--as the Reservoir Dogs opening the characters recently debated.

The Swingers characters' allusions form an appropriate focal point for the referential component of Gen X artists. In the film, Trent, Mike and Sue (whose very name was derived from Johnny Cash's song "A Boy Named Sue") are all members of a subculture fascinated by cocktails, speakeasies, and the Rat Pack. Their conversations are laced with bits of dialogue and references to a specific bygone era (Decharne ix-xii). Though a number of their words are

purposefully derivative, the terms, phrases, and even cultural references have become a part of their lexicon. As Peter Hanson asserted earlier, referencing and touching upon pop cultural icons has, for so many artists and film makers, become an integral portion of both the self-educational and creative process. In a similar way, techniques such as the loop have now also become a part of the language of film and video artists; they are just another part of the trade. The Homage Loop is the most clear, or obvious, form of this. That is because the examples from which Homage Loops draw are so visually specific. These are distinctly different from the Classic Loops (and even some of the Iconic Loops) in which the source pool can be far more vast than a precise visual linkage.

Another instance of this plays into what Turner describes as the enjoyment found by members of the audience recognizing homage references, and by doing so “confirming, through their mastery of film, their membership in the culture” (Turner 143). Keeping for continuity’s sake with the Liman film, an example of this exact dynamic can be found further on in Swingers. Liman continues the initial gag further on in his movie, grounding it in that same conversation by shooting a Homage Loop based this time upon a Scorsese movie. During the start of the scene in which the opening of Reservoir Dogs had been discussed, the three-minute shot of Henry Hill entering the Copa from Scorsese’s Goodfellas is mentioned as an incredible cinematic moment. Toward the end of Swingers, three of the characters, not wanting to wait in line at a nightclub, decide instead to walk around to the far side of the building. They then go down a back staircase and through a restaurant kitchen before arriving inside and sitting down at a table opposite the band. This entire sequence was constructed in a specific visual way--as a single, uninterrupted and unedited shot. It was purposefully meant as a knock-off of the same famous six-minute Steadicam shot at the Copa so recently praised by those very characters during their discussion

about how “everybody steals from everybody.” Incidentally, this shot was also appropriated in a 2006 episode of The Simpsons entitled “The Haw-Hawed Couple” in which Bart and Nelson Muntz walk through the underground halls leading to the school kitchen before finally being led to a choice table in the cafeteria.

Swingers finishes our look at the end of the 20th century, as well as the Homage Loop. The purpose here was to present clear practical examples that fall into the cinematic homage category, from the extremely specific way in which the word “homage” has been addressed within the taxonomy through the Homage Loop. The next portion of the study will bring Chapter Two to a close with a brief examination of the way digital effects began to integrate and utilize various components of the loop taxonomy toward the end of the 20th century.

The use of digital video, and looping within effects, unfolded rapidly during this period of the late 1980s all the way through the 1990s. It emerged in both full-scale effects creation in television and film (for example, The X Files series and The X Files: Fight the Future, respectively) and as a means for augmenting or manipulating characters or backgrounds (the digitally created fur on the animals in Twelve Monkeys). This versatility allowed film makers who never planned to make a full transition to Digital Video to at least sample and utilize the tools in a more limited sense. The accessible and diverse uses of these techniques and applications allowed them to be dispersed throughout the film making community rather rapidly. No longer was a big-budget or a sci-fi storyline necessary for one to consider utilizing effects, or DV augmentation of any kind. Like plastic surgery, digital video and visual manipulative effects were put into play in order to fix, punch up, or add spice to the base-level film shot captured on location. Consequently, directors of dramas, comedies, and even (or rather, especially) independent features--who might not otherwise have considered the use of effects due to budget

or overall storyline interest for which typical sci-fi effects used to be used--had a new world opened up to them. Artists such as these could put DV into play--regardless of the theme or nature of the story, and thereby reap the benefits of these technologies. We may never see the likes of Martin Scorsese totally leaping into digital cinema. He has, though, utilized the technology to enhance his films, and also currently edits his movies digitally (as with his 2008 Rolling Stones concert film Shine a Light). For Scorsese, however, the technology has mainly been a tool of digital effects and background scenic enhancement, as in the digital creation and placement of the Dalai Lama's palace in Kundun, or the storm-tossed vessel in the climactic sequence from Cape Fear.

Terminator 2, directed by James Cameron, is an excellent example of both of these approaches put together within a single, cinematic work--that of the "morph" effect. This morphing evolved from the water tentacle featured in Cameron's The Abyss to a mercury-like human form. This reflective humanoid computerized "substance" was brought to life through early motion capture technology used to record the movements of actor Robert Patrick. The development of motion capture during this decade will be an instrumental factor later in this study regarding Lucas' work with the digital clones from his Star Wars series, as well as other characters.

The motion picture JFK contained a tightly controlled and organized infusion of the following formats: video footage, black and white film and video, Super-8, 16 and 35 mm stock, and alternating shutter speeds. Oliver Stone purposefully pushed these elements even further through the visceral overload created by his rapid-fire editing pace. It could be argued that JFK would not have been nearly as successful with the public at large had the audiences not been prepared for the film's seemingly combative visual style by a decade of MTV. This notion also

carries over to the other elements quoted from Hanson's work at the start of this study. Of specific interest to this study is the concluding courtroom sequence. During this scene, Costner's Jim Garrison leads the jury through a loop featuring a portion of the Zapruder film right at the very moment that Kennedy was shot. Garrison repeats the frames in question over and over again, and the images are enlarged and blown up to a greater extent with each repetition. Those particular repeated images resonate with depth not always seen within the application of image replication--and this, of course, was one of Stone's objectives. This goal with looping in particular is reinforced by the difference between reception and perception (Hofstadter and Dennett 173). When presented by Garrison in the initial hearings (and in the subsequent millions of viewings once it released to the public), the Zapruder film carries the potential for a tremendous emotional weight because of the nature of perception. In other words, it is arguable that in the eyes of a significant number of viewers, these were not merely strips of celluloid with color embedded upon them edited together time and again so as to form a repetition. If a video camera (minus consciousness, perception, memory, and emotional conditioning) were to be set up to take in and record the projection of the Zapruder film, it would do so as a pure receiver--an empty canvas. In fact, the Zapruder film in actuality *was* nothing more than colorful strips of celluloid. It was the event in time captured, and the emotional reaction evoked upon watching due to human perception, that truly carries whatever weight might be inherent from the viewing of the footage. As human beings--whether in the court room with Garrison, or in the movie theater watching Stone's treatment of the subject--perception is all. And Stone banked upon that perception, and the emotion and even the associated sense-memories audience members would most likely associate with the viewing to their own thoughts, feelings, and even whereabouts during the actual Kennedy assassination. Stone's fake Zapruder footage itself was drawn from

part of an intricately duplicated Dallas motorcade recreation--one of near frame-perfect accuracy. That in and of itself made this film prop a pristine--and a painstakingly reproduced loop in the process. The assassination sequence was shot by Stone despite the obvious technical challenges for this crucial moment in the narrative. This adds to the particular importance of the JFK Classic Loop, as well as to the uniqueness of this shot within the cinematic development of this technique.

Certain directors stand out for their innovative use of digital effects that fall in the range of the Loop Taxonomy. One such director is Robert Zemeckis. Zemeckis utilized the computerized camera developed first by Lucas for Star Wars as a tool for putting the same actors repeatedly in a single shot numerous times within the Back to the Future sequels. His work here was a preview of what would become the epitome of this technique half a decade later--Eddie Murphy's portrayal of the entire adult Klump family in The Nutty Professor, and once again more thoroughly in The Klumps. Zemeckis also managed a relatively early digital effects version of the Duplication Loop through crowd multiplication. This happened in Forrest Gump during both the football stadium scene and the civil rights speech in front of the Lincoln Memorial. This director also became famous, and even notorious, for using digital technologies to allow the character of Forrest Gump to interact and participate within the newsreel footage of world figures long since departed. Woody Allen also effectively placed into historical footage his chameleon-like title character Zelig. In the faux-documentary, Zelig is a mimetic master who, though obviously fictional, remains a sly commentator on these issues, along with the historical issues of his time. Zelig's story is one of wanting to belong and adapt so much that the character literally and physiologically learns to blend into each and every situation he becomes a part of. From skin tone, to language, to cultural ideology, to genetic markers, Zelig becomes a human

chameleon. Zelig's plight for adaptation, as well as his primal need to literally "reflect" the things he saw around him - provides a clever allegory for the core human issues at the root of this very phenomenon of duplication and repetition. Members of a cinema audience are given the opportunity to wear the skin of another, even if for only ninety minutes. The reasons why film viewers may choose or even long to do so are wide and varied, ranging from escapism to downright trauma. As to how the draw of the audience might be seen through watching and even identifying with Zelig's plight, Sander Lee, who studied Allen's more serious work in his book entitled Woody Allen's Angst, offers this suggestion:

In this sense, we all do exactly what Zelig does: we take on the characteristics of those around us in order to create an image of selfhood, which we then project back to those around us. The difference between Zelig and the rest of us, however, is that Zelig has perfected that ability so that he may function as the perfect "mirror," able to reflect exactly what he sees in an attempt to be accepted and liked. Here Allen makes use of the mirror theory of identity, an approach usually identified as originating in the writings of Hegel, although it has been used by many theorists from Marx to Freud to Sartre. In this theory, a person's identity is dependent upon the reflection that person sees in the treatment he or she receives from others. (I create my identity based on the ways in which I see myself reflected in your eyes and the ways that you relate to me.) However, the usual application of this theory does not imply that each person finds a copy of himself or herself in the appearance and actions of others. In fact, usually, one finds one's identity not just in the similarities between oneself and others, but in

the differences as well. (Lee, Sander 45)

From the technical standpoint, the Zelig figure was successfully implemented into historical footage (from presidential inaugurations to speeches of Hitler and Stalin) utilizing optical celluloid processors at the start of the 1980s. However, just over a decade later, the digital world allowed Zemekis' Gump to take this sort of "contact" with the past one giant step further. Forrest appears to have actual physical interaction with the likeness of Kennedy. He shakes his "hand" and listens to both the "real" but slightly altered voice of the former President as he "addresses" Gump. Digitally recreated lip movements of Kennedy were also featured in the sequence. This literally put words into the President's mouth within a fictional setting, though the base footage was of an obvious historical and documentary nature.

This sort of aforementioned technique, and its technological applications, will be melded to that of the loop taxonomy examples to be seen in George Lucas' Attack of the Clones. The ways in which Lucas will similarly alter and manipulate some of his images quite significantly through the Loop Taxonomy will be thoroughly investigated in Chapter Three. But first, let us review the objectives covered in the current chapter. Our touchtone for this chapter was historic concerns. The examples given throughout this section show how the role of the spectator and the loop stretched beyond those sitting in theater seats; rather, the loop as demonstrated through the taxonomy in the 20th century, was a part of the visual arts, the recording arts, the Avant Garde, the television industry, and advertising--most notably at first through music videos. With that in mind, it must be remembered that one of Manovich's claims being disputed here is the notion that the types of tools that form the taxonomy vanished for nearly a century before re-emerging in digital effects productions (some of which were described in the final section.) Going through

a couple of key digital effects films featuring loops in this concluding portion of Chapter Two, after having outlined a brief thumbnail sketch of how loop can be found in films from the first nine decades of the 20th century as well, should provide a better idea why Manovich's digital looping proposition is so at odds with what is actually found upon a closer investigation of cinematic history. In Chapter Three, we will see how those very effects--as well as the century's worth of application in film--allowed artists with varying budgetary constraints to put elements of the taxonomy into play within their diverse creations.

CHAPTER THREE: DIGITAL VIDEO PRACTICES IN CURRENT CINEMA

The aim of this chapter will be to show specific examples of how the five looping tools discussed throughout the study seem to be manifesting in current digital cinema. I will point out distinct ties to the classic film loops within these digital techniques, even as the individual loops themselves seem to be continually evolving within the new format. The intermingling and development of loops will be explained and demonstrated through two sets of modern loop examples. I will look specifically at the digital cinema loops that are being created in both low budget productions (Jon Jost) and high budget extravaganzas (Star Wars Episode II: Attack of the Clones). The two films chosen were selected because, in essence, they stand at polar opposites in terms of the budgetary means utilized and the advanced or amateur nature of the equipment being used. Yet both, quite rightly, fall within the realm of digital cinema. It will be by looking at such diverse DV samples that perhaps a greater scope, and a more detailed examination of the similarities and differences inherent beneath the digital cinema banner, will hopefully be more fully exposed. These examples will show how the five looping types are occurring in their modern Digital Video (DV) incarnations. In regard to the project touchstones, I will also examine how these repetitions are showing up in projects regardless of budget and other resources.

The loop has shown itself to be an adept and moldable format. It was put into play often, through an eclectic and varied range of uses, throughout the course of 20th century visual artistic expression. Chapter Two represented only a thumbnail sketch of its multiple applications through the loop taxonomy during the past hundred years. It is with this history in mind that our

study moves to a closer reading of such applications by two digital artists.

Part of what makes Jost's work in digital video interesting--and of particular use to this study--is the fact that he (like Lucas) reached a point in his career where he saw DV as the future of the medium and turned his back on film (Jost, Address). This shift happened for Jost once and for all in the mid-1990s. However, unlike Lucas, who pours copious amounts of cash into digital productions, Jost has utilized consumer grade equipment for his projects. He also works with readily available editing programs to exploit the low budget capabilities of digital cinema to the fullest--both financially and creatively (Jost, "If"). One of his works--in "electronic cinema" as he calls it-- would have cost approximately \$200,000 had it been created with 35mm film. Yet because 6 Easy Pieces is a digital video, the total expenses weighed in at only two hundred dollars. What makes Jost's DV creations equally as impressive, though, is that he envisioned and rendered a diverse body of digital cinema in less than six years, by the time of his Valencia Community College address. In the time since that speech, his body of work has continued to grow exponentially in both scope and range (Jost, "Work"). He has accomplished this while utilizing tools that were outdated almost as soon as they were purchased. It is from his arsenal of Sony cameras and prehistoric PC non-linear technology that Jost has managed to uniquely incorporate both of the early cinema techniques that are being discussed within this study (Jost, Address).

The fifth short video from 6 Easy Pieces lasts nearly nineteen minutes, though it is comprised of only two shots. Each runs simultaneously for the entire duration of the clip:

Side-by-side projections of a girl in a shooting range and a naked existential performance mime....wearing hooves. High-heeled hooves...muttering things like

“atrocious”, “non-will”, “absence”, “impossibility” and the like, over and over. Yes, she finally shoots the mime, more or less - at the last shot. The mime side of the screen goes blank, and the audience applauds. (Nelson 6)

It is this very mime on the left hand side of the screen, or rather the way that Jost presents her, that is of particular interest here as a low-budget Division Loop. Though not a focus of this study, it seems apt that a comparison to the Magic Lantern be made at this point. A process akin to a digital version of the Magic Lantern can be seen throughout the multiple sets of images laid out before the audience--especially when the video presentation is being projected onto a screen. First, there is a base shot of the mime--a view recorded in slight sepia tones from the side angle of the stage where she performed. This continual image of the figure basically remains against the furthest left hand corner of the shot throughout the duration of the video. At the same time, however, a perfectly synced up rendering of the same mime has been recorded with a second camera. This camera was placed directly in front of the stage--zooming in and out at regular intervals. The image has been washed out through partial overexposure. It also glides in a jaunty, semi-clockwise motion over the stable base shot. The computerized process used to achieve this effect through Adobe is itself called Transparency. How ironic it is that the moving objects orbiting above the stable image in several antique versions of the Magic Lantern were themselves painted upon transparent pieces of glass?

Apparently, Jost is not quite through with this floating performance artist just yet, so he reaches for another effect. A delay, and then a slight decay, is applied to the Transparency image, making a Superimposed Loop simultaneously. The mime is multiplied into four--though the three who echo her motions are each slightly less visible than the original. In addition, the

delayed responses from each of the three ghostly mimes are set on one-second increments. As the original mime lifts her arm, the mime behind her does the same thing a moment later, followed in another moment by the next in line, and so on. As a result, this strangely choreographed collection of mimes upon the screen have, in effect, summoned up a wholly recognizable, yet certainly low budget, digital version of the loop.

Moments after the mime's screen goes dark, video segment six--recorded in autumn 1998--begins its foray into the next early cinema territory to be explored here: the kaleidoscope. Perhaps part of the reason the kaleidoscope does not pose as much of a problem for some as the loop is because the physical devices used to render kaleidoscopic images are still prevalent in the culture of today. The more ornate devices from which kaleidoscopes originally evolved may be of more interest to collectors or admirers of antiques than most people. However, an individual would be hard pressed to walk through many elementary school classrooms in this country without finding a cheap, yet workable, version of the device somewhere in a toy bin. The colored pieces may be made of plastic, and the reflective material may be made from something other than an actual glass mirror. However, the effects generated by these "toys" are recognizable to almost all who view them as kaleidoscopic in nature.

Jost explained the detailed subtitle to piece number six, entitled "Some thoughts while walking beside Santa Maria del Fiori, Fierenze, in autumn 1998, or, The presence of symmetry provides no proof of divinity". He said that the cathedrals in Italy where he lived were primarily based on symmetry. Even the slabs of marble were cut into pieces and used to line portions of the wall in ways meant to mirror one another. This use of symmetry in medieval church architecture directly alluded to the symmetrical nature of living creatures, primarily human beings. However, Jost noted that what interested him was the fact that symmetry has been seen

through the miraculous advances of science to also exist on a subatomic level. This was true, he realized, not only in human beings, but also throughout the entire created universe. The filmmaker sought to stir up those notions, as well as the questions raised by his thoughts concerning both the realm of spirituality and science, by utilizing the means at his disposal as a visual artist, including digital Division Loops (Jost, Address).

Jost walked down the road with his camera aimed closely at the walls of the church building beside him, with the shutter speed capturing four frames of video per second as he moved. Upon loading the video into his computer, he began constructing this segment, which lasts just under eighteen minutes. At first, the image is portrayed unaltered, with the street noises caught by the microphone left in tact and purposely unaltered. After three minutes or so, Jost begins to apply a Mirror effect to the video footage. For stretches of roughly sixty seconds, the footage will be mirrored horizontally, with the image on the top portion of the screen shown replicated in reverse on the bottom. Then a subtle, at first barely noticeable shift takes place. This happens as Jost causes the Mirror to change to a vertical vantage point--with the left hand side of the screen now reflecting the right. These subtle shifts move back and forth while the footage continues to show the ornately fashioned outside of the building in stuttering movements. The overall effect is one of a digital kaleidoscope, a compound Division Loop. To this visual, an enchantingly ethereal aria is added. It creeps into the soundscape so delicately that the tones of the soprano meld with, and then eventually drown out, the natural noise of the roadway.

It is at the pinnacle of this piece that Jost makes his primary statement with the Division Loops. It is a statement not just for the singular video, but for the collection as a whole. He does this by tweaking the Mirror function of his editing equipment to the fullest. Thirteen minutes

into the video, the reflected images begin dividing upon themselves. As Peggy Nelson explains in her analysis of the work:

Jost splits and blurs the image and reflects it back on itself so that it is perfectly symmetrical, and sets it to choir music, invoking nothing so much as cathedral windows! Light within stone again....Are we in Plato's cave...the Platonic forms of buildings and structures forever inaccessible to our hopelessly misguided subjectivity? Or is it perhaps something else?...After all, Jost never shows us the buildings themselves...But of course it couldn't be evidence of the divine if it was just something he put together in post on his computer, right? Finally the frames are split so often (you tell two friends, and they'll tell two friends, and so on, and so on) that they become pillars, but not real filmed pillars (although raising the question again of what is a *real* filmed pillar [*Author's note: this pillar image is originally examined in Piece Two.*]) and then the subdivisions and multiplications increase so much that the entirety fades into an oblivion of light, which he dissolves to reflections of light on water. Asymmetry for our symmetry. Insubstantiality for our grounding. Shadows for our life. Perhaps there is no cave, only paintings; perhaps we're all drawing on top of each other. Perhaps we're all reflecting each other's light. (Nelson 7)

These divisions form kaleidoscopes within kaleidoscopes, Division Loops within Division Loops. They multiply at such a rate that the original mirror image soon becomes difficult to see, and then impossible, suddenly no more than a blanket of white across the screen. The final dissolve moves from pure electronic white to an overexposed view of rippling canal

water streaming by. This is a recurring theme throughout 6 Easy Pieces--tying up Jost's inferred observation that everything in our universe is merely atoms within a greater entity. The images present the artist's arguments with remarkable ease. This was all done electronically, cheaply, and as Jost himself said of the Mirror effect utilized, quite quickly. The entire process of rendering the digital kaleidoscope took less than one afternoon (Jost, Address). The final digital "pillars" that were created deserve to be highlighted one more time. Their presence as part of this final collection of images is no coincidence. As mentioned briefly within Nelson's description, pillars and the notion of architecture made an appearance during the second video in 6 Easy Pieces. Once again, in piece number two, the camera roams and searches, though this time through a collection of massive stone pillars. The image presented has been augmented by a slow shutter speed. In addition, part way through the video, a separate moving image featuring the same set of pillars is placed above the base image. This is once again accomplished using the Transparency effect. Beneath the frame runs a crawling English subtitle, a translation of the Italian language story being told on the soundtrack:

At the successful completion of his chapel, in 1667, Borromini was overcome with remorse. The solidity of the pillars, the stability of the rectangular arrangement and the imposing size, was as nothing against the power of (contemporary artist) Bernini's oval, even in absence. A few months later Borromini killed himself by falling on his sword. For crimes against art? For crimes against philosophy? Who can say? (Nelson 3)

Jost's digitally created renderings are themselves replications, alterations, and to certain

viewers, abortive attempts to artistically convey a particular view of creation that is far less beautiful than the natural world. They are the “oval” from which he captures his initial images and then overlays his own pillars of interpretation. Ironically, Jost has managed to use modern technology to comment on the very issues being brought up today in the aesthetic arguments surrounding film and digital cinema. Those who say film will always be more pleasing to the eye than video are finding themselves confronted by the possibility of DV’s future dominance, despite their arguments. His use of the digital pillar as one of the final kaleidoscopic images in piece number six links the symbol quite purposefully to the story told earlier in piece number two about Borromini vs. Bernini. Could this be viewed as a parallel to digital cinema aesthetics vs. motion picture aesthetics? Or perhaps the tower of digital possibilities tearing down and then building upon the rich base materials forged throughout a century of film history? If so, Jost has made a playful prophesy for the future. The intriguing question of which titan will eventually be thrown upon the sword is left intentionally unanswered. Instead, Jost surrenders the pillar motif to a final image that he ultimately considers to be of far greater importance. The river. Life, itself.

In Jost’s discussion at Valencia Community College, he spoke repeatedly about how if he were to have created 6 Easy Pieces on film, it would have cost a quarter of a million dollars and probably would never have been distributed. His stance throughout was that digital cinema is not on its way, it is here. With a \$10,000 buy-in for equipment, he had created his own movie studio. Those in attendance that day were shown, on a stage-sized projection--screen equal in diameter to one on which movies can be displayed for a large audience--a work of digital art comparable to film. The content might have been documentary and Avant Garde, but the production aesthetics were as authentically visually stunning as (if not even more pristine than

due to the digital clarity) any filmed work that could be watched at a multiplex. Jost said that one of his purposes in making 6 Easy Pieces was to try the camera out, to see what it could really do--and the same went for his editing and post-production equipment. This is a gentleman who directed over a dozen filmed motion pictures in the decades before he turned to digital technology. In discussing each piece, the theme of his comments focused on all that digital cinema could do. In other words, if you want it to look like film, it can look like film – but if you want it to look like an entity unto its own, it can do that as well. If any film purists were in the crowd, they did not voice an objection. However, Jost addressed the assembly as if there were plenty who disagreed, whether they showed themselves or not. When watching 6 Easy Pieces again in light of the artist's comments, it was easy to pick up the fact that his work of digital cinema seemed to point out its creator's underlying intent throughout--this is what digital cinema can do. For Jost, as for those who are proponents of digital cinema, the arguments as to whether film and digital cinema belong in an either/or scenario pitting one against the other are a little baffling. In viewing Piece Six, with the Borromini and Bernini story, and then later watching the fluidity and digital dexterity shown in Piece Six, Jost seems to be making a visual statement in part geared at the supposed "crimes against art" which the narration of Piece Two alluded to (and which film purists cry against digital cinema artists continually). That message appears to be not to take one form of art or the other too seriously. They both have the potential for relevance and even beauty. They are both--film and digital cinema--merely tools, means of creative expression. Focus less upon the tools and place more attention upon the works created using those means by the artists and artisans instead.

Jost and his low budget application of early cinema techniques represent a door to such applications that are not only available to seasoned film makers, but also to amateur video

makers. Yet the essence of these techniques, especially those being observed through the taxonomy as presented in this chapter, can be found in digital works despite the budgetary limits, or lack thereof. With that in mind, let us now observe how the same basic manner of looping found in the taxonomy can be applied within a multi-million dollar digital motion picture.

[For the sake of clarity, the three motion pictures from the “Star Wars” series to be discussed during this paper will be referred to using the following abbreviations: Star Wars Episode I: The Phantom Menace as Phantom; Star Wars Episode II: Attack of the Clones as Clones; and Star Wars Episode IV: A New Hope as Star Wars.]

It is ironic that long before the age of digital cinema, George Lucas, either knowingly or unknowingly, tipped his hat to the loop. This happened in Star Wars during one of the film’s dramatic turning points. While trying to clean some debris out of R2-D2, Luke inadvertently stumbles across a trigger on the droid that sets off a hologram-like recording of Princess Leia. She utters the phrase “Help me Obi-Wan Kenobi--you’re my only hope,” slowly and deliberately, before the entire apparition goes back to the first word and repeats itself again and again. Though the audience finally views the entire message presented by the three dimensional form of the Princess later in the film (in that initial Classic Loop from the garage on Tatooine), Lucas presents his viewers with a short, modernized glimpse into what it must have been like to view the cinematic looping devices of the past. Throughout the other episodes in the series, this fictional “technology” is utilized time and time again for transmitting messages--though primarily in a “real time” mode rather than a pre-recorded one. The technology was usually used to communicate with persons at vast distances from one another, though at times it also served the purpose of sending a close range message apparently from one room right into the next. However, the not-so-fictional technology of the loop is now put to various creative uses in large

budget narrative motion pictures.

Some uses are obvious and some almost completely invisible to the average moviegoer. In the hands of ILM and the electronic artists of today, the loop has taken on a fresh new meaning, and seems to have been given the ability to cover many astounding layers of utilization as a digital filmmaking tool.

In Phantom, for example, the film makers implemented a Division Loop and Superimposed Loop technique as a background filler in a number of different scenes. During the underwater segments within the Gungan compound near the start of the film, dozens of schools of fish of every variety can be seen swimming behind the central characters. In reality, what was actually shot consisted of little more than a handful of fish. The initial fish were then digitally altered to do the following: multiply the fish, change the color of individual swimmers, and even slow down or speed up the rate at which each group traveled--depending on the needs of the individual shots. All of the large crowd scenes--such as those featuring the mass of spectators at the pod race--also consisted of a smattering of extras who were filmed in clusters consisting of about two dozen people. Those images were then reduced in size, multiplied, and digitally added to the background portion of the stadium master shot in a looping manner. These Division Loops and Superimposed Loops gave the viewing audience the overall impression that the twenty or so initial people were actually a throng of 100,000 screaming fans. This form of crowd manipulation in the Lucas films is not a new occurrence in the world of digital effects. However, this time the effect was partnered with the depth and clarity of image offered by the development of the 24 frames per second video camera. This device has the potential to generate up to two million pixels worth of information. When multiplying or manipulating images shot with a 24 FPS camera, the audience is offered a more vivid and lifelike image on the screen than

ever before possible.

Our investigation will now turn to the application of the looping technique within Clones. In some scenes, the process is obvious. In others, the looping examples from the taxonomy are almost totally unnoticeable. First, attention must be paid to the clones themselves. To do this adequately, a moment must be taken to study how Lucas initially utilized the stormtroopers in his 1977 film, Star Wars.

It is telling that the viewing audience was never given a glimpse of the faces behind the helmets of the stormtroopers--who were all played by costumed extras--during any of the films from the original Star Wars trilogy. However, right from their very first appearance in the opening scenes of Star Wars, several characteristics of those extras worked to inform a number of Lucas' creative choices. This is especially true when it came to developing the digital clone troopers at the heart of the Clones storyline--though twenty four years separated the two productions.

At the start of the Star Wars narrative, when the Rebel ship is first taken over by the Imperial frigate, Darth Vader steps onto the deck. He is followed by a garrison of storm troopers. Judging by the timeline of the narrative, those soldiers--dressed as they were in solid white, shell-like battle coverings--are a further development of the initial clonetroopers from Clones. As Vader walks down a corridor of the Rebel ship, he is flanked onscreen by a few of the stormtroopers--marching out of time and not in the strictly synchronized manner one would expect from a group of soldiers.

When the digital animators working on Clones confronted Lucas with this concern, Lucas regaled them with stories from the initial production. He spoke particularly about how the extras were acting on the set that particular day (Knoll). This may have been of possible interest to

trivia buffs, or perhaps even those fans obsessed with the miniscule details of Star Wars history. However, to the animators this information was initially of little help. Yet when tied to what Lucas told them regarding the awkward maneuvering of the animated battle droids from Menace (that the droids, while seeming at times out of order, must ultimately march and fight basically as a mechanized, robotic, synchronized unit) the movement needs of the clonetroopers began to make more sense. While Lucas desired the clonetroopers to be animated in a way that showed more dexterity than the battle droids, he did *not* want them to move perfectly in sync. Digital humanity needed to be added. The animators were instructed to use the footage of the stormtroopers, played by extras in Star Wars, when laying out the movements of the digital clonetroopers for the prequel. In other words, Lucas was *expecting* to see these animated figures move in a slightly disjointed, partially unsynchronized manner. This was his desire even though his clone troopers would be created in a totally digital environment where the complete replication of body movements would have been entirely possible. The significance involved here in Lucas' move to create the movements totally digitally in such a way ended up showing that it was no longer necessary to utilize actors, or multiplied extras, to apply human characteristics. The essence of such naturalizing movements no longer needed "human" digital interfacing necessary to map out or replicate the application (Knoll).

In an ordinary CG character's developmental sequence, a number of things would usually happen at this point. Animatic previews would be created. Costume suit models would be videotaped. Their surfaces would be lined with grids so that movements could be appraised and automated by the digital artists. For Clones, thousands upon thousands of clonetroopers were eventually created and animated, and not a single physical clone trooper suit was ever made out of physical materials for the animators to use as a reference. This is significant, since the

animation team tended to always have full-scale models constructed for a number of their more intricate subjects. The animators asked the director numerous times for permission to construct such a suit. Each time, they were denied their desire by both Lucas and by producer Rick McCullum (Knoll). Ultimately, the reason behind this was so that Lucas could honestly say during the onslaught of press surrounding Clones that the clone troopers were one hundred percent digital fabrications. The movements would have been tracked by videotaped footage of such a model suit with an actor inside. Then that information would at some point have been entered into a computer and tabulated to construct possible marching stances. The denial of this request, and the resulting solution to the problem, came initially into play at the end of the first clonetrooper sequence, to which our discussion will now turn.

Near the start of the second act of Clones, a scene takes place deep within the cloning facility of the ocean-covered planet called Kamino. It starts as Obi-Wan Kenobi is being given a tour of the “plant” by two tall, slender aliens who run the operation. The majority of this sequence takes place within a suspended tunnel far above the floor of the plant as Obi-Wan and his hosts look around at the various activities all around through enormous windows on either side of them. As shot, the set consisted of little more than a large, blue screened studio covered with strategically placed markers for the animators to use as guidance points once the footage was loaded into the computers. Ewan McGregor, who played the role of Obi-Wan, strolled casually over the deep blue flooring, staring above the heads of the two extras playing the Kamino cloners. Those figures would later be erased and replaced with the forms of the digital aliens. All of the blue surrounding the three of them was eventually covered over with computerized renderings of the cloning facility. Once this digital painting process was completed eighteen months after the shoot, the audience was able to see the objects Obi-Wan and

company initially noticed as they look out of the first window. These objects represent the first instance of looping within the sequence.

In the finished production, the establishing shot of the tunnel and the facility proceeds in the following way. In the middle of the screen sits a small version of the elongated tunnel in which Obi-Wan and company are beginning their walk. Surrounding the tunnel, however, is a bizarre collection of enormous round mechanisms, with countless tubular objects protruding from all sides. These tubes are what Obi-Wan will soon be studying closely. He learns from the aliens that within every tube is a perfectly replicated clone, each being grown to eventually be trained for fighting as a member of a gigantic combat unit.

The clones at this stage are little more than fetuses. Though they all look similar, each is moving its arms or legs in a way that distinguishes it slightly from all of the others. The digital artists created one version of this clone, and then through computer animation allowed the multiple fetuses that followed to then move and make gestures in a natural manner - similar to prenatal human infants. They programmed the first animated fetus with numerous alternate movements, and then prepared to duplicate the initial clone they created within the computer. This clone was then digitally multiplied through the Division Loop and placed within the countless tubes distributed throughout the foreground and background of the shot. Each infant clone was shown in the shot at a different point of the animated movement schedule, so that no two clones were doing the exact same thing at the exact same time. In addition, some were flipped so that they were facing different directions. Still others were configured in such a way that their gestures ended up seeming slower than most. Yet another collection of fetal clones moved a bit faster.

This technique was both an imitation of, as well as an improvement upon, the

combination of the Division Loop and the Superimposed Loop techniques applied to the fish during Phantom, with several important differences. In the first place, the fish were merely background material--decorative fillers in a scene with many more important elements featured in the foreground. Additionally, the schools--though multiplied, colorized, and incorporating various swimming speeds--were created from real fish that were actually filmed on a soundstage. The infant clones, on the other hand, eventually became the focus of the main shots that they were in - even though vast groupings of them happened to line the background most of the time. Their appearance and their movements were precise, and imitated those of a human baby's with great accuracy. Despite this fact, though, the prenatal clones were created totally within a computer generated environment and not by first filming an infant whose image could have later been altered and multiplied (Duncan 89-90).

This is significant for a key reason in the debate between film purists and digital cinema practitioners. The heart of the argument being used by those crying foul when it comes to digital cinema are doing so because at the moment, the technology is being used to mimic traditional narrative theatrical film as we as a culture have come to know it. A vast portion have vested interest in the preservation of film in what they believe to be a competition between the two media, because they themselves have extensive training as well as an active livelihood attached to the development of film projects--be they cinematographers, lab professionals, or otherwise. Differences that these individuals point out, flaws that they have with digital cinema, are all tied to the fact that in its current format, for the most part, digitally produced narrative projects do not have the "film look." They are afraid that studios and financiers, convinced that digital cinema is a more cost effective way to produce entertainment packages, will leave the world of film behind in favor of this new technology. In the context of the fact that digital cinema is at present being

used to mimic motion pictures as we know them, they are correct. The technology had not (at least at the time that Clones was released) made it possible for digital cinema to act as a complete chameleon when it comes to imitating film. Perhaps when that day does happen, many cinematographers will probably take the new technology in, either by choice or because they have to. However, in a different context, that of digital cinema as a potential new art form, the debate surrounding how it does or doesn't look like film is ultimately an insignificant one. That is because, once again, ultimately, the use of digital cinema to mimic and recreate what we have come to understand as a motion picture experience will be only one facet of its use. History may even prove this mimicking to be the least regarded aspect of digital cinema as an individuated art form, seeing as how in this area it is so closely tied to the already developed art of film that preceded it. The art form of digital cinema will probably take decades to try its true voice, as did film before it. Yet one must remember how closely film was tied to photography before it broke free from its parent medium, and the same held true for still photography as it emerged from the shadow of portraiture and landscape painting before it.

The focus of this portion of the study will now move from the world of digital multiplication to a technique in which an actor is recorded and this is then reapplied to multiple areas of the same scene.

As Obi-Wan looks to the other side of the tunnel, he sees a collection of dozens of cloned boys sitting in front of row after rows of computer screens. Pablo Helman, ILM visual effects supervisor, explains how this multiple in-shot Division Loop sequence was accomplished:

This was a fun shot. When we first got the storyboard for this we checked and found out that there were 32 clone kids visible. In a similar shot there are 82. I

thought we would do most of it digitally, because if we filmed Daniel Logan for all of them we'd be shooting him at least 82 times for the wide shot. That would add up to seven hours of takes. We brought Daniel in to film him for the foreground row of five or six clones, and filmed him on a green-screen stage with the console, moving him to the next station for each take. He was directed to be studious and learning, but a little facetious at times, too – talking to the other copies of himself, that kind of thing. Daniel did such a good job that George wanted to use him for every one of the clones, even in the background. So we did 32 separate takes of him for this shot alone, and 82 takes for the other. In the background you can see some kids bothering each other, copying off each other, things like that. His work really makes the shot believable. (Reynolds, “Clone” 6)

[An additional note on these comments--notice how Helman uses the word “film” out of habit while describing the taping process. To refer to videotaping as “filming” is still a common occurrence in the world of videography, particularly in broadcast news production. This is true even though video has been used to capture portions or all of most daytime and nightly news program for over four decades now. It will be interesting to see how many years it may take artists moving from celluloid into video to finally adapt to the use of the term “taping”.]

The action then moves to a similar looping scene, in which a set of young adult clones are seen eating at a set of cafeteria tables. The actor, named Bodie Taylor, was recorded time and time again, just as Daniel Logan had been, only this time the young adult clone was shown in the middle of a meal. For this set of loops, Taylor was then multiplied 99 times through the Division Loop and placed among the seats scattered throughout the shot. From there, the focus of the

Kamino dignitaries and their Jedi guest quickly turns to a set of completely developed clones, arming themselves for battle.

The character generated digital clonetroopers first seen by Obi-Wan as they pick up their helmets at the quartermaster station before marching en masse up the gangplank of a ship represent the final step in the developmental evolution of the sequence. Having moved from looped shots developed using videotaped live action of both boy and young adult, the leap is made back to a totally electronic creation. However, no longer is the audience witnessing the vague form of encapsulated fetuses, but actual digital men in combat suits. The clones even have distinct faces which themselves are morphed combinations derived from the features of actors Temura Morrison--who played Jengo Fett, the model for the clones in the story--and Bodie Taylor, the young adult multiplied at the cafeteria table. Even the scenery, which in many of the other shots within Clones was based on a combination of miniature models and CG environments, is in this instance entirely digital. Though the clonetroopers look realistic in both shots, every single one of them is, as mentioned earlier, totally character generated. Temura Morrison was put through a full body scan. This was so the animators would be able to use his body type and frame characteristics for reference when constructing the digital clones in the computer. This looks similar to this grid-lined version of C-3PO for a scene further on. The life-giving movements of each animated digital clone were then created in the Kamino scene. This was accomplished by performing a series of motion captures with the help of various employees of ILM. A number of different activities were captured, such as a person taking small steps, standing around, and picking up an object, to name a few. Those motion capture sequences were then spread out and assigned to various Division Loop digital clones throughout the shot. Helman continues his explanation:

It was very difficult to create a sense of individuality when all of these guys had the exact same height and the same outfit. With a crowd of real actors, you would have different heights, different speeds of reaction, and so on. We had to split the sync and randomized the actions in all the different cycles, and placed them so that the lines they are in are not exactly straight. (Reynolds, “Quartermaster” 18)

Had this not been done, the clones, aside from looking like cookie cutter replicas of one another, would have also performed the various movements in exact synchronization, no matter where they stood in the shot. When Obi-Wan, and the audience along with him, watches the troopers march in battalions on the factory floor far below, it becomes apparent that the advanced looping work of applying seemingly insignificant quirks to the digital clones leads to a greater level of believability in the completed scene. In addition, this process helped to bring about the more human, slightly out of order randomness that Lucas had originally wanted replicated from the stormtrooper extras filmed on the original Star Wars set in 1976 in the year prior to the film’s initial release.

A short overview of the leap taken by both the digital artists and the editors in applying the loop to non-effects laden shots will bring our discussion full circle. It does so by demonstrating how some of the simpler technologies applied in low-budget format by Jost to his original non-effects shots can also be done on a massively orchestrated high-budget feature. Digital technology has advanced to the point where liberties can be taken within the actual base master shots of various scenes within a feature. This even applies to scenes in which there are no major special effect shots to deal with.

In Clones, these particular manipulations of the loop could have gone totally unnoticed

were it not for the fact that the artists themselves have been open in pointing out their whereabouts. For example, early in the movie Mace Windu, played by Samuel Jackson, has a brief conversation with Natalie Portman's character, Senator Amidala. As originally shot, this over-the-shoulder angle of Jackson's face showed him blinking five times, three of which happen near the end of his line. Lucas and editor Ben Burtt did not like the flurry of eye movements at the tail end of the shot. To counter this, they captured frames of Jackson's opened eyes, and applied a Classic Loop to them over the frames where they had initially been closed in the master shot. The completed sequence now shows Jackson blinking three times, not five, and the audience remains none the wiser (Burtt).

Yet cosmetic details of original master shots are not the only targets of direct digital looping. Consider the following important scene found deep within the second act of Clones. At one point, standing near the home of his mother on the planet of Tatooine, a distressed Anakin is seen with his back to a small domed outpost. His shadow stretches across the wall. Senator Amidala emerges from a staircase at the base of the dome and walks over to hug Anakin. The master shot captures the two of them embracing, both shadows now shown against the dome behind them. After a moment, Anakin releases Amidala, and then walks over to a scooter. He revs it up and throttles forward, vanishing into the distance. Aside from the final flourish with the scooter, the average viewer would probably be lulled into believing they have just watched one of the only shots in the film unhindered by special effects. However, what they have actually just witnessed constitutes digital slight of hand, the importance of which will be discussed further along. For now, through the utilization of computerized editing, an impossible to distinguish application of the loop has been cleverly applied, as will be discussed once we see how this was accomplished.

As the two main characters embrace and then part from one another, the composition of the shot in the final film seems both balanced and strong. Yet this was not the image that was first committed to tape in the Tunisian desert during the summer of 2000. At the end of the hug as originally shot, the figure of Owen Lars, Anakin's stepbrother, slowly made his way up the stairs. When Anakin moved to the scooter, Owen walked fully into the shot and stood several feet to the left of Amidala as they both watched Anakin board the scooter. In post-production, Burt saw that Owen's entrance into the scene not only tinkered with the shot's composition, it interrupted a strong private moment between the two main characters. This shot, through the editing process, had become one of the dominant images in the entire motion picture. Owen had to be removed from the shot, but how? The footage was still in the Avid editing system. It would have been no trouble at all for the artists at Industrial Light and Magic to eventually erase Owen from the scene entirely using special effects. But Burt wanted to see if he could accomplish the same goal simply by using the editing machine. Burt divided the frame in half. On the right side, Anakin and Amidala hugged, and the action progressed naturally at 24 frames per second. On the left side, he captured a few frames from before Owen entered the picture. The frames of the shot in question were of the barren landscape and empty entranceway. Burt then looped those frames time and time again. As a result, the remainder of the completed scene showed the left hand side of the shot unencumbered by an additional character. The space once filled by the image of Owen was suddenly covered by the looping frames captured by Burt--each one featuring the empty staircase. It must be emphasized once again that this digital erasure was not the result of a high-cost, time-intensive removal process overseen by digital artists. Instead, this achievement came about utilizing a relatively simple application of the split screen technique.

This process of the scene detailed above also inadvertently alluded to the Mirror effect of the Adobe Premier 5.1 utilized by Jost--though this time applied in a totally different manner. The divided screen with the principle characters on the right had been coupled with the digital looping of pre-selected frames on the left within the Avid editing system itself. The end result: the loop, seamlessly integrated into the very fabric of a master shot.

So what does this example and the Clones slight of hand discussed earlier show about the relevance of this particular film in terms of this study and the contribution to digital cinema in general? By being a working example in a large budget forum of what digital cinema is capable. Innovations and advances in technique, practice, and even potential elements of theory, have long been underway in the field of digital cinema through the work of early video artists, though on a smaller, often more independent, level. What makes Clones so unique (if it is to be seen as the true advent of releasing digital cinema product on a massive level within the film industry--albeit one that is purposefully mimicking textbook narrative cinematic techniques) is that this Star Wars prequel marks the first time a massive public viewing audience has been exposed to a work of digital cinematic construction. True, the number who saw the digital screening was a limited one in comparison to the vast quantities who viewed the feature as a transferred film print. Only a select number of theaters were available to offer a truly digital experience of the work at the time. However, even that limited number was significant. Couple that with the fact that a significant portion of the viewing public were still exposed to Clones digitally in that way throughout the heart of its theatrical run easily allows it to be considered the first actual presentation of a true, fully digital format commodity of cinematic expression to the public in history. The possible ramifications of this single event on the future of popular culture, if not to the very future of the visual arts themselves, are open-ended to say the least.

Early cinema techniques such as the ones detailed in Chapter Two have been used to inform the works of artists since the dawn of motion pictures. This study thus far has aimed to highlight examples--both broad and specific--regarding the application of the loop and the kaleidoscope especially in the past hundred years. By following the brief visual timeline of the last one hundred years by presenting a variety of modern loop examples in Chapter Three, the dubious notion of the loop's disappearance for nearly a century years can be seen in a somewhat more accurate light. In terms of the touchstone of finance with loop application, this chapter showed how both techniques were used within the videos of Jost, and then later how the loop specifically was adapted by Lucas--the artists utilizing it in either a low or a high budget setting. These techniques seem to be resilient and adaptable to both the celluloid and digital worlds. Perhaps the innovative ways in which visual artists continue to mold and configure them will only continue as the evolution of digital cinema continues in the years ahead. As demonstrated in the previous chapter, these are reasonably simple techniques, accessed since the dawn of cinematic history. A primary goal of this study is to show a number of ways that looping has been both updated and enhanced in dozens upon dozens of effective ways. One has to wonder how far cinema artists will be able to continue expanding upon this, as well as the numerous other visual flourishes from the past. These aspects of visual expression related to early film history seem poised to continue to unfold as the digital era progresses. With that thought in mind, we now move to Chapter Four. The final chapter will return to the taxonomy as demonstrated through the historic discussions and economic constraints. Yet in this last look at the application of looping within this study, the aim will be to take on the educational concerns involved with showcasing these techniques to students.

CHAPTER FOUR: THE STATE OF DIGITAL VIDEO PRACTICES IN INDUSTRY AND EDUCATION

While walking through a Sam's Club early in the summer of 2008, a reminder was clearly given of just how far digital video has progressed as a means for cinematic exchange even in the few years during which this project has been compiled and completed.

When my research began in 2002, Hollywood had just ventured into the realm of big budget narrative digital video cinematics with the release of Star Wars Episode II: Attack of the Clones. Though DV had been utilized and put into place with far smaller-budgeted narrative projects and documentaries, Clones had a budget of over 100 million dollars and was projected in its original digital format in several dozen theaters around the United States and the world (McCullem). This represented an anomaly, a milestone, and an enormous gamble. Though there was little doubt as to whether the Star Wars film itself would be a financial success, there was considerable doubt as to whether the digital format used to film, edit, distribute and project the direct version of the movie would be of any significance. Six years after the Clones May 2002 premier, the visit to Sam's Club provided a fine marker as to how that initial gamble paid off, and how the results of that payoff have likely spurred the use of DV and the digital cinematic arts in the following years and decades.

Lined up along a row within the audio-visual section of the store was a line of digital flat screen televisions. All of them were rigged to be showing the exact same DVD, so that customers could get an idea of what each screen would look like in terms of contrast and sharpness. The DVD that happened to be playing was the Nicolas Cage sequel released by

Disney at the start of the year, National Treasure II. I walked along the row of televisions taking in each of the screens, one by one. When I reached the end of the row, I discovered something of extreme interest to me--not only as a researcher, but also as a consumer. I discovered that National Treasure II was a digital cinematic feature, shot entirely with DV utilizing no film whatsoever. I did not discover this from hearing about it in the entertainment press, or reading about it on the box; in fact, before that day, I had no idea the movie was created in such a way. I discovered National Treasure II was a DV feature because the very last screen at the end of the line was playing the movie with its original digital video "look". In other words, whereas the other screens playing the DVD were making it appear as if the image was actually a 35 mm film, the Sony television was playing the exact same feature, at the exact same time, but with the visual quality and aesthetic texture of a home video. A ridiculously expensive, well lit and staged home movie, but a home movie nonetheless. In other words, it "looked" like video--straight out of a video camera, and not like expensively processed and filtered 35 mm film. As evidenced by manufacturing projections from even as early as the start of the decade, this rate of development and distribution based upon home consumer demand and usage was far beyond industry predictions (Chinnock).

National Treasure II, just like Clones, Episode III, Pirates of the Caribbean III, and most recently to the completion of this project Indiana Jones and the Kingdom of the Crystal Skull, are all big-budget narrative blockbusters that were shot digitally and that turned enormous profit in the marketplace. The video technology utilized to create these features has progressed to such a degree that they replicate the 35 mm feature film aesthetic visual. These features have inundated the market as conventional film prints created from the final digital blueprint. But unlike the handful of the theaters with the ability to project digital cinema directly in 2002, in 2008 entire

cinema chains (such as CineMark and AMC) have retained at least one theater within their multiplex exclusively for the projection of digital features. In addition, multiplex corporations such as CineMark have applied digital projection in all of their theaters for the pre-show presentation leading up to the previews. CineMark partnered with Universal Pictures and NBC initially for this program, which was in its early incarnation called “The 20”. This was a twenty-minute feature promoting Universal films with behind-the-scene interviews, and detailing upcoming NBC and TNT television broadcast and cable programs. This unique advertising partnership between CineMark and the studios helped to finance the installation of the digital projectors in each of the multiplex theaters. AMC chains are also currently utilizing a parallel DV promotional opener prior to the feature showings in their theaters. This current marketplace reality was not only barely considered as a potentiality when Clones was released in 2002, it was largely written off as impossible (Karagosian 2). Despite that prediction, the availability of expensive projection systems is paving the way for more and more theaters to be able to project DV features in their original digital formats upon initial release rather than just within the handful of theaters that projected Clones in 2002.

However, just as amazing was the discovery found at Sam’s Club, which reached far beyond the realm of theatrical distribution to the enormous home video distribution market, significantly augmenting the overall Hollywood yearly grosses since the boom of DVD sales in the mid-1990s. And that is what the Sony televisions were doing with National Treasure II. In reality, each of the screens from the other brands provided this capability as well--but only the Sony one was displaying it, using a film-duplicating visual display format it called “Theater Mode”, complete with its own button on the remote control.

The five examples of digital video loops that this study examines are really, for all

practical purposes, a focal point. The surface aim was to show how loops were not simply a recent anomaly as suggested by Manovich and others. However, the deeper goal has been to point out the possibility that perhaps more is going on with current influx of digital video into the marketplace--both entertainment and consumer product driven home media--than initially meets the eye.

When I first wrote a draft from the notes for this chapter a couple of years ago, I began the current section with this prediction: “Ultimately, video will aesthetically mimic film, and has made enormous strides to that end in this very decade.” In the past year, it has become apparent that this aesthetic replication is now, already, a reality. Yet as I have also tried to point out that such mimicking may only be a springboard, a starting point, for the creation of this potentially rich form of expression. And perhaps its creation will not come from within the industry, but from the minions of civilians who already possess or will soon purchase home digital cameras and the editing software which itself now so professionally “mimics” the tools of the burgeoning Hollywood trade.

Two extremes in the marketplace are distracting critics from the possibility, potentials, and even some of the vague or unrealistic projections being put upon the future of digital video. The first extreme has been digital video’s utilization in animation and special effects, addressed in Chapter Two and Three. The second has been the use of digital video as an alternative medium to celluloid film in the creation of narrative and documentary cinema production--an anomaly that has been mentioned at various points throughout this project. In terms of the latter, the creation and especially the early development of DV products and processes which imitated the structure, set-up, and the very aesthetic “look” of conventional narrative filmed cinematic entertainment (along with non-traditional narrative examples as well, as showcased within Jost’s

6 Easy Pieces) points to a potential example of what Bolton and Grusin refer to as remediation in their book Remediation in New Media. According to their theory, when a new medium emerges, that development works to refashion a preexisting medium that was prominent beforehand (Bolter, "Media"). So as will be described with digital cinema and film, a tug of war can ensue, and the theory of remediation helps to explain this. For example, film--the primary and dominant medium at the outset--began with the visual upper-hand as digital visual technologies were in their infancy. At the start of digital cinema's development, what tended to upset cinematographers and film purists about DV was that it was grainy, hard to light, worked at a different frame per second ration than film, and simply did not have the same aesthetic look or feel of traditional 16 and 35 mm cinematic experiences. In discussing a parallel build-up in the realm of virtual reality, Bolton and Grusin state that, "In order to create a sense of presence, virtual reality should come as close as possible to our daily visual experience...But today's technology still contains many ruptures: slow frame rates, jagged graphics, bright colors, bland lighting, and system crashes...For the enthusiasts of virtual reality, however, today's technological limitations simply point to it's great potential..." (Bolton and Grusin 22). What parallels the VR example of Bolton and Grusin and the current topic is that, like virtual reality, the early stages of DV's implementation drew the admiration of aspirants and the complaints of critics in a remarkably similar fashion. However, unlike virtual reality, it is now feasible to state that digital cinema technology has attained the capability under optimum production circumstances (and utilizing either high-end consumer grade cameras or professional equipment) to reasonably duplicate a cinematic 16 mm and 35 mm visual experience (Bolton and Grusin 154). This visual eclipsing--and even bypassing--of the film image would be akin to the postulation Bolton and Grusin make that one medium comes to the forefront and ends up

instilling a greater clarity of experience than the other media is able to provide or keep up with (Bolton and Grusin 149).

The previously discussed scenario concerning digital tools in the hands of civilians as well in the film industry also ultimately pertains to education about--and the potential application of--DV techniques such as the loops investigated in the taxonomy of this project. In the opening of my study, I discussed my own experiences within an educational environment as a student within a communication program. I was fortunate enough to have found mentoring in a variety of production forms and formats. This, however, has not always been the norm for students who have entered school media programs, as I have witnessed firsthand while a high school teacher in the field of television production. In fact, it may be less likely to find such reliable one-on-one mentoring in the current climate of film and TV education than previously. The diversification of learning opportunities--ranging from expensive weekend intensive workshops, to more expensive block-format specialized associate degrees, all the way up to full-time, highly competitive accredited undergraduate and graduate programs--does not guarantee quality mentoring. When the film school phenomenon as it is known today began to move from the basement darkrooms and editing bays to full-scale high profile programs at institutions such as the University of Southern California and New York University in the 1960s, the training fluctuated between praxis and theory in a fluid manner. The popularity of such programs, the rising number of applicants, and accreditation concerns soon molded the balance into more stylized versions of the previous model. Certain schools, such as the one I attended at Loyola New Orleans, had a budding film program that they eventually purposefully dismantled. This was done in favor of instigating a more all-encompassing Communication department that focused far more on the field of electronic journalism and television production. New York

University's Tisch School of the Arts maintained its film program. Successful graduate Spike Lee reported that by the 1980s, he had run into instructors with mindsets parallel to those that I had encountered in my program. For Lee and others at Tisch and similar programs, the lock-step mentality in the realm of film focused on how to write and direct a popular three-act Hollywood blockbuster type motion picture. For students such as Lee and fellow New York University alumni Jim Jarmusch, the film program at that point was of more use to them for access to the film and editing equipment than it was for instruction (Lee, Spike Lee's 154). The other various state and private institutions with media programs found themselves dealing with similar issues: which program areas to focus on, how to meet increasing accreditation pressures, how to incorporate rapidly changing technologies and the associated equipment replacement costs, and how to accommodate an increasing overload of qualified graduates into a highly limited marketplace. In addition, the phenomenon of associate and bachelor level intensive media degrees, as well as quickie in-and-out film programs (some of which followed accrediting standards, but many of which have openly advertised the fact that they are independent and not accredited in their recruitment processes) was on the rise and starting to cut into potential student applicants and tuition dollars. As a result, examples abound of media or communication programs choosing to aim strictly for the bare bones of what was needed in the workplace (to better qualify their future alumni for finding job opportunities in an overcrowded field). The potential irony in this strategy is that such narrowing of focus over the past fifteen years may have actually brought the curriculum of such institutions even closer to the minimalist model followed by non-accredited institutions.

Examples of this streamlining can be seen not only in the classes, methodologies, and production philosophies addressed in the media classrooms and labs. They are perhaps most

evident when they appear in black and white--within the textbooks being written, marketed, sold and implemented within the media courses themselves.

The numerous undergraduate production courses I was involved with as a student at Loyola could be categorized into one of the following three areas: production, theory, or aesthetic application. One course might distinctly be training a person how to work a television control center, while another might be focused on looking at overall media trends in the video arts. A particular class might have as its goal comparing the styles of cinematic directors, while another would emphasize the practice of editing or sound design. Yet even within these distinctive classes, each of which had specific course objectives, the bleed-through from one area to another was at least acknowledged and was sometimes even a distinct and integral part of the class. For example, the introductory class about the world of television production was a boot camp-like immersion experience titled Production, Theory, and Practice. All of these elements were blended together in instruction and lab periods and addressed in three separate textbooks.

The same was true for other courses as well. Multiple texts were used, each pinpointing the distinct area of expertise needed for certain goals that were mastered during the semester's work. Never was there one text that covered all of the elements at once. A deep theory text would never address practical aspects of technical production, only occasionally pointing out a stylistic flourish within a director's style. At the same time, the production manuals steered clear of the historic and artistic grounding elements that were the basis for the very techniques they were conveying within their pages and lab exercises. What was lacking in one was made up for in the thoroughness of another. Even when professorial ideologies differed, as was the case in the particular courses I discussed in the Introduction, there was no immediate problem for us when it came to studying and screening so many diverse styles. Instead, we were encouraged to

creatively engage both “standard” and alternative means for applying diverse production elements to our projects.

Even when technical textbooks do enclose a “history” section, it tends to be brief at best. Creating TV Projects was one of the few I encountered that did feature some form of background, though on the field of communication in general. However, in the fourteen illustrated pages allotted to the theme of human interaction through media, the authors cast the widest net possible, moving from cave paintings to papyrus to Guttenberg to Edison to satellites (Medoff, et al. 1-13). This approach is endemic of the situation presented by lack of balance within such texts, even when some effort is made to address past practices. The authors of this particular book did later discuss the cultural impact and uses of video before beginning the technical portion of their text. Yet in the final analysis there simply was not enough time given to earlier practices and devices for students to be able to make necessary connections to their own potential projects.

In the case of my own undergraduate educational experience, this particular lack was compensated for in a couple of key ways paralleling--though not as highly technical in execution--current pedagogies available to modern students. To begin with, as a student I wanted to learn. I was extremely curious and surrounded myself with others--fellow students and teachers alike--who were equally in tune with the desire to learn as much as possible about the field during the time we had together. This shared attitude turned our projects and lives within the department into a living lab experiment. It was as if what we were reading in the textbooks was really only the base level of inquiry from which to then branch out and explore the technology’s ability to help us tell the stories required for our various projects. For example, when there were certain processing techniques that I wanted to learn how to do--ones that were

not covered in any of the books--I sought out a student, teacher, or engineer to show me directly how to do that. Such a commitment is needed to get through the kind of program we were in, and those who did not have it to begin with or were unrealistic about the time requirements and dedication needed to be successful in those courses either realigned their priorities, dropped out or failed. Of the ones who realigned their priorities, their projects did technically fit the basic requirements and often followed right along with what the book prescribed in terms of techniques and execution. A number of students in my graduating class went on into successful broadcast journalism careers either in front or behind the camera, several of them finding key news positions even in Orlando, Florida. However, there were a group of us for whom this was really seen as more than just a way to break into an industry or earn a paycheck. We tended to spend more time watching films, asking different kinds of questions during both the theory and practical production classes, and in general watching, critiquing, advising, and helping each other with our projects. That sort of interplay, combined with live, hands-on access to the equipment and a working knowledge of what it could basically do (or desire to learn how to stretch those technical boundaries further) was the first way I augmented textbook learning.

The second way this was accomplished was looking outside the department--or to other sources that were not necessarily obvious--when the time came to stretch further. This occurred a number of times when I lived in New Orleans, but perhaps the most pertinent example to this project was how I first learned the basics of non-linear editing. Our department at the time only utilized linear, tape-to-tape editing the entire time I was a student at Loyola. However, other primitive versions of non-linear editing were already being utilized in the industry at that point. I learned of a videographer on campus who had been working in a studio for one of the graduate programs to tape, edit and distribute video course material for their distance learning degree. I

met him, and our association led to a lot of trading time and effort on his projects for video editing time in his well-equipped suite. In my final year at the school, his program invested in an early professional-grade nonlinear computer editing system--a forerunner to the method by which programs such as Final Cut, iMovie and Premier work today. Being around that situation introduced me--far before any of my immediate friends in the same program--to a method of editing and video creation that would in a short time become the industry standard. This was an invaluable skill and a tremendous addition to a resume of skills that would not have been possible had I not sought outside mentoring.

The last example I would like to give from my experience has to do with meeting and discussing practical issues with other professional videographers and directors. This was invaluable, and most of the conversations in this area I still remember in great detail--even to this day. Whether it was with visiting artists, past alumni, or someone whose work I'd seen and felt a deep need to ask a question about, this was something I had no qualms doing. Those in question were always receptive. The best source is always the most direct source--if one can reach them. That was a lesson I was fortunate enough to learn very early on. It was also the key reason why, even for this project, I distinctly wanted to hear Jon Jost speak for himself (and I did, at a presentation given through Valencia Community College). I also wished to hear how Episode II was put together right from those responsible for making the feature (and I was able to, at the SMPTE conference in Hollywood in 2002). First-hand contact with, and direct interaction among, artists and technicians greatly helped and augmented my learning and informed the creation of my projects as an undergraduate. However, I found the same go-to-the-source mentality possibly even more imperative and effective in studying the DV world and the artists utilizing the taxonomy loops for the creation of this written project at hand.

So how might such augmentation in current texts be handled today? In other words, how do the three examples discussed above play out not only in a current learning setting, but also with the technologies students currently have access to? And how might all of those factors be utilized to compensate for certain areas in which base-level production textbooks consistently seem to be lacking?

I said earlier that the textbooks could do worse than providing more information about media history--even if only a bibliography. The first argument to my observation might be the obvious "Why should they address history more? It's a technical text." My answer is that if they took the time to put thirteen pages together about communication of the past, the very least they can do before diving into the production manual portion is at least give students references in which they might find more information should they want to.

When discussing my own experiences I explained that the first thing we did was unofficially form a collective among students--and sympathetic teachers--who really wanted to learn more about the skills and techniques we were beginning to put into practice. One of the ways this was done was going to the library and looking things up. My friends and I spent a great deal of time looking through old and new books in the field of film and television production theory, along with cinematic history, to supplement our class lectures. Most of those resources had to be found just blindly, through randomly scouring card-catalogs, microfilm databases, and magazines. The same goes for articles and books about film makers, documentarians, and other professionals.

Even a brief bibliography added to any of the textbooks utilized or cited as a work consulted for this project--in this day and age--would provide interested students with an advantage in their search for more in-depth resources. Today, Internet search access, on-line

communication, and even communities--live and virtual--abound for those looking to find more information or corroboration for further learning. This is certainly an undeniable advantage, and no less so to those who are learning how to tape or edit outside of a formal training program.

A terrific opportunity was missed by the texts I reviewed for this project in not making the connections between the types of practices being taught and their origin. This is true even for the Griffith/Eisenstein based techniques that are the “norm” in film and video production courses today. For example, the entire chapter portion on shots in Creating TV Projects manages to convey a great deal of competent information while defining and then demonstrating the procedure for everything from jump-cuts to editing in sequence using long, medium, and close-up shots. Yet, as again with almost every textbook I have thus far encountered, not a single reference or mention was made about where these came from, how they were developed, or even in some cases the rationale for following and implementing these “standard” language tools in the first place. That is how the bread-and-butter techniques fare in the classroom texts and manuals, leaving almost no attention to “renegade” and alternative practices, including looping.

The index sources in both my own former texts, along with the ones I studied for this project, stick strictly to the book--no bibliographies at all. The modern texts examined in this paper were chosen because they are the most prominent educational industry texts in that they are the ones distributed and marketed the most by major publishing houses to college campuses. I chose those books (for example, the second, third and fourth edition of Zettle’s Video Basics) because they are the ones that were sent to me as an educator to review and consider using for my own courses. Seeing how widely spread these sources were being distributed and utilized among teachers, and how heavily they were being marketed to me, I wanted to see just how they (in their various editions) would measure up. These more recent texts--like my own

undergraduate books--were significantly lacking in the area of cultivating the creative utilization or exploration of base-level techniques.

In addition to the texts just discussed, I investigated several different sets of currently utilized media production textbooks, some in several editions, to see what was being offered by the college text departments of Prentice-Hall and McGraw Hill, two of the larger houses. Though disappointed, I was not surprised by what I found. In the various texts, virtually nothing was provided in terms of the history or development of production techniques. As a matter of fact, what little I saw tended to dwindle even further in successive editions of at least one title. In addition, the texts seemed to be rather lock-stepped in terms of topics, strategies, and the order in which the subjects were presented. This was even the case when I looked into a series of “film in a book” do-it-yourself manuals. Though appearing to be an alternative to both schools and industry training, this type of book also ignored where basic techniques came from, or even why they should be applied to low-budget film and videos in the first place. In the realm of publishing, the types of guidance I was looking for was more available. Of great assistance are the artists’ published technically-based reflections on their processes, like Oscar nominated director Mike Figgis’s book Digital Film Making, or low budget DV director and educator Mike Wayne’s Theorizing Video Practice. Yet shouldn’t such additions be available as the base learning material within the textbooks themselves?

What does this all mean when it comes to the education, or even the potential of influencing, future film and video makers when it comes to mainstream and alternative production techniques? Academic institutions of any merit are required to comply with accreditation needs and governing bodies when it comes to providing basic core materials to students. As a result, even technical programs and classes are being tailored to meet these basic

needs. The textbook publication companies, as we have seen, then match the material presented in their books strictly to the basic needs of the core course objectives, with little else included.

If neither the schools nor the texts address these alternative production or editorial formatting issues, and even the “alternative” written sources shy away from such topics, where are people interested in growing in their craft to go? The answer might be surprising, as it is not that far from where they are apparently looking now. Students now get the advantage of rewinding, pausing, and even magnifying portions of the screen through the use of DVD players. With the enormous amount of space and abundant audio tracks available through digital technology, filmmakers are able to add their own two cents to the artistic work being viewed.

As a quick example directly tied to this project, all of the material gleaned from the Martin Scorsese portion from Chapter One dealing with The Last Temptation of Christ was learned primarily from the DVD. The photo stills, the documentaries, the sketches, and the audio director’s commentary were all available on the Criterion special edition of the DVD. Digital Video Discs have given students and film enthusiasts more access to the creative personages behind cinematic works than perhaps ever before. In addition, any and all techniques utilized within a particular work seem to be fair game--the spotlight is not reserved for the Eisenstein/Griffith techniques alone. This type of in depth analysis can also be found in multiple audio commentaries, in particular for both Oh, Beautiful with director Brian Sloan, as well as This Car Up featuring director Eric Muller.

I would like to close this chapter by spotlighting the essence of how this can play out in live, educational experience--looking a little beyond just the means of educational presentation, be they a book or a teacher--to the circumstances as well. That is because the sources of outside inspiration can be provided long before any sort of formal film or video training as a trade. For

example, while I was a Media Specialist for the public schools, one of my responsibilities was to run the closed-circuit TV news program for the elementary and high school populations every day. In both cases, students were selected and trained for the tasks involved with putting together a daily broadcast. I would first like to talk about the primary school students. For the most part, these young people--typically in either fourth or fifth grade--were chosen as much for their scholastic aptitude as they were for any sort of media interest or savvy. They were good kids who performed well in their studies and could therefore afford to take time away from their primary lessons to help put the news announcements together. Even though most of the students I worked with in that early age range did not express a direct interest in pursuing a future in the media arts, a few of them did. There were numerous opportunities, especially since I was running the Media Center, to not only show them how the video and editing equipment worked, but to also show examples through our video library of how and where such visual storytelling means were used in formats aside from the news.

Those opportunities increased--along with the interests of students--whenever I taught video production during the summers through day camps or the YMCA. In those instances, the students (who, through those programs, included not only elementary school kids, but junior high aged young people as well) chose video production as their course of study. While I did not always have immediate access to the large video library that my Media Centers housed, I was able to select and bring in movies and programs to demonstrate certain video techniques. These were programs that I could play for students in the downtime between shooting and editing projects around the various campsites and campuses at which I worked.

The point I am making here is twofold: that young people can be opened to both the potential of mentoring and to research into the history of various video practices and aesthetic

roots. An excellent example of all of these elements combined was shown through a DV project entitled Busting Stereotypes. As an initiative to bring video and film documentary production techniques into inner city school programs, film maker Angshuman Ghose mentored and instructed a class full of New York City elementary students at their school. The children, who did not have access to the type of media or equipment other than that provided by Ghose, were taught how to write, produce, shoot and edit a short project confronting typical misconceptions they encounter in their daily lives by making a film addressing and correcting them with facts. When the mentor and his pupils appeared on the Today show to discuss their hands-on educational process, all of the key youngsters on set for the interview said they wanted to pursue a career in media.

I have taught numerous students who have had no prior knowledge or understanding of the editing process or the language of cinema or video aesthetics. Those students merely took on the post-production tools utilizing what they saw every day: music videos. So often in my time teaching production at the high school level, I would encounter young men and women who were adept and extremely proficient when it came to figuring out the electronic equipment. Yet when the time came to bring a creative bent or personalized slant to the visuals they were creating, the vast majority of the students were seriously lacking. Now, a good deal of this was because they were novices when it came to DV production and editing skills--they were doing their best to simply keep up and to figure out the mechanics of the electronic tools they were using. However, as the year continued, though the technical competency continued to develop, their projects still followed the MTV quick-cut editing style, regardless of any suggestions to broaden their visual viewing habits outside of class. The content of the videos tended to match MTV aesthetics of the time, even when the style of the project was not supposed to be that of a

music video.

It cannot be stressed enough, however, just how quickly the students took to non-linear computer editing. Their own exposure in such vast quantities to computers, programs and even advanced videogame technologies now so thoroughly saturating modern western middle-class culture and beyond seemed to enhance their ability to pick up the rather daunting task of figuring out the computer, not to mention the concept of editing out of sequence. There was one student, however, whom I would like to point out at this juncture. Even though, through a grant, we had secured the use of two non-linear digital editing systems very early in the school year, this young man wanted to learn how to edit the old way first. In other words, he wanted to be taught how to do tape-to-tape editing, the way I myself had first learned how to edit when I was in college. There were a number of tape-to-tape editing bays in our studio, and once the digital systems arrived, they were often unused. The student in question was heavily involved in other outside projects, especially the school's theater company. He had gone out of his way to see many plays, films, and visual art exhibitions long before he found his way to the production classroom. That said, he was by no means a prodigy, or even an extraordinary student--he was merely grounded a little more in several areas that his classmates had not exposed themselves to.

As a challenge to himself, he decided to create a trailer for the theater department's upcoming play. He gathered together a great deal of stock footage and taped plenty of his own. But instead of loading all of that and some music into the digital computer, he painstakingly went through tape after tape to log, select, and eventually utilize the footage--editing all of it on a tape-to-tape deck. This took him a great deal of time, effort, and more than a little frustration. However, the final product, his trailer, was solid. There was a vision and a depth to the project--including the shots, pacing, and editing techniques utilized--that easily eclipsed those of his

classmates, despite their technical proficiency with digital editing. When this student finally learned non-linear editing on the digital computer, he brought a broad perspective to his newfound skills, which were grounded not only through his visual arts and theater interests, but also through having to spend some time “doing it the hard way” with tape to tape editing before finally stepping into the digital world.

Many digital artists such as Jost started in video or film as the DV technology was in its infancy. However, another generation right behind them is cutting its teeth directly on this technology right off the bat. Some, such as the majority of young editors who were in my high school production courses, did not have practical aesthetic study to back up their competency in the area of software. Others in my class combined insight through learning video editing, then non-linear editing--all the while seeing every movie they could get their hands on. In either case, it mattered little how well one could manipulate the computers and editors if that person has not ever learned how to tell a story--through visuals, juxtaposition of shots, and pacing.

Yet the most savvy students within those courses were the ones who combined textbook knowledge with practical experience in a number of editing formats. That work was combined with the development of their artistic eye through shooting, editing, screening videos, and listening to other directors through commentary. It is this latter combination that I have proposed as an optimal strategy throughout this project. This approach has been implemented throughout my educational career in a number of ways, and looks to expand further upon the completion of my time at UCF. In prior educational situations, I would aim to foster what is described above as the development of a student’s eye through making the coursework, the assignments, and the implementation of technical production and editing strategies as multi-layered, yet realistic and practical, as possible. Often students came to the table with little to no

knowledge of just how much legwork was required to develop, create and then complete a visual production. While a student might have shown strength in imagining a setting or proposed directorial course of action, that same individual might not have been skilled at figuring out cost consideration, or lighting details, or even the entire post-production editing process. The key was to teach--and to team up--my students in such a way so that their strengths benefited their learning requirements and the prosperity of the project. The students needed to be afforded opportunities to not only put their strengths on display, but experiment with tasks that would make them vulnerable enough (yet still safe within a teaching environment) to develop knowledge and experience in their weaker areas. The projects I assigned were set up to play directly into this, and my guidance was likewise applied in a manner that would allow growth and skill enhancement to take place within each project. The Digital Mentor project that I will be discussing in the Conclusion will be aimed at continuing those specific directions within my career--utilizing writing, digital tools, and the Internet in equal measure.

As this study moves to the conclusion, it will return to the initial research questions I raised in the opening of my project. A chapter-by-chapter review of the three touchstones of historic, budgetary and educational concerns will then follow. The chapter will then turn to how my own work will move from this point forward, thus furthering the current chapter's look into educational practices by showing how the lack of educational mentoring opportunities described previously will be addressed in my ongoing career goals. The final section will close by posing a few additional research questions to further the potential for a continued germane dialog about developing practices and techniques in the field of digital cinema.

CONCLUSION: THE TEN MINUTE FILM SCHOOL

“Digital Cinema is not the future. It’s the now.”

Robert Rodriguez strongly emphasized the above quote in a radio discussion he conducted before the opening of his feature Spy Kids II, a full-budget DV production released only three months after Episode II (Rodriguez, “Interview”). Rodriguez was one of the first Hollywood directors to get on board with the potential of DV, and like Lucas, has always been extremely independent and hands-on with his features. He is a good middle-ground director for this study. In other words, when it comes to both film and DV, Rodriguez is not ultra-low budget like Jost, nor ultra-high budget like Lucas--and also has shown the ability to direct numerous types of genres.

When going through the DVD of Spy Kids II in order to see what I could potentially use for the Chapter Four segment on director commentaries, I noticed something in the special features. The button at the very top of the features list read “The Robert Rodriguez Ten Minute Film School”. I pressed the button and watched. Rodriguez was an early fan of the digital technology used for voice-over commentaries, and in the past I’ve heard him discuss in commentaries many of the practicalities of how his films were made through that function on Laser Discs and DVDs alike. He is extremely thorough at getting across the basics about how shots were done, how scenes were executed cheaply, and how all of his slight-of-hand effects were created. Rodriguez is more than adamant in stating that with enough work, commitment and ingenuity, anyone can go out and put together a feature.

In the Spy Kids II commentary, Rodriguez is very much engulfed in trying to get as much

information across as possible in a handful of minutes--as clearly as he could manage and with no shortage of excitement. His discussion detailed how it was extremely possible for willing artists to put together a digital feature just like he had. Rodriguez had been able to--due in no small part to the technology available to him through the digital creation of this feature--take on a dozen responsibilities behind the camera. Not only was he the writer and director, but the DV platform, timeline, budgetary freedoms and the digital technological advances allowed him to also be the movie's editor, set designer, and author of its musical score--among other things. It was a ton of information, and I needed to play the segment many times to even catch the basics. Once finished, I put on the movie with the director's commentary playing over it. The viewing has led me to the decision to bring this project to a conclusion utilizing Robert Rodriguez and his DV children's movie adventure as a mirror, gauging the most prominent points of my study. That is because in the span of the digital feature's 90 minutes, I found examples of each and every one of the loops represented in the taxonomy--some of which were put into play multiple times. In this disc, Rodriguez manages to address the main themes found in each of my dissertation's chapters. I also found numerous references to the three distinct touchstones I aimed to highlight within the chapters: cinematic history, budgetary concerns, and education approaches. Ultimately, I discovered in Rodriguez's commentary an extremely vocal and enthusiastic artist mobilizing in his daily work a number of the practices and theories that I have been attempting to underline, illustrate and give credence to throughout this project.

I began this study outlining in Chapter One the loop taxonomy and demonstrating examples of the five loops from various motion picture features. The Spy Kids II DVD not only utilizes all five types of loops (including the Classic Loop, Division Loop, and Homage Loop), but includes Rodriguez's explanation of why he chose to implement these tools. For example,

much as Lucas did with the scene on Tatooine containing the speeder bike, Rodriguez divided the screen in half and doubled a portion of the shooting set. However, whereas Lucas utilized this to mask actors (Anakin vanishing into the distance on his bike), Rodriguez used this Division Loop as a cheaper means to increase the set size. Instead of creating a full sized ship control panel set design for a scene onboard a craft, Rodriguez merely built half of the ship, and then mirrored it. In other words, both actors were using the same control panels as they read their lines in two separate takes, from two different angles. In post-production (through special effects and editing), Rodriguez flipped the image of one actor and control panel over, and then finished by placing the two separate sides together. The final version featured this interesting Division Loop, which in this movie was used to provide the illusion that there was an entire ship control panel with two shots and two actors on separate corners of the craft at the same time, talking to one another.

Chapter Two described examples of loops in various 20th century cinematic genres. That investigation was meant to show how the five loops from the taxonomy did not simply spring up instantly upon the creation of digital production technologies. It was also provided to demonstrate how artists and film makers actually used past cinematic references of the loop in their own application of the tool through modern DV creations. Rodriguez himself offered an example of how this very scenario comes into play in a modern creative setting. While describing the editing and post-production effects creation process, Rodriguez relayed that as he pieced together his movies digitally, he did so at night in his home studio, and he almost always had an old film playing on the side to help inspire him. In the case of editing one of the opening scenes from the original Spy Kids, which was shot on film, he said that he was playing a classic Harryhausen Sinbad film, The Golden Voyage of Sinbad, (among others) in a side monitor for

inspiration. Listening to a “making of” special feature from Mysterious Island gave Rodriguez the idea for utilizing a number of additional story and effects cues that were eventually found in Spy Kids II. The Spy Kids sequel features numerous clear nods to Harryhausen--most notably in the modernized effects-filled skeleton fight the kids have during the second half of the story. Rodriguez said he was a big fan of those Harryhausen movies as a kid. He thought it interesting how the pre-planning of the model-created effects in those older films were limited by technology. Rodriguez also found it inspiring that now, due to the terrific advances in filming and editing technologies, it *was* possible to bring to life an idea from impetus to final product without sacrificing the exact look and feel desired for in a sequence or effect. Directors and artists are clearly influenced and goaded forward in the creative process by past works. In this case, an old beloved film and a classic cinematic genre influenced the film maker directly. We also have evidence of how the Division Loop (e.g., with the skeletons) was referenced from Harryhausen and then placed straightaway into Rodriguez’s DV feature.

Chapter Three took into account two ends of the budgetary spectrum with DV feature creation through both Jon Jost and George Lucas. What is apparent through the work of Rodriguez as a director is that--though he uses relatively large budgets--he thinks, works, and creates with the creative mindset of a film maker on a shoestring. (Although \$37 million is hardly a huge budget by Hollywood standards, it is not a low one either in the way that term has been applied to Jost and other truly no-budget cinematic artists.) This is where, in particular, Rodriguez’s 10 minute film school comes into play. In essence, what Rodriguez was doing in that segment, as well as throughout the majority of his feature commentary, was showing how to take the DV production materials and--due to their versatility--make those raw materials look as if one were spending much more on production than one was. For example, set structures--be

they of a ship, a structure, or a rock formation--could be multiplied, digitally replicated, and even electronically painted in. Digital tools, tied electronically to the looping process (in ways parallel to how one would grab and duplicate a color from a picture in Photoshop and then recreate it in multiple areas of the pane in order to even out the texture of a gif) were directly put to extensive use in order to make this happen quickly, cheaply and effectively. Rodriguez consistently discusses the inexpensiveness of high definition tape, especially in comparison to expensive film and processing. He is also quick to point out that cost-cutting means like the set duplication described earlier allowed movies like his to put money in other places such as effects creation. In summary, whether small or large budget, DV and the techniques entailed within the format give a range of choices to a production crew that would otherwise be severely limited were they to strictly rely upon the budgetary and production necessities inherent in a 16 or 35 mm film setting.

Chapter Four looked at DV as it currently stands within the consumer marketplace and how educational means can be used to supplement current texts in order to open artists up to the possibilities, and even the historical roots, of a number of the traits they are digitally learning and applying. Regarding education, there are two focal points I would like to highlight in this summation. First, one can always take on the attitude of a student, no matter how accomplished one may be. According to Rodriguez, one of the reasons he accepted a dozen tasks within his movie's production was to gain experience with less familiar skills. Taking on such challenges put him in a position to learn such skills on the job and in the most creative and deadline-oriented situation he could find. To accomplish this, he not only relied on creativity, but on mentoring as well. For example, Rodriguez had no previous work composing a motion picture score, but he still managed to come up with the themes, songs, and various musical interludes utilized

throughout his movie. When the time came to bridge those various themes together--such as in action segments that featured several characters to which a distinct musical theme had been assigned--he then sought the advice of a professional whom he had asked to oversee his work and orchestrations from afar.

Yet it is the way in which Rodriguez approached this which brings me to the second point he and I agree on in terms of the best overall learning attitude for such endeavors. Rodriguez did not call the orchestration expert who was mentoring him at every single hint of trouble. He did not even contact him during truly difficult spots. Instead, knowing that the best way to learn and adjust and develop his skills in creating a score was to flounder and even fail time and again until final success, he purposefully waited to call on his mentor until all of the basic theme work was completed on his own. While this could be looked upon as merely an artist who did not want to give in, or one who was not open to advice when he clearly could have solicited some at any point in the difficult scoring process, that is not how it came across. Instead, Rodriguez was adamant that--even when help is within reach--it is relying on oneself in doing the tough work that leads to learning, growth, and eventually acquiring artistic aptitudes in areas that might at first seem outside one's bounds. That is the way in which he approached not only the music, but areas such as scenic design as well--keeping an open attitude and making the learning experience count the most by digging deep through trial and error (with the availability of both resources and mentoring). By doing so, Rodriguez set up a laboratory of creative and on-site educational opportunities, which could then be enhanced by the professional guidance he received. This process of learning the hard way and seeking advice forced him to become a more accomplished digital artisan.

The ability to create such a laboratory, however, is not strictly limited to Rodriguez or

other film makers who utilize digital technologies and then spread their knowledge through books and DVD commentary tracts. My own work following this current study will most likely lead to such a dissemination of information. As discussed previously, in the early years of my educational career, I had the chance to teach media and television production to several different age levels in the public school system. Opportunities to return in a mentoring capacity to instruct students in those age brackets have recently arisen, and I have devised a short non-linear editing seminar that I will implement with fifth graders in three separate instructional situations. Yet that direct contact provided through a specific learning experience will only be the first step--itself a data gathering exercise to determine effective engagement techniques. The information gleaned will be used to inform a much larger project, tentatively titled Digital Mentor. In the closing weeks of my doctoral work, I had an opportunity to start the development of a mentoring website. Though only in the formative stages as of this writing, the site will eventually not only house the research collected and produced from this current study, but also act as a resource where students and interested parties of various ages and skill sets can turn to in order to learn more about alternate film and video practices--as well as the historical basis for their editorial and artistic implementations. The site will provide an extensive bibliography--the type so lacking in current industry texts--to point interested students toward films and videos that showcase the kinds of techniques I have been pointing out and describing in this study. Part of the website will cater to several different educational levels--lessons for younger students, ones for middle and high school, editorial suggestions for collegiate practitioners, and even hints for novices or hobby-seekers looking to get a little more out of their home video editing studios. In addition, clips from this current project will also be uploaded. And finally, the site will include an online journal that will not only highlight current practices as they are seen in the

marketplace, but will also act as a jumping-off point for the seeds of my own future written pieces.

Earlier I mentioned two points regarding Rodriquez's approaches to production education that I advocate: that one can always take on the attitude of a student, no matter how accomplished one is, and that it is often best to struggle with a problem for a while before seeking professional guidance. I would like to close the Digital Mentor (DM) segment to a close by discussing how these points fit in with what I hope to create with DM and into my overall pedagogical philosophy. The first point, that one must in some way continually remain a student regardless of one's level of education, might sound like a cliché. However, in this field there are extremely practical matters to contend with. Production, as a means for making a living, is a constantly shifting, ever-developing arena. The changes that have come about in the industry just in the time since I left Loyola (from the digital prospects discussed in this project, to the explosion of the DVD and Blu-ray markets, to the new methods of mail and online distribution) have been extensive. Even if narrowed to a specific field--such as cinematography, editing, or broadcast journalism--one would be hard pressed to find a number of the procedures, or even the technologies, in play today that were prevalent two decades ago. If one wishes to even examine those technologies casually (let alone professionally), it is imperative to start with the attitude that what is fashionable today will be obsolete tomorrow. Production technologies will continually move forward and develop to meet both market needs and digital engineering advances. Those looking to study such technologies, especially individuals intent on carving a career utilizing those means within the field of media, must constantly stay up-to-speed on the latest trends and developments--or flounder.

The second point, that one should not call in the cavalry (be they a professional, a

teacher, or a mentor) at each and every sign of trouble, can appropriately be addressed by returning to the story of my production student who decided to learn editing on a tape-to-tape deck. The young man in question asked me to show him the basics of how the decks worked, and I provided that information. The first few days were a struggle. He was having trouble figuring out how to effectively utilize a video-log to catalog the material on his tapes, and continually ran into trouble when blank spaces started appearing between many of his edited shots. Though assistance was always available to him, for the most part he kept to himself in the studio and worked through the issues on his own. He only called to me when he was helplessly stuck, which was not very often. I stated in Chapter Four that this student then went on to easily pick up non-linear digital editing. What I did not reveal at that point was the following: as an instructor of production (and a former student of the editing technologies he was working with), I am convinced that it was the struggle with those machines--without resorting to constant aid or attention--which allowed him ultimately to master those devices and then move on to successfully learn and implement non-linear editing within his projects. It was having to go at it mostly on his own, while still knowing help was in the wings should it be needed, that seemed to help him trudge through and conquer the process.

Both of those items fit into my intent for the DM project, primarily with how the site--and the information placed upon it--will be set up. My aim with the online component will be to balance a mixture of those two elements. First, the site will include practical information about editing and production techniques provided for students, novices and professionals at various educational and skill levels looking to keep abreast of industry and technological developments. Second, I will also be providing some historic grounding and overviews when it comes to the practices that site visitors themselves are encountering (in the marketplace, through

entertainment outlets, or perhaps through utilization within their own project). The information will be set up with a variety of materials such as video clips, articles, essays, filmographies and bibliographies. That way if anyone is open to continuing their education in these media-related areas--no matter how versed in production techniques or technologies he or she may or may not be--ample resources and avenues for such pursuits will be available. I will also be available as a resource--through email, chat, and Skype--which leads to the second point. The way I plan to approach letters, comments, and advice on the Digital Mentor site is the same way I have done so when teaching production classes--and the same way I worked with the previously mentioned student. Discussion of the basics will be the primary objective, followed by making sure the individual realizes I am available (through the aforementioned contact technologies) for questions or comments. Yet that assertion will also be tempered with direct suggestions aimed primarily at where those individuals themselves can look for further resources. In addition, I will be pointing visitors in the direction of possible research sites--ones they can pursue in order to help them answer those questions (or discover potential techniques and utilization strategies) for themselves. In this way the site will be a practical resource, but it will also allow me to point interested parties right to places where they themselves can mine for gold. Thus, the website will be a digital mirror reflecting the types of hard copy bibliographies and face-to-face mentoring situations I was provided with as an undergraduate production student.

Having just taken a look at where this project has led me in terms laying the ground work for my future work with digital cinema education, it would now seem fitting to spend a few moments revisiting my project's original research questions from the Introduction to evaluate how those postulations were addressed and answered within my study. Two questions began my investigation: To what extent can we demonstrate that repetitive visuals did in fact appear within

motion pictures during the last century, and whether it would be viable to show that they are not simply technical manifestations that have just re-emerged within the digital arts, especially digital cinema. Those questions were addressed in two ways, and in two primary sections. First of all, the explanation of the five loop variations within the taxonomy in both the Introduction and Chapter One were set up in such a way so as to show their rooting in the pre and early cinematic devices that relied on repetition as a basis for their mechanical functioning. This question was then heavily scrutinized and answered in Chapter Two by referring to a large and varied catalog of collected examples found in numerous genres, styles, formats and artistic aims sampled from throughout the first one hundred years of film history. Doing so provided the basis to my claim that techniques such as looping are not merely electronic tools that have only popped up in the previous decade with the advent of digital programs and process.

The next research questions asked how the manifestations of the loop have developed or been transformed within cinematic expression and, when it comes to digital cinema technology, how they have specifically been drawn from pre-cinematic techniques. Chapter One discussed the way in which variations within the very taxonomy appeared historically to have sprouted from a development of one type of loop into another version over time (Classic Loop to Superimposed Loop to Division Loop). The answer to the second question in that segment can be found specifically in the way--following the three loop developments just mentioned--that the Division Loop continued within the context of its own variant to literally multiply into the most easily discernable example of looping in digital effects and digital cinema (through mirroring, character duplication, and crowd multiplication, to name just three examples). The next question was whether it is possible for one to study the modern digital aberrations of pre-cinematic techniques in order to find any data corresponding to their development. It is my belief that this

particular question has itself been answered in the very nature of my project, along with the way that this study came together in the first place. The research and writing of this study originated because I wanted to know if it was even feasible to look into pre cinematic practices and film history in order to show that the variations of the loop found in digital expression could be located throughout the 20th century. It was a natural move, therefore, that upon distinguishing and labeling the taxonomy variants, I was then able to begin to chart and dissect their development.

I would like to address the educational research questions together. First question asked how current educational practices in the realm of cinema and video might work to inform students of techniques outside of the common narrative means. The second asked whether it is possible to determine why it appears that textbooks are devoting even less time to discussing alternative visual usages outside of the realm of conventional narrative structures. The final question asked what other means might be available to inform students or practitioners of both the history of, as well as the possible practical applications of, pre-cinematic based practices such as the loop.

These questions point to a very complicated situation (within both industry and education) that I did my utmost to address not only through discussing my own time as a production student and teacher, but also through this project's direct dissection of the books, tools, and information dissemination strategies currently being utilized within the traditional (and nontraditional) learning settings themselves. Though the Introduction set the stage for tackling these questions--along with places in all of the chapters where each problem was intimated--Chapter Four was the primary area where most of my findings and thoughts on those matters were addressed. The conclusions I came to through research, study, and experience as both a

teacher and a student in the field being observed all point back to the fact that this problem is directly tied to how the marketplace is set up. The needs, demands, and procedural requirements for landing (and keeping) a job in the field of film, broadcast journalism, or other professional media areas utilizing production techniques and equipment, all fall under the scope of the current dictates followed by employers in each of those fields. Therefore, those who are instructing individuals who want to enter those fields are also beholden to passing on such procedural restrictions as set forth by the Griffith/Eisenstein model when it comes to shot composition and editorial options. As a result, classes, course objectives, and even entire textbooks (created by publishers needing to cater their books to those specific marketing and delivery needs in order to sell copies) steer toward that model almost exclusively in both content organization and technical data. This content selection and implementation is utilized in educational texts at the expense of historical background and alternative production or editorial techniques. The answer for question two, therefore, sets up the answer for questions one and three. If there is to be any hope for the continued dissemination of information regarding the loop or other pre-cinematic based techniques, it must come from the film makers and artists themselves through the discussion of their work in lectures and DVD commentaries (like Jost and Rodriguez, respectively) or books (as in the case of Mike Figgis). Alternately, such information will also be available in the form of publications (as done by Mike Wayne), or research undertakings such as this paper, and in due time through the Digital Mentor project utilizing the Internet.

The future developments and practices in the field of digital cinema and digital video, which were addressed through my research questions and the answers I found in response to them, points to several possible areas for future inquiry and study. There is one particular issue that I would like to mention at this juncture: the ethics involved with molding the digital image

itself--both its actual creation, along with the dicey potentials involved when showing or distributing such manipulated images to others.

Technology has advanced to a point where the “reality” originally captured by digital recording devices can be distorted so pristinely that a casual viewer may not recognize the slight-of-hand. As a result, audiences might inadvertently take the visual for an original, unaltered shot. Numerous examples of this sort of practice were pointed out in Chapter Three primarily when discussing changes or alterations Lucas made to the original captured images from Clones during post-production (making Samuel Jackson’s eyes blink fewer times, or enlarging the size Natalie Portman’s head, to name a couple of example). Though it is true that those items were clearly being presented by Lucas in an obviously fictional climate (and would also mostly go unseen unless pointed out), the fact remains that it is now very easy to use such technologies and methods to distribute altered, digitally enhanced videos and images through news, broadcast, or entertainment outlets. Remember the way in which the 1994 mug shot of O.J. Simpson was showcased differently on the cover of Newsweek and Time, having been digitally enhanced for effect (Zabel 2). A more recent example to make note of would be the shots taken of John McCain by Jill Greenberg for Atlantic Magazine, in which lighting, staging and digital finishing effects presented an ominous sheen over the original images of the presidential candidate (Walker 1). Even the loop--utilized by broadcast journalism in its Classic form through repetition of one or two shots gathered in breaking news stories as they are rerun continually while the event at hand unfolds--falls under suspicion. When the objective of each broadcast venue is to get the news out first, along with whatever images are available, the story told along with those images changes as more information is brought to the table. In other words, viewers watching the initial loop accompanied by the initial (often sketchy) news details are projecting an

entirely different story and meaning onto those repeating visuals than viewers who tune in hours later and receive a more completed version of the story, set to exactly the same visuals.

With those scenarios in mind (and with the apparent fact that the technologies providing potent moving and still images today can produce even more graphically complex and realistic digital renderings), several important questions should be explored. Is it even possible to determine--let alone mandate--a level of ethical responsibility to the creators of images that are purposefully utilizing digital manipulation? Is it possible to develop a set of guidelines for disclosing the fact that someone has altered a visual when such diversions are being applied within a nonfiction context--such as the news or any form of journalism? This is poised to remain an important question, as a precedent has already been set for such behavior. The current pattern appears to be to refrain from noting the manipulation until after the image has been released, as demonstrated by both the Simpson and McCain examples. Even then, such discussion appears to come about only after the party in question has either been caught in the act or the image itself has been called into question. This leads to a further question: In addition to teaching or mentoring students in terms of techniques and technologies available for digital creation, what responsibilities fall upon such instructors to also educate students about concerns surrounding the ethical dilemmas, issues, and pitfalls potentially involved with practicing any form of digital manipulation? And finally, if such a move to educate in the area of digital visual ethics is undertaken, what are some of the parameters and methods that should be utilized in order to effectively communicate those responsibilities to students?

It would be fitting to end this study with a brief look to the upcoming potentials which may be inherent in the ongoing development of digital cinema. As time moves on, what are some of the prospective future trajectories that digital cinema could take outside the scope of

mimicking traditional narrative film? A potential answer to at least one facet of that question can be found not in the world of motion pictures but in that of music.

During the summer of 2008, Nine Inch Nails began a world tour that utilized electronic projection, digital video, and interactive technologies in such a way that it caused the production to be labeled, according to Wired magazine, as “The pinnacle of video art” (Gardiner 1). Perhaps even more interesting than such a grandiose claim, however, is the initial intention behind Trent Reznor’s decision to explore this particular route with his band. “‘I wanted to see how I could use video as an instrument,’ he says, ‘and try to really make the stage feel like it’s organic--like it’s part of the overall set’” (Gardiner 1). This achievement in digital video application and manipulation was accomplished in an extremely specific manner. In fact, it is not the size or scope of the project technologies that should be focused on here, but rather the ability given to the performers to manipulate those images during the show itself:

For the band's current “Lights in the Sky” tour...the visuals for about 40 percent of the show (including “Only”) aren't pre-rendered. There's no staging, no pantomiming by band members: It's all interactive, live and rendered on the fly. (Gardiner 1)

To do so, the members of the band became responsible for not only playing their instruments, but also for adjusting and manipulating the visual being projected through a series of digital screens placed across various portions of the stage at different times within the show:

Reznor and other band members are able to trigger and control various video

loops and effects directly from the stage. The musicians can also interact directly with those visuals onscreen during the show, thanks to a sophisticated array of sensors and cameras. As Reznor intersects that plane with his hand or body, the laser tracks his X and Y coordinates. The “brain” box then tells the particles to spread out to a predetermined dispersal pattern. Reznor says: “Then it follows me around. If I leave the plane, it fills back in. If I push through, it comes back out.” (Gardiner 2)

This technology not only allows the artists to manipulate the visuals seen by the audience, but also at times to simultaneously manipulate the music being heard as well:

The band uses the same tech for another song later in the show called “Echoplex,” from The Slip album. “We recreated a grid drum sequencer,” he says. “[Drummer Josh Freese] is actually touching and turning them on and off. But he's not really touching the screen. He's crossing the same laser on the back screen, which gets calibrated at sound check.” (Gardiner 2)

Aside from being a potential model for at least one direction in which digital cinema technologies may continue to be applied and enhanced in future usages by other artists, this particular concert performance application is of interest here for two reasons. The first has to do with the 3-D virtual atmosphere created by the molding of digital capturing and manipulating technologies with a performance. At several points in the middle of the show, the band was playing moody instrumentals. During those portions, the screens and the videos were

incorporated to digitally synthesize an active, moving visual atmosphere around the musicians--such as a desert landscape with clouds, or a swamp with hanging moss and sludgy water (Lights). The precision and clarity of the digital images, as well as the depth provided by the three separate screen, brought a germ of life to those illusory setting that even the most detailed of virtual reality technologies struggles to conjure up and maintain. This performance, and its effective use of multiple see-through and interactive digital video screens, perhaps reveals how VR could potentially move past some of the difficulties it has traditionally encountered in relaying realistic and consistently viable, believable graphic environments (McDaniel 2).

The melding just described can also be found in the work of artists working on less complex, and more economically friendly, projects. Jost was my example of an artist who was able to create, with a small amount of cash, loop examples similar to those engineered by his high-budget counterpart in this project, George Lucas. It is appropriate, then, that Jost found and described an excellent low-budget example of this present technology and performance melding when he attended the Yonsei Narrative symposium in May of 2008:

After a short break, (Jean Poulot) commenced, a born raconteur, nimbly telling about himself and what he does, and then with lights turned down, he went behind a box with an HDV camera mounted above it, and in a matter of minutes using his hands and sand, he animated live a little tale built around the thought of messages in a bottle cast into the sea. It was fluid, his technique fascinating and flawless, and done in all humbleness. A real treat. (Jost, "Talking Dogs")

Utilizing little more than digital camera technology, sand, and storytelling in an imaginative way, here we have an example of digital practices and human ingenuity being applied to do what Reznor was accomplishing on the high price end of the spectrum--draw the audience in and engage them with the performance, not distract them with gadgetry for high-tech's sake alone. It is the trend of implementing electronic processes into projects just because one can, and not because a particular digital process would serve a specific artistic aim, that both Jost and I take issue with.

The irony is that the advent of lower-cost consumer cameras and easily affordable editing technologies may actually work in favor of spawning a vast array of artistically shoddy productions. Just because the digital tools are available to so many individuals these days does not necessarily mean that those who are applying the technologies will always work with them effectively. This was seen first-hand with my own production students who, as described in Chapter Four, demonstrated technical skill with the non-linear editing computers, but provided little-to-no original content within their projects despite their electronic aptitude. In fact, Jost contends that such usages, especially when it comes to interactive potentials, might actually lead digital cinema in an unfortunate direction:

For me, the irony of the theorists and practitioners of alleged "interactive" arts is double, first in that most often it is made by persons who seem to have little real artistic skill or intuition (just as the early so-called video artists were by and large persons with no aptitude for the other arts)...In my view the idea that one can--whether with a re-structuring of narrative forms to include spectator options, or

with the addition of some technological new gimmick--open up an art to include the spectator on an actively participatory level is essentially an abdication of the artist's real responsibility. (Jost, "Talking Dogs")

It is a valid possibility that one of the potential trajectories with digital cinema in the hands of the general public, as argued by Jost, will be an over-saturation of electronic works with very little artistic content. That said, I wanted to end my project by showcasing both the Poulot and Reznor approaches to digital technologies. For each of those artists, the technology acted as a means to innovatively meld a visual with their own live performances. In that way, digital cinema was specifically utilized to enhance and deepen one aspect through the effective use of the other--not to simply blind or overwhelm an audience with grandiose electronics. In both of those creative examples, from either end of the budgetary spectrum, we have been given a glimpse into the bright side of what is perhaps to come in digital cinema: artists applying such technologies and strategies--with both ingenuity and integrity--for the purpose of benefiting the core expression of their overall artistic statements.

In a dozen years, maybe far less, there will perhaps be film and video artists meandering in and around the edges of the realm that is now called digital cinema. And just like a spectrum has many layers of color, some layers of digital cinema will possibly continue to mimic narrative film, while at the same time other layers will have nothing to do with it--concentrating instead on areas of digital creation that the artistic community and technologist have yet to envision.

Each of these collaborative art forms--film and digital video--will continue to develop and be transformed, and it is conceivable that in some ways they will both also continue to enhance each other. Ironically, it may happen that film--now free of the sole burden of the

narrative constraints which has been its primary yoke for nearly a century--will itself be catapulted creatively, burgeoning further in the broader experimental realms where pockets of cinema artists and enthusiasts have dwelled and created virtually beneath the general public's radar almost since the art form's first inception over a century ago. Can film also grow and develop into something different than what audiences and artists have thus far known it to be, as it will no longer need to be saddled so heavily with the constraints of narrative--perhaps like "traditional" portraiture and painting did in the 19th century once it was no longer needed in the same basic manner once photography came onto the scene? Manovich himself expresses sentiments that seem to indicate the potential for such a tract to be a possibility when he states, "We no longer think of that history of cinema as a linear march towards only one possible language, or as a progression towards more and more accurate verisimilitude. Rather, we have come to see its history as a succession of distinct and equally expressive languages, each with its own aesthetic variables, each new language closing off some of the possibilities of the previous one" (Manovich 10). Art history shows us that the release from that basic constraint allowed new facets of painting to blossom, permitting artists to experiment heavily within new and imaginative areas. Could something similar happen with film, as well DV, should digital cinema continue on its current heading of electronic and creative development, alongside its current use in narrative cinematic mimicking? At this time, it is impossible to know. The precedent for this to potentially happen, however, appears to legitimately be in place.

APPENDIX:
MEDIA

FIGURE 1: CLASSIC LOOP



FIGURE 1: CLASSIC LOOP

(Scoma Editing Exercise)

FIGURE 2: SUPERIMPOSED LOOP



FIGURE 2: SUPERIMPOSED LOOP

(Scoma, Flag Waving)

FIGURE 3: DIVISION LOOP



FIGURE 3: DIVISION LOOP

(Scoma Swiss Guard)

FIGURE 4: ICONIC LOOP

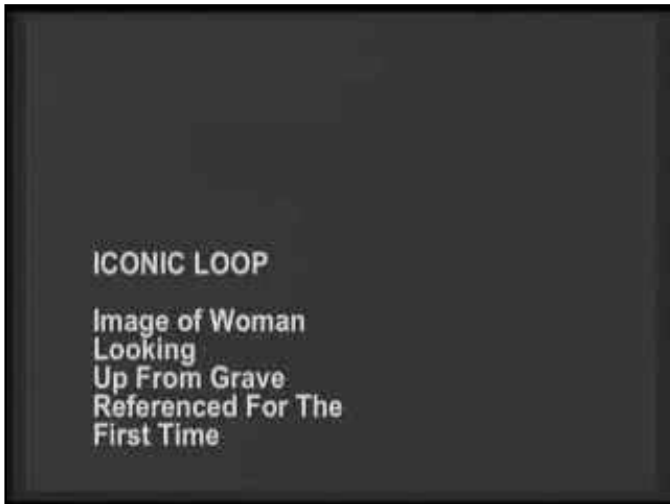


FIGURE 4: ICONIC LOOP

(Scoma Cellulite Thin Man)

FIGURE 5: HOMAGE LOOP



FIGURE 5: HOMAGE LOOP

(Scoma and Walters)

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