

**AN ABSTRACT EXPRESSION
OF SEPTEMBER 11, 2001**

A Thesis

by

DITI SHAH

Submitted to the Office of Graduate Studies of
Texas A&M University
in partial fulfillment of the requirements for the degree of

MASTER OF SCIENCE

August 2006

Major Subject: Visualization Sciences

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ABSTRACT

An Abstract Expression of September 11, 2001. (August 2006)

Diti Shah, B.S., The University of Texas at Dallas

Chair of Advisory Committee: Prof. Karen Hillier

Historical events captured in an abstract manner have the ability to produce a profound effect on the emotions. The purpose of this research is to create a time-based computer media work, using dialogue from playwright Anne Nelson's *The Guys*, based on the September 11, 2001 attacks on the World Trade Center in New York City, with emphasis on visual imagery, particularly the use of line and color, to enhance the dramatic and emotional content of the piece. The stylistic direction of the thesis work is greatly influenced by selected works of abstract expressionists Robert Motherwell and Franz Kline, whose artwork was shaped by the social backdrop of World War II.

For my loving parents, Pankaj and Nita Shah,
who have always supported me in my endeavors

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TABLE OF CONTENTS

	Page
ABSTRACT	iii
DEDICATION	iv
ACKNOWLEDGEMENTS	v
TABLE OF CONTENTS	vi
LIST OF FIGURES.....	viii
 CHAPTER	
I INTRODUCTION.....	1
1. September 11, 2001	2
1.1 Detailed Coverage	2
1.2 Social Implications	5
1.3 Artists Response.....	7
1.3.1 Anne Nelson’s <i>The Guys</i>	7
1.3.2 Taeg Nishimoto’s <i>War on Terror Memorial</i> ..	9
2. Personal Motivation	10
3. Artistic Intent.....	11
II VISUAL ANALYSIS	12
1. Working Method	13
2. Abstract Expressionism and Mark Making.....	21
2.1 Robert Motherwell.....	22
2.1.1 <i>Spanish Elegy</i> Series.....	22
2.2 Franz Kline.....	25
3. Elements of Art	27
3.1 Line	27
3.1.1 Motherwell and Kline.....	30
3.2 Color and Abstract Imagery.....	32
3.2.1 Motherwell and Kline.....	35
4. Rotoscoping.....	36
4.1 <i>Waking Life</i>	37

CHAPTER	Page
III METHODOLOGY AND IMPLEMENTATION	40
1. The Script	40
2. Filming	41
3. Post-processing.....	43
3.1 Minimization.....	43
3.2 Coloration	48
3.3 Other Elements.....	50
IV CONCLUSION	55
1. Analysis of Results.....	55
2. Integration	58
3. Future Work	63
REFERENCES.....	64
VITA	67

LIST OF FIGURES

FIGURE	Page
1	The bombing of the World Trade Center in New York City on 9/11/2001 [FEMA 2001]..... 3
2	The destruction of the area around the World Trade Center after 9/11/2001 [FEMA 2001]..... 4
3	Survivors walking to safety [FEMA 2001]..... 6
4	Rescue workers searching for survivors around the World Trade Center after 9/11/2001 [FEMA 2001]..... 6
5	Book cover for <i>The Guys</i> by Anne Nelson [Yurgaitis 2004]..... 8
6	Taeg Nishimoto <i>War on Terror</i> Memorial [Arts Council of Brazos Valley 2005]. 9
7	Drawing of a hand with conte crayons on paper. 14
8	Drawing of hand with charcoal on paper. 14
9	Painting of hand #1, acrylic on canvas, uses the complementary color scheme..... 15
10	Painting of hand #2, acrylic on canvas, uses the complementary color scheme..... 15
11	Painting of hand #3, acrylic on canvas, experimenting with style. 16
12	Painting of hand #4, acrylic on canvas, experimenting with style. 16
13	1 minute gesture drawing from observation..... 17
14	20 second gesture drawing from observation..... 18
15	2 minute gesture drawing; a reproduction of Rembrandt's drawing. 18
16	5 minute gesture drawing; a reproduction of Tiepolo's drawing.. 19

FIGURE	Page
17 Robert Motherwell <i>Elegy to the Spanish Republic No. 110</i> (1971), 6' 10" x 9' 6" [Ashton 1983].....	24
18 Robert Motherwell <i>Elegy to the Spanish Republic No. 57</i> (1957-60), 7' x 9' [Ashton 1983].....	25
19 Franz Kline <i>Untitled</i> (1957), 6' 5" x 6' 2" [Gordon 1969].....	26
20 Franz Kline <i>C and O</i> (1958), 6' 5" x 10' 10" [Gordon 1969].....	27
21 Rembrandt van Rijn <i>St. Peter Liberated by an Angel</i> (17 th Century) [Rawson 1987].....	28
22 Pablo Picasso <i>Drawing</i> (1968) [Rawson 1987].	29
23 Franz Kline <i>Painting Number 2</i> (1954), 6' 8 1/2" x 8' 9" [Messinger 1992].....	31
24 Robert Motherwell <i>Drunk with Turpentine Series</i> (1979) [Arnason 1977].....	31
25 Raphael <i>School of Athens</i> (1510-1511) [Rawson 1987].	32
26 Andre Derain <i>Boats</i> (1905) [Chiari 1970].....	33
27 Wassily Kandinsky <i>Small Pleasures</i> (1913) [Barnett 1983].....	34
28 A still frame from <i>A Scanner Darkly</i> (2006) [Rotten 2006].	38
29 A still frame #1 from <i>Waking Life</i> (2001) [Rotten 2001].	38
30 A still frame #2 from <i>Waking Life</i> (2001) [Rotten 2001].	39
31 Frame from original footage #1.	42
32 Frame from original footage #2.	42
33 The final look after all the filters are applied.	43
34 Application of the find edges effect.	44

FIGURE	Page
35 Application of the levels effect.	45
36 Application of the hue/saturation effect.	46
37 Parameter inputs of all the applied filters in Adobe After Effects.	47
38 Bezier mask over Vegh.	48
39 Color added over masks.	49
40 A layer set on multiply blending mode is added to show the background.	50
41 The lines and skyline are added.	51
42 Effect achieved by the pin light blending mode.	52
43 Effect achieved through the invert effect.	53
44 Motion tracked spots circled in red.	54
45 Robert Motherwell <i>Untitled (Red)</i> (1972) [Caws 1996].	58
46 Robert Motherwell <i>In Yellow Ochre with Two Blues</i> (1968) [Caws 1996].	59
47 Franz Kline <i>Red Painting</i> (1961) [Goldwater 1967].	59
48 Franz Kline <i>Zinc Yellow</i> (1959) [Goldwater 1967].	60
49 Pablo Picasso <i>Guernica</i> (1937) [Rawson 1987].	62

CHAPTER I

INTRODUCTION

Art that captures historical experiences can become a memorial to a time in the past that shall never be forgotten; such is its power. Other works are immortalized for pushing the limits regarding what is considered art. The fascination of such pieces of art lies in the innovative ways of expression the artist chooses to articulate his/her thoughts and emotions. Modern Art in the 20th Century redefined how one perceives art [Rawson 1987]. Taking a less literal approach, abstract artists were able to display their emotions on many levels. In the disarray of the post-World War II period of the 1940s and 50s, the Abstract Expressionist Movement defied the previously established position on “aesthetic” and advanced the concept of abstraction to a new level [Chiari 1970].

In current historical context, the bombing of New York City’s World Trade Center on September 11, 2001, has been one of the greatest cataclysmic events of the 21st Century. Just as the backdrop of World War II influenced the style of the Abstract Expressionists, the attacks on the World Trade Center in New York City on September 11, 2001 shaped this research project. Utilizing a monologue from the off-Broadway play, *The Guys* by Anne Nelson, written as a reaction to the September 11, 2001 events, the artist shall explore artistic and technical techniques to figuratively express the context of the monologue. The works of Abstract Expressionist Robert Motherwell and

This thesis follows the style and format of the *ACM Transactions on Computer-Human Interaction*.

Franz Kline have inspired the stylistic direction of the piece.

1. September 11, 2001

On September 11, 2001 in New York City, beginning at about 8:45 in the morning, a series of terrorist attacks destroyed the twin towers of the World Trade Center. The attacks caused over 3,000 deaths and terrible destruction in New York City [Langewiesche 2002]. Commercial airliners were hijacked by terrorists and flown directly into the two buildings. These attacks, affecting the United States and many other parts of the world, were among the most significant events to have occurred to date in the 21st century in terms of the profound political, psychological, and economic devastation (Figure 1).

1.1 Detailed Coverage

United Airlines flight 175 exploded into the South Tower of the World Trade Center. The flight carried sixty-five people on board, including five hijackers when it exploded into flames. At 9:59 AM the upper floors of the South Tower slowly started to break apart, descending straight to the ground. The complete annihilation lasted ten seconds, as did the sound. Many people died instantly. The North Tower collapsed twenty-nine minutes after the South Tower, resulting in the same pulverization [Langewiesche 2002]. In the World Trade Center, people were trapped on the floors above the impact zone, unable to escape through damaged stairwells. Some scrambled toward the roof, hoping

for rescue from above, only to find the way was blocked. Others returned to their desks to call home [Dwyer 2002].



Fig. 1. The bombing of the World Trade Center in New York City on 9/11/2001 [FEMA 2001].

For a split second, each tower left an impression in the air like “a phantom of pulverized concrete marking a place that then became a memory” [Langewiesche 2002].

Prefabricated sections of the external steel columns tumbled down onto smaller buildings, piling onto terraces and rooftops, punching through parking structures, offices, and stores, inducing secondary collapses and igniting fires. Massive steel beams flew through the neighborhood like gargantuan spears, penetrating subway lines and underground passages to depths of thirty feet, crushing them,

rupturing water mains and gas lines, and stabbing high into the sides of nearby office towers. The phone system, the fiber optic network, and the electric power grid were knocked out. The pile of rubble kept growing (Figure 2). It was not just the ruins of the buildings but of tangled steel on unimaginable scale, with mountainous slopes breathing smoke and flame, roamed by diesel dinosaurs and filled with the human dead [Langewiesche 2002].



Fig. 2. The destruction of the area around the World Trade Center after 9/11/2001 [FEMA 2001].

As New Yorkers looked upon this horrifying event as it unfolded in lower Manhattan, news broke of a third plane crashing into the Pentagon. The geographic scope of this developing nightmare expanded with news that a fourth plane had been hijacked that same morning. The hijacking of United Airlines flight 93 was the final act of terrorism in the series of events [Dudziak 2003]. The effects of this event reverberated throughout the nation and the world and changed the course of history.

1.2 Social Implications

The death toll was devastating. Over 3,000 people died in the attack; more than 7,000 people were injured or hospitalized; the family members of over 17,000 people died or were missing (Figure 3). In an effort to find those trapped under the towers, almost 18,000 rescue and recovery workers offered their services [Foner 2005] (Figure 4). Thousands of people moved away from their homes, workplaces, and schools and many suffered economic losses. The devastating impact of this event left many people psychologically bruised, causing grief, sorrow, and making it very hard for them to come to terms with the event. For others, “graphic reminders of the attack continue to trigger emotional responses” [Luo 2003].

After the first plane crashed into the World Trade Center, the initial reaction of most people was that of an accident. As hours passed, more information was shared with the public: the United States and the world tried at best to make sense of them. United States, and perhaps the world, had entered a new age of terror [Dudziak 2003]. The front page the special edition version of September 11, 2001 of the *Philadelphia City Paper* read “Nothing Will Ever Be the Same” [Lewis 2002].



Fig. 3. Survivors walking to safety [FEMA 2001].



Fig. 4. Rescue workers searching for survivors around the World Trade Center after 9/11/2001 [FEMA 2001].

1.3 Artists Response

The need to express thoughts and ideas is innate for all artists, especially during the time of such a tragedy. Accordingly, an immense reaction in the art world followed the events of September 11, 2001 to use a creative medium for expression. From visual artists to architects to playwrights, artists from across the nation were involved [Chiari 1970]. Two particular artists, Anne Nelson and Taeg Nishimoto, will be examined to understand the response of the artistic community. A monologue from playwright Anne Nelson's *The Guys* is the foundation for this thesis work.

1.3.1 Anne Nelson's *The Guys*

Gathered from her own experience in writing eulogies for some of the fallen firefighters of September 11, Anne Nelson wrote the play *The Guys* over the course of a week in October 2001 [Yurgaitis 2004]. The play consists of a conversation between two very different characters, each trying to elucidate his and her feelings about a disaster that is too immense for their minds to handle. Nick, a New York Fire Department captain who was off duty on September 11, lost his unit to the World Trade Center [Weiss 2003]. While still attempting to wrap his mind around the event, Nick was requested to speak at several of the memorial services. The other character is Joan, "a reporter who feels powerless despite an overwhelming desire to help" [Weiss 2003]. These characters end up working together on the eulogies and indirectly begin their healing process [Weiss 2003]. "Part therapy, part documentary, nearly always profound, sometimes funny, the dramatic exchange between two people engages viewers in a

moment somewhat frozen in time. Nelson's play centers on New York's fire fighters not just for their individual and collective heroics, but as symbols for all the heroes, victims and lives that were lost, touched and changed forever on September 11, 2001" [Neal 2004].

The play opened at the Flea Theatre in New York City on December 4th, 2001 and was performed across the United States and in several international productions [Yurgaitis 2004]. The play was published by Random House (Figure 5) and later evolved into a motion picture. In 2002, the play was available for non-profit performances across the country as part of memorial services. Anne Nelson's career consists of international affairs, journalism, and human rights [Yurgaitis 2004].

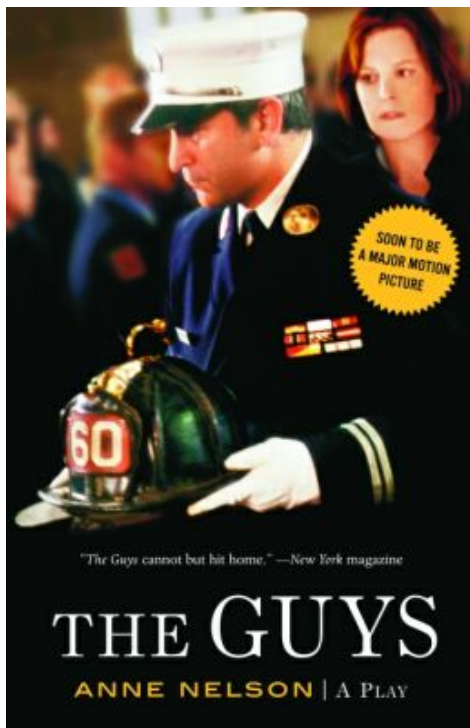


Fig. 5. Book cover for *The Guys* by Anne Nelson [Yurgaitis 2004].

1.3.2 Taeg Nishimoto's *The War on Terror Memorial*

As a part of the Brazos Valley Veterans Memorial in Bryan-College Station, Texas, artist and architecture professor Taeg Nishimoto designed the *War on Terror Memorial* (Figure 6) to pay tribute to the collapse of the World Trade Center [Wilkerson 2005]. The *War on Terror* memorial contains a steel beam from the World Trade Center and is surrounded by Nishimoto's stylized design of an airplane. The steel beam is elegantly surrounded by bent concrete columns to resemble the fallen towers [Arts 2005]. Around the steel relic stand two concrete footprints, one black and one white, representing the twin towers. The walkway leading to the monument is a banked and curved path in an array of bushes, suggesting a plane flight from which there is no escape [Wilkerson 2005].



Fig. 6. Taeg Nishimoto *War on Terror Memorial* [Arts Council of Brazos Valley 2005].

2. Personal Motivation

Historical events lay the ground work for present conditions, actions, and opinions. With the past being such a powerful resource, this artist wishes to bring the past into present light to consider it rather than let it pass casually. It has been a personal quest of this artist to find the plane where history and abstract art meet, mingle, and collaborate. This artist's fascination lies in the simple and figurative representation of abstract art which can produce a profound effect on understanding the emotional implications on the human mind from the attacks on the World Trade Center.

It is a great challenge to represent the intricacies of past events using an abstract visual style. The greatest historical event that occurred in this artist's lifetime was the attack on the World Trade Center on September 11, 2001. Herein lies the challenge: how can abstract art fully express and enhance the emotional context of the event whereby the result is not only emotional but also aesthetically pleasing?

3. Artistic Intent

The purpose of this research is to create a time-based media work, using dialogue from playwright Anne Nelson's *The Guys*, based on the September 11, 2001 attacks on the World Trade Center in New York City, with emphasis on visual imagery, particularly the use of line and color, to enhance the dramatic and emotional content of the piece. The stylistic direction of the thesis work is greatly influenced by selected works of Abstract Expressionists Robert Motherwell and Franz Kline, whose artwork was shaped by the social backdrop of World War II. The emotional significance of the sensitive subject matter is further conveyed through the exploration of computer graphics and videography.

CHAPTER II

VISUAL ANALYSIS

Accounts and pictures of the attacks on the World Trade Center in New York City, the Pentagon, and the plane crash in Pennsylvania on September 11, 2001 reached all corners of the world. The media coverage of the event enraptured the public with the recollections of the victims' experiences: their looks of utter disbelief, the shortness of breath while recalling the tragedy, the chaos, debris, and confusion. To respectfully capture this atmosphere, this artist must consider all factors, from the overall style to the technical details, in the compilation of this thesis project.

Every painting, sculpture, and film has an underlying set of visual elements. The manipulation of these visual elements, such as line, form, color, et cetera, determines the effectiveness of the mood. This thesis will concentrate on the understanding and treatment of two particular elements: line and color. Tonal color, modeling of the objects, and other detail have been deliberately dropped by this artist to minimize extraneous detail such that the importance of line and color prevail. This research will also explore the treatment of abstract imagery and its attempt to achieve greater control on the emotional level.

The works of Abstract Expressionists Robert Motherwell and Franz Kline explored the emotional aspect of a painting through emphasis on line and lack of color. Emerging in the era after World War II, their art grew out of a belief that art should explore the deeper sense of reality [Messinger 1992]. This artist will investigate Motherwell and Kline's visual style and motivation to intensify the emotional response

of this thesis project. Lastly, the initial inspiration for this thesis project, *Waking Life*, will be examined for its stylistic direction.

1. Working Method

In preparation for this research, this artist took an Independent Study course with Visualization Science Professor Karen Hillier on Color Study. The works of artists such as Matisse, Gauguin, Cezanne, Rembrandt, Monet, Seraut, and Andre Derain were thoroughly examined. This artist investigated the relationship of color in terms of different schemes, characteristics, and styles. The study ended with the execution of six color study drawings/ paintings in different color schemes of the same subject matter. In Figure 7, this artist uses conte crayons to model the hand as realistically as possible. The observation method differs in Figure 8 where this artist draws according to the amount of light hitting that area: using dark values in the shadows and light values in the highlights. This method of observation is further examined in Figures 9-12 using acrylic paints. Figures 9 and 10 are painted in a complementary color scheme, while Figure 12 is in an analogous color scheme, and Figures 7 and 8 are executed in a monochromatic color scheme. The experiments of the color study aided this artist in understanding how the colors give different results when they are applied differently or placed next to other colors.



Fig. 7. Drawing of a hand with conte crayons on paper.



Fig. 8. Drawing of hand with charcoal on paper.



Fig. 9. Painting of hand #1, acrylic on canvas, uses the complementary color scheme.



Fig. 10. Painting of hand #2, acrylic on canvas, uses the complementary color scheme.



Fig. 11. Painting of hand #3, acrylic on canvas, experimenting with style.



Fig. 12. Painting of hand #4, acrylic on canvas, experimenting with style.

Another Independent Study course was taken with Architecture Professor Richard Davison on understanding the gestural expressionist line. A thorough analysis of the line drawings of Rembrandt, Tiepolo, Hans Holbein, Botticelli, and Ingres was done. The works of contemporary artists such as Dave McKean, Kermit Oliver, and Marion Mahony were also studied. This artist then produced over 100 quick gestural drawings ranging from 5 seconds to 5 minutes each in duration. These drawings were either drawn from observation or were reproductions of the mentioned artists (Figures 13-16).



Fig. 13. 1 minute gesture drawing from observation.

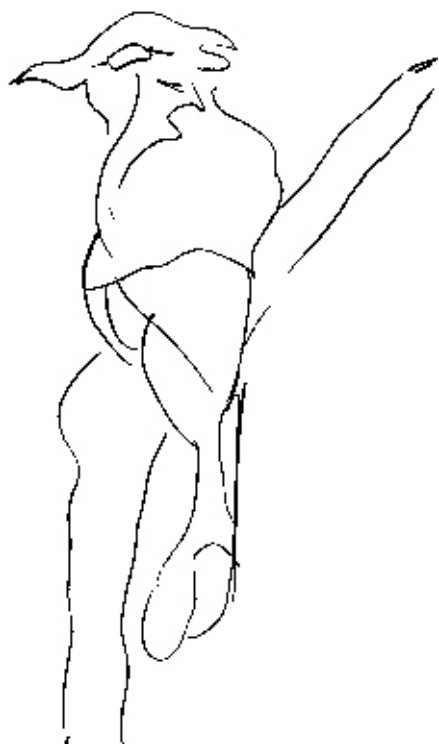


Fig. 14. 20 second gesture drawing from observation.



Fig. 15. 2 minute gesture drawing; a reproduction of Rembrandt's drawing.



Fig. 16. 5 minute gesture drawing; a reproduction of Tiepolo's drawing.

This time-based media work is a rendition of a monologue from *The Guys* by Anne Nelson. The piece was filmed with a hand-held camcorder. Significant manipulation was done in Adobe After Effects to drop all the extraneous detail such as color, shape, and texture. To create a hand-painted look, experimentation was done to bring a simple color palette into the foreground. The first approach consisted of drawing over each frame in Adobe Photoshop with a Wacom tablet, although the tedious method did not allow much control over the shape of the color. Also, too much inconsistency in the movement of the colored shapes was experienced during playback. With further examination, a more efficient approach was established in After Effects, consisting of making a Bezier mask over the image and key framing every fifth frame as the image moved. Not only did this technique curtail the amount of time consumed, but it conferred greater control over the movement of the mask.

Gestural lines and expressionist shapes were then added to further reflect the Artistic Intent. These were done either in Photoshop or with the Vector Paint filter in After Effects. This artist used the *motion tracking* feature in After Effects to create a seamless movement with the added lines and shapes of the background objects. The project was assembled in After Effects.

2. Abstract Expressionism and Mark Making

Near the end of World War II, a group of artists in New York City began challenging the aesthetic establishment and created the style of painting known today as Abstract Expressionism [Rosand 1997]. These painters rejected the traditional style, believing its realism depicted only the surface of American life [Ashton 1983]. Their commonality lay in their conviction to explore the deeper sense of reality and to express the universal truths through the medium of art “generated by the most deeply personal inner experiences” [Messinger 1992]. With the atrocities of World War II raising questions about humanity’s place in the world, these artists developed a global awareness [Messinger 1992]. The Abstract Expressionists created unique and distinctive art by combining their avid imagination with the present state of affairs. With added emphasis on form, line, and color, the Abstract Expressionists created a new art relying on emotional content [Rosand 1997].

Among the Abstract Expressionist painters, Robert Motherwell was the youngest and most prolific of the group. Influenced by the American philosopher Alfred North Whitehead, Motherwell recognized that abstraction is “the process of peeling away the inessential and presenting the necessary” [Ashton 1983]. A recurring theme in Motherwell’s paintings was his response to the Spanish Civil War [Rosand 1997]. Among his work, the series titled *Elegies to the Spanish Republic* articulated a powerful metaphor for life and death and reflected Motherwell’s strong feelings about the consequence of historical conflicts [Ashton 1983, Flam 1983].

Franz Kline, another prominent Abstract Expressionist, is known for his massive black and white paintings. Kline used painting as a way to express his sense of restriction and frustration with life during the 1940s and 50s [Gaugh 1985]. He discovered the means to illustrate his emotions on a large canvas and created a distinguished visual style characterized by bold use of line and shape [Boime 1977]. The direction of this thesis work is greatly influenced by the works of Robert Motherwell and Franz Kline.

2.1 Robert Motherwell

Robert Motherwell emerged as a painter, printmaker, writer, and editor in the late 1940s and was known as a leading exponent among the Abstract Expressionists. His work fused emotional expression with vigorous brushwork on a large scale [Caws 2003]. Like many of his fellow Abstract Expressionists, Motherwell's gestures convey the effect of the object rather than the object itself [Rosand 1997]. Motherwell's greatest goal was to use his work to convey "the universality of the 'subjective' through a visual 'object' and to experience the emotion that radiates from the 'object'" [Caws 2003].

2.1.1 *Spanish Elegy Series*

Motherwell's greatest series, *The Elegy to the Spanish Republic*, was devoted to lament over death and the fall of Spain under the rule of Francisco Franco during the Spanish Civil War (1936-1939) [Caws 2003]. Motherwell commonly used the theme of life and death in his work to portray war in general, especially to explore the

desensitized and unhopeful social environment after World War II [Rosand 1997].

According to Motherwell, the portrayal of life and death in his paintings went far beyond the literal. The emphasis was on the process, every stroke that led up to the final product: the hand moves, and feeling is transmitted [Flam 1983].

Most of the Spanish *Elegies* (Figures 17 - 18) follow a relatively simple and almost uniform pattern: ovoid shapes are placed in between large, vertical rectangles; smaller horizontal rectangles are placed near the top of the canvas. The later *Elegies* use unsaturated, opaque color to define the background [Caws 2003]. One of the more famous of the *Elegies*, the *Reconciliation Elegy*, hangs at the National Museum of Art in Washington D.C. Motherwell describes the *Reconciliation Elegy* as:

Reconciliation of the Spanish peoples, reconciliation with Death and Life...

Against the background of possible nuclear holocaust, we must even reconcile ourselves to the fact that western man, in choosing centuries ago to exploit nature rather than marry her, has doomed himself... with an industrial technology for which there is neither the wisdom nor the political mechanism to control... The *Reconciliation Elegy* is not less for Spain, but is also for all of mankind [Motherwell 1980].

As the *Elegies* developed into a series, the repetition of the shapes gained increasing significance in Motherwell's imagination and in the public's eye [Ashton 1983]. The haunting shapes of each *Elegy* bring the poignant subject matter to life. "This giant gesture in its repeated confrontation of general evils speaks to us intimately, openly, terribly" [Caws 1996].

Through the mostly black-and-white composition and the careful placement of the rectangular and ovoid shapes, Motherwell expresses his feelings about human tragedy. As stated in the above quote about *Reconciliation Elegy*, Motherwell's "tragedy" not only dealt with war but also the exploitation of natural resources. Like many of his contemporaries, it was important for Motherwell to capture his "one's own inner sense of weight" in his work; and in turn, creating a greater awareness of the current social conditions around the world [Caws 1996].



Fig. 17. Robert Motherwell *Elegy to the Spanish Republic No. 110* (1971), 6' 10" x 9'6" [Ashton 1983].



Fig. 18. Robert Motherwell *Elegy to the Spanish Republic No. 57* (1957-60), 7' x 9' [Ashton 1983].

2.2 Franz Kline

In 1950, painter Franz Kline changed his style from semi-representational small-scale sketches to large-scale abstraction (Figures 19-20). Kline's paintings, with their dominating size and scale, generated amazing energy as they allowed bold, black brush strokes to intersect the large white canvases [Gordon 1969]. According to Kline, "the final test of a painting is: does the painter's emotion come across?" [Rodman 1957] The use of black and white alone forced an "integration of energies and a balance of areas unrelieved by the distractions of color" [Goldwater 1967]. Its vigor commands much assertiveness. As a result of his October 1950 exhibition, Kline became known as "the black-and-white-artist" [Messinger 1992].

An important motivation for Kline was his sense of loneliness [Boime 1977]. The black and white marks, large and well structured, stand strong yet display a sense of isolation, corresponding to Kline's view of the of the world around him. Kline's bold abstractions allowed him to manifest the delimiting and frustrating experience with the "box-like world of contemporary life" [Boime 1977]. This dramatic statement of his feelings materialized through the interaction between dark and light, energy and control, flat surface and deep space [Goldwater 1967].



Fig. 19. Franz Kline *Untitled* (1957), 6' 5" x 6' 2" [Gordon 1969].



Fig.20. Franz Kline *C and O* (1958), 6' 5" x 10'10" [Gaugh 1985].

3. Elements of Art

3.1 Line

Just as any idea or object must have a solid structure to sustain itself, visual images also have an underlying backbone that determines whether they are “well put together” or visually “fall[ing] apart” [Selleck 1974]. The line is the most basic and fundamental of all the visual elements that comprises the underlying structure of a work of art. Art created mostly through line is “invaluable, not only because [it] gives us in [its] purity the mental intent of the artist, but because [it] brings immediately before us the mood of [the artist’s] mind at the moment of creation” [Selleck 1974].

Figures 21 and 22 show the effectiveness of primarily using line as a medium of expression during different periods of time. Figure 21 is a drawing by Rembrandt from the 17th Century. Rembrandt’s use of gestural, expressive lines defines his figures in a

minimal way. He uses the thickness of line to emphasize certain areas such as the hair on the angel and the arm of St. Peter. There is a sense of movement and simplicity to the drawing. While Rembrandt's use of minimal lines creates a sense of space and modeling, Picasso's drawing in Figure 22, created in the 20th Century, makes use of an ample amount of lines to create a flatter drawing with a multi-perspective angle. Picasso uses sharp line quality to define his figures, and repetition of line is strategically applied to create a shadow effect. These examples show how different approaches to the use of line can create strikingly diverse images.

As soon as a single line is set in space, it affects the observer. The aesthetic appeal of line is due primarily to its organization [Steinen 1977]. This thesis concentrates on the element of line as an independent component: it takes the line out of context from its counterparts, and gives it an importance of its own.



Figure 21: Rembrandt van Rijn *St. Peter Liberated by an Angel* (17th century) [Rawson 1987].



Fig. 22. Pablo Picasso *Drawing* (1968) [Rawson 1987].

3.1.1 Motherwell and Kline

Motherwell and Kline's 'mark making' on their larger than life canvases reflect an empowerment of the line. In these grandiose and energetic pieces lie great expressions of the subtlest making. When one views a Motherwell or a Kline painting, one can get lost in the complexity of the simple 'marks'.

Kline's mark-making articulates movement and dynamism through the vertical, horizontal, and diagonal slashes (Figure 23). While the works look spontaneous and quickly executed, Kline actually spent hours reworking the composition of the piece. Kline's creative process dealt closely with drawing: "Painting is a form of drawing, and the painting I like has a form of drawing to it. I don't see how it could be disassociated from the nature of drawing" [Messinger 1992].

Their goal was simple: to use the power of line to create raw, emotional movement. "One of several unifying factors throughout all Motherwell's work is a brilliant flair and sensual relish for calligraphy (Figure 24): the drawn line which lives a life of its own and implicitly travels a journey as well as explicitly traversing space, piercing space, resting on the surface, or acting as a divisive boundary between color areas set in resultant tension" [Arnason 1977].



Fig. 23. Franz Kline *Painting Number 2* (1954), 6' 8 1/2" x 8'9" [Messinger 1992].

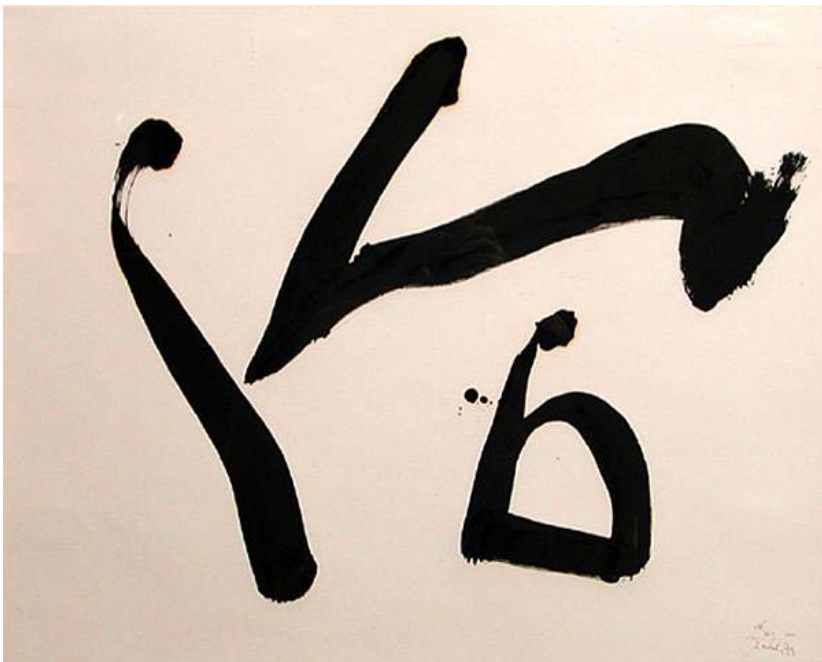


Fig. 24. Robert Motherwell *Drunk with Turpentine Series* (1979) [Arnason 1977].

3.2 Color and Abstract Imagery

Since the 14th Century, it has been the challenge of the artist in the West to accurately depict a scene as visually real as possible. Artists would perform in-depth studies of their subject, such as the human body, to depict it as anatomically correct as possible. The quest to accurately depict architecture led to the innovation of perspective drawing. For many centuries, the caliber of ‘good art’ was determined by the realistic depiction of the subject. Raphael’s *School of Athens* (Figure 25) during the Italian Renaissance is a classic example of how the illustration of the artist’s message is carried forth with representational imagery and color through the use of spatial depth, one-point perspective, and the flowing drapery and realistic expressions on the well-modeled figures [Rawson 1987].



Fig. 25. Raphael *School of Athens* (1510-1511) [Rawson 1987].

The move towards the abstraction of color, in the West, developed significantly in the late 19th and early 20th Century. Artists began to explore the “essence” of things, leading them to compartmentalize their visual experience into separate fields such as color and form. Fauvism, emerging in the early 20th Century, shocked the art world with their paintings characterized by brilliant color, expressive brushwork, and flat composition as one of the first avant-garde developments in European art. Among the Fauvists, Andre Derain used bold, bright colors to define his compositions (Figure 26). The audacious use of color by the Fauvists paved way to further push the idea of abstraction such as eliminating representational imagery all together.

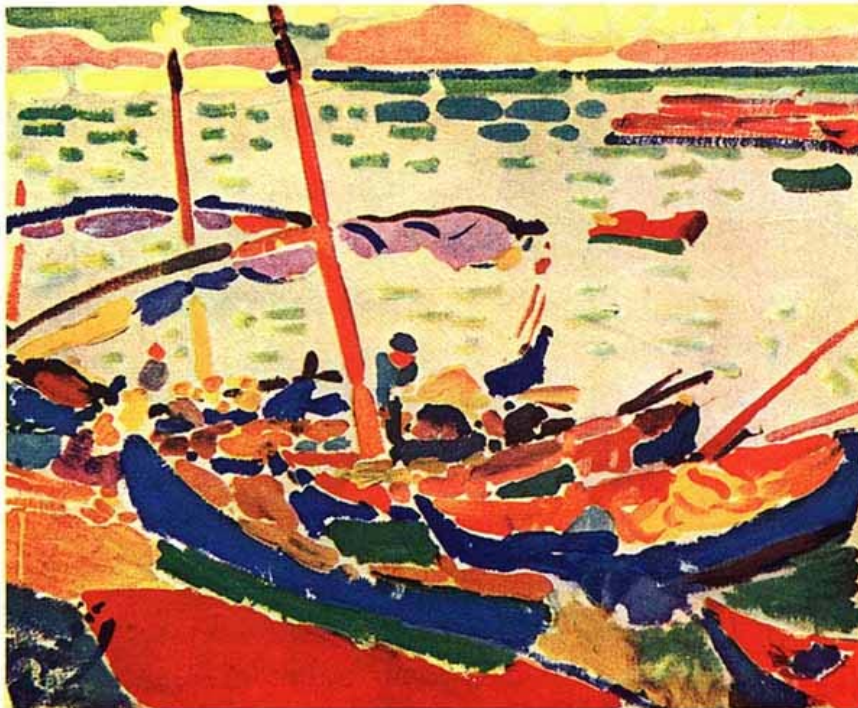


Fig. 26. Andre Derain *Boats* (1905) [Chiari 1970].

Abstract imagery describes the depiction of real forms in a simplified or reduced way through the free use and manipulation of line, shape, color, and form. Wassily Kandinsky, one of the pioneers of abstraction, primarily chose to express his feelings through emphatic, colorful compositions (Figure 27) [Barnett 1983]. Unlike literal representations, the use of abstract imagery creates an allegory in layers: the more the viewer examines the piece, the more insight he/she will uncover. The goal of this artist is to use subtle abstract imagery throughout the piece to leave an emotional impact on the viewer's mind.



Fig. 27. Wassily Kandinsky *Small Pleasures* (1913) [Barnett 1983].

3.2.1 Motherwell and Kline

Motherwell and Kline are thought of as powerful practitioners of black and white. Their use of black and white brought a new flair to the Abstract Expressionists. Motherwell and Kline's use of color aspired to bring a certain balance and emotion to their paintings due to their belief that emotion was the most important feature for a painter to show [Boime 1977]. The sharpness of the black and white allows the viewer to actively engage with the large canvases and generate balance and harmony between the positive and negative spaces (Figures 17-20) [Goldwater 1967]. Overall, the careful interplay between black and white makes the presence of the white just as significant as black. Both artists emphasized on the Abstract Expressionist philosophy of concentrating on the process of art-making. Motherwell and Kline's paintings brought great attention to their black and white 'mark-making' style, which earlier was regarded highly only in the East [Rosand 1997].

4. Rotoscoping

Invented in 1915 by animator Max Fleisher, rotoscoping originally involved projecting pre-recorded live-action film onto matte windowpane and tracing the images [Wikipedia 2006]. In computer graphics, rotoscoping is a technique used to create an animated matte over an object at each frame of a sequence, creating a composite in a live-action shot. The technique's first mainstream use was in Walt Disney's 1937 *Snow White and the Seven Dwarfs*. Rotoscoping is still used for live-action special effects houses. It appeared in music videos like a-ha's 1985 *Take On Me* and video games such as Smoking Car Production's 1994 *The Last Express*. Rotoscoping was also used in live action films like Ralph Bakshi's 1978 *The Lord of the Rings* and George Lucas's *Star Wars* [Wikipedia 2006]. Most recently, another fully digitally rotoscoped feature film by Richard Linklater, *A Scanner Darkly*, is planning to debut in July 2006 (Figure 28) [Rotten 2006].

With the advent of computer graphics, a new wave of limitless possibilities has opened up for the digital artist. In 2001, Linklater produced *Waking Life*, the first digitally rotoscoped feature film (Figures 29 and 30) [Rotten 2001]. The film fused art and computer graphics in a surreal fashion. A proprietary software created by Bob Sabiston, an MIT Media Lab veteran, was used to implement the rotoscoping. A group of twelve artists animated the images using Sabiston's software, bringing in a slightly different style to every scene while keeping its overall stylized style [Rotten 2001].

4.1 *Waking Life*

The visual style of *Waking Life* functioned as an initial inspiration for this thesis project. The minimalist and whimsical use of line and color in *Waking Life* creates a visual effect that is first of its kind in a feature film [Rotten 2001]. This artist was inspired by treatment of line and visual motifs to describe the internal state of a character. For example, in Figure 30, the subject's head and hands are being warped as he speaks to convey the intensity of his beliefs and the complexity of the subject matter. Furthermore, every still frame of *Waking Life* has an aesthetic quality that can stand alone as a work of art. The transparency of the colors and the subtle movement of the layers add to the stylized but unique visual approach. These visual characteristics served as an underlying inspiration for this artist as she composed her own visual method for this thesis project.

In the technical process of this thesis work, the extra commentary on the *Waking Life* DVD functioned as an aid for this artist to create a similar method of rotoscoping using Adobe After Effects. This process is thoroughly explained in the Methodology Section of this thesis.



Fig. 28. A still frame from *A Scanner Darkly* [Rotten 2006].



Fig. 29. A still frame #1 from *Waking Life* [Rotten 2001].



Fig.30. A still frame #2 from *Waking Life* [Rotten 2001].

CHAPTER III

METHODOLOGY AND IMPLEMENTATION

1. The Script

The starting point of this thesis project originated with the script. As discussed in the earlier sections, the content of this project derives from a monologue from *The Guys* by Anne Nelson. The script recounts as follows:

New York. My beautiful, gleaming, wounded city. Are you okay? That's what we kept asking each other the rest of September. What's the answer to that? The pebble is dropped in the pond and the point of entry: that's you, yourself. Were you at ground-zero wounded or suffocated in white ash? No, then I guess you're okay. The first ring around the around the pebble: your family, is your family okay? Did you loose anybody in the towers or on the plane? The next ring: your friends. Are your people okay? The next ring: if, if you lost somebody in the towers that you had dinner with one night and you thought that they were a really nice person, are you okay? If you look at a flyer for a missing person on the subway one day and you just start to loose it, are you okay? If one day you look and the flyers are just gone, they're gone, are you okay? Is anyone okay? [Nelson 2002]

The great presence of this monologue is generated not only through the sentimental words but also the delivery of the actress. Actress Vicky Vegh of the Texas A&M Department of Performance Studies, Theatre Program, put forth an excellent

performance. Vegh's performance articulates genuine sorrow and the disappointments of human tragedy.

2. Filming

The choice of cinematography depends on the look an artist is trying to achieve. Due to the poignant content, this artist chooses to use a handheld camera to actively record the bewilderment reflected by the subject's motions. This is further emphasized by the close-up shots of the actress, Vicky Vegh. The visual composition of the shots consists primarily of Vegh's face. The absence of much negative space reflects a feeling of enclosure, as if there is no escape. At the same time, the increased positive space, Vegh's facial expressions, enhance the feeling of an enclosed space.

The setting is an arbitrary outside location. The intentional choice of filming outdoors reflects the notion of the destruction of the outdoors. The viewer recognizes this due to the sounds of the rustling air and the wind blowing Vegh's hair. The establishing shot sets up the background of the New York skyline; but as the piece progresses, the focus is distinctly on the subject and all traces of the background disappear. The choices regarding sound quality reflect the same intention as the videography: to capture the raw emotion. The monologue was not recorded in a sound booth but outside to include the ambient noise and add to the emotional distress in the subject's voice. The ambient sounds surrounding Vegh helps her feel more connected with her character as she remembers the noises on the streets of New York City on September 11, 2001.

Figure 31 and 32 show frames from the original footage. Although the handheld camera might not produce the best quality film, this artist is not concerned since most of the detail was dropped.



Fig. 31. Frame from original footage #1.



Fig. 32. Frame from original footage #2.

3. Post-processing

The footage is taken into Adobe After Effects to perform the post-processing. A series of effects are applied to achieve the simplicity of line and shape stated in the Artistic Intent, as shown in Figure 33.



Fig. 33. The final look after all the filters are applied.

3.1 Minimization

The Find Edges effect in After Effects identifies the areas of the image that have significant transitions and emphasizes the edges. Edges can appear as dark lines against a white background or colored lines against a black background. When the Find Edges effect is applied, images often look like sketches or photographic negatives of the original. In the process to achieve the above look, the Find Edges effect is applied to the footage (Figure 34).



Fig. 34. Application of the find edges effect.

The Levels effect is added to the footage to eliminate the grays and extraneous lines in the footage (Figure 35). The Levels effect, useful for basic image quality adjustment, remaps the range of input color levels onto a new range of output color levels, and changes the gamma correction curve at the same time.



Fig. 35. Application of the levels effect.

At this point, the lines are not defined properly and the extraneous color needs to be removed. To achieve this effect, the Hue/Saturation filter is applied to completely desaturate the footage such that all the color is removed (Figure 36). To soften the footage and give the lines a greater presence, the Gaussian Blur filter is added to the footage layer in After Effects. This addresses how the filtration process is used to attain the results stated in the Working Method. Figure 37 shows all of the parameter inputs of all the applied filters.



Fig. 36. Application of the hue/saturation effect.

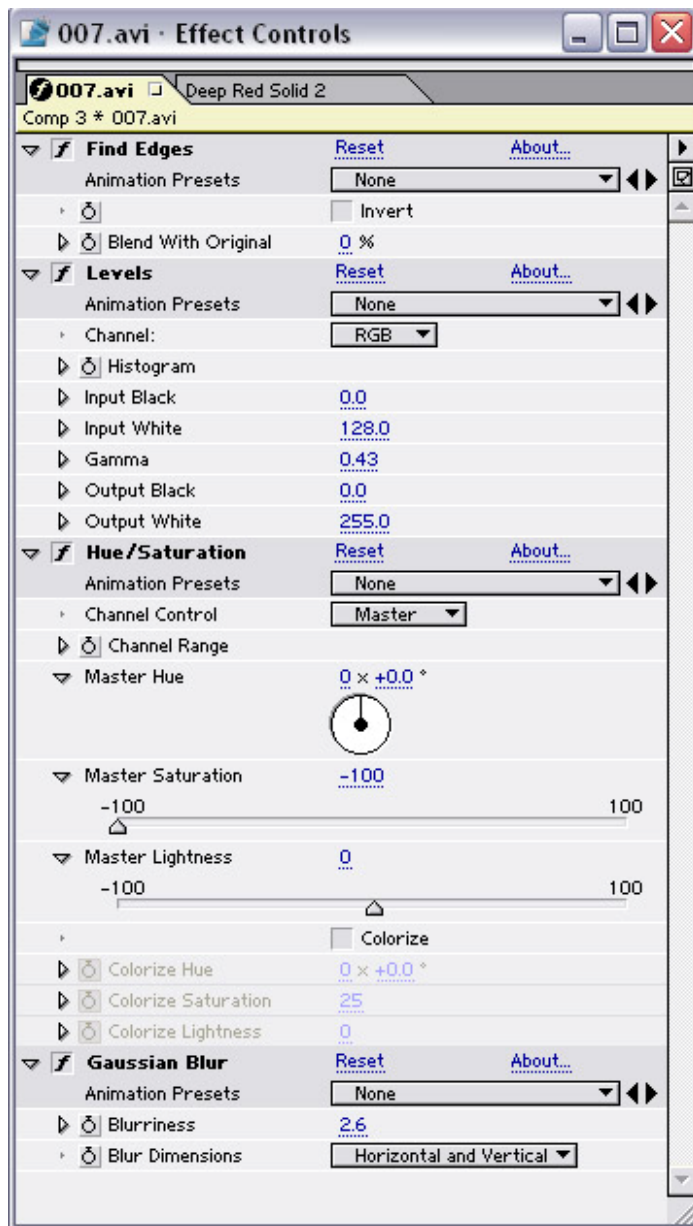


Fig. 37. Parameter inputs of all the applied filters in Adobe After Effects.

3.2 Coloration

After the black and white transformation, a simple color palette is brought in to the foreground. In order to follow Vegh's movement throughout the piece, a Bezier mask is drawn over Vegh's profile (Figure 38). Every five frames, the vertices of the mask are tweaked such that the mask follows Vegh in the frame. A solid yellow layer is then applied over the mask to color-in Vegh's silhouette. The same technique is applied to paint Vegh's tank-top, as seen in Figure 39.

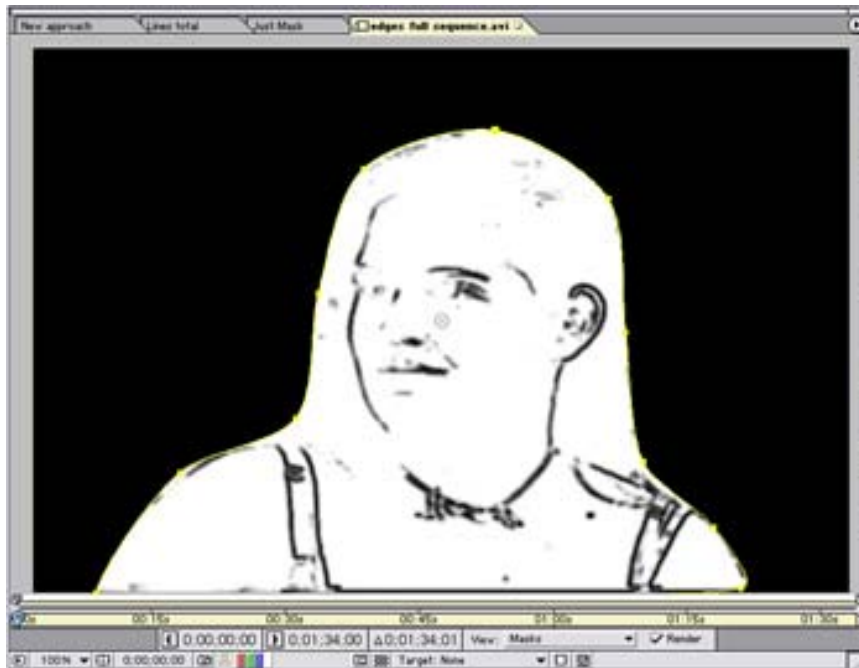


Fig. 38. Bezier mask over Vegh.



Fig. 39. Color added over masks.

A duplicate of the black and white layer, set on Multiply blending mode, is added at the top of the layer stack so that the background appears over the color layer but the color still stays (Figure 40).



Fig. 40. A layer set on multiply blending mode is added to show the background.

3.3 Other Elements

Throughout the piece, different density lines are added in the background. Some of the lines are drawn in Adobe Photoshop with a Wacom tablet and imported into After Effects, while others are drawn directly on the footage by using the Vector Paint effect. Using the Vector Paint effect, the artist is able to control the timing of each line and uses the Wiggling function to generate random movement within the edges of the line. At the beginning of the piece, a semi-transparent skyline of New York City tracks across the width of the frame in the background. Using track mattes and alpha channels, the skyline acts as a boundary for the lines. The result is displayed in Figure 41.



Fig. 41. The lines and skyline are added.

At certain points throughout the piece, different blending techniques are added to visually represent the distress in Vegh's voice. For example, to achieve the look of Figure 42, the blending mode is changed to Pin Light. Every time "Are you okay?" appears in the monologue, the Invert effect is used to switch the blacks and whites on Vegh throughout the piece (Figure 43).



Fig. 42. Effect achieved by the pin light blending mode.



Fig. 43. Effect achieved through the invert effect.

Lastly, arbitrary spots follow the movement of the background. This is accomplished by using the Motion Tracking feature. Motion tracking lets one combine elements filmed separately or animate still images so that they appear to have been shot together. By choosing a point in the background, Motion Tracking will record its position as it moves through the footage. It can then use the recorded values to move added objects to blend seamlessly with the footage (Figure 44).



Fig. 44. Motion tracked spots circled in red.

CHAPTER IV

CONCLUSION

In the 1950s and 1960s, the Abstract Expressionists pushed a radical style of painting. Today, this thesis work is using a similar motivation to express a response to a historical calamity through drawing and time-based media. While many modes of expression have surfaced to convey the September 11th tragedy, the style of abstraction has been scanty. This work uses the simplicity of line, color, and abstract imagery to reveal the rawest of emotions in a greater context. Through the use of abstraction, this artist wishes to portray a universal perspective of the human connection.

1. Analysis of Results

The monologue begins by mentioning New York in all its splendor as “beautiful” and “gleaming.” Immediately words such as “wounded city” are used to describe New York City’s state after September 11, 2001. The first few lines establish the temperament of the rest of the monologue: “New York. My beautiful, gleaming, wounded city. Are you okay?” The references to New York start in a general and impersonal manner and its progression develops to the innermost personal and individual level. To support the succession of the words, the artist uses the New York City skyline in the background for the first eighteen seconds to establish the scene. The faded skyline gently moves through the scene with the utmost subtlety while still maintaining the viewer’s attention on the actress.

The lines that appear throughout the piece represent, in a literal sense, the falling of the steel beams and columns, descending through the air like “gargantuan spears” crushing everything in sight [Langewiesche 2002]. In a greater sense, the lines represent the collapse of the underlying structure that not only held up New York City but society in general. This is the desecration of a structure that supports the decency of the human race, that which is common in all individuals throughout the world.

As the piece begins, the lines are contained within the New York skyline for the first few seconds to lay more emphasis on the skyline rather than the lines. The foreshadowing of the “wounded city” materializes with a few lines starting to break out of the skyline. As the piece advances, more lines cover the screen: some are short, some are long, some are fat, some are thin, and some tremble in place. The more lines cover the screen, the more prominent they become; and slowly the viewer attention’s diverges from the actress to the lines.

The collapse of the structure is also on the individual level: first the individual, then the individual’s family, then friends, then strangers. At each degree, the question is asked: “Are you okay?” The importance of this question is visually represented by inverting the colors on the actress (Figure 43). After every “Are you okay?” the emotional climax builds not only in the actress’s facial expressions but also through the visual imagery of line and color.

This piece is divided into three planes: the foreground, occupied by the actress; the middle-ground, taken up by the lines; and the background, defined by the arbitrary shapes and the unsteady camera movement of the background. Near the end of the piece, the foreground and middle-ground begin to coincide. The intertwining of the two grounds symbolizes the engulfment of the human spirit caused by the destruction of September 11, 2001. This intertwining foreshadows the true aftermath of September 11, 2001 and the end of this piece: the foreground (the actress) becomes the background and slowly cannot be seen due to the primary coverage of the blackness.

“Is anyone okay?” is the last line said by the actress as she fades away in the background. At this point, the context of this monologue goes beyond September 11, 2001. It is about all individuals in any part of the world where humanity is consumed by overwhelming loss. As societies grieve, the stark consequences of misery and destruction take hold. The ending image of black shapes and lines represents this dreary state of the world.

2. Integration

In order to emphasize the emotional temperament of this piece, this artist simplified and flattened out the color on the actress. In many of Motherwell and Kline's paintings, the use of color is limited to primary colors (Figures 45-48). The overall minimalist color used to define the actress is influenced by the works of Robert Motherwell and Franz Kline.



Fig. 45. Robert Motherwell *Untitled (Red)* (1972) [Caws 1996].

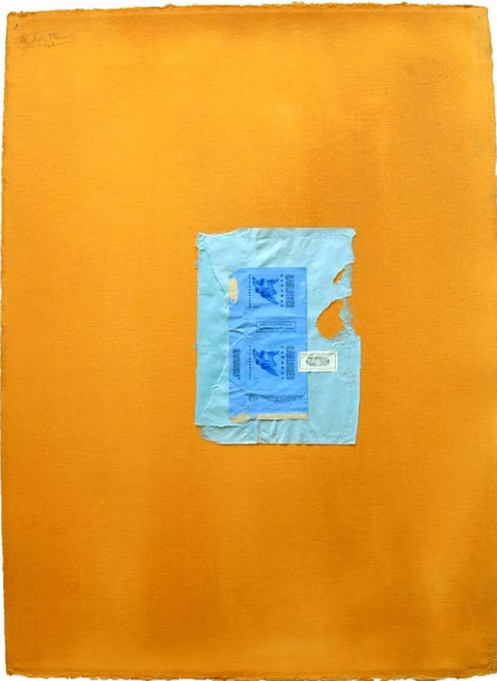


Fig. 46. Robert Motherwell *In Yellow Ochre with Two Blues* (1968) [Caws 1996].



Fig. 47. Franz Kline *Red Painting* (1961) [Goldwater 1967].



Fig. 48. Franz Kline *Zinc Yellow* (1959) [Goldwater 1967].

The prominence of black and white has also been inspired by the works of Motherwell and Kline. When one looks at Motherwell or Kline's primarily black and white paintings (Figures 17-20), one cannot help but be moved by the piece even while unaware of the motivation behind the of the work. This technique has thoroughly captivated this artist. The universal symbol of black and white representing death and life intensifies this piece's symbol for human loss, physical or emotional. Similar to the works of Motherwell and Kline, the simplification of the color adds depth and dimension, enhancing the emotional content of this piece.

Motherwell and Kline took the element of line from the drawing world and brought it into the painting world. Their use of line explored a "deeper sense of reality and generated the most deeply personal inner experiences" [Messinger 1992]. Using such powerful works as a foundation, this artist chooses to use the element of line to

visually express the effects of September 11, 2001 on the emotional level. As expressed in the “Analysis of Results” section, the line is able to represent the collapse of the overall structure not only at the societal level but also at the individual level.

The motivations of Motherwell, Kline, and this thesis project are also similar. Distraught by the Spanish Civil War, Motherwell develops *The Elegy to the Spanish Republic* series. Unable to cope with the “box-like world of contemporary life,” Kline uses large canvases to express his feelings. [Boime 1977]. This thesis project also expresses the emotional implications of a historical calamity and its affect on contemporary life. It has been a personal quest of this artist to find the plane where history and abstract art meet, mingle, and collaborate. This artist’s motivation lies in the simple and figurative representation of abstract art which can have a profound effect on understanding the emotional implications on the human mind from the attacks on the World Trade Center.

Motherwell and Kline used their paintings not only to conceptualize their feelings but also to reach the public. Because of the Motherwell’s *Elegy* series, art enthusiasts have attempted to understand the Spanish Civil War. Because of Kline’s motivations for his paintings, people have before and will in the future aspire to understand life after World War II. Students, tourists, and art enthusiasts throughout the world have attempted to learn and care about the Spanish Civil War to better understand Pablo Picasso’s *Guernica* (Figure 49). Such is the power when art interacts with history. Following in this grand tradition, this artist hopes to have an effect on the viewers of this

thesis work, not only those who lost a friend or family member in the towers but on every responsible citizen.



Fig. 49. Pablo Picasso *Guernica* (1937) [Rawson 1987].

3. Future Work

Pushing the amount of abstraction to a greater height is a possibility for future work. Rather than keeping the subject (the actress) as a representational icon, how can one abstract her while keeping her emotional state? Could the actress simply be represented as a motif? One approach would be to use the motif as a symbol of the actress's multi-dimensional thought process. Another approach would be to only use color to define the actress. Researching other modern art movements such as Cubism and Fauvism would give one a better idea of how to further enhance the level of abstraction. Other suggestions for future work include additional testing to see how lighting affects the quality of line. Will decreasing the amount of light on the subject filter out additional detail such that a minimalist line defines the subject? How far can the minimalism be pushed? The realm of abstraction holds many unexplored options for experimentation.

This thesis concentrated on the attacks of the World Trade Center in New York City on September 11, 2001. Using other historical calamities as a foundation, how can one portray the symbolism of that event abstractly? The Persian-Gulf War, for example, would have different visual elements than the Vietnam War. These avenues have the potential for enhancing the emotional and dramatic feel of one's understanding of these events.

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