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# Type in Motion

Motion of Typography and Its Effectiveness in Communication

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## INTRODUCTION

Type is everywhere ... but how can designers improve its ability to communicate while keeping up with the demand of our visually dependent society? Type in motion is the key. Type becomes a more effective communication tool when motion is applied. Motion adds a dimension of modernity to the formerly rigid written word; it gives the word a personality and sets the tone for the design. Our society has grown to appreciate fast moving, sound deafening imagery. The basic idea is to give the public what it wants.

Type affects the personality and feeling of the design, which sets the tone of any media presentation. For comparison, an introduction to the *Martha Stewart Living* television program is very refined and traditional in style whereas the introduction to *Bill Nye the Science Guy* is loud, obnoxious and dominating. The type has been selected for both programs based on their audiences. To be more specific, type has personality and each font its own character. Goudy evokes a traditional feeling of stateliness and quiet elegance; Futura is very sharp and acerbic in its demeanor; Bodoni and Poster Bodoni are domineering and demanding.

When all the contents are stripped from type, it becomes imagery. Dealing with type in motion, I began to look at the different factors that affect type; what types of motion are possible and their interaction with sound and environment.

## INTEREST OF TYPE IN MOTION

My interest in type animation began to grow when the introduction to the news program, Dateline – NBC, developed a titling of their name moving at different angles, spinning around an invisible sphere demonstrating their ability to cover news around the world. In short, the basic news program's title caught the attention of all people, not just news hounds, through the use of type in motion. That small introduction to moving type intrigued me with the typical question of "how'd they do that?" Graduate school and computer animation opened up the answer to that simple question. Computer animation typically deals with objects, graphics, or images, but I wanted to experiment with type and type alone; the importance of type in communication, how it reaches its audience and what types of movement can be achieved to enhance a piece of type.

## HARDWARE/SOFTWARE

A variety of software packages were used in combination to create the design ideas that had only existed in my head or scribbled in the journal that I had started for the sake of reference when writing my thesis paper. The initial design work for the thesis project was done on a PowerMac 7200 using Director 5.0 for animating and interactive designs, Strata Studio Pro for three dimensional animations and stills, Photoshop 4.0 for image enhancements, Illustrator for two dimensional drawings, Adobe Premiere for capturing video and SoundEdit for editing the background sounds. Partway through the project, I began cross platforming my designs, but quickly ran into several design dilemmas which forced me to my 486 PC running with Windows 95, using Director 5.0, Photoshop 4.0 and CorelDraw 6.0. [Problems of cross-platforming will be discussed in detail in the following pages.]

The goal was to design type in many forms and styles of motion, existing in both two dimensional and three dimensional environments. Questions to be answered were whether all fonts would survive the same motion, and would sound affect the style of the font and its motion. In the initial stage of design, I considered exploring the different environments that type in motion would be an effective communication tool through the animation of several poems of varying emotional levels. Other initial ideas were the contrasting of the colorful and playful type of a nursery rhyme to the grand and flowing verse of a Psalm; and animating a recipe and whether it would be effective and functional or just entertaining.

I began by considering different situations in which type could be in motion and still be effective in its communicating. "Pressure" was the first project and eventually became the pivotal point of the entire thesis presentation. Two months of tedious work and design went into animating type to the song "Pressure" by Billy Joel<sup>1</sup> using Director on a PowerMac. One sequence of design would be used to describe one sentence of the song. Each sequence worked perfectly alone, but once the sequences came together as a whole, Director could not consistently synch the soundtrack to the design. I felt it was time to turn back to the proverbial drawing board and start over. After encouragement from professors Ver Hague and Ciolek, I chose to try and fix the problems. Unfortunately, one problem led to the next causing more frustration and stealing precious hours. Around this time, a PC was brought into the Mac based computer lab to encourage cross platforming. Since I am a diehard PC user, I decided to try cross platforming the "Pressure" project. Much to my dismay, cross platforming "Pressure" in its half completed state, created a situation that could only be solved by starting the project over. Several factors convinced me to abandon "Pressure" and start afresh working entirely on the PC. Still with type in motion as my focus, I started a new design direction. Rather than demonstrating different forms of type in motion through the animation of a nursery rhyme, Psalm or song, I decided to highlight the motions themselves. What developed was the 'Motion Gallery,' an interactive program that dealt solely with the idea of type in motion – how type could be transformed through simple motions.

## DEVELOPMENT OF PROJECT

### PRESSURE

The first animation was “Pressure” — a song that could be described as pulsing, throbbing and intense. The environment of “Pressure” was dark; the background, solid black. All texts were either a metallic red, metallic violet or metallic yellow to create a chilling contrast to the starkness of the design. Black and white concentric circles spinning on top of one another were added to the introduction and several flashpoints to imply an industrial or mechanical environment. As the lyrics of the song were heard the words flashed in synchronization. The song’s lyrics are sung in short phrases and then after each phrase the song is halted by the word ‘pressure’ shouted. The design started with the concentric circles spinning in and out to the beat. As each line was sung, words were animated using all different ranges of motions: sliding in from all sides, fading in, growing, shrinking, flipping, and spacing techniques which would allow one letter at a time to slide into place as the others followed. Every time the phrase ‘pressure’ was shouted, the design flashed the word ‘pressure’ in a pulsating action created by a positive and negative of the word, replacing the other for a time of four seconds.

#### lyrics to Pressure by Billy Joel

You have to learn to pace yourself

PRESSURE

You're just like everybody else

PRESSURE

You've only had to run so far

So good

But you will come to a place

Where the only thing you feel

Are loaded guns in your face

PRESSURE ©1981 Joel Songs (BMI)

An important point was explored in “Pressure” as to whether or not type could effectively communicate through its motions in an environment based solely on sound. In “Pressure” the words became images that mimicked the sound through movement. Though the project was abandoned, the design did successfully communicate the throbbing, harshness of an industrial environment through typestyles and their motions which were chosen for their intense attributes.

Having a desire to design in both two and three dimensional environments, Strata Studio Pro was used to develop the three dimensional animations. The biggest challenge was to spin type around an object which existed only in an invisible mode. The process began by creating a two dimensional word or graphic in Illustrator in black/white mode and imported as a PICT into Strata Studio Pro.

In Strata, transparency of the graphic would not work if just the transparent factor was applied. Several conditions had to exist before the graphic became a solid with a transparent background. Adjustments to the highlight, glossy, reflective, and glow factors had to be toggled before satisfactory results were made. To apply the two dimensional graphic onto a three dimensional object, the object was drawn and then given a white surface with zero reflective, zero gloss and several light sources that would cancel out all shadows in the camera's view. To best achieve results of transparency, only black text in a white environment could be used. The text was then texture-mapped onto the object. A camera was set in position for animation sequencing and adjusted to suit the desired rotation. The object was rotated in 15° increments, so that a camera shot was taken at each rotation point. These animations were saved as individual PICTs rather than Quicktime movies because in order to have perfect invisible shapes with rotating text on an implied surfaces, Photoshop was required to touch up the images. After creating several shapes – ranging from spheres, cubes, cones and organic objects – and texture mapping several different text pieces from the song 'Pressure,' the PICTs were brought into Photoshop and reversed to fit the theme of black and industrial-like. Various filters were applied to enhance the text's appearance. Neon glow, color change, lighting effects, motion blur, and gaussian blur were several of the filters commonly used to add color and distort the text quality. The motion blur filter was perfect to imply an illusion of speed on the already spinning text. The use of lighting effects filters were used to make a dark, unreadable phrase light up as a moving spotlight scanned passed.

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#### MOTION GALLERY

During the designing of 'Pressure' and the three dimensional pieces of rotating type, I had been considering several design environments in which the interactive portion of the project would exist. Discussions included creating an educational piece to teach other designers the methods of creating type in motion or an interactive informative project. Since my strength is design and not programming, I decided to keep the interaction simple but useful. Buttons were designed to move the viewer about, give details about the type animations, rewinding movies, jump to help pages, and an option to quit the program. Keeping the focus on how type moves and its effectiveness, I designed an interactive gallery,

mimicking the concept of a museum gallery which has different exhibits on display. The Motion Gallery was designed as an interactive informative piece which contains three categories: the Collections, the Visiting Artists, and the featured exhibition of 'The Spider and the Fly.' The Collections are a range of type in motion ideas. Visiting Artists is the presentation of pieces from other sources, such as television and student works. In every museum and gallery, there is always a featured exhibit that stands above the rest. My animated version of 'The Spider and the Fly' is a collection of type motions that weave a tale through sight and sound.

### THE COLLECTIONS

Morphing • the evolution of a letter conforming to the shape of another. The ABC Morph animation (fig. 1) was the first of seven motions in the Collection section; the alphabet was transformed by one letter metamorphosing into the preceding letter. CorelDraw was used entirely to create the morph sequencing. The blend function is a special effect used to create a morph by merging one letter into another through a progression of intermediate shapes. At completion, a blended object has all of the entities connected, and a 'separate' command was given to break apart the entities. Each entity was exported into Photoshop for further refinement. It is important to remember one's audience when designing and to not add distracting sidelines or monotony by showing things that they already know. Since the alphabet is such an elementary subject, I had to consider the length of animation to show without boring the audience. Bearing in mind that there are 26 characters, the animation must be quick paced. However, I needed to keep enough steps of change between one letter to the next to make the morph smooth and successful. With a few experiments of 5 or 10 steps of change, I decided the 5 step change was effective and still could run smoothly. To add a bit more action to the constant morphing motion, I added several text elements sliding and blinking throughout the animation. This animation proved to be the most successful and entertaining piece of the project.

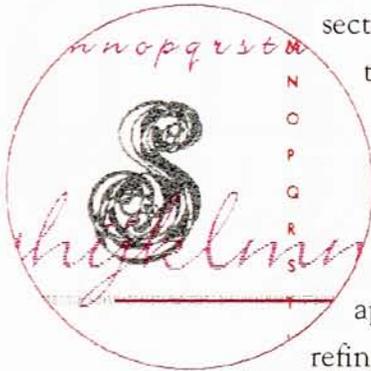


FIGURE 1

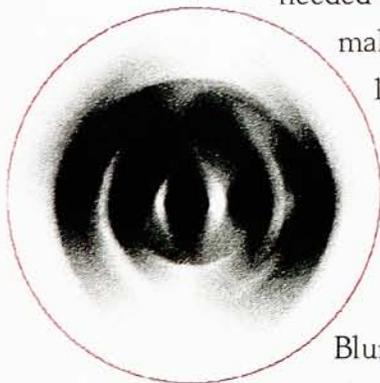


FIGURE 2

Blur • creates the illusion of movement in static objects. 'Mg,' representing the logo of Motion Gallery (fig. 2), was created in Photoshop. Radial blur was added eighteen times at 10° increments to produce a smooth blur. The

blurred images were imported into Director and sequenced to animate from a full radial blur to the actual image and then return to the radial blur. Another approach to creating blur was to apply the wind filter. Under the Stylize filter flyout is Wind; wind, blast and stagger are the control options of how hard the motion will be simulated. The direction controls are limited to moving left or right, so to make the image move up or down, first, I had to rotate the logo and then add wind. In Director, the final blur animation had the logo spinning in place, sliding from the bottom of the screen to the top, from the left to right, and blurring radially while zooming in from the back to the front.

Slide • movements can be achieved by sliding horizontally and vertically. A single piece of type sliding can be very simplistic and also very common, but by layering texts of different motion patterns – for example, a line of text moving to the right and the layer of text above moving to the left in triple speed – makes many possibilities for designing slide motions. ‘Style Magazine’ (fig. 3) was the design idea behind the motion ‘slide,’ which was created as an introduction to a simulated video magazine. Fast paced movements and dynamically layered text are descriptive of the trendy magazine concept. The background has a sans serif font cropped at all the sides, sliding slowly to the left. A white bar



FIGURE 3 slides in from the left erasing a portion of the background letters allowing the words ‘Style Magazine’ in all capital letters to spread from tight spacing to very wide spacing. Two-thirds from the top of the screen a combined sentence of a script and sans serif font move quickly across the background to the right. In the lower two-thirds of the screen a different concept is happening in comparison to the top half. While the top half is bold, sliding in different directions and varying speeds; the bottom portion is subtle with an occasional bold letter which flashes and blinks in and out of the viewer’s eye. The words ‘Style’ and ‘Magazine’ remain constant, and at every other second the letter ‘M’ flashes in reverse, then ‘A, G’ and so on overlapping the static word ‘Magazine.’ The blinking of letters spelling ‘Style’ simultaneously flashes during the same time centered at the left edge and blends the designs of the top and bottom portions. Director animates this type of slide motion by in-betweening the start and stop cast members. The success of the design lies in the stimulating concept of an asymmetrical balance between extreme font sizes and a combination of sans serif and a trendy script.

Tumble • a movement of falling and dropping uncontrollably. The animation was simple in concept (fig. 4); a horizontal rule slid from the right edge of the screen, and the tumble motion began to unfold. Letters

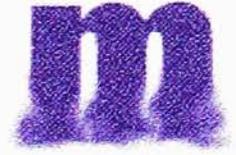


FIGURE 4a

spelling the word 'motion' were the characters of the

animation. 'M' dropped from the top and its legs crumpled when it hit the baseline (fig. 4a), and then rebounded up into place. The 'O' slid in from

the right along the baseline, but misjudged his position and bumped into the 'M' making a small crash, he then uprighting himself, and found his position. Lying flat along the line, the 'T' sat up straight (fig.

4b); 'I' came shooting in head first (fig. 4c) from the



FIGURE 4b

FIGURE 4

right crashing into the 'T,' crumpled and swung 90°

straightening itself to its proper position. The second 'O' made his entry similar to the 'M' by dropping from the top and bouncing down onto the line and then back up a few

spaces to its position. 'N' "grew" into his place on the line (fig. 4d). Spelling 'motion' all letters were static and in position slightly above the line for several seconds. The horizontal rule slowly retracted, forcing each letter to fall as their footing on the line disappeared. Each tumbled in their own artistic style into the

depths of the bottom edge; the 'M, O' fall at an angle, 'T' heroically took a plunge, 'I' fell and flipped backwards, 'O' somersaulted and

'N' dropped casually out of view. To create the images used for the tumble motions, each letter was duplicated and then individually distorted, twisted, smudged, rotated and/or erased



FIGURE 4c

in Photoshop depending on the letter's acrobatic feat. Slight changes to each letter made the sequence of the tumble animation more accurate. Most of the letters needed 5 to 8 steps of change to complete the animation sequence. To

finish the animation, a constant background motion was developed to maintain steady movement throughout the piece. A blurred, oversized script lettering of the word "type" was rotated; starting larger than the screen and shrinking as it

rotated. Final presentation of the tumble

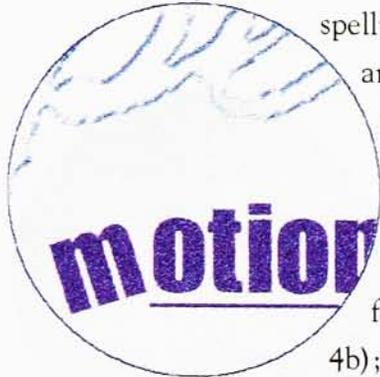
animation was completed by in-betweening

and tweaking cast members of all the indi-

vidual letters in Director.



FIGURE 4d



The following motions were spins; all similar in their axis and spinning cycles, but each design lead to new ideas and discoveries.

Spin One • (fig. 5) Originally designed for the project “Pressure,” was initially created in Illustrator as a two dimensional graphic which was text texture-mapped using Strata Studio Pro in multiples of two onto a cone shaped object. By placing the graphic on an object twice, the image appears to be spinning faster because the viewer sees it twice for every spin. The animation was very simple, spinning 360° with the ‘x’ axis at 90°. The camera took image shots at every 15° and the PICTs were imported into Photoshop for enhancement. In Photoshop, all images were reversed to white letters on a black background and then duplicated. One animation sequence was passed through a motion blur filter and the other left alone to create the illusion of varying speed. Director animated the images by combining the two animation sequences (motion blurred and the original) together. Additionally, the motion blurred cone spin was lowered by a ¼ inch to imply a layering effect. By reversing the direction of one sequence, two opposing spin directions were created.



FIGURE 5

Spin Two • (fig. 6) Until this example all the other objects had been opaque; showing only the type graphic as it came into view and when it went about its invisible axis. ‘Spin Two’ was the only example in which the object was invisible so that the type could be seen from the front and back as it spun. The initial process of bringing a 2D graphic into Strata was the same; the only difference was the toggling the invisible factor to 100% when it was applied to the 3D object. The effect was very unique revealing both sides of the rotating text. To increase the implied three dimensionality of the letters, a plastic wrap filter was applied in Photoshop.

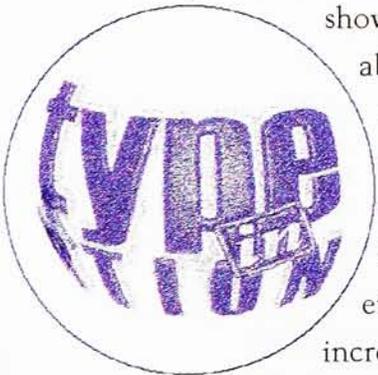


FIGURE 6

Spin Three • (fig. 7) This piece is an example of two dimensional spinning created in CorelDraw. The spinning motion was very effective and was used many times throughout the piece, ‘The Spider and the Fly.’ By using the fit text to path feature, text was moved to fit to a circular path. A second text circle was created using the same center point, but having a one inch diameter.

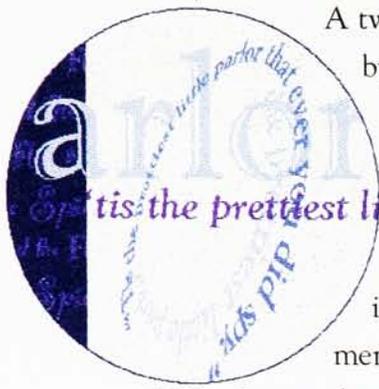


FIGURE 7

A two point perspective was added to the text group of approximate 30° by lowering the top left corner. The text circles were rotated in 15° increments and exported after each rotation as a PICT for the animation sequence. A full cycle was completed and assembled in Director using 24 cast members to create a smooth rotation. Another line of type was also fitted to a circular path and exported into Director. Repetition of the text circle created a 'growing' movement from small to large and also implied a depth which moved closer as the text became larger.

### VISITING ARTISTS

The second category selection in the Motion Gallery was the Visiting Artists section where I researched other designers' works of type in motion to see the current ideas and trends. They also demonstrate how type in motion can be an effective communication tool to modernize introductions and advertising approaches to better capture the attention of the viewing public. A very popular area for type animation is television; much of my research included watching commercials and introductions for television programs. The new trend in type animation utilizes nervous twitching or flashing movements to coddle today's fast talking, pleasure seeking, short attention span society. The first Visiting Artist, *Extra*<sup>2</sup> (fig. 8), is an excellent example of the trendy type in motion. It uses repeating imagery, swinging text, blurred and pulsating images of type to intensify the program's powerful introductions and transitions to stories. The sell-point on their type design is that it is full of action and movement from all directions. Another interesting feature of this design is not that just words and phrases are used, but full columns of text are slid, flashed and spun to add another design element into the concept. Readability is not an issue, rather the intent is for the viewer to concentrate only on the program's titling, 'Extra,' or portions of the name [i.e. 'ex' and 'tra'] which alternately flashes approximately 16 times in the introduction alone. The added columns and other texts create a constantly moving background environment.

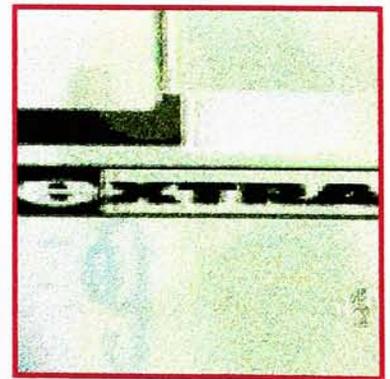


FIGURE 8

Todd Neale<sup>3</sup>, a Motion Graphics Designer who designed an animated business card (fig. 9) for himself, was my next example in the Visiting Artist section. The animation begins with a close-up camera view on the number nine, then moves to an eight and so on in the manner of a clock hand sweeping across its face. However, once the number two is reached the camera view moves up an inch and reverses its direction, slowly panning out to show more of the surrounding area. The clock-like path turns out to be the outer curve of a lowercase 'e' which is the last letter of his last name. The camera pans to the left and continues to move away from the graphic which reads 'Todd Neale.' The words 'motion graphics designer' slide in from the left with wind lines patterning sweeping to the right. The cleverness of this animation is seeing the unexpected.

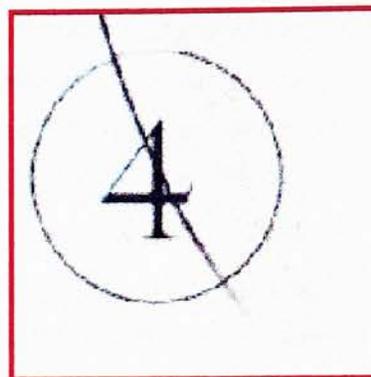


FIGURE 9

Pontiac Performers "Race to the Red Line"<sup>4</sup> television advertisement (fig. 10) was my favorite example of type in motion. Dynamically executed, three dimensional type races onto the screen, looping back along an invisible curve. Graphically, the background is an odometer of a car. The advertisement begins with the camera following the needle around the arc of the odometer and the words 'Race to the Red Line' rapidly sweep across and then swoop back creating a fascinating curve of movement.



FIGURE 10

To show only cutting edge examples of type animation would be deceptive and incomplete. This example of a promotional advertisement (fig. 11) for News 10-NBC<sup>5</sup>, a local Rochester television station is very basic in design. The advertisement gives another idea of type in motion which is being used in media; the words 'live, local, and up to the minute' use layering and blending. Some designers may consider this work to be a very simplistic



FIGURE 11

morph. Words are layered atop one another to create blends and transitions for the next phrase to show up from behind. There are several interesting transitions where letters blend out from the previous letters. Overall, not a strong example in comparison to the other Visiting Artists, but does show different ideas of how type can move.

The ending clip of the NBC Nightly News<sup>6</sup>, (fig. 12) uses perspective zoom and layering motions to animate its closing titling. There is much action to the few seconds of this clip; beginning with the title coming from the bottom of the screen at an angle, then letters flashing from large to small. The final shot of the words 'NBC Nightly News' begin to scatter – moving about from foreground to background and reducing their sizes while finding their places; the layering and blending of this last shot is very successful and very dignified which is also descriptive of the viewing audience for this program.



FIGURE 12

For a final example of Visiting Artists, I wanted to show more than just professional ideas and I asked a fellow graduate student who had been adding animated type as introductions to her cartoon animations if I might be able to use a sample of her work in my research of type animations. Somporn Kraiwatnussorn<sup>7</sup> designed an animated clothespin named 'GoldenEye,' in which the title was in motion (fig. 13). The animation created with Strata Studio Pro begins with a black background with thick vertical gold lines, one by one the gold line rotates 90° and reveals itself to be a letter, spelling out 'GoldenEye.' In the final seconds, the word shatters like glass, throwing shards in all directions.



FIGURE 13

[All animation pieces which were taken from the television were recorded using a VCR and then digitized into the computer by using Premiere.]

The final and feature exhibit in the Motion Gallery was ‘The Spider and the Fly;’ an animated nursery rhyme made of a compilation of many different motions. I have a future interest of animating type for interactive children’s literature and this project became one of many stepping stones to that goal. A nursery rhyme is a whimsical ditty, intended to entertain and enlighten. Right from the start I designed this piece with the intentions that it was not to be read word for word; only key words and phrases would be highlighted. Repetition became a very important concept – the process of repeating key words made greater impact than accurately reciting a verse of the poem. One important note is that when animating type, if the intent is not to be read word for word, a voice-over is essential. [In ‘The Spider and the Fly’ there were two character voices which spoke their parts in a conversational tone.]

The story line behind the rhyme is of a cunning Spider inviting the Fly for a visit, For the design, I choose a dark environment for the spider’s web



FIGURE 14

because of his conscious effort to be deceptive. (fig. 14) As the spider charms a friendship from the fly, the environment becomes colorful and bright. In the end the animation returns to the dark design. In essence, “The Spider and the Fly” is a piece where the actions of the type mimic the content.

The animation begins with the spider climbing down his web and then spinning a line towards the bottom of the screen. As he reaches the bottom, the title of the rhyme “grows” from the bottom of the screen. To create a ‘growing’ motion, duplicate the word, then partially erase a rough edge along the top of the letters of the duplicated word. Duplicate again, and continue the process, erasing only a small portion at a time. Import the images into Director making the first step of the sequence the smallest portion of the image and in the last step, the word in its complete form.

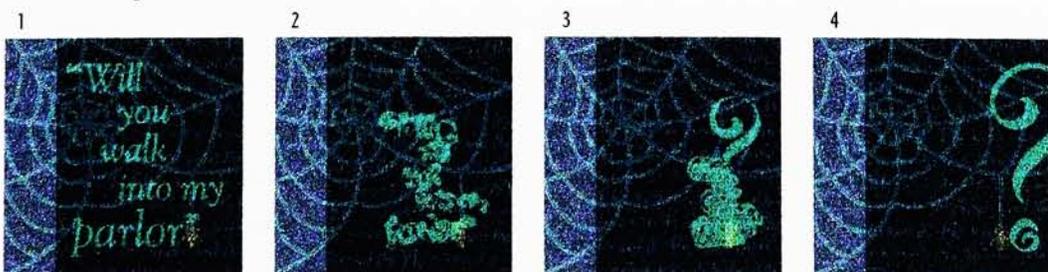


FIGURE 15

Using a blend function in CorelDraw I morphed the line, “Will you walk into my parlor” into a question mark in 22 steps. (fig. 15) The background was split into two sections of paragraph type moving vertically in opposite directions.

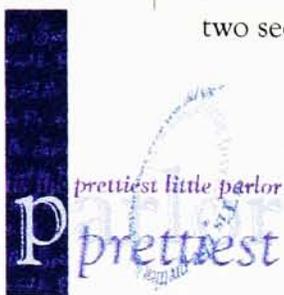


FIGURE 16

“tis the prettiest little parlor you ever did spy” – The transition begins from the dark foreboding of the spider’s nature to his deceptive voice, luring the fly to come and visit him. The colors are inviting and soft, and the motions were sliding phrases and spinning circles of type (fig. 16).

An interesting motion that I explored was whether text could wind around a loop or corkscrew pattern. (fig. 17) The result was for “up a winding stair” which mimics the content of the phrase exactly. In CorelDraw, a line which looped like a corkscrew became the text’s path. Using the fit text to path function, the line of text gracefully curved around the path. 20 images were created with ½ inch changes to the type’s starting position on the text path. Repetition of the key phrase “up a winding stair” was used in an upwards sliding motion in the background.



FIGURE 17

Sliding from all sides of the screen and merging to form a sentence describes the sequence for “many curious things to show you.” The word ‘curious’ is textured with a web pattern and moved from larger than the screen in the foreground to a small piece of type in the background.

The Fly responds “oh, no, no” in large words while the background colors boldly flash, reaffirming the fact that she is frightened and realizes the Spider wants to cause her harm. The flashing consists of color changing from fuchsia to white and in the sequence of one word at a time, “Oh” – “no” – “no.”

The Fly is very disgusted with the Spider’s distasteful request and her answer “to ask me is in vain” (fig. 18) is very bright and vivid. The action is circular text paths which come from background to foreground, small to



FIGURE 18

large indicating the disgust. 'Vain' is a vivid fuchsia which slowly slides from the right side of the screen. The typestyle for the Fly's response is very flowery and scrolling, chosen for her uptight proper behavior.

Another corkscrew motion was used for "can ne'er go down again" which winds downward, along with a vertical slide of repeating text. The Spider replies, "Dear Friend, what can I do," blinking one word – at a time – onto the screen making the viewer complete the idea. There is also a repeating line of text sliding down the right side at a 90° angle.

"to prove the warm affection I have for you" (fig. 19) slides about the screen in a variety of angles. The subtly moving shadows beneath the words 'warm affection,' reveals that the light source moved from top corner to the adjacent bottom corner.

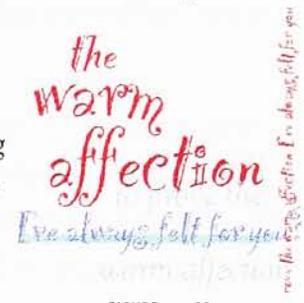


FIGURE 19

Fly finished her response with a polite "and bidding you a good morning" which is displayed as a gentle curving line in which the type was fit to a path in CorelDraw. A repeating phrase runs along an invisible funnel shaped path, similar to the corkscrew path.

"I'll call another day" (fig. 20) – The motion of this phrase was created by adding color blocks for emphasis. A block of similar hue backed the word making the words seemingly 'pop' up into place when spoken.



FIGURE 20

This following sequence had many motions to portray the idea behind the content of – "he wove a subtle web in a corner sly, then set his table ready" (fig. 21) – the idea of subtle was introduced into the storyline, so the background mimicked that concept. A large sized word 'web' having web lines drawn through letters

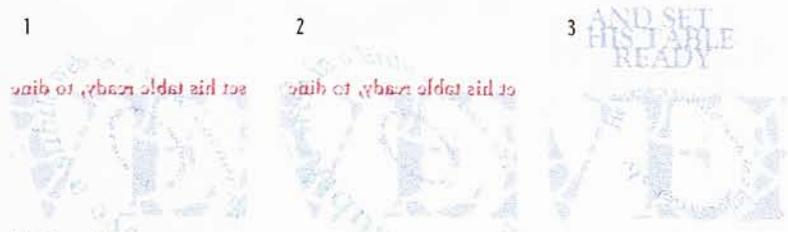


FIGURE 21

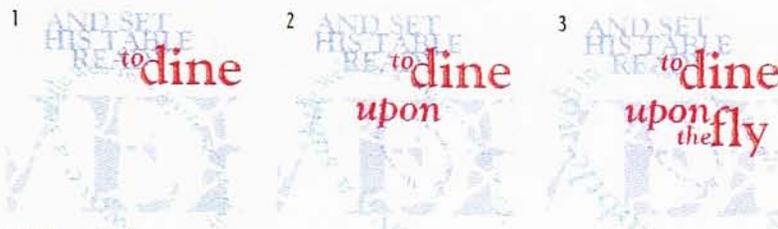


FIGURE 22

slowly crept to the left. All the while another phrase in small letters was sliding backwards across the top of the word 'web' in the opposite direction. A

circle of text set in perspective was rotating and multiplying – sending out circles which grew larger. To complete the thought, the sequence finished with the words “to dine upon the fly” (fig. 22) in a bold red, presenting themselves one at a time until the sentence was complete.

Spinning was the motion which fascinated me most because of the many different possibilities it contained. One of those was to create a circle in perspective, then add the text afterwards, all in the idea that the text would not be affected by the angle of perspective. “he came out to his door” (fig. 23) helped to show the unlimited potential of text spins.

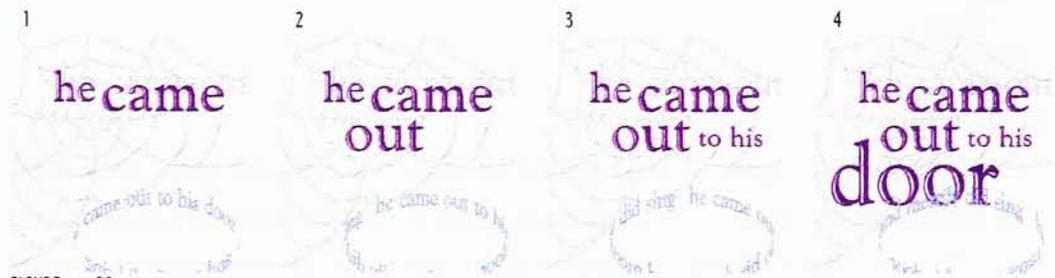


FIGURE 23

The effect used on “Come hither, hither pretty fly” (fig. 24) was a blend which rotated 360° in a sequence of 20 steps, when the images were imported into Director and placed; I added the ‘trail’ mode for that sequence in order that the cast members would be layered upon each other without being erased once their channel had been played. [The export channel option does not allow a screen shot to preserve a view of the trailing effect – so figure 24 only shows the movement pattern of the image.]

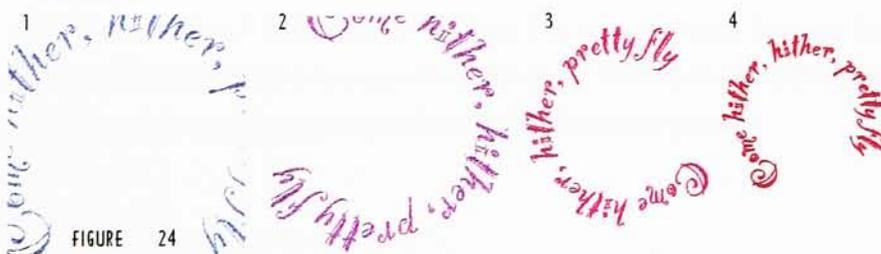


FIGURE 24



FIGURE 25

I had seen commercials use a motion where large letters flashed in the foreground and flashed again small to the size of the phrase. Wanting to try the motion myself, “the silly little fly” (fig. 25) was the phrase which I experimented with the technique of shrinking. Each letter was flashed large and then blinked to small until all the letters were in place.

A tiling filter in Photoshop made “hearing his wily and flattering words” (fig. 26) very interesting, created a movement which I labelled ‘reconstruction.’ The words were imported into Photoshop where the tiling filter was added in increments of 10%.



FIGURE 26

The word ‘jump’ specifies a motion, so I designed accordingly. In Photoshop, I smudged and distorted the word ‘jump’ several times to make the animation to leap up complementing the phrase – “up jumped the cunning spider” (fig. 27).

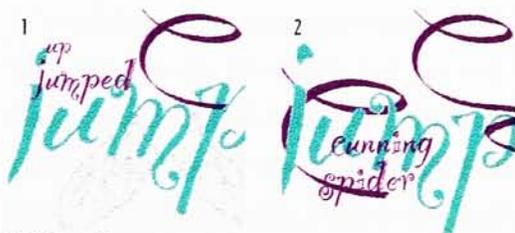


FIGURE 27

Once the Spider jumped, it was curtains for the Fly, so the colors of deception began to fade and return to the blackness of the Spider’s deadliness. The sequence of “and fiercely held her fast” reintroduced the dark environment of

the Spider’s web which then concluded the rhyme with a short warning message of “Dear Children.” ‘The Spider and the Fly’ was a proper feature exhibit piece for the Motion Gallery because it covered all the motions discussed and explored other motions not demonstrated in the Collections section.

## EVALUATION OF THESIS PROJECT

In the introduction, I stated that 'When all the contents are stripped from type, it becomes imagery.' The words I animated became images moving about, they no longer held their original meaning; instead the images blended with and enhanced their environment. Factors that affect type animations are the audience, the environment and the level of communication to be achieved. The viewer became the audience and was in the role of controller to move about the interactiveness of the Motion Gallery. The design was simple and therefore the interaction was not complicated. How the type animations affect the audience is where the issue exists. Hoping to avoid the typical wordy pieces which tend to become dull and uninteresting, it was important to keep the animations short but clever in their sights and sounds. Environment also plays a large role in making a piece successful. If the background is not given the attention that the foreground received, it will show weak points quickly. Often it is the subtleties of the background that make the most powerful statements in design. I consider sound to be equal to a background. They both enhance a piece and add a different dimension to the foreground events. In type animation, the ability to communicate clearly is still the most important aspect. Within the scope that I designed, the goal of effective communication was achieved.

It is said that you are your worst critic. With that in mind, I consider the work presented in my thesis project not my finest example, but the experimentation was important and will be essential for future work. Programming of the interactive design was intimidating and therefore I based my design around basic button controls. That is the point where I am most disappointed. Because of my lack of confidence in programming, I let that interfere with my design idea and spent time getting the interactive buttons working before the designing. Beyond the programming, the piece is solid in concept, and does not give false impressions of what it is not. It was designed to inform and encourage the viewer to look at type differently; the setting of a gallery was an excellent choice of surroundings.

Another strength is the uniqueness of the motions. It was not enough to present motions that were common to type animation. Rather it was more important to introduce motions that are not likely to be found when reading is

the primary function. When the intent is meant to entertain, the opportunities are not limitless.

Looking from the standpoint of a designer working on one large project for months; this experience developed new characteristics in my designing of multimedia projects. An important lesson is to consider all points of the project right from the beginning, and to have a definite concept for the final piece. My project had too many loose ends when I began designing. My hindsight would be to be more organized from start to finish and thorough in taking progress notes. Another important point is to stay focused on the design and not to let distractions inhibit ideas. Several times I became side-tracked on tangents that I thought were interesting ideas, but in the end, I had just wasted valuable time. Switching computer platforms midway through the entire project was not a wise choice. Rather, I should have researched information on cross-platforming and been more familiar with the differences of the two platforms rather than to experiment with my thesis project.

One important point I want to make is that our professors encouraged notetaking of our works in progress, and to journal daily on the work accomplished and any problems encountered. It was a wise decision to follow their advice. The writing of the thesis paper is tedious, but having project notes from the initial stage of development made the writing more manageable. My notes were nothing but scribbles of ideas, problems, and procedures of some of the effects created but I was able to use all my notes and put into words how I came to develop and design my project and my reasoning behind the ideas.

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#### PRESSURE, ITS BITTER SWEET END

To permit closure on the subject of the first project, "Pressure," I will discuss its failure to be accepted into the final project. As the file grew larger, Director could not consistently run the animation [properly synching the sound and the type animations]. To solve this problem, I made Quicktime movies of each phrase of the song and created another Director file into which I imported all the Quicktimes. However, if one Quicktime movie was off by two seconds, it would ruin the rest of the movies, making the piece more bothersome and not worth the time to correct the problems. As a last resort, the Quicktime movies and sound were imported into Premiere, where I reassembled the piece into

working condition. A movie was rendered using animation compression and when finished it would occasionally skip portions of the movie. Continuing on this long road of frustration, I decided before continuing the development of "Pressure" to cross platform the movie to verify that it would run smoothly. An important discovery was made during the process of cross-platforming; that color palettes vary greatly from each platform. The piece was designed to be dark, the background was black and the letters were metallic colors; however, on the PC all the colors on the screen changed to black. At that point, I realized that it would take more time to correct the colors than to start from scratch. The change of color on the Windows platform finalized the decision to discard the work of "Pressure."

#### CONSEQUENCES OF CROSS PLATFORMING

As mentioned previously, in the middle of Spring quarter a Windows platformed computer was introduced into the entirely PowerMac computer lab. Owning my own PC and having a stronger sense of familiarity with Windows, I decided to cross platform my thesis project. Cross-platforming was simple in theory, but I quickly learned there were several important concepts to be aware of before linking the two computer environments. Technology has made great strides in industry by having the ability to straddle the two platforms; allowing identical information to run on both machines. There are several important points that designers should consider before beginning a design that is intended to function on both computer platforms. I believe it is a very important to have the ability to cross-platform; however, it does have its pros and cons. Points that I have found important were color, speed, Quicktime movies for Director, and filename extensions.

#### COLOR

The color palettes between Mac and PC are not identical. A palette transferred from the Mac platforms will darken when opening on the PC. Color schemes should be decided before the initial design stages, verifying that the palette chosen will visually satisfy the design requirements for both systems.

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## SPEED

A Mac created animation in Director will run smoothly; depending on the file size a Mac created Director animation may or may not run smoothly on a PC. In short, the Mac runs graphics more effectively than the PC.

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## QUICKTIME MOVIES

A big disappointment in Director for Windows came when I discovered that I could not create Quicktime animations with sound. Searching in the Director TechNotes at the Macromedia website, I found the answer. The notes simply said, “when Director for Windows was released, version 1.0 of Video for Windows didn’t support writing out movies, since there was no published Application Programmer’s Interface (API) for doing so.”<sup>9</sup> Macromedia allowed the production of Director for Windows to proceed with the exporting video with sound features disabled. Another technical note from Macromedia stated “Quicktime for Windows 2.0.3 runs under Windows 95, but does not take advantage of the new features of Windows 95.”<sup>10</sup> In effect, when Director for Windows was created, several important multimedia software tools were intentionally left out. As a user, it was frustrating because the software is designed identical to the Mac software, so the functions “look” available in the Windows software, but actually are disabled and only misrepresent the capabilities offered of the software.

The Mac has no problems with sound and video exporting as a unit, in fact, there is the ability to have two sound channels in Director for the Mac, where Director for Windows only allows one sound channel at a time to run.

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## FILE EXTENSIONS

Photoshop for the Mac saves files the same as Photoshop for PC; for sake of example, I will use .tif as the extension name. In order to open the .tif file in Windows [created on the Mac], you first must rename the file and type in the extension ‘.tif’ so that PC will recognize the file as a Windows document. An interesting point was that the .tif file actually is labelled a ‘tif’ image in the ‘type of file’ category in the ‘main’ directory, but it is the actual filename extension which allows the user access.

Only to repeat an important point when cross-platforming – before beginning verify the compatibilities of the software with the initial design concept.

## RESEARCH

As a whole, this project was a fun experience because it was something that I have wanted to learn, and it also was a reflection of my interest in typography and design. Finding articles on the subject of type in motion was near to impossible, rather I found a few articles on experimental type and the tools available for type used in the multimedia scene. The best source of type animations I found were on television. The scope of animation is huge. It is quite interesting to see how much animation is introduced to us every minute through the visual medium of television. I watched hours of commercials and television introductions, trying to discover their methods of creating motions for type. Interestingly enough, some of the best examples of type animations were found in the introductions to news/talk programs, such as *Dateline – NBC*, *Extra*, *Inside Edition*, and *Oprah*.

Another source of “unbridled” type animation is the world wide web. Software packages are making the creation of animations more simplistic so that anyone can create whatever it is they want. With those capabilities and a bit of creativity, type animations can enhance any design. However, most current web type animations are crude, in that they use ‘typical’ movements [ie. spinning, flipping]. Even still, they make waves. In a very short time, most, if not all web sites will have some sort of type animation to catch the viewer’s eye.

In regards to the fact that written articles on this subject were few, I used the resources that were available: the television and my typography class. Prof. Klinkon opened my eyes to a new way of looking at typography, which I integrated into my final project. He taught that type becomes imagery when the artist permits creativity to control. The most important point I discovered was to disregard the rules of typography [i.e. paragraphs must be indented, capital letters begin a sentence] and let the imagination create an idea. I began to develop designs that used two dimensional type which implied depth and three dimensional qualities. The concept of depth through layering, implied in a two dimensional environment, became a subtle effect I used to make my thesis project a success.

## USER RESPONSES

Before and after presenting my thesis project, I ran it past many people for their opinions and feedback. The range of users was varied and diverse; most were people who used computers frequently but several did not. Movement through the program was button driven and simple; therefore the user interaction was not complicated. Most who reviewed the piece found it entertaining. Several users found the information fascinating and kept re-running animations until they were able to comprehend the design techniques used. Overall, feedback from the audience was positive, pointing to the uniqueness of the subject and the manner in which it was presented. One professional complimented that the design was refreshing amongst the common designs of today.

## DIRECTION OF FUTURE WORK

Type in motion captivates my attention, and I will continue to experiment with how different motions can be used effectively in communicating. This thesis project has only been the starting point for my type animations. I intend to pursue some ideas that have been spinning through my brain. I would like to create a type animated cookbook on CD which would be both entertaining and functional. The possibilities are endless and with advancement in equipment and technology, I hope to see computers networked throughout homes so that a computerized cookbook would become a cook's best resource. Another area of interest that is more in demand than animated cookbooks are interactively driven children's animated story books which would be to strengthen not only a child's decision making skills but also encourage reading skills in our video game-infested society.

## CONCLUSION

The goal was to design moving type that had the ability to more effectively communicate to a viewer. The goal was met through project 'Motion Gallery.' Based on viewer feedback, the project was successful in communicating ideas of motions and also entertaining in its design. A lot of the interest from viewers came due to the uniqueness of the subject matter; other animators have kept to the idea of pictorial imagery as the focus and never considered type to be an image. I believe my project made a stand proving that type has importance in the initial design and that it can be as effective in subject as a photograph. The scope of the project was larger than what was completed, due in part to problems faced during cross-platforming and facing the reality of time. I believe I have only just begun in this idea of type in motion, for there are many more motions, I wish to develop for future works.

## NOTES

The thesis project, 'Motion Gallery' was burned onto a CD-ROM for purpose of accessibility and to fulfil the requirement of the thesis project.

*Music for Multimedia*,<sup>11</sup> a JLR Group, Inc. produced the CD from which I found the background sound selections used in 'Motion Gallery' animations which were specifically designed for multimedia presentations.

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