Terrorism/Capitalism

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Artist Statement

Matthew Visyak
Terrorism/Capitalism

   My work is a series of three hacked video games that address the stereotyped image of a Middle Eastern person as a terrorist. I chose 8-bit Nintendo games to comment on the nostalgia of days when the fear of terrorism was less prevalent. I chose three genres of games, a first person shooting game, a side scroller, and a role-playing game. This presents variety to the player. In these three games I have challenged the player's view of the Middle Eastern terrorist stereotype, an alternative view of the Iraq war, and a viewpoint of a potential terrorist.

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Introduction

My senior comprehensive project is a series of three hacked 8-bit Nintendo games that address terrorism. More succinctly they address the stereotype of the Middle Eastern person seen exclusively as a terrorist. I have created three different types of games each representing a separate genre and placed them in an arcade cabinet for presentation. The types of games are a first person shooter game called *Terror Alley*, a side scroller adventure game entitled *G W's Crazy Crusade*, and finally a role playing game named, *Legend of the Mujahiddin*.

This paper contains three distinct sections. Following this introduction I have a technique section where I discuss my hacking techniques. The second section is about the evolution of my comprehensive project, explaining the process and decision-making in chronological order. I conclude with the research on the artists and techniques I did in conjunction with the project.

In my proposal I discussed my plans for creating a single hacked video game dealing with racism and presenting this work within a full-sized arcade cabinet. This was an extension of my previous work dealing with racial stereotyping, *Stereopoly* and *Erasist Chess*. In *Erasist Chest,* I examined the interplay between racism among people. Since the game of chess is a two-player game the interaction between the players is a great forum for discussing the effects of racism. I carved several small eraser sculptures for the pieces. The pieces were carved to illustrate the various stereotypes of each race and were carved out of various colored erasers. The game board was a computer print framed in a polished oak frame with a Plexiglas covering. The computer print contained over two thousand racial slurs that were layered on top of each other. The checkerboard

pattern was created by alternating the background and foreground colors every other square.

Stereopoly (figures 1 through 3) was the next game I created dealing with racism. In this game the interplay between opposing stereotypes was addressed. I presented the audience with a mocked up monopoly board that displayed the most offensive stereotypes that I could think of. This was designed to offend views and then the title of the game caused them to examine the game for a deeper meaning. The title was a key to the other layers beneath the inherently racist game board. Once audience members engaged the game, they would discover that the deed cards told another story opposing the tone set by the game board. For example, the board would depict property in the poor Black neighborhood as drug and gang infested contrasting with the deed card, which would tell the story of a Black child who is going to college trying to make a better place for himself and his family. The community chest and chance cards were created to make neutral scenarios happen throughout the game. This alerted the audience to the possibility, that regardless of race, you can win the lottery or get robbed.

I felt that the next logical step was to extend the idea to video games. Video games are closely related to board games. They were both made to entertain the user and provide them with some form of knowledge or problem solving skill. Arcade rooms tend to take the idea of the game and place it in a more social context. I examined the games that are popular today and to my surprise most include several terrorist games that always have the good guy as the American. Then it dawned on me that what used to be just entertainment is now perhaps a vehicle for something more. Perhaps those who fund the ideas want the audience to adopt their way of reasoning, injected with personal bias.

I originally decided to create some games dealing with racism, but found myself more interested in the idea of terrorism. Ever since September 11th 2001 the media has been flooding the public with propaganda about terrorism and, in conjunction with the terrorist attacks, fear is at an all time high. Most free Internet games created after the attacks were anti Middle Eastern games that had you blowing up people in the desert. I wanted to make a hacked game dealing with a social issue but I found myself narrowing the focus to just terrorism. I felt that since others are using video games to condition people into profiling terrorism that I could use them to do the reverse.

As do most artworks, my work evolved, from the proposal to the finished state. I had originally wanted to hack just one game, replacing the graphics and text in the game to alter its meaning and story, but wound up doing three games dealing with terrorism. I narrowed my topic of racism down to stereotyped social niches. This name was derived from a conversation I had with a fellow artist, Jeremy Hoople. The part of the proposal that hasn't changed was the construction of the arcade cabinet for the presentation. I also decided to stick to the 8-bit Nintendo games because I liked the idea of presenting a form of nostalgia to the audience.

Technique

Following the lead of the contemporary digital media artist and video game hacker, Cory Archangel, I will describe the tools and processes that I used to hack video games. Hacking is defined as the process by which a person gains access to the code of a program and alters it, usually without the expressed permission of the original designer, to perform a separate task. For these games I used a program called NESticle to help me hack the graphics of the games and a standard hex editor to arrange the graphics and the game's text. The game code that was developed for the Nintendo games was originally written on computers and then transferred to the cartridges, which played in the Nintendo Entertainment System. The program code developed on the computers for these games are still available on the Internet in a form called ROMs, not to be confused with Read Only Memory, which shares the same acronym. In all occurrences of ROM throughout this paper, it will be defined as a module of program code originally designed to be burnt onto a Nintendo Cartridge for play in a video game console. In order to play these games on your computer you need to get what is called an emulator. An emulator basically reads the ROMs allowing one to play the Nintendo games on a computer. NESticle is a standard emulator but also allows the user to access the graphics of the game. I discuss the hacking of both graphic and text in a little detail below.

To alter graphics, I loaded the Rom into NESticle and then opened the pattern table from the menu. This is a table that shows all the graphics that the game has at a particular scene. The emulator can be paused, allowing one to access the graphics without the game moving ahead to the next screen. The graphics are placed into the table in the most space efficient manner to conserve memory, so they appear fragmented. The

game displays graphics by a call to their respective memory addresses.   These are also displayed within the pattern table when you click on a particular graphic portion.

Since each graphic portion is comprised of an 8 by 8 pixel grid you can only work with that amount of the image at a time. As an alternative I calculated the whole size of the image and then opened a Photoshop window at that size. From there I could magnify an image by 800%, giving me the pixelization effect of 8-bit games, and then use a 1-pixel brush to redraw the image. This would allow me to work with the image as a whole, taking composition into consideration. In Nintendo games, each sprite (a single programmable graphic within the game), can only use up to four colors, three colors for the image and one for the background. Because of this limitation, most of the detailed shading couldn't be done without using what I call checkerboard shading. This is fake shading by placing another color over the existing color in a checkerboard fashion, skipping every other pixel. This was a crude shading method used in the more sophisticated Nintendo games. Once I had the image in Photoshop I would capture an image of the screen to retain the image at its magnified size and then print it. From there it was only a matter of parceling it up into 8 by 8 squares, and placing it into the pattern table in NESticle.

Text hacking makes use of the Ultra Edit 32 text editor. This particular program was also a hex editor allowing me to view the game's code, which was stored in hexadecimal values. I would start out with NESticle and look up where the text graphics were stored in the pattern table, writing down their memory addresses. Next I was able to go to Ultra Edit 32 and search for the grouping of memory addresses that corresponded to the letter grouping. Once found, the memory addresses could be replaced with the addresses of other letters, effectively replacing the text in the game. This type of hacking

can be complicated by games that utilize encryption and compression, as many of the role playing games did because of the large amount of text involved.

Working with encrypted text is a pain by itself but compression makes it worse. The role-playing game *Legend of the Ghost Lion* I used had this feature. I had to have help from an online hacker named "kingMike" who was able to help me find the necessary parts to crack the code. The way one has to do this is to locate three key areas within the game code. These are respectively called the raw text data, the encryption table, and the compression mapper. I am not going to explain how to break the encryption because I feel it is beyond the scope of this paper. Interested readers can refer to the online post that I have included at the end of the comp.

Color Hacking is another technique allowing you to change the color palette of the sprites themselves. Each scene in a Nintendo game can have up to eight different color palettes, consisting of four colors each. Each sprite can only use a single palette, but this can be changed as well as the palette itself. First, to change the colors in a palette, you have to make a note of what game scene you are in. Load up NESticle and bring up the color palettes from the menu. This will show every color palette used in the scene. Match the current color of the sprite that you wish to change to the palette that contains the colors of that sprite. You can use sliders to adjust the color and then look for the changes if you are not sure. Now write down the color numbers in order. If you click on each color you will be able to see the color along with its number written in the middle of the window. With the colors written down exit NESticle and open up Ultra Edit 32. Search your ROM file for the color numbers, remembering to place a space in between each. Most of the time you will only find a single entry in which case you can be sure that it will alter what you want. If there are multiple entries, mark down the memory

address of each and try to change the color entries for each one at a time. For each trial, load up the game in NESticle and look for the changes.

The text editor can also be used to arrange graphics differently in the game. In *Terror Alley*, as well as most other games, the title screen is created by repeated patterns arranged in different orientations. Using a hex editor I was able to rearrange these patterns of addresses and then create my own title page. The title screen for *Terror Alley* was composed with the same four distinct patterns that the original Hogan's alley used but by rearranging them I was able to form Terror Alley instead of Hogan's alley. This technique also works when you are dealing with sprites that are duplicated multiple times or mirrored across an image.

The Progress of the Comp

The first game I hacked was *Hogan's Alley*. In this game the player's objective was to shoot at characters on the screen with a light blaster gun. The goal of the game was to shoot only the gangs and not the innocent people. This game was modeled after the real life Hogan's Alley that is used to train FBI agents. This was the same game that Cory Archangel hacked. I researched what his game displayed and what it was about before I hacked it to make sure we weren't doing the same thing.

As I had expected his version, *I Shot Andy Warhol* (figure 4) was different from mine in several ways. He created the game for the purpose of paying homage to Andy Warhol through the idea of reusing objects in the same way Warhol did. In his version the player had to shoot the different versions of Andy Warhol while avoiding several other pop culture icons such as the Pope and Colonel Sanders. My version *Terror Alley*, has the user shoot the terrorists while avoiding innocent people. In my version the innocents are Middle Eastern people while the terrorists are white people. The terrorists in my game are distinguished by the presence of a weapon. Players are confronted with the effects of the Middle Eastern terrorist stereotype and are tempted to accidentally shoot a Middle Eastern person. The game provides a cognitive exercise, where the player must ascertain if the target is a threat and then quickly shoot if it is.

In conjunction with *Terror Alley*, I was also developing *G W's Crazy Crusade.* This was a hack of *Bugs Bunny's Crazy Castle,* where the main character, Bugs Bunny, must navigate around a castle while avoiding other Looney Toon foes and collect all the carrots to get to the next stage. Bugs Bunny has an assortment of cartoon weapons to use against his foes in this game. The game suggested a theme of capitalism, the object was

to gather everything and smite your foes. This made me think about the Iraq war we are presently engaged in. I changed the Bugs Bunny character to a caricature of George W. Bush. I chose a caricature format to emphasize the detail of a 16 by 32 pixel character. This game incorporated the idea of animation thus making the design phase a little more involved. I changed the carrot icons in the game into oil barrels, making the new plot of the main character to collect oil. This seemed appropriate since most of the people on the Iraq console board and our president are involved in the oil industry.

The title screen shows a full screen Bush saying "Free Iraq," indicating he says one thing while doing something else. I wanted to address the underlying cause of the war since our president has already changed the reasons for invading Iraq a number of times. In this game, he says he wants to free Iraq but goes into the game collecting oil to complete each stage. The foes were changed to Middle Eastern people because they are one of the obstacles preventing the main character from completing his objective. I decided to identify generically the Middle Eastern people, letting their clothing identify their ethnicity. My reasoning was if I had placed an icon, such as Saddam Hussein, in the game it would have the potential of changing the mood and context of the game.

I changed the fact that the characters could kill each other in the game. If the foes could kill the main character then it might be justified that the main character could kill the foes. Instead of death, the main character, George W. Bush, uses up a "lie" each time he is caught by a foe. In the same manner I decided to change the weapons in the game to objects of material wealth, such as gold, diamonds, and moneybags. Bush uses "money" to bribe his enemy instead of killing them. The Middle Eastern people would be altered when they came in contact with money objects. For example the little Islamic boy sits down and hugs a teddy bear indicating he is bribed with a toy. I have a shrouded Islamic

woman that turns into a model with a bikini when she is bribed with money, hinting at the fact that we are pushing our culture onto the Islamic people. One particular icon, a "no carrots" sign, would not only defeat your main character but also send you back a couple stages in the castle. I changed this to a "no nukes" symbol, paying homage to the arms inspectors we sent over there. Here Bush would collect the symbol as an act of stupidity, thinking there were nukes there, and have to regress in his quest after expending a lie.

To put this game into the context of a Middle Eastern struggle, I changed the scenery within the game. I researched both the stereotypical idea of what Iraq looked like along with the real architecture. Since the mood of the game was set on humor and was easy going compared to the rest, I chose to use the stereotypical image of the Middle East landscape. The bricks were changed into sand, creating a desert and sand dunes out of flooring and staircases. The doorways were set in the western style being very geometric and angular so I adopted some of the snakelike architecture designs. This changed the castle look into that of a "Laurence of Arabia" feeling. The castle contained rooms, with a metal, factory-like, background. These rooms also had pipes within them. I made the choice to leave these rooms as is because of the presence of factories in the Middle East. The pipes suggest an oil refinery so this carried well juxtaposed next to the oil drums the main character needed to collect. The main objective of this game was to illustrate that Bush is in this war for the money and this was reflected as the goal of the character. The secondary point I made was that we are buying the Iraqis off and taking their culture from them. This was not as prevalent as the main point, but to hit it home I made the text at the end of each stage to say "We bought em' off".

The third game is only a partial hack of *Legend of the Ghost Lion*. This game was much more of a challenge than the rest. It is a role-playing game in which case the

primary object of the game is to accumulate experience points to make your character stronger, usually resulting in a long journey. This genre is mostly characterized by an in-depth story, characters which evolve throughout the game, and an adventure that takes the average player anywhere from 20 to 80 hours to complete.   If there was one word to describe these games it would be "huge". They are overflowing with narrative text, verses my other two games that only allowed for a little bit of text here and there. I was shaky about choosing an RPG (role-playing game) because it usually takes about an hour's worth of playtime to get to know the characters and to establish the plot. Ghost Lion was a little bit different. The characters are introduced and the main plot is spelled out in the first five minutes of game play. I wanted this third game to complete a trinity, which is a popular concept with many series of works. Never the less, I could only hack this game partially because of its shear size. I will elaborate in further detail below, but I feel what I have makes its inclusion worthwhile.

The Legend of the Ghost Lion involved a white girl, Maria, who goes to a foreign land with her parents who are explorers. Her parents tell her about the ghost lion, an evil force that threatened the village. Her parents go off to explore this legend and don't return. The villagers cannot fight against this evil and only Maria has the power to confront this evil and save her parents. This game plays like a role playing game except the story is told to you in the first three scenes and Maria goes on her journey. It is short and to the point. She encounters random battles with monsters and has to get "fragments of hope" that make her stronger. Shortly into the game she is swept away by a current and wakes up in fairyland. Where she must solve mysteries and travel from land to land.

My hacked version is called *Legend of the Mujahiddin*. Mujahiddin in Arabic means holy warriors. I have seen the spelling for this vary in two published works so I

decided to go with the spelling that has two ds. For this game I had to do the most research. I decided to tell the tale of America's invasion from a terrorist's point of view. In order to do this I needed to know how one becomes a terrorist and the thought process behind the jihad, holy war. I designed this game with a specific Middle Eastern locale in mind. The locale is most-likely Africa where the vegetation is dense and I am dealing with the Middle East where one expects to see desert. I was a little more accurate on my portrayal of the landscape in this game than I was in the *G W's Crazy crusade* game. I felt that by doing this I established it as a more serious game to fit the tone of the story.

The story of the *Legend of the Mujahiddin* is presented from the viewpoint of a small Islamic child around the age of twelve named Abdul (In Islam it means follower of Allah)[1]. He lives in a town called Aqaba, a small town on the outskirts of modern day Jordan. This is a coastline town that shares the desert as well as a rich farming region, similar to the Fertile Crescent in Egypt. Abdul's parents, Hami (father's name means wise and just in Islam) and Behzad (mother's name means honest and caring in Islam), happen to catch him looking puzzled and worried after he has come home from school. Scene 1 shows the mother and father talking to their son who is sitting on the porch. Here the scene was changed from rich vegetation to a desert and the characters were completely redone. Abdul asks his parents about their faith and about America's reason for being in their country. Most of his questions were formulated from my own unanswered questions about the war. Abdul explained that his teacher was discussing it and he believes that America is evil. His parents try to explain to their son why America is not evil.

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[1] I have gone through the trouble of looking up Islamic names and their meanings to create another level for the story. I really don't expect anyone to get anything about their meanings but I feel it adds a little secret if one were inclined to look up their meanings. For me it suffices that they recognize them as unique Islamic names.

An explosion kills Abdul's parents before they are able to explain things to their son. This leaves Abdul uncertain and vulnerable. In Scene 2 the parents are lying on the ground with the smoke of the bomb clearing. This was altered from the original scene that had his parents in a canoe on a river and a lush forest in the background. Abdul is dragged into an underground tunnel by his friends, who are trying to flee. They urge him to come with them, explaining that America will kill him too. His friends Mahaz (Islamic for battlefield) and Uzair (Islamic for wise and faithful follower of Allah) are older than Abdul, being in their mid twenties.

Scene 3 shows Abdul standing alone with an AK-47 in his hand. His friends are going through a cave and they arm Abdul. They tell him about a safe haven with Al Qaeda and that they must survive. They try to answer Abdul's questions but with their own biases. Abdul is stuck in the middle questioning whether America is good or bad, but he is slightly swayed because his parents were killed by the troops. From here he must find his own way and evade the troops that are pursuing him.

The player controls Abdul in the cave and gets washed away by the current. I choose to keep the landscape consistent in my hacked version and not have Abdul wake up in fairyland as the original game did. The world looked much like a traditional Pennsylvania landscape, and I redesigned it into Aqaba, Jordan's landscape. The grass became desert sparsely populated by sand dunes and acacia trees. Around the shoreline I placed palm trees and flora indigenous to the area, namely the black iris flower. I had the task of changing a medieval castle into the modern day Aqaba. There were twenty NPC (non-player controlled) characters within the first continent that had to be transformed from Medieval European to Arabic costume. Abdul's character had to be totally revamped into an Islamic boy instead of the character Maria.

The dungeons themselves preserved the look of many of the castles found in the Middle East so I chose to preserve them. The random enemy encounters were changed to reflect American troops pursuing Abdul. The names and images for the enemies that Abdul had to fight against had to be rewritten too. In the battle sequence, I had to change the facial image of Maria into Abdul including the animated segments that happen when he got hit or victory was achieved. In the victory sequence the original character smiled and winked her eye. With Abdul, I made him close his eyes and look concerned because it would say an entirely different thing if he was happy to be fighting the Americans.

Within the game I have references to a 1980's cartoon character and icon for young boys, namely G.I.Joe's Sergeant Slaughter. In each of my games I try to put in a little bit of comic relief. Plus the Sergeant Slaughter was a children's show where most viewed him as a kick-butt hero, and he was idealized as a cultural American icon. I chose this character because he is representative of the ideal 1980's marine soldier and it seemed to fit in the game. In addition, obviously, his name was Sergeant Slaughter. I feel that introducing a little humor within a serious game like this lets the audience realize that it is just a game. In addition, this ties it to my other work where I have the interplay between fear and humor.

As I mentioned before, *Legend of the Mujahiddin* is only partially hacked because of the shear size of the game. I let my audience know about this before they play the game. There is a particular part in the quest where I have stopped hacking and anything beyond that point will look disjointed. The place occurs where you place the stardust on the dais to leave the continent. The player will be able to pinpoint this when they are playing the game. Another factor that I have not mentioned until now is that the text hacking on this game is more involved. This is a RPG, which means that because of

limited memory the original designers had to compress the text at the same time that they encrypted it. I found a way around it, (refer to the section on breaking encrypted/compressed text above if in the technical section if you are curious.) This makes breaking into the text code and replacing it more difficult.

For the presentation of my piece I built an arcade cabinet to host my completed games. The arcade cabinet contains a control panel for the player, outfitted with arcade buttons and two joysticks. This has a two-player control structure even though the games only support one player. I felt this appearance is similar to most arcade machines that have two players. The buttons are wired to a circuit board transmitting the signals to the computer via USB, making my computer think its talking to a keyboard. The arcade console has a custom made decals to label the buttons. This design incorporated the classic Nintendo controller, repeating the idea of nostalgia and connecting the arcade cabinet to the feeling of the games. The cabinet is painted gloss black to give it the dark neon lighted arcade room feeling. Black is appropriate because of the subject matter of terrorism. I feel terrorism is also like a black box because the U.S. government is trying to figure out how terrorists operate and how to anticipate an attack. The cabinet has a light gun to use with the *Terror Alley* game. I have a front end for the emulator so that an audience member will be able to select and play a game and let the front end configure the emulator behind the scenes. A button is set up to allow a player to exit out of any game at any time, but not exit out of the front end.

Research Section

As with any project a good amount of research has strengthened my comp and increased my knowledge of the techniques needed to hack games. My research has two fronts, a technical side and an artist side. I have decided to discuss both sides in unison.

My work fits within the emerging digital art game category. Brody Condon, does similar work in which he hacked an Internet game called *Counter Strike* (Greene 146-147). Here the artist took a MOD, similar to a hacked game, and transformed it into love_2.wad. This game also goes by the alias *Velvet Strike* (Greene 147) (figures 5 and 6). In this game there are terrorist and anti-terrorist characters that are involved in a romantic fantasy. Condon's game was "created as a response to Bush's 'War on Terror'" (Greene 147). Other artists to consider would be Thomson and Craighead and their *Space Invaders* hack, *Trigger Happy* (figure 7). The *Space* Invaders hack has Michael Foucault's essay, "What is an Author?" scrolling down from the top of the screen instead of enemy ships (Greene 149-150). The player finds it difficult to complete the survival goal of the game while trying to read the essay, scrolling down the screen in place of the enemies (Greene 149).

To find a concise term for this art, rather than just examples, I searched Web sites looking for critic reviews. On the fifty-fifty Web site the critics term this new movement "hacker art" and mostly responds to political situations or comments on the overwhelming presence of media and data ("fifty-fifty"). Within this realm of "hacker art" I found Cory Arcangel. I was extremely interested in Cory Arcangel because his projects are about game and software hacking as artwork ("teamgal"). He is a new contemporary artist so most of the reviews and discussions of his work I have either

obtained from his own website http://www.teamgal.com/arcangel/bio.html, articles from art journals, and the New York Times. As a contemporary artist, most of his works are electronically based, from hacked website to games. I verified this online information from NOWN, a publication of the Woodstreet gallery, where he had exhibited the *i shot Andy Warhol* piece (Horne 22-23). I became a little alarmed when I found that he had already hacked the *Hogan's Alley* game under the name of *i shot Andy Warhol*. The NOWN catalogue commented about his piece:

> Cory Arcangel's *i shot Andy Warhol* is an 8-bit game hack. The game cartridge is a modified version of the interactive light gun game in which a trigger directly connects participants to the hacked game of *Hogan's Alley…* The destruction of the main character, Warhol, is actually homage to the idea of art making with the redistribution and the reuse of commercial products made common by Warhol (Horne 8).

After reading and exploring his work a bit further on his home page, http://www.teamgal.com/arcangel/bio.html, I found out that he is aiming for something totally different from me. I am addressing the stereotyped social niche of the terrorist image and his aim was to pay homage to Warhol (Horne 8, 46).

My finished hacked ROMs are my finished work, which are completed by having the audience engage them as game players. Cory Arcangel does not consider his hacked games to be the finished product. To him, the finished product is posting screen shots of that game on a website as net art ("teamgal"). Ben Sisario was quoted saying the following about Archangel, "…Part of the motivation behind the Nintendo hack was not just completing it, but creating a website that showed how he did it" (11). This surprised me because I found I had the desire to explain the methods by which I hacked my games

within my comp. Arcangel was quoted as saying, "It is net art because half of the reason I made it was so I could put it on the internet and have it participate in the Internet Culture" (qtd. in Sisario 11). Apparently he aims to be part of the Internet culture where as I wanted my work to be a nostalgic, days-gone-by presentation.

While I was looking through other reviews from critics I found the following quote on Cory Arcangel's work *Welcome to my Homepage Art Show* (figure 8). Here, critic, Nick Stillman offers the following:

> Arcangel's show is a report from the generation of technology white noise, where games, TV, music, and cell phones fill the empty spaces. Like the Ramones' music, his art is so blank it's loaded with connotations, and his ludicrous humor makes this an early favorite for the year's funniest show. (Stillman)

I felt that I connected with the artist here. In my games I always have some underlying corny reference to the 1980's era. I was not aware that this was coming across even though I intentionally inserted characters to reference that. In a discussion with Jeremy Hoople, a fellow artist, he mentioned to me that there was always a 1980's reference in my works (Hoople). At first I thought he was merely insulting my work, but as we discussed this I realized he was right. He also indicated that this was not a bad thing it is just a type of artist's signature. Since I do this intentionally I realize that it is not a negative thing (Hoople).

I have often wondered if my game hacking is infringing on copyright issues. In an Artforum article I found entitled "KOPy Cats" the issue of legality was addressed. KOP (Kingdom of Piracy) is a site kept up by a group of artists, who operate under aliases (Reena 40). Here artists are able to send in screen shots of games they have hacked to be

posted in an online art gallery. I might contribute some screen shots of my work. In regards to copyright issues Reena Jana quoted some of the KOP affiliates as saying, "Cheang and co curators, Armin Medosch and Yukike Shikata, insist that none of the work in KOP will break any intellectual property law – which some would argue must be the case since each was created as art" (Reena 40). I am an artist so I have a little more slack, as long as I don't try to sell it for profit.

     With the legality issues covered, I researched some video game hacking techniques. This search led me to a couple of websites and hacker forums at www.romhacking.com. Here I divided up the problem into three parts: getting the right altering software, learning about the hacking process for graphics, and learning the hacking process for video game text. The site contained a forum where I found a database of documentation on hacking. I procured several documents on graphics hacking: "Console Graphics Hacking", "The Newbie NES palette hacking", and "The palette hacking doc". The most pertinent one was "Hacking your way to superstardom using NESticle" which addressed an actual program with the tutorial. I went to www.zophar.net/NESticle/ and downloaded the NESticle software, which allowed me to hack a game and see the result of those changes immediately.

     Because my games also contained text, I gathered information on hacking text. I found the following text hacking documents on the ROM hacking site: "The newbie NES Text Palette Hacking," "Editing fonts without a graphics editor," and "Changing a NES game's text." We have Ultra Edit 32 on the Computer Studio PC, so I decided to use it instead. These warned me that I might need ASM Hacking if the text was encrypted. I downloaded the documentation for hacking the title screen of a game, "Title Screen

Hacking made easy". The title screen is the first image that comes up on a game, directly after the credits.

The knowledge needed to hack the games had been gathered, so I resumed looking into artists associated with game art. I found Brusadin Vanni who now works in Barcelona. I found a link to his biographical information at http://subsol.c3.hu/subsol_2/contributors0/brusadin-dinabio.html where I learned he works as a freelance journalist for *Internet News*, which is an Italian journal ("subsol" sec. Brusadin). He is a member of a group called d-i-n-a, which deals with art related to the Internet and more specifically what they called "hacktivism" ("subsol" sec. Art hactivism). He is better known for an organization that he helped create called fifty-fifty, an organization that arose when Internet art was too restrictive ("subsol" sec. Small is Beautiful). Digging into the fifty-fifty organization, I found the following quote from a domain containing politically based art work on fifty-fifty's website:

> Art is politics. It is political as opposed to politics as management (i.e., of state), a profession, a power play, manipulation or propaganda. As a matter of existence, art aims at the political as the ultimate means of emancipation, absolute freedom from commodification, if such is still possible. (Brusadin)

This was sited on the fifty-fifty organization's website and it originally appeared in The Communication Front 2000 Book, "Crossing Points East-West" in February 2001. I liked this quote when my focus was racism but I feel it sheds a little more light on my current stereotyped social niches direction.

Fifty-fifty has their own website where they show readers how to hack into websites (Brusadin). They feel that the art world needs to open up to hacker artists. One of their

pages I really liked was the hacktivism site project at http://www.the

hacktivist.com/error.php (figure 9). I had this box come up which gives you the standard

404 page not found error and then proceeds to complain about its troubles in this text

box. The dialog continued for five minutes telling you about it's (the web server's) life

and why it is depressed because it cannot find your page.

Researching artists gave me insight on how others worked with the medium but I

felt I needed a better understanding of racism. To better understand the perspective of a

racially stereotyped person, I decided to get a couple books on racism. I read Bell Hook's

book *Yearning race, gender, and cultural politics*. This book showed how Black people

viewed the equal rights struggles in the 1950's to the present. Something as simple as

watching television can have a different meaning depending on the viewer. For example,

in the 1950's the decision for a white television show host to have a Black Jazz guest

served more purposes than just music (Hooks 3).   One such purpose, as Hooks points

out, was the television show had to invite one black guess on every once in a while to stay

out of the heat of NAACP (Hooks 3). In this way the Black guest was viewed as a

"token" Black person. This is very similar to the practices where a business with

predominantly white employees hires a minority through affirmative action, passing up

another person who may or may not have more marketable skills. I understood this

because some popular cartoons have only one "token" black character, written into the

script for a couple lines per show. Most movies are no different and even amplify the

stereotypes that are hard coded by the media. For example, *Rush Hour* had the two stars,

Chris tucker and Jackie Chan. Here the Jackie Chan held to the stereotype of an Asia

person who was an expert at martial arts and off course Chris Tucker would comment on

this incase the audience missed the point. I feel that Hooks may be right and the modern

era seems no different from the 1950's. The shows of today have the same underlying stereotyping as shows our parents used to watch.

The more I learned about racism, the more I discovered my topic could be narrowed. My focus narrowed to stereotyped social niches during a helpful interview with Jeremy Hoople. I realized that stereotyping Middle Eastern people as terrorists is still being racist but it is more succinct as a stereotyped niche (Hoople).

Focusing on this niche, I have chosen to present an anti-911 stereotype to destroy the idea that the modern terrorist is exclusively a Middle Eastern person. In a way, I have chosen the role of a teacher and to understand my role, I read Gary Howard's book, *We Can't Teach What We Don't Know.* It describes Howard's experiences trying to be a missionary in the 1960's, an era of political upheaval about the equal rights given to blacks and their struggles (Howard 1-2). Howard was a white male who went to a prestigious college, but chose to live and communicate with the Black community, located in the suburbs called "the hill" (Howard 12). The residents of the hill educated Howard about their way of life and allowed him to experience it. He realized how misconstrued his views were and got to see the riots in the street and the harsh ways the Whites reacted to them (Howard 11). In much the same way my comp is trying to educate people about inherent racism. Howard had the task of trying to educate his relatives. He got fired from a couple churches when he tried to spread the word of his findings (Howard 14-16).

He indicated that, "It is important to remember as we embark on the complex and sometimes uncomfortable journey into greater understanding that the "enemy" is dominance itself and not white people (Howard 27)." This was an especially powerful notion because most people feel that the blame for slavery and dominance lies on the race

instead of the concept of dominance (Howard 27). I do not want to fight against the audience as much as I want to destroy the idea of racism and stereotyping. Howard also mentions using religion as a dominance tool within the confines of the social dominance theory (Howard 27 - 31). This hits at the heart of my comprehensive project and is also a large supplement to the Middle Eastern terrorist image. People believe that religion is the cause of the Jihadist attacks and that this is the stereotyped textbook motivation of the Middle Eastern terrorist. Much of what we learn about the Middle Eastern culture is translated and then processed through many journalists that add their own bias to the meaning. Christianity was used as a dominance tool, as pointed out by Howard, to "civilize the American Indians" (Howard 38-39). Under the guise of religious aid this gave the government the perceived right to rip them from their families and reprogram them to accept our way of life against the perceived, "uncivilized" Native American lifestyle.

The response of our government to the Middle Eastern terrorist activities is strikingly similar the way Howard describes social dominance. The ruler of our country is Christian so he wanted to underline that this is a religious battle so that we would feel empowered, thinking we are fighting evil rather than people who have different culture. In this way we are bred as machines attacking "evil entities", as named by the current president. This dehumanizes the threat so that we think of them as animals rather than human beings to make the killing and prejudice easier to swallow. I share the same religion as the ruling powers, but understand that they are perverting the underlying meanings of the religion. He is using it as a vice for war when Christianity is a religion of peace and salvation. He selectively picks out verses from the Bible to justify his unjust and unfounded war, behaving as a religious extremist. This is ironic since he claims our

opponent is doing the same with their religious text. I believe that the real reason can be found somewhere in the middle.

This idea of social dominance and the act of using religion as a vice gave me an idea for a third game, providing me with a triptych. I looked back through famous works of art and recalled the impact the triptych had, especially in religious subject matter. For this reason and to make my series seem complete I chose to have a third game.

The choice of an RPG title game for the last game provided additional challenges. The text hacking for the *Legend of the Mujahiddin* could not be completed easily because of the presence of encrypted and compressed text. To get help, I posted a question on an online hacker forum. Before I had posted I did my homework and knew where the raw text within the ROM was located. A response and solution to my post was obtained by the end of the day. This hacker, who posts under the name of "kingMike", showed me where the other components of the encryption were located and gave me the key to breaking the encryption for the text through a list serve communication. I tried to locate more information on kingMike but he had established himself as just an entity. Since the post has been removed I have included a copy of it near the end of my comp for reference.

With a working solution found, research on terrorist motives and ideals was then next logical step, since the game involves a view of a person who could become a terrorist. To provide a convincing argument for the main character in the story I needed to understand the mindset and values of a terrorist. I researched this further by consulting books from the library on terrorism. Sources were chosen that contain actual quotes from the terrorists free from bias and media influence. In Rohan Gunaratna's book, *Inside Al Qaeda,* I found an explanation of terrorist actions. It discussed the origin and practices of

the Al Qaeda and their reasons for wanting to attack the United States (Gunaratna 3-9). I learned that religion is a key principal in their position but they want to remove the west from their lands because of unwanted influence that could pervert their own views and religion (Gunaratna 5). I hinted at this a little in *G W's Crazy Crusade* where the Islamic women shed their clothes when you bribe them indicating a whoredom of the cultural values by our influence.

I learned that they use guerilla warfare to attack America because of our shear size. An Al Qaeda source is quoted as saying:

> due to the imbalance of power between our armed forces and the enemy, a suitable means of fighting must be adopted, i.e. using fast-moving light forces that work under complete secrecy… And as you know it is not wise in the present circumstances for the armed military forces not to be engaged in conventional fighting with the forces of the Crusader army… (Gunaratna 9).

These are not cowardly fighters, as many critics in the media would have us believe. These people do not fear death. Suicide attacks are common because of their belief that death is rewarded when you do it for the sake of Allah, "… a martyr's privileges are guaranteed by Allah; forgiveness with the first gust of his blood, he will be show his seat and paradise…(Gunaratna 7)".

Inside Al Qaeda and *Holy War, Inc*, indicated that most of the Al Qaeda selectively quote from the Quran (Bergen 47–49; Gunaratna 3-8). They select a verse that denotes the act of violence against the infidels but neglect to mention the verse above and below the passage negates the verse or gives the circumstances (Gunaratna 3-8). After reviewing these books along with *Anti-American Terrorism*, which is a collection of

Islamic extremist speeches, I have learned enough to write a convincing dialog. I learned a couple Islamic words to insert in the dialog to add to the authenticity.

To make the scenery as convincing as the dialog, I went to http://www.nationalgeographic.com to look up the geography of the Middle East. I designed the story to take place in one town name Aqaba, Jordan so that I could make the landscape a little more realistic to fit the mood of the game. I managed to get pictures of the modern day architecture and was able to get realistic-looking costumes for the characters. I researched Islamic names at, http://www.muslim-names.co.uk/, to find out their meanings to have a hidden underlying level for the game. With the new research I was able to go back into my other games and put the finishing touches on them.

Works Cited

Bergen, Peter L. Holy War, Inc. The Free Press New York, NY. 2001.

Brusadin, Vanni. *"Hacker Techniques"*.

http://www.fiftyfifty.org/hack_tech/index.html last accessed 12 Feb.

2005.

"Vanni Brusadin"

http://subsol.c3.hu/subsol_2/contributors0/brusadin-dinabio.html last

accessed 13 Feb. 2005.

Greene, Rachel. Internet Art. Thames & Hudson. New York, NY 2004.

Gunaratna, Rohan. Inside Al Qaeda. Columbia University Press. New York, NY. 2002.

Hooks, Bell. Yearning: race, gender, and cultural politics. 1990. South End

Press. Boston, MA.

Hoople, Jeremy. Personal interview. 23 Feb. 2005.

Howard, Gary R. *We Can't Teach What We Don't Know: White Teachers,*

Multiracial Schools. Teachers College Press. New York, NY 1999.

http://www.romhacking.com/docs/gendocs.php. Last accessed 18 Mar. 2004.

Reena, Jana. "KOPy Cats." Art Forum March 2002: 40.

Sisario, Ben. "Internet Art Survives, but the Boom is Over." The New York Times

31 Mar. 2004. p.11.

Stillman, Nick. "Critics Picks: Cory Arcangel."

http://www.artforum.com/pick/place=New%20York#picks8298 last

accessed 5 Feb. 2005.

Horne, Murray (curator). <u>NOWN</u> Woodstreet Galleries Publication. Pittsburgh, PA 2003.

Works Consulted

01. <u>0100101110101101.ORG.</u> 23 Feb. 2005. 12 Feb. 2005

   <http://www.0100101110101101.org/>.

Allen, James., Als, Hilton., Lewis, John., and Litwack, Leon F. <u>Without Sanctuary:</u>

   <u>Lynching Photography in America.</u> Twin Palms Publishers. 2000.

"Baby Names: Boy Baby Names & Girl Baby Names with Meanings." <u>Muslim</u>

   <u>Names.CO.UK.</u> 2005. 10 Apr. 2005 <http://www.muslim-names.co.uk/>.

Baird, Rodney R. "Aqaba." <u>Ancient Routes</u>. 2000. 20 Mar. 2005

   <http://www.ancientroute.com/cities/aqaba.htm>.

"Cory Arcangel." <u>Cory Arcangel and Beige</u>. 22 January 2005

   <http://www.teamgal.com/arcangel/bio.html>.

Cotter, Holland. "Art in Review: 'Unknown Pleasures.'" <u>The New York Times</u>. 17

   May 2004.

Friedman Gabe. "Unpublished, done for '<u>Wired</u>' May 2003." <u>0100101110101101.ORG.</u>

   23 Feb. 2005. 7 Feb. 2005

   <http://www.0100101110101101.org/texts/wired_generic-en.html>.

Haddadin, Wael. "Jordan Map" <u>DSBT (Dead Sea Beach Tours)</u> 20 Mar. 2005

   <http://www.dsbt.com/map.htm>.

Khammash, Ammar. "Trees and Shrubs." <u>Jordan Flora</u>. 2002. 1 Apr. 2005

   <http://www.jordanflora.com/Trees.htm>.

Johnson, Allan G. <u>Privilege, Power, and Difference</u>. Mayfield Publishing

   Company. Mountain View, California 2001.

kingMike. "Encrypted Text, How to hack?" Online posting. 22 Feb. 2005.

      <www.romhacking.com/battleground/viewtopic.php?p=4450>.

Maxwell, Bruce. <u>Terrorism: A Documentary History</u>. CQ Press. Washington

      D.C. 2003.

Michaels, Sam. "NESticle." <u>Zophar's Domain.</u> 9 May 2005. 28 Jan. 2005

      <http://www.zophar.net/NESticle/>.

National Geographic. <u>National Geographic Online.</u> 12 May 2005. 25 Mar. 2005

      <http://www.nationalgeographic.com/>.

ROM Hacking dot Com. <u>The Repository</u>. 13 Mar. 2005. 20 Mar. 2005

      <http://www.romhacking.com>.

Rubin, Barry and Rubin, Judith Colp. <u>Anti-American terrorism and the Middle</u>

      <u>East.</u> Oxford University Press. New York, NY 2002.

Smith, Roberta. "The infinite Fill Group Show." <u>The New York Times</u> 6 Aug.

      2004: p.E32.

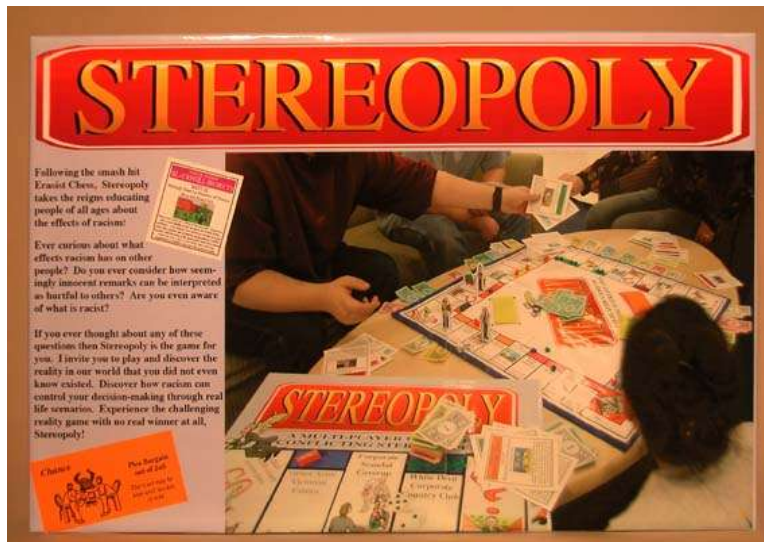Whizzo Software LLC. <u>Whizzo Software.</u> 2005. 10 Apr. 2005

      <http://www.whizzosoftware.com/>.

Figure 1
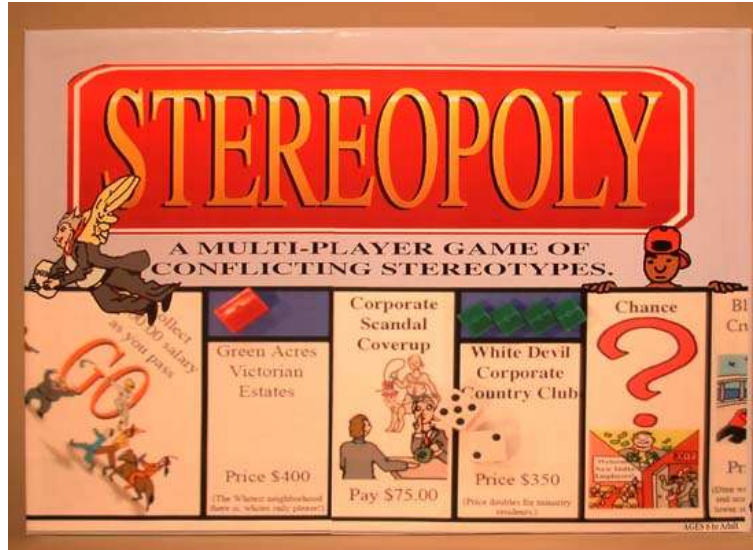
Matthew Visyak
Stereopoly Game Box (front)
2004
Digital Prints and Mixed Media
23.5" x 16" x 3"

Figure 2

Matthew Visyak
Stereopoly Game Box (Back)
2004
Digital Prints and Mixed Media
23.5" x 16" x 3"

Figure 3

Matthew Visyak
Stereopoly Layout in Gallery
2004
Digital Prints and Mixed Media
23.5" x 16" x 3"

Figure 4

Cory Arcangel
I Shot Andy Warhol
2002
Interactive Game
Source: http://www.filmmakermagazine.com/blog/2004_02_22_archive.php

Figure 5

Brody Condon
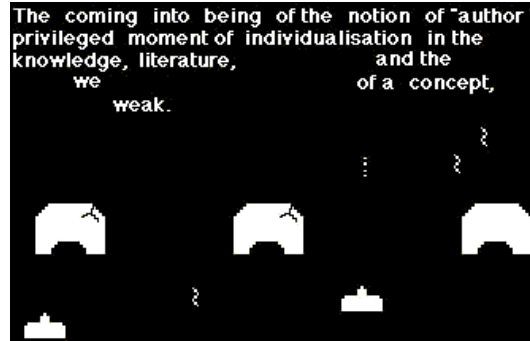*Velvet Strike* (screenshot 1)
2002
Interactive Game
Source: http://www.opensorcery.net/velvet-strike/screenshots.html

Figure 6

Brody Condon
Velvet Strike (screenshot 2)
2002
Interactive Game
Source: http://www.opensorcery.net/velvet-strike/screenshots.html

Figure 7

Thomson and Craighead
Trigger Happy
1998
Interactive game
Source: http://www.massmoca.org/visual_arts/past_exhibitions/visual_arts_past_2001.html
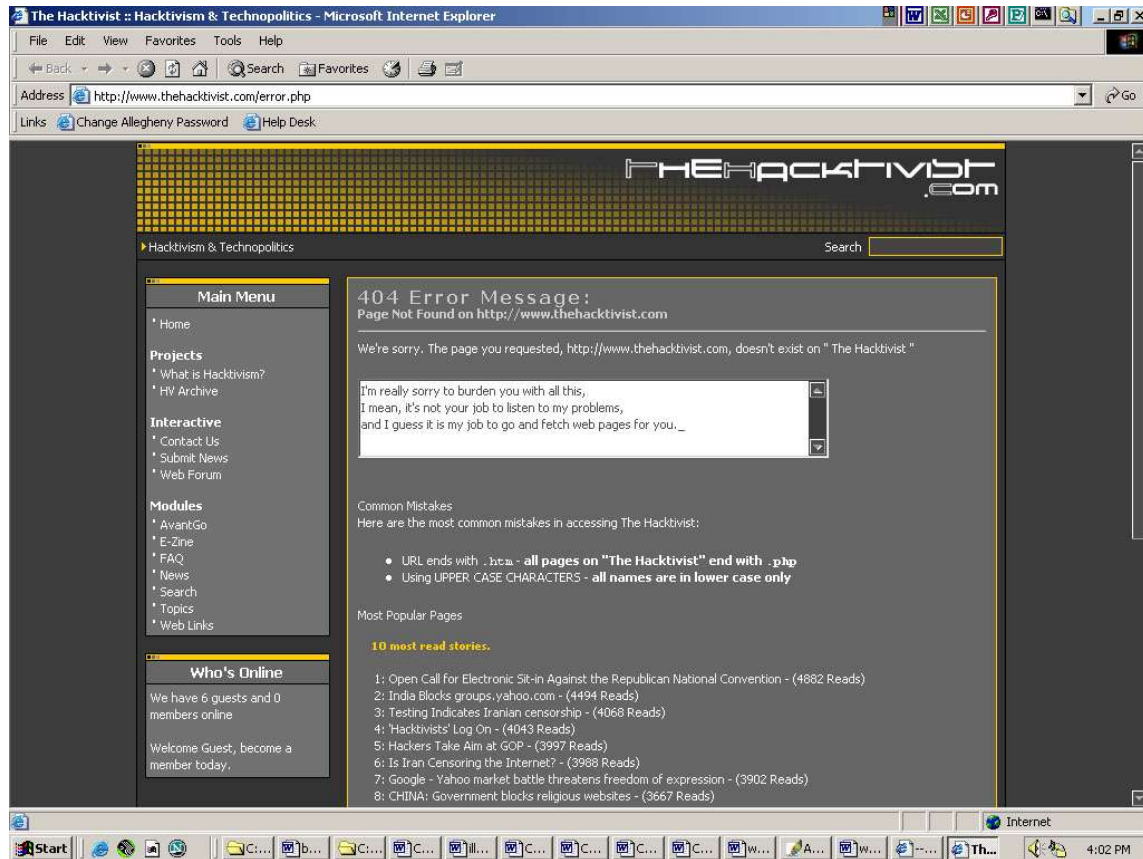
Figure 8

Cory Arcangel

Welcome to my Homepage Art Show
2003
Web Page
Source: http://www.re-title.com/artists/cory-arcangel.asp

Figure 9

Fifty-fifty
The "Hacktivist" Page
Web Page
Source: http://www.thehacktivist.com/error.php