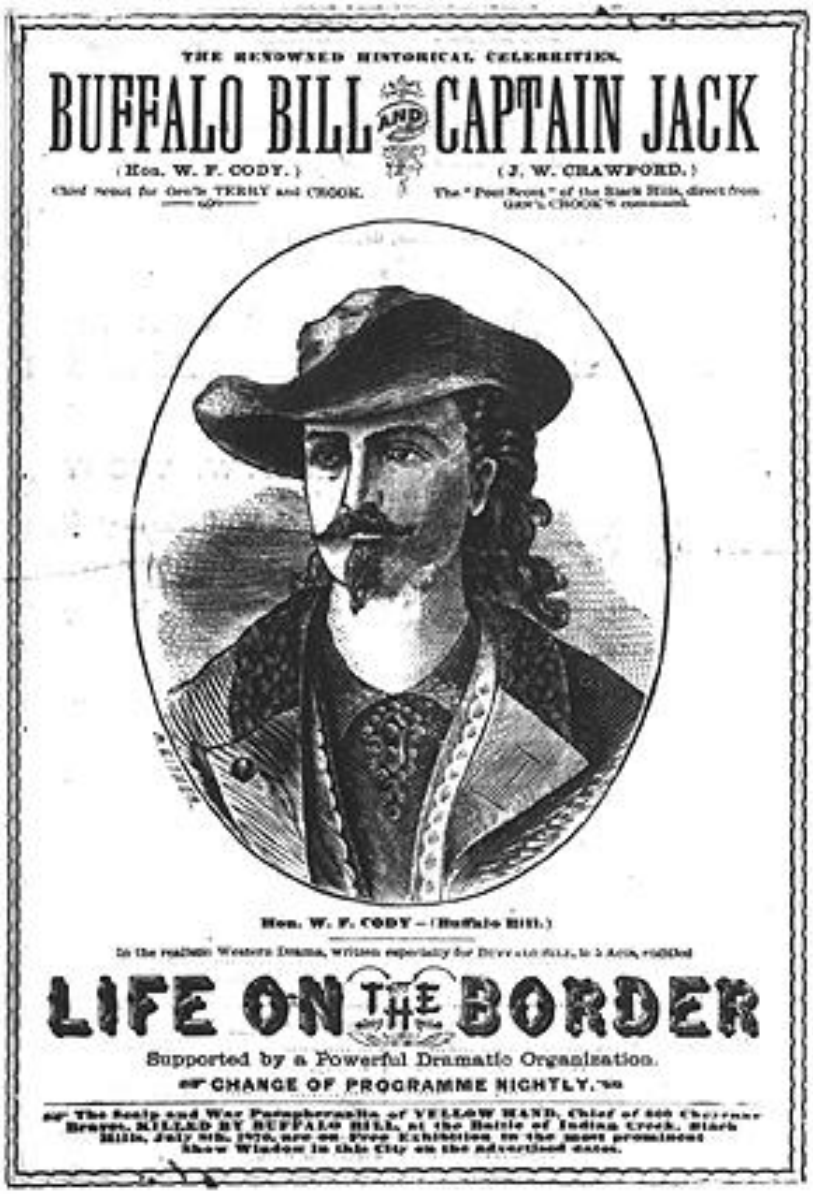
Life on the Border:

Cyberspace and the Frontier in Historical Perspective



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November 6, 1999

Abstract

In 1893, the American Frontier, as it was then known, was declared “closed”. Almost immediately, Americans influenced by everyone from Buffalo Bill to Frederick Jackson Turner began to re-invent our perceptions about the West and the Frontier. This “imaginative” frontier has become a basis for many aspects of American culture, including our involvement in and influence on the newest frontier, Cyberspace.

This thesis focuses on how this imaginative mythology about the American Frontier is affecting the development of culture in cyberspace, by looking at cultural formation particularly in graphical virtual reality communities. Please take a minute and look around - I would be very interested in hearing your thoughts on what is presented here. For more explanation of some of the technical terms and jargon, Appendix A contains a glossary of terms.

This thesis was submitted in partial fulfilment of the requirements for the Master of Arts degree granted by the California Institute of Integral Studies, San Francisco, California.

The degree was conferred in 2000.

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CHAPTER 1. INTRODUCTION

"When you are on the border, there is a certain lure which draws you on farther and still farther, I suppose it is what Jack London would term the 'Call of the Wild'."
- Frank Canton (c. 1908)

1.1. Purpose Statement

The purpose of this thesis is to understand how social experiences in contemporary, computer-mediated virtual environments correlate with modern ideas about life on the American frontier of the nineteenth century. Specifically, the research question I will address is, to what extent, and in what ways, is social and cultural formation on the Cyberspace frontier of today informed by the American frontier, in both its realistic and imaginative aspects, of the nineteenth century? In other words, to what extent and in what ways has the notion of "frontier" been appropriated to make sense of the new medium?

1.2. Background

In 1890, the American Frontier as we knew it was declared "closed" (Turner, 1893). Almost immediately, Americans began to mythologize and reinvent the frontier experience. Influenced by everyone from Frederick Jackson Turner to Buffalo Bill, we created a collective memory of the West and the frontier, not entirely as it was, but perhaps how we would have liked it to be. This "imaginative" frontier has been influencing American culture ever since. Certainly the frontier as a metaphor for anything new and exciting has persisted as a defining figure in American collective identity. This has led me to believe that there is something in the modern concept of the frontier, the mythology of the frontier, quite apart from its harsh realities, that causes frontier mentality to still take hold of our imagination and social/cultural evolution.

Now, as we enter the twenty-first century, new kinds of "frontiers" are being created through technology and its uses. The Internet is one particular example of how technology is changing the way we communicate, interact, and do business over vast areas of the planet. Our current ability to communicate, to process and distribute information rapidly to many areas of the world has never been seen before in history.

In addition, advancements in computer technology are allowing formation of a new type of virtual community (Rheingold, 1993). These electronic communities may consist of a number of people, most of who have never met face to face, but who share interests, goals, or simply curiosity about particular subjects. In short, what we are seeing are new communities forming both inside and between existing ones. For anthropologists, the opportunity to study and understand the formation of new cultures arises.

For several decades, these virtual communities have been based on purely textual communications in a shared environment, either in asynchronic or real time. More recently, however, some of these have

begun to include graphical and even three-dimensional surroundings, adding another layer to the possibilities of online communications. I chose to concentrate my research in graphical and three-dimensional virtual realities because, at the present time, these are the most current environments available through computer technology, and are at the leading edge of the cyberspace realms.

1.3. Anthropology of Cyberspace

The study of cyberspace culture is a relatively new area within anthropology. In June of 1995, the American Anthropological Association, in conjunction with the Computing Research Association and the National Science Foundation, conducted a workshop on "Culture, Society, and Advanced Information Technology". This workshop concluded that

> ... the recent breakthroughs in the speed, communications capability, and storage capacity of digital information devices would create far- reaching and unforeseen changes in families, communities, institutions, and democratic processes. To understand the social consequences of these breakthrough technologies, government, academic, and corporate researchers need to build on the solid foundation that exists in studies of sociotechnical systems, media studies, on-line communication, and the social science study of computing. (Batteau, 1995: 1)

Among the questions that the workshop identified as important issues to be addressed by anthropological research into cyberspace communities, and that are spoken to in this particular study, are the following:

- "How does learning take place in an on-line or computer-mediated environment?" (ibid: 8)
- "How does an organization achieve a proper balance among the alternative goals for the use of this technology?" (ibid: 11)
- "To what extent does cybercommunication replicate pre-existing communication patterns of domination, hegemony, or aggressiveness?" (ibid: 15)

My research into the formulation and enforcement of social and cultural norms in graphical and three-dimensional virtual reality communities therefore contributes to answering questions that are considered important by the larger community of cyberspace anthropologists. In addition, ethnographic research of virtual communities gives the anthropologist a unique opportunity to study and learn from a culture as it is being created. The state of technology in our world is advancing at such a pace that the casual observer may not even realize the impact it is having on our culture. For these reasons, it is critical at this point in history for ethnographers to observe and record the effects of this new technology on its users.

By involving ethnographic insight at this juncture, anthropologists are also in a good position to document and even influence future technological development. This research adds to the ongoing work by other anthropologists of computing and technology, building upon the excellent work that has been done in text-based virtual communities (Turkle 1995, Pavel 1993, Rheingold 1993, Reid 1994), and adding to that presently taking place in the graphical (Richardson 1997, Suler 1997,1999).

1.4. Thesis Organization and Summary

Chapter One of this thesis, entitled Introduction, describes the background of the project and how I arrived at this particular topic. This includes some background on why I believe that this type of research is meaningful at this time in history, and its application to the greater area of anthropology. I also discuss the area of Anthropology of Cyberspace in particular, and how this research contributes to its aims.

The second chapter, Literature Review, contains a review of literature pertaining to my research. Areas of review were:

1. Culture, Community, Place, and the Process of Cultural Formation and Change - here I show how the traditional definitions of these term may be expanded or changed to incorporate cyberspace and virtual worlds.
2. The American Frontier and Cultural Formation Therein - this section contains information about the history of the American frontier and how culture was formed there, as well as literature and personal accounts contemporary to the era.
3. Literature Pertaining to Cyberspace - this section describes the history of the Internet and online discourse, and also discusses previous studies of cultural formation in cyberspace.

In the third chapter, History and Context, I discuss the history and context of the environment in which the study was carried out. This includes my own background as the researcher, and the history and overviews of the three virtual worlds in which I conducted my research - AlphaWorld, WorldsAway's Dreamscape, and The Palace. I have also included a discussion of my interviewing process and selection of informants, and a "Cast of Characters", brief introductions to each of my informants.

A description of the methodology used for this project is contained in Chapter Four, Methodology. I begin with a discussion of ethnographic research in general, and how it was approached for this project. In particular, I discuss the issues specific to doing research in virtual reality, how other researchers have dealt with them, and how I arrived at my own process. The two major methods used were John Flanagan's Critical Incident Technique (1954) and James Spradley's Participant Observation (1980). In this chapter I describe how they were used for this project. A more detailed breakdown of the stages in the Critical Incident Technique is also contained here.

In Chapter Five, Findings, I show how I analyzed my data and arrived at the Cultural Themes present in my research. This is where we hear from the informants themselves about their experiences in their respective virtual worlds. I also present data drawn from my historical research in order to explore the parallels that exist between the two frontiers. Five basic themes emerged from my interviews, and each is discussed in a section of this chapter. These themes deal primarily with how social norms are determined and enforced, and with the needs for individuality and self-fulfillment that are played out in the virtual communities.

In Chapter Six, Conclusions, I reiterate how the mental models and the processes of cultural formation are closely tied between the nineteenth century American frontier and the current Cyberspace frontier. I restate how the concept of frontier has been incorporated into virtual communities, and what the term

“frontier” actually means in this context. I also state my conclusions about the significance of my findings for the field of anthropology and the implications for potential future research. Finally, I discuss the underlying mentality and human needs that contribute to the parallel themes and social behaviors that exist in any frontier situation. Out of this, I have attempted to show that “frontier” is more a social and cultural construct than it is a mere metaphor.

CHAPTER 2. LITERATURE REVIEW

The existing literature relevant to this research falls into three main areas: writings on culture, community, and place; writings on the American frontier, including personal accounts, historical studies, and literature; and previous research into cyberspace culture. Part of the aim of this thesis is to show how the second two are related. The first area of review aids in demonstrating how conventional definitions of these terms may be challenged and transformed by human interaction within electronic media.

2.1. Literature on Culture, Community, and Place, and the Process of Cultural Formation and Change

Conducting research in cyberspace presents some interesting challenges, in that often times, traditional definitions of concepts such as "culture", "community", and "place" must be explored and possibly expanded in order to include virtual realities. In this section I will mention a number of sources that discuss these ideas, often from a fresh perspective.

In order to study an emerging culture as it forms and evolves, it is helpful to understand first, what a culture is, and second, how cultural formation takes place. Edgar H. Schein (1992) offers excellent insights into these definitions and processes in Organizational Culture and Leadership. He defines culture formally as "a pattern of shared basic assumptions that the group learned as it solved its problems of external adaptation and internal integration, that has worked well enough to be considered valid and, therefore, to be taught to new members as the correct way to perceive, think, and feel in relation to those problems." (Schein, 1992: 12). This research offers an opportunity to see this process of cultural formation in action, and to watch as these assumptions are decided upon.

The issue of what defines a community is also relevant to this project. A number of authors have written about how certain cultures and communities have developed around the mode of communication used by their members. In Seeing Voices, Oliver Sacks (1990) discusses deaf culture - a culture that identifies itself as unique in many ways, based largely on its use of special sign language, ASL. At the conclusion of his research, Sacks stated that "Whilst I never forgot the 'medical' status of the deaf, I had now to see them in a new, 'ethnic' light, as a people, with a distinctive language, sensibility, and culture of their own". (Sacks, 1990: xii).

In addition, Kathy Jankowski (1991), in "On Communicating with Deaf People" (from Intercultural Communication) gives an insider's perspective on how and why the Deaf see themselves as a separate culture and community, again based on its method of communication. Edward T. Hall (1959) also stresses the importance of communication in shaping culture in The Silent Language. It could now be argued that participants in an online world form a unique community and culture based largely on the fact that they communicate with each other, not through spoken words and face to face interaction, but through the use of an electronic medium.

The concept of "space" is another important issue to explore in researching culture in virtual reality. Here, our traditional notions of geography, environment, distance and proximity are challenged by the fact that

the shared place exists only electronically, on a computer set up by developers and/or users of the virtual world in question.

Post-modernist writers suggest alternative definitions of many terms, including those related to place. In Post-Modernism and the Social Sciences, Pauline Marie Rosenau (1992) discusses how both skeptical and affirmative post-modernists have attempted to displace modernist definitions of space and geography. In her glossary of post-modern terms, she defines "space" as "not merely geographic location; places that cannot be definitely determined." (Rosenau, 1992: Glossary). Under these definitions, cyberspace exists as a "space" or "site" where information may be exchanged and knowledge or understanding gained from interaction with others. This is more than just a figure of speech, because while the various participants in a virtual conversation may not physically be in the same place, their interaction, the screens they are viewing, and the focus of their thoughts and mental processes definitely are.

Because interaction and cultural formation in a graphical virtual reality take place inside a simulated visual environment, another part of this project has been to study how people interact with their surroundings. Winifred Gallagher (1993), in The Power of Place, explores the various ways that humans are affected by the spaces in which they find themselves. Here she brings together research from both behavioral and environmental science and refers to many studies about how people react to their surroundings and learn how to behave according to their environment. This work is very relevant to the study of cyberspace communities, as new environments are developed and people form societies within them.

2.2. Literature on the American Frontier

My original intention was to study cultural formation in Cyberspace, and compare the cultural themes that I identified there, in addition to quotes from my informants, with samples from first-hand accounts of the American West as found in journals, letters, and diaries written in the nineteenth century. By reading these historical accounts I was hoping to gain insight into how people moving west thought and felt about the changes they were embarking upon, and how their new way of life was being formed.

For example, I hoped to learn what the motivations and intentions were of those who felt driven to move west during the last century? What were they seeking while moving into new territories and forming new communities and lifestyles there? How did they form new societies, decide on laws and norms for behavior? To what extent were they aware of creating new culture?

However, I have discovered that nineteenth century frontier people were anything but introspective! As I have since found out, introspection as a cultural trait barely even existed until well into the twentieth century, with the advent of psychology and psychoanalysis. In fact, I have yet to read anyone's personal frontier accounts that seemed to be aware of creating a new culture, a new way of life. On the contrary, most people who moved west seemed to be looking for a continuation of life as they already knew it, or a place where they could live out the lifestyle that was making them an outcast back home. The personal accounts that I have read (including Bagley 1992, Bowen 1981, Canton 1930, Duus 1947, Gard 1949, Jeffrey 1979, and Svendsen 1950) tell many stories of the hardships endured - long, cold winters, lack of sufficient food, rampant disease, heartbreaking deaths of loved ones, cruel and inhumane treatment at the

hand of others, wars with indigenous people, as well as the everyday joys and sorrows that made up nineteenth century life in general. Interestingly, these are all things that are missing from life in cyberspace!

As I continued to read more personal historical accounts that contain no thoughts on cultural formation or awareness that they were, in fact, creating a new culture, I became aware of the stark contrast with the virtual communities I studied, which are extremely self-conscious and self aware. While the frontier people of the nineteenth century were living primarily at the survival and subsistence level, today's residents of the cyberspace frontier are generally acting out of a need for self-actualization and enjoyment (Maslow, 1954). Yet the metaphor and the comparisons continue. Therefore, I have looked at literature of the time as well as studies of how the frontier has been imagined and mythologized in order to add context and support to my research.

2.2.1. History of the Frontier

From the time of the arrival of the first Europeans into the "New World", the movement westward and into new territory became a fundamental and prevailing force in the shaping of American culture. Nineteenth-century historian Frederick Jackson Turner posited that "the existence of an area of free land, its continuous recession, and the advance of the American settlement westward, explained American development." (Turner, 1893: 1).

The settlement of North America was accomplished by continually pushing back the boundaries of the settled territory into a series of new "frontiers". These frontiers were usually marked by natural, physical boundaries - a mountain range, a wide river, an expanse of arid land, etc. (ibid: 29). With each successive frontier, questions of political and social organization, religious and educational institutions needed to be re-examined and re-established. As these questions were evaluated at each frontier, the solutions often provided guidelines for the next. Thus each "frontier" made significant contributions to the development of American culture and character.

Turner goes on to describe the "waves" of human frontiers that developed and the types of people who generally migrated west at each phase. The earliest, Atlantic frontier was crossed first by fur-traders and fishermen, then by miners, cattle-raisers, and finally by farmers. This succession was duplicated with each general move west. Peck's New Guide to the West, published in Boston in 1837, offers the following compelling description of these waves of settlers and immigrants:

> Generally, in all the western settlements, three classes, like the waves of the ocean, have rolled one after the other. First comes the pioneer, who depends for the subsistence of his family chiefly upon the natural growth of vegetation, called the "range", and the proceeds of hunting.
> ...
> It is quite immaterial whether he ever becomes the owner of the soil. He is the occupant for the time being, pays no rent, and feels as independent as the "lord of the manor". With a horse, cow, and one or two breeders of swine, he strikes into the woods with his family, and becomes the founder of a new county, or perhaps state. He builds his cabin, gathers around him a few other families of similar tastes and habits, and occupies till the range is somewhat subdued, and hunting

> a little precarious, or, which is more frequently the case, till the neighbors crowd around, roads, bridges, and fields annoy him, and he lacks elbow room. The pre-emption law enables him to dispose of his cabin and cornfield to the next class of emigrants, and, to employ his own figures, he "breaks for the high timber", "clears out for the New Purchase", or migrates to Arkansas or Texas to work the same process over. The next class of emigrants purchase the lands, add field to field, clear out the roads, throw rough bridges over the streams, put up hewn log houses with glass windows and brick or stone chimneys, occasionally plant orchards, build mills, schoolhouses, courthouses, etc. and exhibit the picture and forms of plain, frugal, civilized life.
>
> Another wave rolls on. The men of capital and enterprise come. The settler is ready to sell out and take the advantage of the rise in property, push farther into the interior and become, himself, a man of capital, and enterprise in turn. The small village rises to a spacious town or city; substantial edifices of brick, extensive fields, orchards, gardens, colleges, and churches are seen. Broad cloths, silks, leghorns, crapes, and all the refinements, luxuries, elegances, frivolities, and fashions are in vogue. Thus wave after wave is rolling westward; the real El Dorado is still farther on. (ibid: 33-34)

In 1890, the Superintendent of the Census released a bulletin stating that, for all intents and purposes, the American Frontier was no more. (ibid: 24-25). By this time, there was no area unsettled enough to be considered a "frontier". Howard Lamar, a critic of Turner's thesis, pointed out that a "discontinuity existed between America's rural past and its urban-industrial present" (Jones, 1994: 22), which made his thesis "useless as a guide for the present and future" (ibid). However, Turner's thoughts have continued to be debated and in some cases found to be relevant to new kinds of frontiers (Limerick, 1994). With the American West officially "closed", the United States turned greater attention to the Industrial Revolution and to the further development of technology. As mentioned previously, even the word "frontier" has continued to take on new meanings, and in our time the concept applies more often and regularly to new technologies and possibilities than to geographical boundaries (ibid).

2.2.2. Cultural Formation on the American Frontier

It has become popular in mainstream culture to refer to cyberspace as a "frontier". In fact, even writers like Rheingold's (1993) "Homesteading on the Electronic Frontier" and Turkle's (1995) "Artificial Life as the New Frontier", from Life on the Screen have presented this preconception. Indeed, in attempting to view cultural formation in cyberspace in a historical context, life on the American frontier offers us many useful points for comparison. However, I have found no previous studies that have attempted to look at cyberspace within the context of frontier mentality and life in a real frontier environment. As we enter the twenty-first century, and as increasing populations encroach ever more rapidly into vanishing open spaces, cyberspace may offer new opportunities for expansion into a frontier of a different kind.

It would appear useful at this point to attempt to define what is meant by the terms "frontier" and "frontier mentality" in the contexts of American culture and of this project. In The Adventures of the Frontier in the Twentieth Century, Patricia Nelson Limerick (1994) explores the various meanings that Americans have invested in the word "frontier". Although originally the term referred to "a place occupied by fewer than two people per square mile" (Limerick, 1994: 67), it has become over time a term used for anything

new and relatively unexplored, "on the edge of exciting possibilities" (ibid). In contemporary America, this analogy applies most regularly to advancements in technology. Limerick states that "the American frontiering spirit, some time in the last century, picked itself up and made a definitive relocation - from territorial expansion to technological and commercial expansion" (ibid: 88). This would imply that there is something in the American character, apart from the definition of words, that seeks new territories and new ways of defining one's self. This seeking, and the mind set behind it, could be called "frontier mentality". This project looks at how frontier mentality applies to the development and settlement of the new territories of cyberspace.

In addition to contributing to modern notions about the frontier, mythology also played an important role in the history of the nineteenth century American West, as it does today in cyberspace communities. The myths of pioneers and settlers, as well as those who stayed behind, whether or not they were close to reality, tell us much about how people of the time viewed the frontier and westward migration. In Virgin Land: The American West as Symbol and Myth, Henry Nash Smith (1970) discusses the rise and fall of the myth of the West as agrarian Utopia, and the dreams and conceptions about the frontier commonly held by those in the last century. The discrepancies between the "ideal" and the "real" frontier culture may parallel those found in cyberspace culture today.

In order to create a truly nuanced and accurate comparison of the two frontiers, it is also important and worthwhile to discuss literature on how culture and community were formed on the American frontier in the nineteenth century, and the lasting impact, if any, that this had on American culture as a whole. In 1893, Frederick Jackson Turner read his essay, The Significance of the Frontier in American History, to the American Historical Society. This became and has remained a pivotal work, with which subsequent scholars have tended to either strongly agree or strongly disagree. In this essay, Turner posited that the frontier, with its westward expansion into "open" territory, became the driving force in forming American culture. He discusses the ways in which American character was forged by continually pushing into unfamiliar territory. He goes on to describe the "waves" of frontier as they moved their way across the continent, and the impact they had on American legislation and democracy.

Some critics of Turner's hypothesis include George Wilson Pierson (1942), and Louis Hacker (1933). These authors point out aspects of frontier culture that had been overlooked in Turner's writings (e.g. the presence of Native Americans, women, and the Chinese, among others), as well as other aspects of American culture that did not appear to have developed as a result of westward expansion (e.g. the Industrial Revolution, American music and architecture).

On the other hand, Turner's supporters argue in favor of a universality of some dimensions of frontier culture as found in other areas of the world, and for the part the frontier played in shaping American democracy. These writers include Walter Prescott Webb (1951), who presented a comparison between the American and European frontiers, and Ray Allen Billington (1966), who emphasized social democracy on the frontier, and the lack of a "class" system similar to that found in Europe. The study of the Turner thesis, his supporters and critics, have played a part in my analysis of the data gathered during my research, and I would contend that the conclusions presented here also contribute some new information to the debate between the two camps.

2.3. Literature Pertaining to Cyberspace

2.3.1. History of the Internet and Online Discourse

Programmers at the United States Department of Defense built the first network in the late 1960s (Sterling, 1993: 2). The Advanced Research Projects Agency (ARPA) funded the project, which was meant to enable the authorities to communicate and weapons to be controlled in the event of nuclear war. The idea was to build a network structure that had no "center", since any center of communications would have become the target of enemy missiles. Therefore, the system was developed so that a message could be sent from any node within the network to any other. In this way, even if large portions of the network were to be disabled, information could still be transmitted. The project became known as ARPANET (ibid).

The first nodes of the new network were installed in 1969, at University of California, Los Angeles, U.C. Santa Barbara, University of Utah, and Stanford Research Institute. Throughout the 1970s and 80s, more Universities and research organizations worldwide set up their own nodes, ostensibly for the purpose of sharing computer resources from one node to another. However, as it happened, the majority of people were using it instead to share correspondence, in the form of e-mail (Reid, 1994: 7). ARPANET gave way to the Internet (the current network), and a number of communication facilities were developed, including USENET, the most popular and widely used. USENET consists of software that allows people to access messages stored on a network-distributed database, and to add their own articles and/or responses to it. These articles now cover almost any topic imaginable, from science and other academic disciplines, to computer-related information, to purely social and recreational subjects. However, USENET remains an asynchronous means of communicating (ibid).

Another facility available on the Internet was known as 'talk' or 'phone' (ibid: 8). This allowed one user to 'call' another, and if that person was also logged on to his computer and accepted the 'call', the two users could enter text directly to each other's screens. This allowed for a much faster and more interactive form of communication than USENET, and helped to establish the computer as not only a means of communication, but also as a site where it may occur. This important development help to prepare the way for the first text-based virtual realities, known as "MUDs" (ibid).

In the early 1970s, Donald Wood of Stanford Artificial Intelligence Laboratory wrote ADVENT (a.k.a. Adventure), a text-based computer game that allowed a user to assume the role of a traveler in a fantasy kingdom, fighting with enemies, dealing with dangerous situations, finding treasure. Adventure became very popular on college campuses and other research institutions, and many other similar games soon followed. At the same time, most of these organizations were joining the ARPANET, and in 1977 the first multi-user, networked games started to appear. In 1978 and 79, two students at the University of Essex, England developed the first 'MUD' (Multi-User Dungeon), inspired by a popular game of the time, known as 'DUNGEN'. This game allowed users to interact with each other, cooperate and form alliances, or fight each other. Points were given to each player based on what he accomplished during any particular run of the game, and player's status was stored from one game to the next (ibid: 9).

Soon, other ‘MUD’ games were developed, for numerous purposes. Presently, in the 1990s, there are various forms of MUDs, each with its own technical advantages and disadvantages. Some are still used for game playing, as was the original MUD. Others are for recreational/social interaction. Still others are meant for specific audiences and purposes, such as academic research in particular areas, or support groups for people in recovery. The majority, however, are still recreational or social. Many of these, especially the social MUDs, allow a participant to develop his own character, and to build and use his own property and interact with other players as he sees fit. These social virtual worlds come closest of any MUD to attempting to simulate real life situations, and to developing new forms of social and cultural interactions, though this is done entirely in text (ibid: 10-11).

Once inside a MUD, you are able to move around, have conversations, and build things using pre-set commands that the computer interprets. For instance, as the character “Christy” on LambdaMOO, one of the most popular text-based realms, I might type the command “say Hi there!” All players will then see

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Christy says “Hi there!”
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on their computer monitor. They may then respond as they wish. Likewise, any actions I type after the command “emote” will appear after my name, as in “emote laughs”:

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Christy laughs.
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or “emote waves to Fred”:

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Christy waves to Fred.
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The character “Fred” could then respond with “emote waves back to Christy”, and all players would see:

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“Fred waves back to Christy”.
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If I type “look”, I will see a description of the location where I am currently. An example of this from LambdaMOO is their Coat Closet, the room where all new players initially enter. If you type the command “look”, you will see:

```
The Coat Closet
        The closet is a dark, cramped space.  It appears to be
very crowded in here; you keep bumping into what feels like
coats, boots, and other people (apparently sleeping).  One useful
thing that you’ve discovered in your bumbling about is a metal
doorknob set at waist level into what might be a door.
        Don’t forget to take a look at the newspaper.  Type ‘news’
To see it.
        Type ‘@tutorial’ for an introduction to basic MOOing.
Please read and understand ‘help manners’ before leaving The
Coat Closet (Reid, 1994: 13).
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You could also use the "look" command to look at an object in the room, or at another player. A player can set up the description of their character or objects they create themselves as anything they wish. For example, if another player typed "look Christy", they might see:

> Christy is a tall and slender woman with shoulder length brown hair. She is wearing blue jeans and a red sweater. She seems friendly and approachable.

With the advent of graphical virtual worlds such as the ones presented in this paper, these types of activities may now happen in a visual context, where the various participants can see each other's representations as they interact. In section 3.2 I will discuss the history and background of each of these worlds, in order to provide further context to my research.

2.3.2. Literature on Cultural Formation in Cyberspace

A fair amount of ethnographic, sociological, and psychological research has been conducted on culture in text-based virtual realities. Because graphical and three-dimensional environments are relatively recent developments, published work is only beginning to be found pertaining specifically to these. In addition, existing work on cultural interaction in virtual reality tends to be largely by psychologists focusing on deviant behavior, and on how deviants or "outlaws" behave in cyberspace. One good example of this is The Bad Boys of Cyberspace (Suler, 1997). In this article, John Suler explores deviant behavior on The Palace, one of the virtual worlds where I conducted my own research. In contrast, anthropology as a discipline looks more towards what the society considers "normal" behavior. This is one reason why it is important that anthropologists and ethnographers become more involved in cyberspace research. Although this project looks at deviant behavior, it is looking at how "deviance" is defined and dealt with, and how norms of behavior are established and enforced within the communities.

In order to study virtual reality as a culture, we must first try to establish that it is indeed a cultural, as well as a technical, construct. In 1993, Howard Rheingold published The Virtual Community: Homesteading on the Electronic Frontier. This comprehensive description of Internet culture is based largely on Rheingold's own experiences in various online communities. Because he was one of the first to present virtual reality as a culture as well as a technology, many ethnographers of cyberspace consider this book an important work. In it, Rheingold talks about the history of the Internet, the development of various cultures and subcultures in cyberspace (including special-interest groups, game playing, activism, and uses of the Internet in Japan and France). He also speculates on the future of the Internet and on the problems presented by its increasing commercialization.

Similarly, Elizabeth Reid further supports the idea that virtual reality can be seen as a culture. She begins by arguing that virtual reality is a cultural phenomenon in addition to a technology. She states that:

> (Virtual reality) is primarily an imaginative rather than a sensory experience. I wish to shift the focus of attention away from the gadgets used to represent a virtual world, and concentrate on the nature of the user's experience of such worlds. I contend that technical definitions of VR beg the question of what it is about such systems that sustains the illusion of reality in the mind of the

> user. A list of technical components does not explain why it is that users are prepared to accept a simulated world as a valid site for emotional and social response (Reid, 1994: 3).

She goes on to examine the complexity of cultural constructs in cyberspace, by exploring the methods users of 'MUD's (text-based virtual reality systems running over the Internet) have developed of textualizing non-verbal communication, dealing with problematic aspects of virtual interactions, and forming and enforcing social and power relations. Reid's work is relevant to my own, as I have attempted to explore similar issues within graphical communities.

Within the new cultures in virtual reality, new ways of viewing the self and identity are also forming. For this project, identity and personal mythology will be important factors in creation of social and behavioral norms. In Life on the Screen: Identity in the Age of the Internet, Dr. Sherry Turkle (1995) examines in depth the culture of simulation that has formed among users of text-based virtual realities. As an ethnographer and psychologist, Turkle has spent over twenty years looking at how people interact with and through their computers. She contends that cultural shifts are occurring among these people, in that new definitions of identity, self, and environment develop within virtual communities:

> The Internet has become a significant social laboratory for experimenting with the constructions and reconstructions of self that characterize postmodern life. In its virtual reality, we self-fashion and self-create... Do our real-life selves learn lessons from our virtual personae?... Why are we doing this?... are we watching the slow emergence of a new, more multiple style of thinking about the mind? These questions can be addressed by looking at many different locations on the Internet. (Turkle, 1995: 180).

Previous writings have also shown that in these virtual realities social norms do exist and transgressions may occur. Julian Dibbell's (1993) often-quoted article from the Village Voice, "A Rape in Cyberspace", gives an account of a virtual rape that occurred on LambdaMOO, a popular text-based virtual society. In it he describes how the players as a group made a pivotal decision about one behavioral norm for this particular community, and how its transgression would be handled. This account provides a useful context in which to explore similar issues in graphical communities.

More recently, some writers are thinking about how this kind of use of the computer and the internet are changing and will continue to change our larger culture. As the Internet "comes of age" after several decades of use primarily as a tool for scientists and academics, children and teenagers of today are growing up with computers and the Internet as simply a fact of day to day life (Tapscott, 1998). In his research, Tapscott found that virtual communities are quite popular among teenagers, with interest usually beginning around ages 11 for girls and 13 for boys; ages when children are beginning to seek autonomy and the creation of their own identities. (ibid: 56). As these children reach adulthood and become the business leaders of their time, computer mediated interactions may be seen as the norm, as routine as telephone conversations or e-mail is today.

Esther Dyson believes that "The greatest structural impact of the Net is decentralization; things and people no longer depend on a center to be connected." (Dyson, 1998: 19). Like the technology it was based on (Sterling, 1993), the culture of the Internet naturally separates itself into smaller, self-defining

groups. In fact, Dyson even comments that, “Like the American frontier of old, the Internet is being built by its members”. (Dyson, 1998: 13). She believes that this decentralization has the potential to change the balance of power among countries, companies, and individuals and between merchants and customers (ibid: 18). However, she also points out that decentralized systems are not automatically self-organizing. Without the right sort of environment, that nourishes effective interaction, these communities can easily fall into chaos and die (ibid: 20). In this paper I look at three such communities, and discuss the comments of some of their participants as they reflect on how this self-definition and self-organizing is being carried out.

CHAPTER 3: HISTORY AND CONTEXT

3.1. The Researcher

My own journey into this particular work has been one of two seemingly diverse interests finally converging on a unique and interesting path. Although I have had a lifelong interest in travel and in the study of other cultures both ancient and modern, I chose as an undergraduate to follow my interest in, and aptitude for, mathematics and computer programming. After working for several years, I landed at the International Headquarters of a large corporation, working on business applications for overseas sales offices. This position gave me the opportunity to follow another passion - frequent travel to remote foreign countries. There I was able to meet and get to know people from cultures very different from my own, work with them, and learn a great deal from them. This job also gave me the opportunity to see, first hand, the impact that advancing technology was having on people and workplaces, as I installed new software systems and trained local users and programmers on them.

After working for ten years, I was eager to return to school as a graduate student, primarily for the purposes of enhancing my education and following up with my interest in Anthropology. At the time I had no particular thesis topic in mind, but during the course of my studies I pursued a number of different interests and possibilities. During this time I felt the need to try to combine various aspects of my life and find new directions that would be less compartmentalized and fragmented than they had been. I had also become very active on the Internet, taking a part-time job as a Web developer while I was attending classes, and joining a number of e-mail and USENET discussion groups.

I was beginning to see the potentials of combining Anthropology with technology; as the CD-ROM medium became prominent I thought about the possibilities of doing interactive ethnography, similar to ethnographic film, but which would allow the user to view cultural information at her own pace. I then produced one interactive ethnographic piece on the Experimental Music community in the San Francisco Bay Area. When I became aware of the existence of MUDs and MOOs I began to investigate them by obtaining characters on several different MOOs and participating in the communities therein. In November of 1995 I attended the American Anthropological Association conference in Washington, D.C, where I was able to attend a number of sessions on cyberspace culture and to learn about what other researchers in the area were doing. These sessions included “Communities of Technological Practice and the Design of Technology” (American Anthropological Association, 1995: 2), “Imagined Communities, Invented Connections: Creating Identity in High Tech Regions” (ibid: 18), “Constructions of Person, Self, and Identity in Cyberspace” (ibid: 28), “Technology and the Construction of Communities, Virtual and Physical” (ibid: 39), and “Cyborgs in Cyberspace or Humankind in Space and Time?: Rhetorics and Analytics of Cybertalk in General Anthropology” (ibid: 55)

Shortly thereafter, I began to find graphical virtual communities being discussed on the Web. One of these, ActiveWorlds’ AlphaWorld, was available free to users. I obtained the software, created a character, and began to explore the environment. I realized at this point that virtual reality was going to be an important part of the future of online community. Since this medium is still in its early stages, it offers great opportunity for ethnographic research of the type I have conducted. In addition to AlphaWorld,

many other graphical and three-dimensional virtual realms are being developed. I chose three of the most popular, AlphaWorld, WorldsAway's Dreamscape, and The Palace, to explore for this thesis.

3.2. The Internet and the Virtual Worlds Studied

3.2.1 Internet Demographics

Life on the Internet and the online population has been and remains to be a difficult area to measure and to keep up with (Wang, 1998). Some of the reasons for this are that things continue to change at a rapid pace, and new people are coming online every day. Companies who attempt to gather and analyze demographic statistic on the Internet and World Wide Web usage find a great challenge on their hands, and generally arrive at differing conclusions, depending on who you ask, and what their measurement techniques are.

While the business of obtaining Internet statistics is tricky, and there are a number of companies engaged in it, the Neilsen/NetRatings is considered to be one of the most reliable (ibid). A chart based on Nielsen's 1998 Internet Demographics study can be found in Appendix B. This information helps to establish some context as to who may be participating in worlds like the three described in this study. As we can see, the population is still primarily white, largely North American, and mainly middle class. John Suler offers the opinion that "These demographic features no doubt influence the social dynamics of cyberspace, as well as reveal how cyberspace reflects the global culture" (Suler, 1998). It is important to keep in mind, however, that the actual populations change daily. Companies like Nielsen and their competitors know this, and it is in fact their business to provide information to potential Internet marketers as to who their audience is likely to be (Wang, 1998).

3.2.2. Overviews of the Three Worlds Studied

I chose to conduct my research in AlphaWorld, the Dreamscape, and the Palace because these are three of the most popular virtual communities, and represent a wide variety of formats and capabilities. In order to establish history and context for each of these worlds, I draw upon my own observations and experiences in them, and upon histories and other writings that are published on the World Wide Web and in other sources. In so doing I have also attempted to present an overview of each world that shows its general nature and how it might be experienced by the user.

3.2.2.1. AlphaWorld

AlphaWorld was originally developed by a company called Worlds, Inc., that was founded in San Francisco, California in early 1994 as Knowledge Adventure Worlds (Mauz, 1999). From the start they were involved with developing new technologies for virtual experiences and were one of the first organizations to begin adding visual environments to multiple user, social virtual realities.

In 1995, Worlds, Inc. released a free beta version of software that would allow users access to AlphaWorld, the first fully functioning, online, three-dimensional virtual reality (ibid). Visually, AlphaWorld appears most like the "real world"; it has a sense of spatial perspective that is not present in

the others (See Appendix C for graphical images of AlphaWorld). Inside AlphaWorld, each player chooses an avatar to represent him- or herself. An "avatar" is a cartoon-like character that can walk, turn, and fly around the space, controlled by the user's mouse and keyboard. When a player wishes to "speak", he types in a message and it is displayed on the screen for other players to read and respond to. In AlphaWorld, users (known locally as "citizens") are able to own land, build their own 3-D property, set up businesses, chat with other users, and form community as they see fit, as part of an environment shared with other citizens from anywhere in the physical world.

When I initially began working on AlphaWorld, it was still in a very beginning stage. There were few instructions available, and for the most part a new participant had to learn how to maneuver by "trial and error". This made the experience challenging and interesting, if a bit frustrating. As the software was developed further, it became easier to learn and use, which encouraged more and more new users to participate. As more "citizens" came to join the community, develop their property, and interact, difficulties began to arise about agreeing what the culture should be, and how social norms should be established and enforced. (New World Times, 1996). Early on, the newspaper editor, a prominent citizen named "Dataman", published an editorial titled "Anonymity is our Bane" (ibid: Issue #8). In it, he voiced his opinion that anonymity on AlphaWorld was causing problems when some citizens abused the privilege and would masquerade as another citizen or use a different name to cause trouble or vandalize others' properties. This article met with severe criticism when other citizens accused Dataman of being a "control freak" and "pro censorship" (ibid: Issue #9).

From the beginning, the community on AlphaWorld attempted to be self-governing and to make its own rules. In an attempt to address social problems, various groups sprang up on AlphaWorld, including a "Police Force", a "CIA", and an "FBI". On the other hand, there were also "gangs" who caused a great deal of trouble . Disruptive and offensive participants were sought out and punished; in one case an avatar named "Pharaoh" committed suicide, only to return as a new and equally objectionable character (ibid: Issue #10). Properties were built, wiped out, and rebuilt as the technology behind them advanced and new releases of the software were distributed.

Additional worlds were developed using the same technology, and collectively they became known as ActiveWorlds, still owned and run by Worlds, Inc. As time went on, many AlphaWorld citizens grew dissatisfied. In one interview, "Spring Dew" said:

> The growing apathy displayed by Worlds, Inc for its users caused a great deal of uncertainty and anxiety, and Circle of Fire's buyout of the AlphaWorld technology gave a much-needed shot in the arm to the morale of the public at large. Since then ... they are rallying, and beginning to gain their second wind. ("Spring Dew", personal interview, August 2, 1997).

In February of 1997, Circle of Fire purchased ActiveWorlds. They are the current owners and stewards of the community. At present, registration and membership in ActiveWorlds costs $19.95 per year (ActiveWorlds, Inc. 1999).

3.2.2.2. WorldsAway and the Dreamscape

The technology behind WorldsAway has quite a long history, as virtual worlds go. It is the third generation of technology that was originally developed in 1988 by Lucas Arts & Entertainment for an online world called Habitat (Fujistu, 1997). Fujitsu Business Systems of America licensed the Habitat software in 1989 and purchased all rights to it in 1993 (ibid). Over time, the technology evolved into WorldsAway 1.0, which was released in 1995 on CompuServe. Although WorldsAway was originally available only through CompuServe, in October of 1997, WorldsAway 2.0 was announced. This version ran through the World Wide Web, making it accessible to an increasingly greater number of users (ibid).

In May of 1999, the communities based on WorldsAway technology became a separate company, initially called Inworlds.com (Andrews, 1999). The company then changed its name to Avaterra.com, who is the currently owner and proprietor of the Dreamscape, along with the other worlds powered by WorldsAway. Currently, membership in and use of the Dreamscape costs $19.95 per month (Avaterra.com, 1999).

In contrast to a three-dimensional world, WorldsAway technology concentrates on the avatars and on interaction between them, rather than on background and environment. WorldsAway avatars each have four different facial expressions available, as well as a range of motions and gestures. There are a wide variety of bodies and heads to choose from, and the heads are interchangeable - that is, one avatar may own several heads, and wear one or the other as she chooses. While in WorldsAway, one sees one's own avatar on the screen along with the other avatars in the room, making it somewhat like looking at a cartoon strip (See Appendix C for graphical images of the Dreamscape). The environment is sometimes referred to as "2 1/2 dimensional", meaning that one object, or avatar, may move in front of or behind another, making it not quite 3-D, but yet slightly more complex than 2-D. Avatars can hold hands, kiss, and interact with each other while at the same time observing themselves as part of the action.

One world utilizing this technology is the Dreamscape, the world where I conducted this portion of my research. The Dreamscape is unique in that it comes with it's own built-in mythology. All events, interactions, and changes that take place in the Dreamscape attempt to incorporate themselves into the mythology as best as possible. All activity takes place on the island of Kymer, presided over by the ruler/God Morpheus, who takes care of the community by creating new facilities and capabilities as they are needed or wanted. Morpheus has representatives in the Dreamscape in the form of technically empowered Oracles (priests or priestesses), who act as the "official" keepers of the rules and facilitators of the culture on Kymer. Oracles perform tasks such as wedding ceremonies, officiating at other events, and dealing with troublemakers. Volunteer Acolytes, unofficial but recognized helpers who have some special capabilities assist them.

Although there is an official structure in place, the Oracle's intention is for social problems in the Dreamscape to be community-negotiated whenever possible (Richardson, 1997: 10). Disputes regularly arise between those who feel that the Internet should be a place for free self-expression and those who demand law enforcement by the Oracles and Acolytes whenever there is a transgression. These issues are also discussed in the WorldsAway online forums regularly.

3.2.2.3. The Palace

The Palace was developed by Time-Warner, and was originally intended to be a place for playing games (Suler, 1997: 2). At that time, computer-based games were very popular, and the "Game Palace" would have been like a large, virtual mansion with board and table games, and a form of gambling, in addition to chat and social interaction. From the beginning, The Palace was intended for adults and was oriented for them (ibid: 3)

Although the "Game Palace" concept went by the wayside in favor of a more purely social environment, the developer of The Palace, Jim Bumgardner, maintained that the environment should keep an atmosphere of fun and fantasy. Participants were encouraged to drop their inhibitions, and feel free to "act out" and be naughty. Very unlike the other worlds I have explored, The Palace did not come with a set of rules or etiquette, but rather users were expected to "make what they would" of the experience (ibid). And rather than having only "canned" avatars available, users of The Palace were able to create their own avatars and other props using any hand made or scanned image.

The Palace virtual worlds are two-dimensional and appear "cartoonish" as you interact with others and with the environment (See Appendix C for graphical images of The Palace). The generic avatar is a round, smiley-face, which can be somewhat customized with color and expression if you are a member. However, most regular users prefer to create their own, unique avatar and other props, which gives the world a feeling of "anything goes".

Another unique feature of The Palace is that it is very easy for a user to create her own Palace environment on her own server. Many diverse Palace sites are now developed and in use throughout the world. These have a variety of themes, and like the avatars, are customizable by the creators of each world.

While this attitude of permissiveness certainly made The Palace very attractive to a wide range of people, the uninhibited behavior also resulted in a number of social difficulties. Early on, the developers began to realize that some form of social control would be needed. A Palace Community Standards news group was created on USENET, where users of The Palace could discuss these types of issues. Early incidents, including a virtual rape (Suler, 1997: 7), resulted in reduced anonymity and power for guests. A group of wizards was formed in order to help deal with troublemakers (ibid: 9-11).

As a more formal method of social control came into being, the basic "make what they will of it" premise of The Palace was being challenged. Users were creating and wearing obscene props, and outlaws, known as SNERTS - "snot-nosed, Eros-ridden teenagers" (ibid: 11) overran the servers. Debates arose over what exactly defined "indecent". Wizards attempted to enforce some general rules, while becoming increasingly overworked. Some pushed for more technical capability for social control to be built into the client software, so that each user could decide for himself (or his children) what might be visible or hidden (ibid: 12).

It appears that the problems of establishing social norms and rules, as well as deciding how they are to be enforced, have become central issues to each of these worlds, as they have in other online communities

and, historically, in any "frontier" environment where groups moving into new territories attempted to sort out the various types of people present and their needs and motivations. By examining cultural formation in this new arena of graphical virtual reality, one of the principle aims of this study was to find out to what extent frontier mentality remains, even when the new territory is in virtual, rather than physical space.

3.3. "Cast of Characters" - My Informants

Although I gathered data in a number of ways, I chose one on one interviewing as my primary source of information for this project. This was largely because I believed it would give me the opportunity to pursue more in-depth answers and to follow up on specific questions and any new information that each of my informants introduced. I was also hoping that firsthand accounts of cyberspace experiences would be comparable to firsthand accounts of the nineteenth century frontier experiences that I was reading about in my historical research.

By selecting the people that I did to interview, I was looking for a good cross section of the participants in virtual communities. I met them either in person or online through forums and organizations dedicated to specific worlds or to virtual worlds in general. As a result, my informants were to some extent self selected, due to their expressed interest in the subject matter. Most of my requests for interviews were gladly granted. Interestingly, however, a few potential informants turned me down, because they felt previous interviewers had misrepresented them. Partly as a result of this feedback, I emphasized to each of my interviewees that they would have an opportunity to review my research, and that they could request to have their information removed at any time.

In total, I interviewed thirteen informants. All except one are from the United States (the other being from The Netherlands), and all except one are involved with graphical virtual worlds (the other is involved with online chats and virtual classroom work). Their ages ranged from 14 to 53, and there were a total of five males and eight females. Their experience with virtual worlds covered a wide range, from relative newcomer to experienced system operators and "wizards" who actually create and help to run the worlds. Some informants preferred to use their real life first names in this thesis, while others preferred to be known by their avatars' names. In all cases I have honored their requests and they are known here as they asked to be known.

- Linda - Graduate student and instructor of online courses. Author of a 12 page paper on forming community online.
- Wendy Sue - Online host for events in virtual worlds. Founder of "WEAVE", an organization for "Women Entering Avatar Virtual Environments". Longtime participant in and proponent of a variety of virtual communities.
- "Dows" - High School student and participant in Alpha World.
- "Spring Dew" - Citizen of Alpha World and Editor of New World Times, the Alpha World community newsletter.
- "Wepwawet" - Citizen of Alpha World. Particularly drawn to the construction and three-dimensional aspects of virtual worlds.
- "Xavarella" - Long time participant in text-based worlds and now active citizen of Alpha World.

- Judith - Former marketing writer for WorldsAway and “enthusiastic user of the product”.
- Mary - Active participant and content provider for WorldsAway.
- “Myotis” - Long time participant in virtual communities, both text-based and graphical. Began with The Palace in 1995, is now a Wizard (system operator) there.
- Tina - Active participant on The Palace. “Goddess” (owner/proprietor) of two Palace servers. Background on AOL and IRC (Internet Relay Chat) prior to The Palace.
- “Wizzard” - Member of The Palace and long time participant in text-based virtual worlds and chats. Avid Science Fiction reader and armchair cyber-anthropologist.
- “FO” - Active participant and wizard on The Palace. Long active on AOL and online chats.
- Peter - Palace citizen from Utrecht, The Netherlands. Primarily active on Palace-related mailing lists, rather than the Palace itself.

CHAPTER 4. METHODOLOGY

4.1. Ethnography

For this project, I used qualitative research methods common to ethnographic research and additional historical library research, as well as methods particular to the electronic medium on which my subject of research resides. James Spradley defines ethnography as "the work of describing a culture. The central aim of ethnography is to understand another way of life from the native point of view." (Spradley, 1980: 3). In general, ethnography allows us to examine cultures different from our own, and to learn from them things that might not be apparent to the casual observer.

Participant observation is an important technique central to ethnographic research. As a participant observer, the ethnographer is able to gain the perspective and understanding that comes from being an "insider" to the culture. While participating in the activities of the culture, it is also imperative for the ethnographer to maintain a critical and "observational" attitude. She must attempt to experience the culture as both insider and outsider and to allow her own observations and experiences to also be informed by the other participants in that culture. In the field of anthropology, ethnographic fieldwork was traditionally conducted in a culture very different from the one to which the ethnographer was native. Often, research was done in an attempt to learn from and better understand traditional cultures and societies that were rapidly changing, disappearing, or being absorbed into larger, mainstream cultures surrounding them. More recently, however, many ethnographers have been doing research within their own society. This often looks at subcultures inside one's own culture, such as Michael Agar's study of New York City heroin addicts (Agar, 1980), or Oliver Sacks' research on the Deaf and their unique culture (Sacks, 1990). Paul Willis' (1977) account of British working class students gives us an example not only of looking at subcultures, but of actually studying one's own culture.

Ethnographic research in cyberspace presents a number of challenges; since the members of one virtual community may, in "real life" be scattered around the globe, it is very difficult for the ethnographer to meet with or interview all of them in person. For this reason, interviews and other data may be collected "virtually". However, this method brings up another set of potential problems. In cyberspace, an informant can easily disguise many things about herself - gender, age, ethnicity, and most of the other variables normally considered important by anthropologists. For these reasons, I explored and present here some varying opinions on doing ethnography of cyberspace before I go on to discuss my own methods.

Dr. Sherry Turkle (1995), in researching her own work, spent a great deal of time observing, in person, the way that people interact with computers. She worked in places like computer labs, classrooms, and scientific conferences. Turkle has chosen not to present her findings unless she has met the informant in person. Her reasons for this include:

> I made this decision because of the focus of my research: how experiences in virtual reality affect real life, and more generally, on the relationship between the virtual and the real. (Turkle, 1995: 324)

However, she goes on to recognize that researchers with different aims may legitimately employ different methodologies:

> In this way, my work on cyberspace to this point is conservative because of its distinctly real-life bias. Researchers with different interests and theoretical perspectives will surely think about this differently. (ibid: 324)

Anthropologist Steve Mizrach (1994), in his paper on Computer "hackers" and their language, presents an entirely different point of view. Because his research involved an underground group who were engaged in some illegal or quasi-illegal activities, he found it necessary to conduct his research entirely in the virtual. Beyond this, however, he suggests other reasons for doing so:

From an emic perspective, many of our subjects do not distinguish between "real" life and "virtual" life. As good ethnographers and participant observers, we should not make such seemingly "etic" distinctions in the face of our informants. If they spend more of their waking time in cyberspace than in "real life", who is doing the more honest ethnography? The cyber-ethnographer, or the person who ignores that part of their life to which they devote the most time? ... As good cyber-ethnographers, we should be just as willing to examine the sociocultural relations in "cyber" society as we do in "real" society. ... Where people invest meaning, the anthropological interpreter should go; and people do invest great meaning into cyberspace. (Mizrach, 1994: 1-2)

My research methods for this project were a combination of in-person and virtual. As a participant in these virtual communities, I established characters, interacted with other members and recorded events and conversations where appropriate. However, as an observer and ethnographer, the bulk of my data has come from in-person and e-mailed interviews with members of these virtual communities and with people who are involved with working on them in some capacity.

4.2. Data Collection and Analysis

The purpose of this qualitative study is to provide greater insight into the ways that participants in virtual realities view the cultures and communities they are creating and building. Spradley (1980) advocates the use of participant observation and in-depth interviews to learn about the explicit and tacit knowledge held by individuals while minimizing the risk of imposing predetermined ideas on the population under study. In addition, Kirk and Miller (1986) contend that qualitative research is especially useful when seeking to understand questions of process rather than quantity.

Along with participant-observation, I used the Critical Incident Technique for interviewing (Flanagan, 1954). This is a method of gathering information about important events, or incidents, from members of the virtual communities themselves, in order to better understand how they view the situations at hand. John Flanagan describes this technique as "a set of procedures for collecting direct observations of human behavior in such a way as to facilitate their potential usefulness in solving practical problems and developing broad psychological principles." (ibid: 327). It is a flexible technique, in that it consists of a set of general principles that can be adapted to each situation as needed. There are five steps most commonly used in the Critical Incident Technique (ibid: 354-355). They are:

1. Determination of the general aim of the activity.
2. Development of plans and specifications for collecting factual incidents regarding the activity.
3. Collection of the data.
4. Analysis of the data.
5. Interpretation and reporting of the statement of the requirements.

These steps, and how they have been carried out for this project, are as follows:

4.2.1. Determination of the General Aim of the Activity.

The aim of this research project is to learn about formation and enforcement of social and cultural norms in graphical and three-dimensional virtual realities, and to see how this correlates with modern ideas about life on the American frontier of the nineteenth century. By so doing we gain a truer understanding of how the concept of "frontier" is being used to grasp and make sense of electronic medium.

4.2.2. Development of Plans and Specifications for Collecting Factual Incidents Regarding the Activity.

Plans for data gathering were completed during the writing of my thesis proposal. In that phase of the project I primarily relied upon James Spradley's book Participant Observation (1980) along with the Critical Incident Technique documented here for guidelines. As Spradley says, "In ethnographic inquiry, analysis is a process of question-discovery. Instead of coming into the field with specific questions, the ethnographer analyzes the field data compiled from participant observation to discover questions. You need to analyze your fieldnotes after each period of fieldwork in order to know what to look for during your next period of participant observation." (Spradley, 1980: 33-34).

Therefore, my plan was to develop specific interview questions for each virtual world I explored, as I went. I began by establishing characters in each world and logging in for a time to begin to learn about the general character of each one. I also looked up background information about each one, using published histories and other papers, mailing lists, and online asynchronic discussion groups. The information gathered then assisted me in generating a set of basic questions relevant to each realm.

For the purposes of this project, interview questions centered on incidents that have occurred within virtual communities and the development or enforcement of social norms therein. With the Critical Incident technique, it is important that the questions be as specific as possible. Additional questions arose as I interviewed my informants and acted as a participant observer in the worlds. See Appendix D for lists of the basic questions I used pertaining to each world.

4.2.3. Collection of the Data

In total, I conducted thirteen interviews: one on the phone, six in person, and six through e-mail. Each interview began with the specific questions that I had in mind, and many of them moved into additional discussions of topics and issues that were introduced by my interviewees. Overall I found all of these interviews very useful and informative. I did, however, notice some big differences between interviews conducted live and those conducted through e-mail. During the live interviews there was far more

tendency for the subject and conversation to wander into other topics, as each informant discussed those aspects of virtual worlds and cyberspace that he or she found most engaging. As a result, my taped interviews were very lengthy and very interesting, but I had to do more digging to get to the specific kinds of comments and data that I was looking for. By contrast, my e-mailed interviews remained much more focused on the questions I originally asked, and on the discussions arising from them specifically.

Data was also collected in a number of other ways, from a variety of sources. One of my first activities as I began my research was attending a conference held in October of 1996. "Earth to Avatars" was held in downtown San Francisco, and was presented by a group called The Contact Consortium . This organization is dedicated to the study of virtual worlds, and its membership is multidisciplinary, consisting of engineers, social scientists, writers, musicians, graphic artists, universities, corporations, and many other interested parties. Earlier in the year I had attended an event they sponsored in AlphaWorld at a special site called "Sherwood Forest"; the purpose of this event was to begin to collectively build an environment, and to discuss communication and community in avatar space .

At the Earth to Avatars conference I attended a number of panels, including one on virtual communities. It was led by Wendy Sue Noah, the founder and chairperson of WEAVE , the women's special interest group of the Contact Consortium. There I met Wendy Sue and asked to become part of WEAVE. Through my involvement with WEAVE, I attended the first organizational meeting and became WEAVE's Web site developer. I also attended another event consisting of presentations and talks on virtual worlds, including the three worlds I have explored for this project. Through this organization I met and spoke with many women who are interested in social development in virtual worlds, several of whom, including Wendy Sue, became informants.

In each of the worlds I studied, I created a character and went in to learn a little about the world - how it operated, what the general "mood" was like, how people interacted and related to each other and to their environment. My avatars, each known as "Christy", were identified as female characters wearing red. The appearance of one's avatar can have a profound effect on how you are perceived and treated in cyberspace, and my decision to enter these virtual worlds as female, humanoid characters was primarily based on my desire to be treated in virtual space as closely as possible to how I would be treated in real life.

In addition, I began to participate in online forums, news groups and mailing lists pertaining to each world. These were a great source of information, as people were in there discussing many of the social and behavioral issues that I was attempting to learn from. Although I did not conduct research directly in these forums, I did find the majority of my remote interviewees through them.

4.2.4. Analysis of the Data

The discovery and analysis of cultural themes as they exist in virtual worlds and correlate to those found on the American Frontier form the core of my data analysis. Anthropologist Morris Opler defines a "cultural theme" as "A postulate or position, declared or implied, and usually controlling behavior or stimulating activity, which is tacitly approved or openly promoted in a society" (Spradley, 1980: 140).

My analysis followed James Spradley's methods (ibid) of domain analysis and identification of dimensions of contrast, and using that information, seeking out cultural themes as they began to emerge. In Chapter 5 I will go through specifically how I used these methods.

4.2.5. Interpretation and Reporting of the Statement of the Requirements of the Activity

For this step in the Critical Incident Technique the researcher must attempt to report any possible biases and limitations that have arisen during the previous four steps. In addition, the degree of credibility of the final results should be pointed out.

Firstly, as with any research conducted in virtual space, there is the issue that with my remote interviewees, I had no way to verify that they actually are who they claim to be! Although I asked each of them for some brief demographic information (gender, age, and place of residence), I have only their word to go on. In addition, the informants I have spoken to were selected from among people who had professed an interest in discussion of social issues around cyberspace. I met my informants, both face to face and virtual, through meetings and forums around such issues, and my requests for interviews were generally gladly granted.

Partly to address the issue of credibility of my analysis, I established a web site dedicated to my research . On this site, informants as well as other interested persons could view my work as it progressed, make additional comments, and provide feedback through e-mail. In addition to providing some level of reciprocity to the communities that I was researching, I was hoping that this would assist me in keeping my analysis and conclusions on track.

Although I encouraged all of my informants to review this site and to provide me with any comments or feedback they had, I heard back from only a couple of them, along with a few other interested people who heard of the site and my research from other sources. However, the comments I received were helpful and did, indeed, assist me in ensuring that my thoughts and conclusions were valid. Among these were "Spring Dew", one of my informants who was also the editor of the "New World Times". From reading my posted proposal, she was able to see that my background research had occurred before AlphaWorld was bought by Circle of Fire. This was helpful information, and I was able then to look into the transition of ownership and how it had affected the AlphaWorld residents. This transition is documented further in section 3.2.1, where I discuss the history and background of AlphaWorld.

Also responding was Cathy White, a student at Kent State who found my site while searching the web for information about Frederick Jackson Turner's work. Her own research was also involving the Internet and Turner; as she told me, "My research involves the use of the Internet by the "fringe" elements of society as a frontier in a society that often rejects extremists" (C. White, e-mail communication, 1997). I thought it was interesting that someone else was also looking at the Internet environment as a frontier, and since her research was focused on deviant behavior, I referred her to the works of Suler (1997) and Mizrach (1994) as sources that I had found helpful in that area.

Another person to offer comments was Mark Caban, an Australian member of an e-mail list that my husband Henry belongs to. Henry had at one point made some comments on the list that referred to my

thesis, and after looking over my site, Mark felt that “The parallels with the American frontier can be transposed to the colonial society that existed in Australia in the 1880s” (M. Caban, e-mail communication, 1998). One thing I have mentioned in section 6.2 (Opportunities for Further Research) is the need to explore whether or not similar parallels could be seen in other countries, and Mark’s comments indicate that this might be the case.

CHAPTER 5. FINDINGS

5.1. Analysis of Data

5.1.1. Cultural Domains

James Spradley suggests beginning the process of identifying cultural themes with a domain analysis (Spradley, 1980). A "cultural domain" is a category of cultural meaning that includes other, smaller categories (ibid: 88). A single domain is comprised of a "cover term" (e.g. "Avatar") and a semantic relationship (e.g. "is a kind of"). Included terms (e.g. "Humanoid", "Animal", "Alien") are then noted for each cultural domain. Specific to this project, these categories include such things as "Types of Avatars", "Ways to Transgress", or "Ways to Deal with a Transgressor". Domains and included terms often include many "folk terms" from the culture being observed, and looking for these terms along with tacitly expressed descriptions and relationships is useful in identifying them.

For the purposes of this project, I developed a domain analysis worksheet within my field notebook that laid out the structure of each domain, including cover term, semantic relationship, and included terms (see Appendix E for an example of the worksheet). As I reviewed my notes and interviews I filled in the worksheets with cultural domains as I identified them. These domains were then useful in looking for cultural themes that ran across domains as well as across virtual worlds. From review of my field notes and interviews, I came up with the following list of cultural domains:

1. Kinds of Avatar (e.g. humanoid, animal, alien, fantasy, inanimate object)
2. Kinds of Relationship (e.g. "virtual", "real life", authority figure, peer)
3. Kinds of Event (e.g. planned activity, community gathering, public, private, exclusive)
4. Kinds of Place (e.g. public spaces, personal property, private turf, town, "official" vs. personal Palace)
5. Kinds of Transgression (e.g. intentional, unintentional, "newbie" mistake, hacking, harassment, cultural difference, obscenity)
6. Kinds of Player (e.g. "newbie", veteran, "SNERT", casual, regular, hacker)
7. Places within AlphaWorld (e.g. Ground Zero, Sherwood Forest, town, private property, public space, underground)
8. Places within the Dreamscape (e.g. town, private turf)
9. Places within the Palace (e.g. Palace Main mansion, Welcome Palace, personal server)
10. Consequences of Transgressing (e.g. being "reasoned with", being "killed", being "Put in the Void", being ignored, being "banned")
11. Reasons for being in a Virtual World (e.g. making friends, finding lovers, building property, socializing, relieving boredom, sex, freedom of expression, experimenting with identity)
12. Reasons for Transgressing (e.g. "acting out", self-expression, not knowing any better)
13. Ways to deal with a Transgressor (e.g. explain the rules, moderate, ignore them, "kill" them, banish them)
14. Ways to Transgress (e.g. obscenity, vandalism, interfering, impersonating another avatar, theft, spamming)

15. Ways to Learn Appropriate Behavior (e.g. read the guidelines, ask other players, observe other players, trial and error, transfer from "real life", transfer from text-based medium)
16. Ways to Acquire Property (e.g. build it, buy it, steal it)
17. Ways to Acquire an Avatar (e.g. select a pre-made one, design your own, assemble from pre-made parts)
18. Ways to Express a Personal Relationship (e.g. virtual marriage, exchanging heads, wear matching avatars)
19. Ways to Decide what is Appropriate Behavior (e.g. official rules, community consensus, authority figures, voting)
20. Ways to Move Around (e.g. walk, fly, teleport, mouse click)
21. Steps in Creating a Character (e.g. choose an avatar, choose a name, create persona)
22. Steps in Acquiring Property (e.g. build piece by piece, buy, create own server)
23. Steps in Dealing with Transgressors (e.g. peer pressure, involve authority figures)

5.1.2. Dimensions of Contrast

For purposes of ethnographic research, Spradley defines a cultural theme as "Any principle recurrent in a number of domains, tacit or explicit, and serving as a relationship among subsystems of cultural meaning". (ibid: 141). One useful step towards identifying cultural themes is to look for dimensions of contrast within domains, especially those that cut across a number of different domains (ibid: 141). For instance, when talking about the different ways to deal with transgressors, my informants often talked about the degree of formality of the method. One may begin by "reasoning with" the transgressor, hoping to stop his offensive behavior by peer pressure. At the other extreme, a contrasting method of behavioral enforcement would be to involve the "official" authorities and have them impose some kind of formal punishment on the offender.

In my analysis of cultural domains, the following dimensions of contrast stood out as important:

1. Exclusive vs. Inclusive. Across a number of domains, the contrast between exclusive and inclusive behavior is important.

   Events may be held in a public space, allowing anyone to attend and participate. On the other hand, some events are held in a private space, allowing in only those avatars that the event's facilitator desires to be there. Judith in particular talked about exclusiveness and how it translates between the real and virtual world:

   ... For instance, all the real world gatherings (of Dreamscape participants) that I know of have been held in these very suburban locations, even the Bay Area gathering was held in Concord! I'm trying to talk the guy who runs those into having it at least in Berkeley, but he told me that he didn't like to go to Berkeley if he wasn't armed! So, that makes me think that there is a certain amount of racism among the users here - and again, it reflects what is going on. What I think is going on in the real world, is this idea that the inner city is this war zone, this horrible, dangerous place filled with dangerous native with firearms, and the only safe place is the suburbs, and the only real, clean, and comfortable place to live is in the suburbs among your own kind. You know,

the kind of separatism that's going on. And here, with the apartments (in the Dreamscape), as soon as they opened up, nobody goes in the public spaces. Which reflects this same trend - the only safe place is your own place in the suburbs, where you can control who comes and goes. The street is not a good place to be. (J. Rubin, personal interview, March 2, 1997)

This potential for exclusiveness held true across two of the three worlds I studied (Dreamscape and the Palace). AlphaWorld has no private spaces, as any avatar is able to go anywhere.

2. Status within a World. A number of cultural domains refer to the level of experience or relative status of each participant in a virtual world. A player can be a "newbie" or a veteran player, a regular participant or an occasional visitor, an official authority figure or a volunteer.

   Having a particular status in a world can be a positive or negative thing, depending on the circumstances. "Spring Dew" told me how "... the very first day that I arrived (in AlphaWorld), the extreme helpfulness of the people just knocked me over. People were so tolerant of me as a newbie, and showed me everything I needed to know." ("Spring Dew", personal interview, July 3, 1997). On the other hand, "Dows" told me that some players enjoy trying to fool newbies by giving them false information ("Dows", personal interview, July 2, 1997).

   Some of "Myotis"s experiences indicate the respect that is generally felt towards those of high status in the worlds:

   > ... my first time signing on, it was so major cool, being able to chat in real time, and interact. It was a programmer's dream come true. Then I met the programmer (of The Palace). That was total ecstasy, to be able to chew the fat with the man himself! ("Myotis", personal interview, May 19, 1997) Myotis himself is a wizard in The Palace, and takes his responsibility very seriously. He told me about a time when he nearly "pulled rank" on another wizard accidentally: I was online one night, and there was a member on with the name "Wiz-Undercover". Impersonating a wizard is a very bad thing to do. I warned the individual twice, and he did not respond. I was one second away from disconnecting him, and he came back and said, "Wait wait wait MYO, it is WINGS. I am undercover. Trust me, IP me!" It turned out he was another wizard, and I almost disconnected him. But I was acting in what I thought was the right mindset. (ibid) I felt that this story showed the importance of integrity regarding one's status in the world. When I asked Myotis what the consequences would have been if he HAD actually disconnected the other wizard, he told me there would not really be any, other than his own embarrassment, and subsequent apology. "Wings is a personal friend, as are all of my wizard cohorts." (ibid)

   A particular participant may also change status as he or she gains knowledge and experience in a world, or gains the confidence of those already in power. This contrast appears across domains related to transgressions and transgressors, types of players, relationships, reasons for participating, and defining appropriate behavior.

3. Official vs. Unofficial means of social control. Again, this contrast helps to define a number of domains, including means of dealing with transgressors, types of players, and results of transgressing.

   Across all three worlds, control normally begins with unofficial methods, calling in authorities or other official enforcement methods only if necessary. What makes something "official" vs. "unofficial" is what the participants with special power or authority can do to an offending player. For example, on the Dreamscape an Oracle could put an offending player into the "Void", similar to putting a criminal into a real life prison. This would be an "official" means of social control, whereas "unofficial" means might include ignoring the offensive avatar in an attempt to make them go away.

   "Spring Dew"'s experience illustrates this type of contrast. When one avatar was "spamming" the screen (repeating the same phrase over and over at very high speed so that nobody else's conversation is visible, two of the "officials" were asked to mediate:

   This was in the days before the "mute" button, so Roland and Dataman were called in to assist. First they tried to use persuasion to get him to cease spamming, but their words scrolled up at a very high speed and were completely ignored. It took some work to remove the person from the environment, because of some peculiarities in his connection to the web, but finally they managed to "boot" him, to cause him to cease to be there. Nowadays, the "mute" option is a very useful anti-spam tool, and the "boot" option has been removed from the program. ("Spring Dew", personal interview, July 3, 1997)

   With the "mute" option being made available to players, any player may press the button and the offending avatar's words will not be displayed on their screen. This is an example of how special use of technology that was once an "official" means of enforcement, has now become more "unofficial".

4. Individual vs. Community. A contrast exists across many domains where the desires of the individual may conflict with the desires or needs of the community as a whole.

   I found this to be one of the key areas of contrast in domains related to development of social norms, reasons for participating, means of enforcing norms, types of transgressions, events, spaces, and acquisition of property. AlphaWorld's "muting" feature is a good example of how one individual may exercise his right to freedom of speech without forcing others to hear it against their will. "Wepwawet" gave another example regarding the building of personal property:

   I was building at one point and had left a rather large open area. A new person obviously came along and built what would be described as a "shack" in the real world. I looked at it and fumed. However, it was not technically vandalism. I asked a number of people building in the area if they knew who had built it, but no one did. I would have asked the avatar to remove it, but I never found them. ("Wepwawet", personal interview, July 5, 1997)

This example seems very close to real life situations where one run down house can be a nuisance to a neighborhood!

Since cultural themes function as general relationships among cultural domains (ibid: 146), these areas of contrast can help in pointing to concepts that exist in a number of different domains. By then looking at similarities as well as contrasts among domains, cultural themes begin to emerge. Because my research and interview questions were deliberately and specifically geared toward learning about the construction and enforcement of social and behavioral norms, there was a great deal of information that explicitly addressed these questions. As a result, I found it fairly simple to study related domains that I had identified in relation to the contrasts that emerged.

5.2. Cultural Themes Across the Two Frontiers

In this section I will explore how the cultural themes found in my research data relate to themes found in American frontier history, mythology, and literature. I will use information and quotes from all sources and will then show and discuss how they correspond. Again, by making this comparison, we gain a better understanding of how the notion of "frontier" is being appropriated and utilized by participants in the new frontier of electronic medium.

In order to identify themes, I reviewed each of the interviews that I kept in my field notebook. Here I noted and highlighted the statements I found that reflected Opler's definition of "cultural theme" as "A postulate or position, declared or implied, and usually controlling behavior or stimulating activity, which is tacitly approved or openly promoted in a society" (Spradley, 1980: 140). I then cross-referenced statements of theme for all interviews pertaining to each world, as well as themes that were found to be common in all three. The main cultural themes that were present, that seemed to be in effect across all three of the virtual worlds I worked in, were:

5.2.1. Development and Means of Social Control

Although rules may be made by consensus or by an authority group or person, it is preferable to try informal means of social control before involving official authorities. Across the board, this theme was stated by my informants both implicitly and explicitly. Although each world has some form of authority figure, the communities as a whole prefer to be self-governing when possible. However, if peer pressure and warnings are not effective, the authorities will be called upon to deal with offenders.

In the virtual worlds I studied, social control is an ongoing and evolving process. In each world, the idea was that primarily, the members of the community should be responsible for defining acceptable behavior. The Palace, with its "make of it what you will" philosophy, was the most lenient. Only WorldsAway's Dreamscape came with official guidelines as part of its signup process.

Opinions about this varied among my informants. Wendy Sue, as someone who had been involved in the development of these worlds and in hosting online events, mentioned, "If you remember from the Digital Communities panel, Linda Stone from Microsoft was saying ... that we don't want to make rules in this unknown territory and turn off potential customers". At the same time, she believes strongly that rules and

protocol are critical to the success of virtual worlds - "WEAVE actually is, for me, a part of establishing rules. Because if (we don't have rules), women aren't going to come in... not if they're going to be harassed". (W. Noah, personal interview, March 3, 1997)

Judith, a former employee of WorldsAway, also said, "For the most part we want people to run their own world. There's a little bit of guidance from the helpers, but for the most part they come up with their own social guidelines, their own ways of dealing with theft, harassment, or whatever." (J. Rubin, personal interview, March 2, 1997)

This attitude appears to be even stronger among the Oracles in the Dreamscape. Janet Richardson (1997), one of the Oracles, wrote in her paper "Doing it in Cyberspace: Cultural Sensitivity in Applied Anthropology":

> Some community members, highly incensed about obscenity and other behavior they consider to be completely socially unacceptable (thefts, running scams, etc.), have tried zealously to institute a government and a constitution with a clear body of in-world law. This has been unsuccessful, however, because of the range of social interpretation represented in-world. It was difficult for a committee of avatars to convince a majority of the community to embrace a narrowed definition of socially acceptable behavior, and the Oracles were not willing to back such narrowed definitions with their authority.
>
> On the other hand, Tina, who is a Goddess (owner and manager) of two Palace servers, feels that, "Any time decisions are left to a group, you have differing degrees of tolerance and that creates a problem that's quickly untenable. A decision should be made concerning them by the God of the Palace ... guidelines should be clear cut and not left to personal determination ... and then strictly upheld." (Tina, personal interview, May 19, 1997) Although each of these people differed in their preferred approach to the development of rules, all agreed that some degree of protocol was very important.
>
> Equally important is the means by which these rules are enforced. In each world, rules may be enforced informally by regular citizens, or more formally by those in authority. This authority is given and recognized differently in different worlds. In the Dreamscape, the Oracles can be recognized through the special robes worn by their avatars. Oracles and Acolytes also put the words "Oracle" or "Acolyte" at the start of their names, so that other members will know who they are. Similarly, wizards in The Palace use "wiz-" at the start of their avatar's name. In AlphaWorld, it seemed that citizens with special powers were only identified by their avatars' names, and other citizens would just have to know who they were in order to identify them. In all cases, these more "official" participants have the power to mute (cause to not be heard), banish or kill (remove from the world), or "void" another player (put him in the virtual equivalent of jail).
>
> In each of these worlds, among my informants, informal social control by peers was the preferred method. In cyberspace, this consists for the most part of "reasoning with" the offender in an attempt to convince them to stop their offensive behavior, with official means being used only as

a last resort. Wendy Sue told about one such incident that occurred during a social event that she was hosting in AlphaWorld:

> ... and there was one avatar who came in and decided to make a ruckus. He came in swearing, talking about "tits", just was being totally obnoxious. And in the real world, because I've hosted real events too, I could say, "Hey, look here, stop making a ruckus or I'm kicking you out." You can do that in the real world. But in the virtual world, I said, "We have many guests, can you please go elsewhere?" I was trying at first to be very considerate. But this person, who was a woman avatar, but who knows whether it was a man or a woman, they would not stop, they wouldn't quit, they were just going on and on. Well, this is very unusual, but, the man who created AlphaWorld, who programmed it, ..., he joined us for this matchmaking event, because we'd never really done anything like that, inviting MATCH.COM members. So it was bringing to the masses what we can do in virtual space. However, [he] was really upset with this intruder as well, so, this has not been done before, but he actually killed him! He actually shot him out. He said, 'if you don't stop, I have the controls right here in my hand. And he zapped him right out. And that's never happened before and I don't think it has since. (W. Noah, personal interview, March 3, 1997)

Virtual "killing" of an avatar consists of forcibly shutting down the player's session and removing him from the virtual world, and must be done by someone with an advanced level of technical knowledge and access. Although this is generally considered an extreme measure, it does happen fairly frequently. Not, however, until after a good amount of informal, "reasoning with" has taken place.

Another method of informal social control often used in virtual worlds is ignoring the offending party. This is often done after trying to talk to an avatar, who enjoys the attention and acts up further. "Spring Dew" told me:

> Usually peer pressure is enough to cause a change in a person's behavior, but even so, sometimes an offensive person gets a kick out of all the attention and steps up the obnoxious behavior, at which point the people who are offended often decide just to "mute" the person, or better yet, to SAY that they have muted him/her and simply ignore the offender, who usually gets bored and goes elsewhere. ("Spring Dew", personal interview, July 3, 1997)

"Muting" is a technical action that will cause a particular avatar's words to not be seen by others. This passage shows that most participants are familiar with this action, and that even pretending to have taken it achieves the desired results.

In the American West, as in Cyberspace, social control tended to be primarily informal, by means of peer pressure and even vigilantism rather than through official means. The major difference I have seen is that in the nineteenth century West, this was as much due to necessity as to preference. However, in a letter to his parents from Minnesota in the 1850s, immigrant Theodore Bost relates some thoughts about dealing with a man who had robbed him of some lumber:

> .... The law?? There's only one policeman in the whole city, and where can I find him if I see this man around town? The only thing I can think of is to put on a very bold front, speak in a harsh, firm tone, and, if that doesn't work, I suppose I'll have to resort to force. "You'd be doing the wrong thing" say you, but wouldn't I be doing a still worse thing to let a thief rob everyone without ever being punished? As the Americans see it, everyone should look out for himself and punish those who do him an injury, just as the law would punish them if it could. And as a matter of fact, why should I get a man sent to prison for a number of years when I can produce better results so far as the individual is concerned by giving him a good thrashing? (Bowen, 1981: 62)

To me, this is a particularly interesting passage because it points out not only the necessity for Theodore Bost to take matters into his own hands, but also the fact that he saw and understood the value in doing so. I felt that this echoes the ideas of many of my informants from the virtual worlds, who seemed to prefer informal means of control, turning to official means only when necessary. So to a great extent, it seems that a kind of social Darwinism is in effect in both frontiers. In most cases, informal methods of peer pressure and "majority rules" are generally effective, and only in extreme cases must official rule enforcers be called upon.

5.2.2. Transferring social norms

The majority of my informants believed that they could, and had, successfully transferred their social skills and expectations to the virtual worlds from their "real life" experiences. Among these were "Wepwawet", who said, "The social norms of (AlphaWorld) are exactly the ones that are active in the Real World", Tina, who told me that she had learned appropriate behavior on The Palace "by observing and understanding that people are much the same online in regards to personal space and conversation as they are anywhere else" (Tina, personal interview, May 19, 1997), and "FO", who felt that "Socially acceptable behavior is no different (on The Palace) than offline". ("FO", personal interview, June 8, 1997) However, the need to observe others for a time in order to get a clearer idea of expected behavior was also mentioned by a few people.

"Spring Dew" told me that, "Observing people's actions and reactions in AlphaWorld gave me a useful yardstick as to what is allowable". ("Spring Dew", personal interview, July 3, 1997) "Wizzard" compared learning social norms in virtual worlds with his experiences in traveling to foreign countries: "I traveled to foreign countries a lot when younger, so perhaps that experience is helpful here. Everywhere there are different customs; if one just watches and listens, they will pick up on them." ("Wizzard", personal interview, May 22, 1997) Peter, my only informant from outside the United States, told me about a misunderstanding that he had been involved in due to cultural differences:

> This happened directly after an event known as "24 hours in the Palace". This event was a roaring success, so as usual American participants immediately started congratulating one another (I never understood why, but this seems to be an American peculiarity; well, at least it is a nice one!). But in all congratulations one of the most important contributors was forgotten because he happened to be elsewhere at the time. So I wrote a note that, if they had to start congratulating one another, they should not forget this person in the first place. Immediately hell broke loose! Later I was told by one of my US friends that I should have waited one or two days until the first

> violent ‘congrats’ waves were over and then have sent my “correction”. But that is not what we are used to do in Holland. So this was a major “culture clash”! And I didn’t even know! (Peter, personal interview, June 9, 1997)

Both of these concepts were also present in the American Frontier. Because the people on the frontier were both Easterners migrating West, and people from other countries coming to America and moving into the Western frontier, there was often the need for adjustment of behavior and expectations. Individual communities may have sprung up around immigrants from a given country, but generally they were still influenced by “Americans”. Before Theodore Bost came to America from France, he was told by his pastor that, “... he should not expect to find Europe in America. Let him save his comparisons for a time when he will know more about the New World. The things that are valued over there, even in farming, are of little use here. A man would soon ruin himself completely by sticking to European ways” (Bowen, 1981: 7).

Gro Svendsen from Norway, in a letter to her family, said, “Everything is so totally different from what it was in our beloved Norway. You never will imagine what it’s like, although you no doubt try to imagine what it might be. Your pictures would be all wrong, just as mine were”. (Svendsen, 1950: 39) Accounts like these help to illustrate that many people coming to the American West expected things to be similar to what they knew back home. Usually, these expectations were not met.

This is one area where I find that the mythologized and imagined West comes into play. Henry Nash Smith (1970) talks about the perceptions that both Europeans and Easterners had about the American West. Their attitudes toward different aspects of the frontier varied greatly. “The agricultural West was tedious; its inhabitants belonged to a despised social class. The Wild West was, by contrast, an exhilarating region of adventure and comradeship in the open air ... a young gentleman of leisure could afford better than anyone else to indulge himself in the slightly decadent cult of wildness and savagery which the early nineteenth century took over from Byron. Historians call the mood ‘primitivism’.” (Smith, 1970: 52).

Is there not an element of primitivism in virtual worlds today? My informants’ accounts are filled with examples of this. For example, “Spring Dew” talked about a person who showed up at a grand opening part on AlphaWorld:

> Once a person showed up at a grand opening party and used homophobic epithets and accusations of sexual depravity on the part of the guests. When asked to cease, he began yelling the same sentiments in all caps and then resorted to “spamming”. This means that he used the copy/paste feature to replicate the same words over and over at high speed, hitting “enter” after every line in rapid succession, so that no one could get a word in edgewise. (“Spring Dew”, personal interview, July 3, 1997)

This experience indicates that some people come to these worlds, indeed transferring their social norms from “real life”, but with the specific intention of transgressing them, and of acting out their most basic and primitive instincts.

Mary related another incident that occurred in the WorldsAway Dreamscape:

> We had this guy called "Nadman", and he'd just basically go into an event, like they have auctions for special goods, or for rare items in the World that have ceased to be available in the Vendos. And Nadman would go in and go "BLAM! BLAM BLAM BLAM! BLAM BLAM BLAM BLAM!" And he'd just keep going, wouldn't stop, he'd unghost at the wrong time, because you had to have people come down at certain times in the auction to show the item around, and maybe you'd want to put it down, but you can't put it down because "Nadman" is there, going "BLAM BLAM BLAM!" So, everyone figured he was less than twelve years old, but you never know! (M. Madaras, personal interview, April 24, 1997)

Was "Nadman" in fact a twelve-year-old seeking attention? Or was he perhaps a forty-five year old accountant who needed an outlet for the primitive urges that he felt but could not express in his day to day life? An experience that Wendy Sue related shows that this kind of thing does in fact occur:

> Bruce Damer was being interviewed in Mind's Palace about a month ago. So an avatar popped up and started just saying this, that, just throwing out a bunch of stuff. And this was during an interview! So Bruce said, "hey, we're having an interview here, there are other avatars who are interested in what we're talking about. What's your problem?" So this avatar came forward and said, "OK, I'll tell you the truth. What's going on is that I'm such a nice guy in the real world. All the women who meet me say 'oh, you're such a nice guy'. At work, everybody just "knows" that I'm such a nice guy, and I'm sick of it!" (W. Noah, personal interview, March 3, 1997)

Again, this story shows how transference of norms happens, along with the deliberate transgressing of them. Another way that social norms were transferred into the American frontier, and are today in virtual worlds, is through status and social class. Many talk about the egalitarianism of cyberspace - how anyone can enter and be an equal participant regardless of race, gender, religion, or anything else that might be a barrier in the physical world. As Wendy Sue said,

> As the new frontier of the Internet and virtual worlds extends, what is so great to me about this new frontier, this new environment, is that it doesn't matter what color you are, it doesn't matter what social status you are, it doesn't matter what kind of car you drive, what matters is what you have to say, what you have to share, what you have to give! (W. Noah, personal interview, March 3, 1997)

However, another part of this reality is that simply the fact that someone is able to participate in a virtual world at all is a partial indicator of his or her social status. "Wizzard" said it well:

> ... the ability to even *be* online requires membership within a certain social/economic order, particularly outside of the U.S. Members of this "order" may have more in common among themselves due to education levels and technical access than they have with other members of their respective "native" cultures. Until third world societies are able to provide online access to a majority of their peoples (which many would oppose BTW) this polarization between those with

> access to information technology and those without will, I fear, continue, and perhaps become a major world problem in the next century. ("Wizzard", personal interview, May 27, 1997)

Likewise, on the American frontier, it was felt by some that it could be a classless society, that anyone could arrive, stake their claim or make a name for themselves, and be successful. And in fact, many immigrants who came for the free land found themselves in improved circumstances. But literature of the day shows very clearly that there was still a strict class structure in place. James Fennimore Cooper's character "Leatherstocking" is a good example of this. In the West, he is revered for his skills with the rifle, his talent as a strategist, and his ability to track. (Smith, 1970: 64). However, Leatherstocking was originally a servant, who was illiterate and spoke in a dialect. In Cooper's books, reflecting the sentiments of the times, he would therefore always be of inferior status to most of the people around him. His character was never allowed to have a love interest, for example, because that would presume his worthiness of a lady. (ibid: 65) Examples like this show that, at least in the popular mentality of the time, a strict social class structure was still very much at work, even on the frontier.

5.2.3. Individual vs. Community Rights

There is an inherent conflict between what an individual may want to do in a virtual world, and what the greater community expects. The major sources of dispute among members of each virtual world involved issues of individual vs. community rights: anonymity vs. accountability for one's actions, whether or not a participant had the right to use an avatar that may be offensive to other players, etc.

Cyberspace, like the American frontier before it, has been seen as a place of individual freedom, a place where anything goes, and where people can for the most part act as they choose. But when a given individual's desires and action are at odds with those of the greater community, this is called into question. Judith, a participant in the Dreamscape, offers her view on this:

It's interesting, because this is the "Internet Community" - these are people who are bound by no laws of mankind, supposedly. The Internet style is so open and free, and anything goes, beyond democracy, or anarchy, or whatever. But when they get into a community like this they get very protective and they start calling for a police state. Sometimes when something goes wrong, instead of saying, 'how do we deal with this creatively?', it's 'well, this acolyte there put this person in the Void'. (J. Rubin, personal interview, March 2, 1997)

> "Spring Dew" told me about one of the issues on AlphaWorld that people are divided on: Sometimes a person will build an object on or near another person's property, even utilizing minute cracks in construction, and will often mark the object with some offensive comment or direction to go visit such-and- such site. Most people hate this behavior, but the public is divided on what to do about it. Some think that (Circle of Fire) should remove all instances of vandalism. Others acknowledge the impossibility of such an endeavor, and press for the education of the populace in proper ground coverage measures. Some people vehemently advocate ultimate freedom of speech and say that these behaviors should not be discouraged... ("Spring Dew", personal interview, July 3, 1997)

When issues like these arise in the virtual worlds I looked at, the disputes about how they should be handled generally move to community forums and to newsgroups dedicated to the worlds in question. Many continue to be argued, not having found solutions that are acceptable to all concerned.

In these cases, it is often left up to "official" authorities on each world to decide what is appropriate on a case-by-case basis. "Myotis", a wizard on The Palace, told me a little about this situation:

> ... there are very clear and definitive rules that one must abide by upon logging onto one of their servers. Basically it is seen as you must behave in a manner that you would in a neighborhood bar; not too rowdy, not too risquÚ, not too lewd, but that leaves a lot of leeway, and has been a thorn in the heel of the wizards from day one. Early on they (we) were very strict, and then we became more lenient, and since became strict once again. The issue of G-rated sites came up and (The Palace) obliged, the unruliness at times seems to go in tides, and waves. But statistically the most unruly users tend to be 13-16 year old genius kids that have rich parents who give them a computer as a babysitter. This is truly sad. I try my best to work with all of them, even the most notorious! They are lonely and need guidance, even basic friendship - anything I can offer I do, and by and far, I have won all but one over. But they promise and then do the same thing. It is a challenge, but I was thirteen once too, and rebellious. I can relate to them. ("Myotis", personal interview, May 19, 1997)

Apparently this emphasis on individual choice, while it brings increased freedom to act as one chooses, also brings greater responsibility to each person, as well as to the community, to decide what is really appropriate. This dilemma was also carried out on the frontier, as this passage illustrates:

Niles was not wrong when he wrote that society was everywhere unhinged, but neither he nor other contemporary commentators, although they tried, were able to dissect out fundamental causes. What was there in a new land of abundance, of political equality, and of individualism which resulted in excessive pillaging, in more murders per annum than any European nation, in endemic riots, in such widespread counterfeiting that daily business transactions were jeopardized? (Jordan, 1986: 32)

Thus there seems to be a common theme between the American and cyberspace frontiers of increased freedom, increased choice, and as a result, more crime, "acting out", and general anti-social behavior. When the rights of the individual conflict with the rights of the community as a whole, the community and those in authority are then forced to step in, and to make decisions that are seen to benefit the greater numbers.

5.2.4. Social Experimentation

Social experimentation in Cyberspace is a prevalent theme across all of the worlds I looked at. Nearly all of my informants expressed this concept - that in Cyberspace you can be whoever you want to be, or even a number of different characters at once! This was considered one of the major attractions of a virtual world. In fact, one of my first experiences in a virtual realm (WorldsChat), was when I decided to enter the world as a male avatar, simply to see what it was like, as a man, to "hit on" a female! It was an interesting experience, I had some fun conversations, learned something from a new angle about the

dynamics of human interaction, and then went back to being "female". On the other hand, the "women" I chose to interact with could very easily have been men who were experimenting with being women. I will never know that, nor will it make any difference!

Many of my informants related their own stories about experimenting with identities, either their own or others. Judith had some interesting things to say about this:

> One thing it is, is sort of a social laboratory, where you can refine your social skills, and get more than one chance to do it. Like, if you blow it in seventh grade, it's going to take you through the rest of school as a "geek" or whatever. Until college, or the next change of location. But in the world, there are people who have done something socially really stupid, and have apologized publicly online, and said, "I'm becoming a new person now", and they've been accepted, or they've dumped an old identity and come back as someone else, and probably tried again that way. (J. Rubin, personal interview, March 2, 1997)

Wendy Sue felt that "... you learn a lot through what people choose as avatars. (The avatar is) their graphical representation of themselves, which they must identify with! It's not like, what's your religion, what color is your hair, what kind of car do you drive, it's beyond that, it's creative!" (W. Noah, personal interview, March 3, 1997) "Xavarella" believes that "(the biggest difference between text-based and graphical worlds) is the identification of self and others with avatars." ("Xavarella", personal interview, July 13, 1997) Mary also had some good examples of the ways that people change or expand their identities in virtual worlds:

> "Now, another person that I met at the gathering in Concord, her name was Cosmo Cat. And for a long time everybody thought that Cosmo Cat was male. Because for one thing, he was very technically adept, like a hacker, and he would always tell us about things we didn't know about - like a hole in the security wall, or he'd somehow get an object that no one else could get. The oracles would say, "How did this happen?" Cosmo Cat did it, kids! The hacker! You know, he'd write these long essays about what we should do, and how we should be doing things, and hey, have we checked this yet, very up on top of our technology. And then I went to the gathering, and there's this very quiet young lady sitting there. And everybody said, "Do you know who that is?" And I said "No", I didn't know, I was just there for the first time! That was Cosmo Cat! And everybody was like "What?" And you know, she turned red, she was "Yep, it's me!" She had this very angelic little face.

.....

> And there were a lot of people like that. One woman got up, and she was a very large, heavyset woman. And she goes, stood up and said, "Look at me. I would never make it," You know, she had gap teeth, not very attractive, OK, but she said, "Look at me. No one, like men, would talk to me in the real world. Nobody would come up to me and have a conversation in a bar, just because they think I'm too big! And this society doesn't accept people who are obesely large, because it's not their model of how people should be!" She goes, "But I go in the Dreamscape, and I have this slim little body, and this beautiful hair, and I can go and talk to people, and talk to some guy who

> has no idea what I look like, and I can have a very sexy conversation, just like anyone else can do in this world. " And I just thought, wow, that's something I caught onto, as something that really freed her to be what she wanted to be.
>
> So, there was a lot of that, that weekend. People who had revelations about being online and revealing something about themselves. Or discovering something about themselves that they couldn't have done without this type of interaction online. And being accepted for who they were!" (M. Madaras, personal interview, April 24, 1997)

Some social experimentation with identities also happened on the Western Frontier. A good example is Frank Canton. In the introduction to his autobiography, Frontier Trails: The Autobiography of Frank Canton (1930: xii), it states,

> "... it seems well to state that the author's real name was not Frank Canton. In his youth he became involved in a difficulty that caused him to leave his Texas home and disappear into the farther depths of the American wilderness. Here he took the name of Frank M. Canton, and made it honored and respected throughout the length and breadth of a vast region."

In fact, Frank Canton became a well respected lawman, serving society for over fifty years as a Texas Ranger, United States Deputy Marshal, livestock inspector, sheriff, and secret-service man. His troubled past was not an impediment, though it very well may have been had his real identify been known to those around him.

This is another area where the mythological and imagined aspects of the frontier come into play. Even George Armstrong Custer "affected the long hair and buckskin clothing of a scout; in effect, he had imitated an icon on his way to becoming one." (White, 1994: 39) Here, Richard White also talks about the role that Western fiction of the day helped to reinvent the women of the frontier in the minds of Americans:

> In various fictions, for example, women inhabited roles and representations once occupied by white native-born males. This colonization - a kind of cultural cross-dressing - had appeared with Annie Oakley in Buffalo Bill's Wild West, but it was also apparent in popular fiction even as Russell lamented the death of the West. " (ibid: 53)

Even actual historical figures of the American West were often reinvented in fictional accounts. Kit Carson, the famous Mountain Man, was fictionalized in novels written during his own lifetime! Henry Nash Smith describes how:

> The future belonged to a different Kit Carson ... the Indian fighter, the daredevil horseman, the slayer of grizzly bears, the ancestor of the hundreds of two-gun men who came in later decades to people the Beadle novels. The rip-roaring Kit Carson made a brief appearance in Emerson Bennett's The Prairie Flower in 1949, and came fully into his own in a thriller called Kit Carson, The Prince of the Gold Hunters, by one Charles Averill. This is probably the book dealing with

> his exploits that Kit found in October of that year amid the plunder taken by Apaches from a wagon train they had stampeded. He was decently embarrassed by it. (Smith, 1970: 86)

Cyberspace seems to continue this imaginative fictionalization of itself by creating icons and stereotypes (the Hacker), then revealing the true characters behind them (Cosmo Cat is a shy and mild mannered woman?) In some ways this might appear to contradict the notion that a person is the same in virtual reality as they are in real life. However, I would contend that there is no contradiction. Although the norms of behavior may be similar or even identical, the place that a particular individual occupies in the community can change without violating norms on either end. They are simply playing a different part in the play. In this way, both frontiers seemed to have offered its citizens the opportunity to create a "tabula rasa" for themselves, and a means of starting fresh.

5.2.5. Claiming Territory

It is advantageous for an individual to claim and develop his own territory in a virtual world, just as it is in the "real" world. Many of my informants specifically named the ability to have personal "space" in a virtual world as an important factor in becoming involved in a virtual world.

All three of the virtual worlds I studied accommodated some form of personal territory. On AlphaWorld, any participant can choose to claim property by building on it, and can then utilize that area as s/he sees fit. In the Dreamscape, individual apartments (known as "turfs") can be purchased once an avatar has spent enough time in the world to accumulate the required payment. And with The Palace, any participant may create his own Palace server on his own computer, creating an entirely new virtual space that other avatars can then visit.

This seemed to be an important point in drawing many people to virtual worlds in the first place. "Dows" told me about how he was first drawn to AlphaWorld by seeing an ad saying "Want 3D freedom? Build all you want! Come see AlphaWorld!" ("Dows", personal interview, July 2, 1997) This reminded me a little of Horace Greeley's famous slogan from 1837 - "Go West, young man!". "Wepwawet" also said that the main thing that attracted him to AlphaWorld was "the ease with which it is possible to build virtual 3 dimensional structures and have them be seen in real time by groups of people who could be anywhere in the world." ("Wepwawet, personal interview, July 5, 1997)

In The Palace, many people have developed their own Palaces on home computers and have made them publicly accessible to the whole Palace community. This seems to provide motivation for many there, as they strive to create their Palace and promote it so that it draws a large portion of visitors regularly. "Myotis" told me that, "Everyone wants their Palace to be the premier site, to have the most followers". ("Myotis", personal interview, May 19, 1997) On personal Palace servers, the creators are also free to set their own rules and standards of behavior, some of them are far more lenient than the Corporate Palace. In general, though, it depends on who the target audience is.

In WorldsAway's Dreamscape, although players cannot exactly build their own property, they may purchase a private apartment ("turf"), and decorate it as they please. This was not an original feature of the Dreamscape, and when it was added there was a bit of controversy over how having private territory

might affect social relations. Judith felt that, with the apartments, as soon as they opened up, nobody went to the public spaces.

> ... and now, a lot of the events that used to be held in public areas are held on private turfs now, because you can throw out anybody. So, rather than deal with social problems you can just reject anyone that you think might cause a social problem. Technically, it cuts down on that possibility. (J. Rubin, personal interview, March 2, 1997)

On the other hand, Mary told me that in order to visit a turf, one must know the name of it, and that "to get new people, and make it fun, to come to their events, they had to publicize the name of the turf!" (M. Madaras, personal interview, April 24, 1997) Thus, she didn't really feel that this kind of exclusivity was happening to a great degree.

Another issue surrounding private territory on AlphaWorld is vandalism: what defines it, how should it be dealt with? This is not an issue on the other worlds I looked at (though theft may be!), but nearly every AlphaWorld citizen I interviewed had something to say on this subject. "Xavarella" remarked that "the biggest social issue seems to revolve around people's very natural territorial instincts. Vandalism of property, deletion of objects by those with eminent domain are two issues that come to mind". ("Xavarella", personal interview, July 13, 1997) "Spring Dew" brought up the struggle around vandalism as an issue that the community is divided on:

> I think the most pressing (social issue) is the subject of vandalism. Sometimes a person will build an object on or near another person's property, even utilizing minute cracks in construction, and will often mark the object with some offensive comment or direction to go visit such-and-such site. Most people hate this behavior, but the public is divided on what to do about it. Some think that COF should remove all instances of vandalism. Others acknowledge the impossibility of such an endeavor, and press for the education of the populace in proper ground coverage measures. Some people vehemently advocate ultimate freedom of speech and say that these behaviors should not be discouraged. These issues are discussed in various worlds, are addressed in the newspapers and in newsgroups, and are discussed in other programs such as Powwow or ICQ. So far the people in the second camp I mentioned seem dominant, and efforts to educate the citizens are being redoubled. Also, people are coming up with all kinds of suggestions for technical answers to vandalism, such as large ground-covering objects, a prompt to remind you to cover your land, and the establishment of ownership zones, in which the owner of a certain coordinate square could have eminent domain over that square and could delete anything he/she deems necessary. Some people, however, are forming vigilante groups to hunt down and antagonize known vandals. ("Spring Dew", personal interview, July 3, 1997)

The attraction of open land, and the opportunity to claim and develop personal territory was also one of the things that drew people to the frontier in the nineteenth century. The myth of "free land" and the settlement of it were, in the opinion of many historians, what actually determined the future of American society:

> With each surge of westward movement, a new community came into being. These communities devoted themselves not to marching onward but to cultivating the earth. (Smith, 1980: 123)

Indeed it was this sense of settlement, of cultivation, that formed real community on the frontier. As in virtual worlds, having ownership of personal property gave the individual a far greater stake in the welfare of the community as a whole.

The Homestead Act of 1860, although it was partially intended to allow landless immigrants to cultivate their own farmlands, also resulted in vast areas of land being given to corporations and railroads. (ibid: 190) Loopholes, like the "minute cracks" in AlphaWorld's construction, meant that far fewer people actually took possession of farmland than might have, had the Homestead Act worked the way it was originally intended.

CHAPTER 6. CONCLUSIONS

6.1. Significance of the Findings

The ethnographic study of the use of technology and computing will play an increasingly important role in our culture, as we continue to make advancements in technology and to integrate it more into our daily lives. At present, the trend is toward development of virtual realities that more closely simulate real life situations, through the inclusion of graphics and three dimensions. This trend represents a new frontier in technology and in the way humans interact. At this point anthropologists will continue to make valuable contributions to the study and understanding of how new technologies are being integrated into our culture. This will follow and complement work done by organizations such as Xerox PARC (1999) with its Work Practice Studies, and the Institute for Human-Machine Interaction (1999) with its studies in such areas as Gesture and Facial Expression Recognition and Adaptive Human-Machine-Interaction. This type of research may also assist designers and developers of future online communities, as they gain better understanding of how they are being used, by whom, and with what kinds of expectations.

It has also been valuable to look at cultural formation in this new, technological frontier in the light of literature and accounts of the frontier of the American West in history. In both cases, a mythology and ideal culture have arisen, among participants and observers, enthusiasts and critics. By incorporating a study of frontier mythology and literature along with personal and historical accounts, I have shown how these ideals may have deviated from the real, or actual cultures.

Is Cyberspace a frontier? In the original meaning of the word, as "a place occupied by fewer than two people per square mile" (Limerick, 1994: 67), probably not. In most areas of the United States, Internet usage has grown at a rapid rate, such that far more than two people per square mile are involved in some manner or another. In addition, participation in virtual worlds poses no threat to life, health, or safety. There are no harsh winters, no wars with indigenous people, no lack of food or other material resources. However, in the newer definition of the word as put forth by Patricia Nelson Limerick (ibid), "new and relatively unexplored, on the edge of exciting possibilities", virtual worlds like the ones explored in this thesis most definitely are frontiers. They present possibilities for entire new ways of communicating, interacting, doing business, and maintaining relationships.

To some extent, "frontier" has become a conceptual metaphor (Lakoff and Johnson, 1980) for new technologies, in this case Internet technologies and especially virtual worlds. This is illustrated in many ways in our daily life and the way we refer to Cyberspace and Internet activity. Just the other day my manager was talking to me about how some of our newer, web-based business applications have become critical, and can no longer be treated with a "cowboy" mentality. This statement alluded to the fact that even this frontier is beginning to vanish and become more "civilized" and managed!

At the same time, I would argue that a virtual world is more than simply a metaphorical "frontier". The human interactions, development of standards of acceptable behavior, enforcement of norms and social control, all mirror to a great extent what happened in other frontiers of the last century. Rather than this being simply a metaphor, I would contend that virtual reality IS a frontier. A different kind from the Turnerian frontier in geography and many circumstances, to be sure, but not so different in spirit. If

Turner's statement that "the existence of an area of free land, its continuous recession, and the advancement of the American settlement westward, explained American development" (Turner, 1893: 1) is correct, then it makes sense that our past has followed us into this century and has had its influence over American culture and behavior today. The frontier concept and mentality prevalent in American history help us to contextualize the virtual environments we encounter in Cyberspace, that, according to my findings as illustrated, seem to follow a similar course.

In fact, the three worlds I explored represent different stages in the life of a frontier. The Palace, with its initial attitude of "do with it what they will", seems to be closer to the earlier stages, when explorers went into the West to seek adventure and to be independent. AlphaWorld, with its emphasis on building and free land, finds its parallel in the pioneers who took advantage of the Homestead Act to acquire and develop property. And WorldsAway, who deliberately built the Dreamscape technology around social interaction, and was the only world of these three to have official guidelines for behavior, seems to parallel the "settlers" of the frontier, and those who sought to tame the Wild West.

Richard White wrote "the story of the West ended with progress killing its parents." (White, 1994: 47) He talks also about the fact that "the cowboy became an American symbol in the very era that announced the end of the West and the closing of the frontier that had created him." (ibid) It may be an interesting test of time to see how, and in what ways, cyberspace will become a victim of its own progression as well!

6.2. Opportunities for Further Research

In general, the extension of ethnographic research into online communities offers a wonderful opportunity for anthropologists to study and learn from an entirely new type of culture, as it forms, develops, and matures. In contrast to traditional anthropological research, which tends to focus on cultures and communities that are older, threatened, or even disappearing, most online virtual communities are still in their infancy. This is a great chance to gain insight into the beginnings, rather than the endings, of a community and a type of human interaction.

Because of the context and background that I have set in American history and mythology, this research has been very focused on the United States. In fact, only one of my informants was from outside this country. It might be worthwhile for a future project to concentrate on non-American, or even more specifically, non-Western citizens of virtual worlds, in order to see if the same general themes and principles hold. For instance, in addition to the many references we have seen to the "cyberspace frontier", there are also many references to "Cyberia" (Cyberia Cafe 1999, Cyberia Information Development 1999, Cyberia Web Design 1999), paralleling Siberia (the Russian frontier). Would the same concepts explored here be true with Russian informants?

Additional research also needs to be done in the area of political economy of the Internet and communications technology in general. The information in Appendix B of this thesis shows approximately how many people are currently online, based upon their income level, education, race, and geographical location. As Don Tapscott put it, the most widely feared prediction surrounding the digital revolution is that it will splinter society into a race of information haves and have-nots, knowers and know-nots, doers and do-nots - a digital divide. This revolution holds the promise of improving the lives

of citizens but also the threat of further dividing us. (Tapscott, 1998: 255) Will this inequality of access lead to the ever-widening gap of a two-tiered world? How might this affect people who are growing up now, without access to computer and the Internet? And what pre-emptive steps may be taken now, at this crucial time, to attempt to rectify the situation?

In addition, questions arise around what myths, if any, are present in Cyberspace that might parallel the Frontier myths explored here. Who are the "Daniel Boones" and "Kit Carsons" of Cyberspace? Certainly people like Bill Gates (Microsoft 1999) and Larry Ellison (Oracle 1999) have taken advantage of their legendary status in order to become "larger than life" symbols of their respective companies. And what might be the elements of our present culture that contribute to the creation of Cyberspace myth? How does the media contribute to both positive and negative impressions of the Internet and Cyberspace culture within our society? And how might various Utopian and Dystopian viewpoints be played out and contribute to our concept of Cyberspace as a location and destination? Additional research into these questions could help to further our understanding of how our society views itself and our changing conditions.

Writers have begun to explore the parallels between the Internet and advancements in communication technology from past eras. Some good examples are Tom Standage (1998) and Wade Rowland (1997), who discuss how the telegraph and other electronic communications systems revolutionized world-wide communications and changed the very fabric of society. It might also be worthwhile to look at other types of inventions, and how they have affected the culture and society of their day. One example I saw in my research was that of the steamboat. Considered one of the most important and revolutionary inventions of its time, the steamboat made it possible to carry on internal transportation and trading to a degree that had previously not been heard of. Steam power also hastened the transition from subsistence to commercial farming, and the eventual demise of the American yeoman farmer (Smith, 1980: 156-159). Yet the people of the day failed to understand the enormous impact that this invention would ultimately have, and the incredible changes it would bring on American culture. A deeper understanding of the effect of past inventions and shifts in paradigm due to technological advance could possibly help us to predict the eventual impact of the Internet and Cyberspace in general.

In addition, I would like to see more thought given to how this technology could be used for more practical, "real world" applications. As we increasingly live and work on a global level, the need grows for better ways to communicate across space and time. Virtual worlds like those described here have much to contribute in areas such as distance learning, meetings, training, and general support activities. One good example is Fore Systems, who developed a graphical chat application on their Intranet using the technology of The Palace (Murphy, 1998). This application is used to answer questions about product information for members of Fore's sales and support staff.

6.3. Concluding Statements

Real life forms of human interaction have their rules and their norms. We are all expected to behave according to the social context that we are in. These rules and norms are also enforced in real life, in ways both formal and informal, both implicit and explicit. In a new and unfamiliar territory, however, these structures may need to be dismantled and reinvented, as people struggle to make sense of their

surroundings, and of each other. This thesis has shown how this process takes place in today's frontier of graphical virtual reality environments, using the real and the imaginative American frontier of the nineteenth century as historical context.

In examining the parallels between these two frontiers, we have seen the disparity between the harsh realities of nineteenth century life and the self-consciousness and self-fulfillment of life in today's cyberspace communities. However, we have also seen that the mentality and motivations of people in both frontiers is, in many cases, quite similar. People attempt to transfer norms of behavior from their more familiar worlds, and there is a preference for social control to be carried out informally when possible. There is a strong drive for individual rights, for personal property, and for the freedom to reinvent ones' self as desired in both frontiers. The dynamics of power, consensus, and dealing with deviance work in ways that are very much alike.

Therefore, it appears that the concept of "frontier" is more than simply a metaphor in this case. I would contend that the frontier is actually a developmental phase in the history of any culture, whether physical or virtual. The systems of social behavior that are created in a frontier situation stem from a need among the participants for a common set of cultural understandings in which to define both themselves and their actions. As we learn about this cultural response to transition and liminality, we gain insight into human nature, our heritage, and what the future is likely to bring.

APPENDIX A: Glossary of Terms

- **2 1/2 D** - Short for “two and a half dimensional”, which means that a scene appears flat but in fact has some ability to move avatars or objects “back” into a third dimension. WorldsAway’s Dreamscape is an example of a world of this kind of technology.
- **3D** - Short for “three dimensional”, indicating that a scene has three directions of possible motion, left to right, up and down, and front to back. AlphaWorld is an example of a world that uses this kind of technology.
- **Acolyte** - A volunteer in WorldsAway Dreamscape who acts as an assistant to the Oracles.
- **Anonymity** - A social property of a virtual world that guarantees that users can be anonymous. Using a “handle”, “nickname”, or “alias” instead of a real name guarantees a certain amount of anonymity. Users may not be anonymous to the people running the world, however.
- **Asynchronous** - happening at different times. An example is USENET interaction, where one person may respond to a message that someone else wrote on a previous date. (see Synchronous)
- **Avatar** - The term “avatar” comes from Hindu mythology, and originally was the name of the temporary body that a God uses when visiting Earth. In virtual communities, an avatar is a graphical representation of a participant. Avatars may also be called “characters”, “players”, “residents”, or “citizens”.
- **Banishment** - A severe form of punishment for misbehaving users, where the operator of the world throws the offending player out. The user may or may not be able to log back on using the same identity.
- **Circle of File** - The company who are the current owners and proprietors of ActiveWorlds technology, including AlphaWorld. Also referred to as ‘COF’.
- **CMC** - Computer Mediated Communications is a field that studies and develops computers, software, and networks to enable different kinds of person to person communication.
- **COF** - See Circle of Fire.
- **Cyberspace** - a term originally coined by the author William Gibson in the early 1980s. It refers to a virtual space, which may be text based or graphical, in which activity and communication may occur digitally.
- **First person view** - This would be your viewpoint as though you were inside your avatar looking out through its eyes. From this view you cannot see your own avatar’s body.
- **Ghost** - on WorldsAway Dreamscape, “ghosting” means to be present in a room without being seen by other participants. See also “unghost”.
- **Ground Zero** - the default entry point into a virtual world.
- **Hacker** - someone who strives to gain advanced technological understanding of a world or system. May be assumed to have “ulterior motives” or to desire to take advantage of unauthorized access.
- **ICQ** - An online instant messaging program, used as a conferencing tool by individuals on the Net to chat, e-mail, perform file transfers, play computer games, and more. Pronounced as separate letters, so that it sounds like “I-Seek-You”.
- **Ignoring** - The act of blocking out communications with someone in a virtual world. Usually done on an offending player. Also called “muting”.

- **Interactive** - reciprocal actions taken place with and/or through a computer.
- **Kill** - a method of removing an offensive player from a virtual world. Done through advanced use of the technology, usually by an Oracle or Wizard.
- **Multiuser** - technology that supports avatars or some other representation of users in a shared world. Usually this implies that the users can also communicate in the world.
- **Muting** - using the technology available in a virtual world to cause an offensive player's words to not be visible to other participants. Usually done by Wizards or Oracles.
- **Netiquette** - what is considered appropriate behavior during online interactions, whether synchronous or asynchronous.
- **Newbie** - a popular term for a new user of anything, including an avatar world.
- **Nickname** - a name a user chooses to associate with himself or herself in a text based or graphical virtual world. Users often choose fanciful names that hide their real identity. This name is also called an alias or handle and can be found on avatar badges.
- **Online** - the state of being logged on to a computer and the Internet.
- **Oracle** - A character in the WorldsAway Dreamscape who is responsible for facilitation of rules and culture. Acts as a priest or priestess of the Dreamscape.
- **PowWow** - an online Internet community and communications software. Used for creating, managing and hosting online PowWow Communities, including one for residents of AlphaWorld.
- **Prop** - on The Palace, a scanned-in image that acts as an avatar for a user.
- **SNERT** - "Snot-nosed, eros-ridden teenager".
- **Spamming** - Generally considered offensive; displaying the same words repeatedly so as to interfere with the normal conversation in a virtual world. Can also refer to flooding another player's email with unwanted messages.
- **Synchronous** - happening at the same time. In the case of virtual worlds, this is true of interactive communication.
- **Unghost** - to appear in a scene and join in the conversation.
- **Wizard** - a participant in a virtual world who has been given authority to enforce rules and norms through extended use of the technology.
- **Vending Machine** - A mechanism in a virtual world allowing the purchase of objects or capabilities. May also be called "vendos".
- **Vendo** - see Vending Machine.
- **Virtual Community** - a virtual world and its inhabitants in interaction.
- **Virtual World** - a computer generated graphical setting and environment that is accessible to users through their computer screen.
- **The Void** - on WorldsAway Dreamscape, like a prison. An offensive player may be put in the Void as punishment for repeated or extreme offensive behavior.

APPENDIX B

INTERNET DEMOGRAPHICS 1998 (Suler, 1998)

Number of Americans Online: 76 million Male: 52.7%
Total people worldwide: 149 million Female: 47.3%

Age:		Income:	
0-17	19.1%	$0 - 25k	6.4%
18-24	11.3%	$25 - 50k	25.8%
25-34	19.1%	$50 - 75k	28.6%
35-44	23.0%	$75 - 100k	17.5%
45-54	17.2%	$100 - 150k	10.4%
55-64	6.7%	$150 - $1m	4.9%
65+	3.7%	No response	6.4%

Education:

Grammar school	1.5%	
Some high school	5.7%	
High school grad.	18.8%	
Some college	20.9%	
Associate degree	9.5%	
Bachelor's degree	25.1%	
Post-graduate degree	16.9%	
No response	1.6%	

Race:

White	83.5%
African-American	8.0%
Asian	2.1%
American Indian	1.0%
Other	4.0%
No response	1.9%

Geography:

North America	55.5%
Western Europe	23.3%
Asia Pacific	15.5%
Eastern Europe/Russia	2.0%
Latin America	1.8%
Middle East/Africa	1.9%

APPENDIX C

GRAPHICAL IMAGES OF THE WORLDS

1. Anthropologists at Sherwood Forest (AlphaWorld)
2. Meeting at Sherwood Forest (AlphaWorld)
3. A Party in the Dreamscape
4. The Dreamscape's Anniversary!
5. A Gathering in Mind's Palace
6. Inside the Main Palace Mansion

APPENDIX D

QUESTIONS FOR EACH VIRTUAL WORLD

Questions for AlphaWorld

1. When and how did you first become interested in avatar/virtual worlds?
2. Were you involved with text-based MUDs or MOOs before that? If so, what do you find most different in your social interactions between the two?
3. What was it that drew you to AlphaWorld in particular?
4. Tell me about one of your first experiences on AlphaWorld that stands out in your mind. What made this experience significant?
5. How do people on AlphaWorld decide what is or is not socially or morally appropriate behavior?
6. How is it usually handled when an avatar gets "out of line"?
7. Tell me about a time when someone behaved in a way that was considered unacceptable. What were they doing that was a problem? How was the situation handled?
8. How did you learn socially acceptable behavior on AlphaWorld?
9. Tell me about a time, if any, when you yourself acted inappropriately without knowing it. How did you come to learn what you should have done instead?
10. Is there a particular social issue on AlphaWorld that people there are really divided about? How is this issue being addressed?
11. Tell me a little about your views on censorship and anonymity as they pertain to social interaction on AlphaWorld. How do you agree or differ with others there?
12. How do new builders generally decide where to create their property?
13. Have you ever seen a situation when one participant built their property in an inappropriate place? (e.g. too close to someone else's, within a town where they didn't "belong", etc.) If you have seen this happen, how was the situation handled?
14. What motivates people to become and remain involved in the AlphaWorld community?
15. What are people looking for when they come to AlphaWorld?
16. Is there anything that we have not covered that you would like to mention about AlphaWorld, the community there, or the way people interact with each other? Any experiences or ideas that have been especially influential in your dealings with others there?

Questions for The Palace

1. When and how did you first become interested in avatar/virtual worlds?
2. Were you involved with text-based MUDs or MOOs before that? If so, what do you find most different between the two?
3. Tell me about one of your first experiences on The Palace that stands out in your mind. What made this experience significant?
4. How do people on The Palace decide what is or is not appropriate behavior?
5. Tell me about a time when someone behaved in a way that was considered unacceptable. How was the situation handled?
6. How did you learn socially acceptable behavior on The Palace?
7. Tell me about a time, if any, when you yourself acted inappropriately without knowing it. How did you come to learn what you should have done instead?
8. Is there a particular issue on The Palace that people there are really divided about? How is this issue being addressed?

9. What motivates people to become and remain involved in the The Palace?
10. What are people seeking when they come to The Palace?
11. What determines which Palace servers people are most likely to visit? to return to?
12. Are there feelings of exclusivity or "cliquishness" on some servers? How is it determined who "belongs" and who doesn't?
13. Can you tell me about a time when you or someone else was unwelcome on a particular Palace server? How was this made clear? What was the result?
14. Is there anything that we have not covered that you think is important to mention about The Palace, the community there, or the way people interact with each other?

Questions for WorldsAway Dreamscape

1. When and how did you first become interested in avatar/virtual worlds?
2. Were you involved with text-based MUDs or MOOs before that? If so, what do you find most different between the two?
3. Tell me about one of your first experiences on the Dreamscape that stands out in your mind. What made this experience significant?
4. How do people in the Dreamscape decide what is or is not appropriate behavior?
5. Tell me about a time when someone behaved in a way that was considered unacceptable. How was the situation handled?
6. How did you learn socially acceptable behavior in the Dreamscape?
7. Tell me about a time, if any, when you yourself acted inappropriately without knowing it. How did you come to learn what you should have done instead?
8. Is there a particular issue in the Dreamscape that people there are really divided about? How is this issue being addressed?
9. What motivates people to become and remain involved in the Dreamscape?
10. What are people seeking when they come to the Dreamscape?
11. How has the ability for people to create their own apartments affected the social interaction?
12. Is there any kind of social status connected with having a particular private apartment?
13. Is there anything that we have not covered that you think is important to mention about the Dreamscape, the community there, or the way people interact with each other?

APPENDIX E

DOMAIN ANALYSIS WORKSHEET (Example)

1) Strict Inclusion (X is a kind of Y)

Humanoid (male)
Humanoid (female)
Animal
Vegetable - Avatar
Animal/Vegetable head with Human Body
Alien
Inanimate object
Fantasy

Virtual friend or lover
Real life friend or lover - Relationship
Authority
Peer

Planned activities
Community gathering - Event
Public
Private/exclusive

Public spaces
Personal property
Private "turf" - Place
"Official" palaces
"Personal" palaces
Town

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