

GREEN TALES, SMALL SCREENS: ENVIRONMENTAL IMAGERY IN
TELEVISION DOCUMENTARIES

by

ANN KATHERINE SMITH

(Under the Direction of James W. Porter)

ABSTRACT

Images of the environment on television are ubiquitous and polysemous. This study applies a textual analysis to the semiological examination of environmental imagery in television documentaries through the theoretical lens of “the frame”, which serves as a guide for the environmental narrative over the past 50 years. Although the research world is rich with studies related to semiotics, environmental communication and frame theory individually, few have endeavored to bring this particular theory, approach and subject together. Analysis showed that a distinct system of signs apply culturally constructed meaning to environmental imagery on television. This study adds to the understanding of how media both construct and transfer cultural meanings of the environment to an audience. Future studies of this nature could expand media sources to include new media technologies and the environmental frame.

INDEX WORDS: Environmental Communication, Peabody Awards Collection, Frame Theory, Textual Analysis, Semiotics, Signs, Icons, Symbols

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ANN KATHERINE SMITH

A.B.J., The University of Georgia, 2001

M.Ed., The University of Georgia, 2004

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ANN KATHERINE SMITH

Major Professor: James. W. Porter

Committee: C. Ronald Carroll
Patricia J. Thomas

Electronic Version Approved:

Maureen Grasso
Dean of the Graduate School
The University of Georgia
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TABLE OF CONTENTS

	Page
ACKNOWLEDGEMENTS	iv
CHAPTER	
1 INTRODUCTION	1
2 LITERATURE REVIEW	6
The Environmental Movement in America	6
The Documentary.....	11
Science and the Media	15
3 THEORY AND METHODOLOGY.....	24
Frame Theory.....	24
An Inventory	27
Qualitative Methodology: Textual Analysis.....	30
The Documentaries	34
Methodological Limitations.....	35
Research Question	36
4 ANALYSIS.....	38
The Synopses	38
The Signs	49
The Frames.....	67
5 CONCLUSIONS	71

REFERENCES	73
APPENDIX A	81
APPENDIX B	88

LIST OF TABLES

	Page
TABLE 3.1: Common Environmental Frame.....	28
TABLE 3.2: Content Categories.....	31

CHAPTER 1

INTRODUCTION

An industrial smoke stack, gridlock traffic, a snowcapped mountaintop, a spinning globe, a polar bear adrift in a massive sea.

Each of these five images communicates multiple meanings and holds iconic and symbolic environmental connotations for those who encounter them. Each is also an image that is easily observable in mass media, including television. These images function as signs that, when situated in historical context, convey cultural constructions of the environment and how Americans relate to it. An unpacking of the connotative meaning constructions in environmental imagery in the media is key to understanding how this system of signs, coupled with the frame in which it is presented, mediates the relationship between Americans and their environment. An examination of this relationship is important because “mass media are likely to be of major importance in the selection, transformation and circulation of environmental meanings in modern society” (Maier, 2011, p. 166; Cottle, 1993, p. 108). Beginning with the modern environmental movement in the 1960s, “the mass media have been a central public arena for publicizing environmental issues and for contesting claims, arguments and opinions about our use and abuse of the environment” (Hansen, 2011, p. 8). And, in visual media formats like television, it is through images that these matters of otherwise “abstract science...[are] rendered culturally meaningful and environmentally consequential” (p. 921).

It was not until the beginning of the 20th century, when industrialization was just starting to commingle with modernity and democratic ideals that a notion of the mass media began to work its way into the American psyche. Those earliest mass media forms, “newspapers, magazines, phonogram, cinema and radio”, coalesced quickly to a state that closely resembles today’s media formats (McQuail, 2010, p. 4). It is particularly relevant to note, given the historical origins of the mass media, that this new means of organized communication, born out of the context and conflicts of an age of transition, has “continued to be deeply implicated in the trends and changes of society and culture, as experienced at the personal level as well as that of society and the ‘world system’”(p. 4). Mass media do not, therefore, operate solely as a transmitter of information and messaging. The mass media is both a creator and a reflector of a surrounding culture and society.

Science Communication: A Little History

Reporting on science in the media was not a “part of a newspaper’s steady diet of news” prior to the first world war (Friedman, Dunwoody, & Rogers, 1986, xiii). The role of science in the catastrophic devastation of World War I – “tear gas, TNT, and the staggering health problems of the wounded and disfigured” – catapulted science related stories closer to the front page once the war was over (xiii). With this newfound cultural prestige came a recognition amongst some in the scientific community, specifically American Association for the Advancement of Science board member Warren Weaver, that it was “absolutely essential that science – the results of science, the nature and importance of basic research, the methods of science, the spirit of science – be better understood by government officials, by businessmen, indeed by all people” (p. 4).

Weaver's fervor was met with fear, from some of his peers, that greater public engagement might weaken scientific pursuits. However, the permanence of a science presence in the mass media was sealed in 1957 when the Soviet Union successfully launched Sputnik, the first satellite to orbit Earth, and dealt a major blow to the collective pride of the American public (1998). The scientific community in the United States, as well as the journalists covering their research, "scrambled to catch up" (Friedman *et al.*, 1986, xiv). Both professional groups were fueled, at least in part, by competitiveness and a drive for superiority, two distinctly American qualities.

Television: The Original Small Screen

Television, from its inception, captivated the American public and earned its way into the daily routines of households across the United States. "At some point in time between 1947 and 1950 American television emerged from its technical and experimental stages to become the major communication force in all recorded history" (Bluem, 1965, p. 9). As television comfortably established itself as the centerpiece of the American living room, television genres began to emerge; the soap opera, sit-com, variety, game show, sports, news and non-fiction (Newbold, 2002). Although the genres of television have evolved and shifted somewhat over time (talk shows and reality shows have replaced variety shows in ubiquity and popularity), the prevalence of non-fiction, documentary-style television programming on network, cable and online outlets remains high in present television lineups. It seems nearly impossible to avoid the plentitude of nonfiction wildlife series, mostly factual accounts of major historical events, and the predictive and proscriptive narratives complete with tips for navigating the impending apocalypse. But often lost amongst this multitude of programming options is an explicit

recognition that mass media, an assortment of ever-evolving, ever-mutating channels by which information is disseminated, can and does function as an incredibly powerful tool of social, cultural and political influence. “In so many ways [television] has brought to Americans a greater sense of life, of human experience, and of those issues and events, which determine the course of our civilization” (Bluem, 1965, p. 9).

In addition to being, arguably still, the most prevalent form of mass communication in the United States (and in most parts of the world), television has been much-maligned, in both popular and academic circles, “as intruder, as complicator, as rogue or polluter” (Newcomb, 2000, p. 1). Innumerable researchers have noted “that television has been identified as the cause of a vast range of ‘positive’ and ‘negative’ effects” (Lodziak, 1986, p. 5). “There has always been a traditional bias against works of popular culture by critics and intellectuals who hold that popular culture can only be of interest as sociological phenomena” (Adler, 1976, p. 3). The purpose of this study, therefore, is not to argue for or against the nature and merits of television. Instead, given the absolute ubiquity of the medium, this study aims, rather, to investigate the trends in environmental television documentaries since 1948. Historically, serious people who thought seriously about television were unlikely to consider the medium as a “prominent, significant, or special contributor to society” (p.1). Studies to determine television’s damaging effects of overexposure and perpetuation of stereotypes will be put aside for this research endeavor. Television will instead be considered primarily as a producer and transmitter of images that work with internal and external context to construct meanings.

The Peabody Awards Collection

One way of looking towards the future is considering the past. “Television programs can do what very few other historical documents can: provide a focus for studying the slow process by which common images evolve within recognizable context” (Newcomb, 1978, p. 12). Large television archives are a rare commodity for media researchers, which is one reason the University of Georgia’s Peabody Collection is such a unique historical tool. “The Peabody Collection at the University of Georgia is one of the nation’s richest broadcast archives” (Sherman, 1992, p. 133). With a mission to recognize “the most outstanding achievements in electronic media, including radio, television and cable” (Holston, 2010), the Peabody Awards Collection Database holds over 90,000 titles, its radio programs date from 1940 and television from 1948. It reflects the best in American broadcasting history, and includes titles from news, documentary, entertainment, educational, children's, and public service programming (“Peabody Awards Collection”, 2010).

“Perhaps the most compelling element to the Peabody Awards acquisition process is that entries are self-selected by those making submissions and as a result the quality of competing works is extraordinarily high” (Holston, 2010). Industry professionals, not independent evaluators, make submissions for consideration. Specifically because of this distinction, the Peabody Awards Collection now contains 70 years of the very best examples of electronic media and can be an incredibly valuable resource to examine various facets of media. It serves as an incredibly important historical and cultural resource as evidenced by its use in this study.

CHAPTER 2

LITERATURE REVIEW

Prior to embarking on the analysis portion of this study, a review of both the historical context of the environmental movement and previous academic research pertaining to environmental communication is necessary. Such a review involves an exploration of overarching research areas, such as scientific communication and the documentary, as well as a comprehensive evaluation of research relating specifically to environmental communication.

The Environmental Movement in America

Communication does not operate in a vacuum and it is therefore of vital importance that this study consider the historical context in which each television program was produced. Of particular interest, of course, is the evolution of the environmental movement in America as it directly informs the evolution of environmental images and symbols presented in the media.

One hundred years prior to the birth of modern environmentalism, nature writer Henry David Thoreau was championing the ideals of the American Romanticism movement, “an artistic and intellectual tradition that tried to harmonize human relations with the earth” (Steinberg, 2009, p. 40). In stark contrast to the predominate perception of wilderness as loathsome and in need of taming, Thoreau (1893) instead saw in wilderness a more transcendental power, noting that there exists “a subtle magnetism in Nature, which, if we unconsciously yield to it, will direct us aright” (p. 265). According to

historian William Cronon (2003), Thoreau's writings suggest, "a changed landscape meant a loss of wilderness and virility that was ultimately spiritual in its import, a sign of declension in both nature and humanity" (p. 210). Thoreau and many others during the American Romanticism movement were influenced by "18th- and early 19th-century English nature poets and aestheticians [and] fostered in American art and literature an ideal of sublimity in wild nature" (Cox, 2010, p. 47-48). Sublimity is widely regarded as a core influencer on the way environmentalism developed in the 20th century and it "has remained a touchstone or grounding for our public conception of nature and, through nature, the environment" (Corbett, 2006, p. 169).

In addition to the emerging philosophical shift in attitudes toward nature, "the young nation's quest for a sense of national identity" also worked to transform the image of wilderness in the minds of Americans (Cox, 2010, p. 48). The rugged, untamed wilderness that characterized much of the undeveloped wilderness land in America closely paralleled those romanticized traits of the cowboy, a distinctly American mythological persona. Historian Stewart characterizes this phenomena as a "peculiarly American obsession with the frontier and wilderness and everything that goes along with it" (Stewart, 2009, p. 213). The myth of the American frontier, romanticized now for decades in films and on television, "remains an important icon in an American consciousness shaped by the mythical frontier ideals of independence, self-reliance, and ingenuity" (Murray & Heuman, 2010, p. 158). In this worldview, wilderness and freedom became linked in the American psyche.

Following the contributions of mid-19th century writers and thinkers and the budding connections between the barbaric wilderness and a new national identity, two

relatively divergent land ethic ideologies developed during the early 20th century. The utilitarian approach to the use of natural resources came to be known as conservation. Led principally by Gifford Pinchot, President Theodore Roosevelt's chief of the Division of Forestry, the conservationist philosophy aimed to provide "the greatest good for the greatest number" (Cox, 2010, p. 49). Conservationists value the natural world and all non-human entities only in their use-potential for human applications and consumption (Corbett, 2006). Federal agencies like the Forest Service and the Bureau of Land Management still operate on the principles established by the conservationist movement of the 20th century.

Building off of mid-19th century ideals of sublimity and romanticism, preservationists like John Muir contended that the argument for preserving natural resources instead went way "beyond their purely instrumental value – that is, the utilitarian and economic value they hold for human use" (Corbett, 2006, p. 35). The preservationist perspective sought "to preserve wild forests and other natural areas for appreciation, study and outdoor recreation" (Cox, 2010, p. 48). Muir proposed, "that wilderness areas enriched human life, existing as sacred refuges, antidotes to the stresses of modern society" (Steinberg, 2009, p. 137). Historians credit the efforts of the preservationists as being instrumental in the successful passage of both the National Parks Act of 1916 and the 1964 Wilderness Act, which "authorizes Congress to set aside wild areas in national forests, national parks, and other strictly managed public lands to preserve such areas' 'primeval character and influence'" (Cox, 2010, p. 50).

Despite the variance in approach to natural resource management, these philosophies of nature, including the transcendental sublimity of Thoreau's writings, are

all rooted in a notion of *public interest*. Whether the aim is exultation, personal recreation or lumber, the interaction between humanity and nature is always described from an anthropocentric perspective. The intention of this study is not to argue the legitimacy of such an approach but rather to underscore its role as a key rationale for environmentalism and environmental policy in the United States. Because the media is both a reflector and a creator of culture, depictions of environmental matters on television most often adhere to a human-centered approach. The roots of this anthropocentric perspective are deep.

The idea of the public interest as it relates to nature and the environment shifted a bit in 1962 when biologist and science writer Rachel Carson first voiced concerns about the health impacts of the unimpeded use of pesticides, specifically DDT, in her book *Silent Spring*. In addition to a consideration for how natural resources might benefit humans, Carson also “showed that human beings not only affected ecosystems but also existed within them – their own biological destinies bound up with the fate of the natural world around them” (Steinberg, 2009, p. 247). Carson drew from various scientific fields, decoded the labyrinth of scientific evidence for a lay audience, and brought “to this endeavor a national reputation as a highly respected nature writer” (Graham, 1970; Waddell, 2000a; Gunter, 2005, p. 671). In doing so, Carson successfully provoked public recognition of the connections between unchecked and unregulated business practices and ecosystem health to the public. For that she is “widely considered the founder of the modern environmental movement” (Cox, 2010, p. 51).

In the decade following the publication of *Silent Spring*, the environmental movement transitioned fully into the mainstream. In addition to Carson’s public assertion that humans “were part of the balance of nature, not divorced from it”, several

political and environmental events helped to plant the evolving movement firmly in the forefront of the American psyche (Steinberg, 2009, p. 248). Steinberg asserts that “Carson’s eloquent book combined with an extraordinary dry spell, a superheated political climate, a series of made-for-TV ecological disasters, plus an arresting image of earth as seen from outer space all dramatized the elemental interdependence of life on the planet (p. 250-251). Other historians confirm the pivotal role the mass media played in popularizing the notion of a planet in peril. According to Cox, “by the late 1960s, news coverage of air pollution, nuclear fallout, fires on the Cuyahoga River near Cleveland when its polluted surface ignited, and oil spills off the coast of Santa Barbara, California, fueled a public outcry for greater protection of the environment” (Cox, 2010, p. 52).

On April 22, 1970, the inaugural Earth Day occurred in the form of “protests, teach-ins, and festivals at schools, colleges, and universities throughout the country” (p. 53). The first Earth Day, asserts Steinberg (2009), “was the clearest evidence to date of environmentalism’s status as a mass movement” (p. 253). In the decade to follow, major environmental legislation resulted from the fervent cries of the first modern environmentalists in America. During the 1970s, under the presidencies of Richard Nixon and Jimmy Carter, “more than a dozen important new pieces of environmental legislation emerged” (p. 251). Included among them were the Clean Air Act (1970); the Water Pollution Act (1972); the Endangered Species Act (1973); the Energy Policy and Conservation Act (1975) and the Superfund Law (1980). The Environmental Protection Agency was also established in 1970 to manage and protect against environmental ills at a federal level.

During the 1980s, following the election of Ronald Reagan, much of the groundbreaking environmental legislation of the previous decade was either disbanded or reversed under the guise of promoting economic development. Although a false dichotomy, pitting economic priorities against environmental necessities proved an exceptionally effective weapon against environmental thinkers, and against a preservationist community emboldened by its success in the 1970s. Despite political setbacks the deregulations of the Reagan era “eventually wound up galvanizing the environmental movement even further” (p. 254). By 2011, the environmentalist principles first introduced more than a half-century ago remain a familiar, if not contested, component of contemporary political and cultural debate.

The Documentary

The earliest records of documentary filmmaking come from France circa 1895. The genre made a swift Atlantic crossing and by 1896 Thomas A. Edison was making moving picture records of the inauguration of President McKinley (Bluem, 1965). From these early documentations of newsworthy events developed the newsreel. The most recognizable was a series called *March of Time*, produced by Time Inc., which was shown primarily in movie theaters from 1935 to 1951 (1965). *March of Time* familiarized the American viewing audience with the non-fiction format and paved the way for documentary films to become the established film genre it is today. Of this new film genre, early film critic and theorist Isis Barry (1945) asserts that, “for the first time the native motion picture was fully functioning as a means whereby the average citizen could be kept aware of the social, political and global complexities of the world he inhabits” (p. 2).

Perhaps the most notable early socio-political documentary was Frank Capra's 1942 to 1945 series *Why We Fight* which "set a successful pattern for the hard-hitting newsreel type political education film" (Katz & Katz, 1948, p. 426). The seven feature-length documentaries addressed the causes, the major battles, and the domestic impacts of World War II from a distinctly American perspective. Of this film series, film historian Rotha claims that "it is impossible to deny the persuasiveness of such films but shocking, too that they could, simply by presenting known facts, have so strong and startling an effect" (Rollins, 1996, p. 84). The movie series had a significant impact on its viewing audience writes historian Rollins. "*Why We Fight* would shock, cajole, flatter, and uplift America...it would blend the dark necessity of military service into a theatrical epic" (p. 83). Other documentaries, including Pare Lorentz's federally funded 1936 film, *The Plow that Broke the Plains*, began to weave environmental themes and imagery into their narratives (Davidson, 1983).

In addition to its early cinematic predecessor, the television documentary had a second forerunner in the audio documentaries popularized by radio broadcasts of the 1940s. The genre, an amalgamation of cinema newsreel, journalism, and Hollywood (Carroll, 1985) still "had its origins in ideas about progressive citizenship in industrial society" (Corner, 1995, p. 231). On November 18, 1951, during the open of the first broadcast of the Edward R. Murrow and Fred W. Friendly's television series *See It Now*, the off-camera announcer introduced the program as "a documentary for television" (Carroll, 1985, p. 238). This program, celebrated "for its 'probing, controversial treatment...of events and conditions of our existence' in a way which commented on 'the

best of pictures with powerful prose,' stands today as a model of what series television is capable of achieving" (Rapping, 1987, p. 102).

Bluem (1965) acknowledges that the television documentary is often "characterized as existing in a 'gray area' between art and journalism" but he goes on to argue, however, that condemning the television documentary as a "creative treatment of actuality [is] tautologi[cal]" (p. 14). Instead he reasons that "the selecting and arranging process which takes place during perception and transmission of experience is fundamental to both subjective (artistic) and objective (journalistic) communication" (p. 14), and mandating any piece of communication be devoid of interpretation is somewhere near impossible. Adler (1976) carries Bluem's claims one step further to explicitly categorize television not just as a medium but as a mediator as well. This contention implies that the role of television as an intermediary between sender and receiver is a legitimate perspective and one that makes television "much more interesting and much less simple than before" (p. 13). Within all rhetoric, this perspective is often referred to as a persuasive argument. While frequently criticized as allowing for bias, in the lens of a skilled documentarian, it is capable of almost sublime clarity and power. Without doubt, *Silent Spring* is a print example of this genre, and Al Gore *An Inconvenient Truth* comes close in film.

Rapping takes a more cynical view of the television documentary, asserting "that lightness of topic, combined with a variety of ideologically tricky devices for framing and limiting that topic, will be the most predictable kind of documentary" (Rapping, 1987, p. 109). She likens the television documentary to a "socializing agent" intending to mobilize the viewing public to adopt certain ideological or sociological behaviors. Unlike Bluem,

Rapping considers the television documentary indistinct from other television genres.

The documentary, she asserts, is just one more information pipeline that advocates for the cultural and societal status quo.

The role of the documentary in 2011, still deeply grounded in its roots of civil engagement and social change, is building upon a recent “upswing in commercially successful documentaries as well as an increase in the visibility of documentaries with overtly political messages” (“Dossier”, 2007, p. 2) by transforming from a one-way communication model to a more immersive and engaging social activism. In her study, Alice Kemmitt looked at how the television documentary series *The New Americans*, which originally aired on PBS, was repackaged as a “narrowcast documentary” that was “tailored to a particular group” (2007, p. 25). Kemmitt suggests that in today’s fragmented media market, focusing documentary production towards specific groups to encourage a sense of representation will motivate political will and action.

Researchers Larøi and Van der Linden (2009) conducted an experiment to test the effects a documentary film about schizophrenia had on reducing viewers stigmatization of the disease. Their findings indicated that “the film significantly influenced participants’ negative and derogatory attitudes concerning schizophrenia” (p. 69). The researchers suggest two major implications for the results of their study. “It supports the use of films in reducing the stigma for mental health problems” and “it supports the use of contact-type strategies, as the documentary film can be considered a form of ‘proxy’ contact for real people” (p. 70). More research is needed to determine if results like these would carry over into other realms beyond mental health, including pressing environmental issues.

Nisbet and Aufderheide (2009) contend that documentaries “are considered part of a larger effort to spark debate, mold public opinion, shape policy, and build activist networks” (p. 450). The researchers contend that in addition to their potential as agents for social change, “documentaries are also becoming an ever-more-valued commercial enterprise at for-profit cable television networks and popular amateur genre on YouTube”(p. 451). The authors suggest more research is needed to pinpoint elements in documentary films that successfully affect change in actions or attitudes of the viewing audience, in order to develop “theoretical clarity on how documentary film can ethically and effectively promote public life and civic culture” (p. 456).

Science and the Media

A Historical Perspective

In 1957, following the humiliating blow to the American ego delivered by Sputnik, “a reevaluation of science education in the United States” and a “renewed interest in science generally” was underway (Shortland and Gregory, 1991; Weigold, 2001, p. 166). A 1959 survey by the National Association of Science Writers, revealed “that while American attitudes toward science were generally positive, levels of factual knowledge of science were low” (Gregory & Miller, 1998, p. 4). During the 1960s and 1970s, as a result of these findings, the federal government injected several billion dollars into the public education system to improve the “scientific literacy” of American youth (1998). In addition to bulking up the funding for science programs in secondary education, the government, through the National Science Foundation, sponsored science communication in the mass media under the heading of “informal science education” (1998). The federal dollars and the new demand for a scientifically informed citizenry

prompted researchers to consider science communication as a topic worthy of academic investigation.

In the introduction to his study on the portrayal of mental illness in mass media, Tennebaum (1963) stresses “that science and technology are too integral a part of our social-political environment to be completely neglected by the news media” (p. 579). His findings did not bode well for the quality of science communication on television and in newspapers and magazines. He suggests “notable consistencies in the findings as they relate to the flaws in the mediating apparatus of the science communication process” (p. 583), amongst them are “an ignorance about the science-reading public,” and vaudevillian production techniques that are “frivolous, if not downright disrupting” (p. 583). In 1967, Kreighbaum “argued that the media generally ignored science and, even when they did not, they all too often sensationalized it, exploiting scientific inquiry as a source of startling narratives” (Dornan, 1990, p. 48-49). Perlman (1974) reinforces this criticism, taking pointed aim at television, by suggesting that only science spectacle seems worthy of commercial television. “In terms of continuing discourse between scientist and citizen, American commercial television is the most bankrupt of the mass media” (p. 216). Perlman finds that the British model for financing and generating science content in the media, through tax dollars and an advisory board comprised of scientists, was among “the finest ever made” (p. 218).

Perlman, despite his misgivings of the then current state of science communication, does not downplay his belief that “there is an urgent need to increase the general public’s understanding of the process, the motives, and the results of scientific inquiry” (p. 209). Other researchers, however, are not as quick to support the government

push for scientific literacy amongst the layman. Trachtman (1981) suggests that “because of the slow and complex nature of science’s growth, the social context in which most scientists work, and the wide range of approaches masquerading as ‘the scientific method’” (p. 14), an accurate representation in the public would be near impossible. Instead of an image of science as tentative, probing and frequently intuitive in nature, “the public image of science tends to be one of a methodical force, ruthless and unstoppable in its logical and rational assault on the problems that face mankind” (p. 14). Dornan (1990) furthers this argument by suggesting that while scientific practices require a formal knowledge of specialized concepts and vocabulary, the communication of these practices through popular media requires that they be stripped of such specialized language and understanding, to facilitate the layman’s comprehension. He questions “whether and under what circumstances it is possible to ‘translate’ scientific work into a lay idiom without also corrupting it” (p. 54).

Communicating the Environment

The academic inquiry into the relationship between environmental concern and the mass media did not generate much attention until the 1960s and early 1970s (Lowe & Morrison, 1984). Newly enacted environmental legislation as well as a series of environmental catastrophes worked to change the American conscience and validate “the environment” as a worthy topic for scholarly research (Black, 2006). Coverage studies of newspapers and other media in the 1970s revealed that stories are more likely to be reported on if they are not local (Schoenfeld, *et al.*, 1979). O’Meara’s study suggests that “the arrival of the environmental era” led to an increased space allotment for environmental newspaper stories which the study claims “acknowledged the

interrelatedness of the humankind-environment-technology system by linking two or more environmental issues” (O’Meara, 1978; Schoenfeld, *et al.*, p. 45).

In the 1979 Schoenfeld *et al.* study on the how the national press handled the environmental movement of the 1960s and 1970s, the researchers found that initially the movement was not regarded as a crucial topic of the time and “positive environmental claims-makers were seen as minnows, not fit for the regular reporting ‘beat’” (p. 54). The researchers contend that environmental information travels “from professional and interest group concern through independent publication and attention in government to mass media attention and public concern” (p. 47). Anders Hansen (1991), however, questions the perspective of the Schoenfeld study, suggesting that the researchers “carry an underlying view of mass communication processes as linear, flow or transmission oriented” (pg. 447). Hansen instead suggests that while environmental issues generally do arise from a scientific forum, “the growth and inflection of such a problem takes place through complex interaction, involving influence and feedback processes, between a number of key flora” (p. 448).

Schoenfeld *et al.* also found that editors and reporters did not know where to fit early environmental stories into their newspapers. Some stories, they contend “got put on the outdoor page, some in science columns, a few in the growing women’s page, and some were mixed with consumer affairs” (1979, p. 54). The struggles of the 1960s and 1970s media professionals to understand where exactly the environment fits into everyday life directly mirrored the conflicted environmental attitudes of the American media consumer of the time. The environmental movement was gaining traction but the general public (and its media) had not yet fully determined where environmental

concerns fit in their everyday lives. An explicit recognition of interconnectivities between the natural world and day-to-day survival issues of its human species were still brewing beneath the surface.

Five years after the Schoenfeld study was released, British researchers Lowe and Morrison (1984) inquired into the role of the media in popularizing environmental issues. Their study suggests that while localized environmentalism would exist without it, “the media does broaden that awareness and transform many discrete problems into a major public issue” (p. 76). Interestingly, Lowe and Morrison also contend that inherent in environmental reporting is the provocation of “powerful cultural symbols – such as nature, the countryside and the historic heritage – symbols which are already endowed with strongly anti-industrial connotations (Williams, 1973; Hunter 1981; Wiener, 1981; , p. 79). The researchers therefore assert that environmental reporting brings about its own subversive qualities, partially driven by the symbolic meanings of the images presented either directly through the written word or alluded to through visuals. Burgess (1990) reasserts the importance the media plays in the production and consumption of environmental meanings, which she defines as “relations between social groups and the physical world, including climate, water, resources, plants and animals which are culturally defined as ‘nature’ and the built environment” (Williams, 1980; Fitzsimmons, 1989; p. 141). She challenges the television documentary format, however, for “underplaying or oversimplifying complex arguments, whether those pertaining to the scientific bases of environmental stress or the economic, social and political structures which contribute to these consequences” (p. 153) in favor of viewer pleasure, science as entertainment rather than information.

In addition to potential oversimplifications of complicated science, Stocking and Leonard (1990) argue that reporting on the environment in the 1990s faced particular complications for media professionals because often environmental stories did not fit certain tenets of traditional journalism: brevity, novelty, and timeliness. Excluding environmental disasters, such as the BP oil spill, or natural catastrophes, such as Hurricane Katrina, environmental stories are slow to develop and often big-picture stories are triggered only by these major events. Stocking and Leonard (1990) suggest that when global warming “finally catapulted to page one, many reporters and scientist believe, it was because of the summer drought of 1988” (p. 40). Friedman (2004) refers to the 1990s as the decade during which environmental journalism “grew into its shoes” but she also stresses that the 1990s brought added pressure for environmental journalists who were trying to tell longer, more complex stories within a media landscape where space was becoming increasingly precious (p. 176). Wallack *et al.* (1999) suggest that this increased media attention was also motivating opposition groups and propelling them into their own publicity campaigns.

In more recent studies associated with environmental communication, Anders Hansen argues that while the mass media is responsible for most of what the public learns and knows about the environment, the analysis of “how the environment is communicated visually...is still a comparatively underresearched component of environmental communication research” (Hansen 2011; Hansen and Doyle, 2011, p. 5). Additionally, Hansen (2011) cites the importance of longitudinal studies with regard to environmental issues, suggesting that they “throw light on how different meaning-creating forums and agendas interact” (Gamson, 1988; Ader, 1995; Nisbet and

Lwenstein, 2002; Trumbo 1995; Usckinski, 2009; p. 14). The researcher also claims that longitudinal examinations of environmental coverage is “an essential and potentially highly productive starting point...to reconnect the study of media content with empirical evidence on its production/construction” (p. 15). In direct relevance to this study, Hansen emphasizes that “rarely has the analysis of visuals or the visualization of the environment been the main focus of analysis, or indeed the subject of systematic or longitudinal analysis” (p. 17). Visual imagery, Hansen asserts, “despite their seemingly self-explanatory photographic window-on-the-world quality – are invariably ‘made to mean’ or signify in particular ways” (p. 17).

In a study of environment and television programming in New Zealand, researcher Howard-Williams (2011) found that “most television portrayals of the environment are generally positive towards the idea of environmental protection” (p. 39). In terms of the visual imagery, however, Howard-Williams found that “stories relied primarily on dramatic visual images – trees fallen over, waves crashing across a road, downed power lines” and suggests that this plays into the frequently used metaphor of “a battle between nature and humans” (p. 38). His study also found that environmental imagery was used in seemingly conflicting roles as both “a frame for expressing anti-corporate views and a vehicle for selling products” (p. 41). These findings highlight the polysemous nature of environmental imagery and are a clear articulation of the importance of imagery analysis and unpacking.

Environmental Documentaries

Plantinga (2005) discusses the nature of the documentary film and argues that the typical documentary film intends to assert veridical representations of actual fact. The

author acknowledges that it is routine for “filmmakers [to] eliminate any trace of human existence in films about wildlife and wild areas”, and while he does contend that “the convention overall may lead to a romantic and inaccurate conception on nature as something that is wholly free from human influence and presence” (p. 113), he argues that “people *do* expect of the documentary that it is intended to offer a reliable record, account of, argument about, or analysis of some element of the actual world” (p. 112). He further contends that documentary filmmakers do implicitly intend that the audience perceive the filmic presentations of the real world as “reliable representations of some element of the actual world from which true beliefs can be formed about the film’s subject” (p. 114). In seemingly tacit agreement, Bottomore (2001) stresses that “no film – documentaries included – are simple reflections of the real world” (p. 116). Image manipulation is an inherent aspect of the film/video production process, argues Bottomore, but in the documentary genre the images are purportedly extracted from the real world.

In other recent studies, however, researchers take a more pessimistic attitude toward environmental documentaries and how nature, conservation and the environment are represented in mass media. Vivanco (2002), Horak (2006), and Nobert (2008) examine the potential impacts of conveying ideologically constructed representations of nature in documentary films. Vivanco asserts, “environmental films offer a privileged site to consider how nature and its problems are visualized at the crossroads of science, popular education, art and business” (2002, p. 1195). Vivanco goes on to argue that these documentary films emphasize western, scientific knowledge and lose “an understanding

of the differentiated and heterogeneous causes, consequences, and experiences of environmental degradation” (p. 1197).

Norbert furthers this argument in his criticism of the environmental documentary *L'Erruer Boréale*; a film concerning forest management practices in Québec. Like Vivanco, Norbert contends that the scientific language and imagery that dominates the film singularly defines the forest and thus “the forest becomes known and experienced through a scientific terminology” and “remains a site of expertise that can only be understood and articulated by those having the necessary technical knowledge” (2008, p. 207)

Horak focuses entirely on wildlife documentaries, a popular subgenre of the environmental film. He questions whether the rise of wildlife-themed cable channels, such as *the National Geographic Channel* and *Animal Planet*, coupled with the increased number of documentaries about animals, mirrored by an escalating extinction rate worldwide, could be “a desperate act to save wildlife for the virtual world” (2006, p. 460). Horak argues that “wildlife films conform to most of the tenets of classical documentay... the creative manipulation of real images carrying with them highly charged ideological texts” (p. 462). But as Mitman and others argue, “seeing animals on film cannot be equated with knowledge of animals in nature despite ideology in classical documentary that equates seeing with knowing” (p. 462). Earlier researchers have sounded similar alarms regarding wildlife documentaries. Gardner and Sheppard argue that “wildlife documentaries are beautiful and intensely pleasurable to watch but ask ‘what if the beauty works to immobilize the audience, rather than getting them out on the streets to save the whale?’” (Gardner and Sheppard, 1983, p. 35; Burgess, 1990, p. 142).

CHAPTER 3

THEORY AND METHODOLOGY

Frame Theory

Framing theory was first articulated by Erving Goffman in his 1974 book *Frame Analysis: An Essay on the Organization of Experience*. In all likelihood, however, framing practices were probably emerged and evolved along with the earliest forms of human communication. By providing contextual coherence, “frames help people cope with new or problematic experiences, relating them to familiar ideas and assumptions about the way the world works” (Cox, 163).

At the core of framing theory is the complex concept of the frame. Goffman characterized the frame as the most basic element of the “principles of organization which govern events” upon which the “definitions of a situation are built up” (Goffman, 1986, p. 10-11). “In other words,” writes Thomas Koenig, “frames are basic cognitive structures which guide the perception and representation of reality” (Koenig, 2004, p. 3). Tuchman credits Goffman with originating “the idea that a frame is needed to organize otherwise fragmentary items of experience or information” (McQuail 2010, p. 380). Frames work to provide individuals with “a specific set of expectations used make sense of a social situation at a given point in time” (Baran & Davis, 2009, p. 137). The process of communication, through words, text, imagery and beyond, is predicated on the representation of reality. “Any representation of reality involves framing” (Kitzinger, 2007, p. 134).

Although the origin Goffman's theory is rooted in linguistic philosophy, the modern day approach borrows many principles from theories of symbolic interactionism and social constructionism (Baran and Davis, 2009). Both theories "argue that the expectations we form about ourselves, other people and our social world are central to social life" (p. 314). These expectations inform the individual and collective social constructions about culture. And perhaps the most prolific producing and transferring agent of frames are the mass media.

In his seminal paper, Entman (1993) suggests that "to frame is to select some aspects of a perceived reality and make them more salient in a communicating text, in such a way as to promote a particular problem definition, causal interpretation, moral evaluation, and/or treatment recommendation" (Entman, 1993, p. 52). Entman's conceptualization of the framing process can be directly applied to the functions of the mass media. To further clarify, Altheide (1997) describes frames in the mass media as "the focus, a parameter or boundary, for discussing a particular event. Frames focus on what will be discussed, how it will be discussed, and above all, how it will not be discussed" (p. 651). Entman goes on to define four discrete framing locations within the communication process as a whole: communicators, text, receivers, and culture (1993). Although all four framing locations are worthy of scholarly inquiry, the framing of text, "manifested by the presence or absence of certain keywords, stock phrases, stereotyped images, sources of information, and sentences that provide thematically reinforcing clusters of facts or judgments (p. 52), is more relevant to this study.

A consideration of framing in environmental communication is of vital importance. The mediating function of the media governs "the ways in which we – as

individuals, cultures and societies – view, perceive, value and relate to our environment” (Hansen, 8). By stressing “specific values and facts”, frames have a direct effect on these fundamental interactions and “the potential to influence audience opinions” on myriad environmental issues (Corbett, 237). The environmental movement in the United States, Corbett argues, “can be understood partly to be a struggle over quite different but powerful frames for nature and our relationship to the environment” (165).

Researchers have provided numerous categories for the variety of commonly used environmental frames in the media but this study will adhere to the categorization adapted from Julia Corbett’s book *Communicating Nature* (Table 3.1). Scholars, including Corbett (2006), suggest that these frames do not appear “as overt statements but in the ‘key words, metaphors, concepts, symbols, and visual images’” (Entman 1991, 7; p. 239). This study will be most keenly interested in the how the visual imagery, referred to by Corbett and others, informs the frame of each documentary.

Table 3.1: Common Environmental Frames (adapted from Corbett, p. 240)

Frames	Explanation
Responding	Working on it, studying it; often indicates cooptation, not genuine response or change
Powerlessness	There’s nothing we can do, it’s not our jurisdiction, responsibility
Barriers	Cost, time, expertise
Scientific or Technological Solutions	Need more scientific study first, can solve through scientific intelligence, perseverance, ingenuity;
Avoidance or Downplay	It’s an isolated incident, not a big problem; denial, secrecy, evasion
Loss	Rescuers become heroes, “save” creatures or places
Entitlement	Rights, something needs securing such as access or tradition
Endangerment	Threats to health or safety of animals, humans, ecosystem, etc.
Calamity	Pending doom, utter disaster

An Inventory

Although this study is primarily an exercise in interpretation and analysis, it would be incomplete in its overall benefit and contribution to the dialogue of television without the inclusion of an inventory and categorization of the contents of the Peabody Archive Collection as it relates to the subject matter.

An initial, basic search of the Peabody Archive Collection Database (PACD), specifying only the medium format as television, yielded 34,512 unique titles between the years of this study, 1949-2008. Although the Peabody Archive also contains an extensive collection of radio programming, evaluating radio content was not within the scope of this thesis. Included within these 34,000 plus titles were seven entry categories: CYT (Children's Program or Series), DCT (documentary), EDT (education), ENT (entertainment), INT (individuals or organizations), NWT (news and/or interpretations), and PST (public service). Entry category classifications are determined by the submitting organization and are used for searches within the database but not by the awards board when determining award winners. For this inquiry only those submissions classified as either DCT or PST were considered. These two entry categories were most likely to include informative, non-fiction pieces intended to affect social/political/environmental change.

A more limited search of just DCT yielded 8,927 titles. A similar limited search of just PST yielded in 4,611 titles. Together, these searches resulted in 13, 538 unique submissions. To further narrow the field of submissions, a search of various subject headings within these two entry categories was carried out. The subject headings were strategically selected to ensure that all environmentally themed programs would be

included in the search results. The subject headings included: ecology, energy, environment, environmental, global warming, pollution, population, and water. The entry category DCT yielded 402 titles: 93 titles for ecology, 35 titles for energy, 7 titles for environment, 148 titles for environmental, 24 titles for global warming, 41 titles for pollution, 7 titles for population, and 47 titles for water. The entry category PST yielded 295 titles: 69 titles for ecology, 20 titles for energy, 38 titles for environment, 72 titles for environmental, 5 titles for global warming, 48 titles for pollution, 6 titles for population, and 37 titles for water.

Program submissions could and often do include more than one subject heading so the possibility for overlap within the titles was likely. To filter out potentially overlapping titles, the lists for each subject heading within the entry category were compared and reoccurring titles were eliminated from the final sample. In addition to overlap, other eliminations were made to keep the results list within the scope of this study. All titles that concentrated specifically on international locations, such as the Bulgarian submission *Chernobyl 20 Years Later*, were categorized with an “I” (international) and eliminated from consideration. Additionally, titles that were excerpts, or part of a campaign, compilation or collection, such as the environmental public service campaign *It Means the World to All of Us*, were categorized with an “NA” (not applicable) and were not included in the final sample. Finally, titles that were included in one of the subject heading searches but were unrelated to this study, such as the PBS documentary series *Unnatural Causes*, were categorized with a “U” (unrelated) and were excluded from the sample set. This elimination process resulted in a final tally of **208** unique program titles, 77 PST and 131 DCT.

As a means for clarification, a set of 8 content categories was used to classify each title. These content categories were adapted from a list included in the *The Journal of Environmental Education* and were meant to represent the major concepts “implied in the term ‘environmental’” (Schoenfeld, Meier, & Griffin, 1979, p. 43). The 8 content categories for this study were derived from the explicit and implicit environmental principles built into this list (Table 3.2)

Table 3.2: Content Categories

Air Pollution	A
Energy	E
Ground Pollution/Waste	G
Global Warming	GW
Holistic Environment	HE
Population	P
Solutions	S
Water Pollution	W

The comprehensive inventory list of environmental documentary titles and their corresponding categories are included in Appendix A at the end of this study. Additionally, Appendix B of this study reveals the overall trends for each content category over the decades.

Qualitative Methodology: Textual Analysis

A Rationale

The quantitative research paradigm dominated studies of the media for much of its history as an academic discipline. In media research, a quantitative study aims to document “patterns of textual elements, institutional practices, and human behavior in the aggregate” (Potter, 1996, p. 305). According to Potter, through both inductive and deductive techniques, quantitative research illuminates “broad patterns that show the regularities” not the anomalies. One of the most common modes of analyzing television-programming content using a quantitative approach is content analysis. A traditional content analysis is “an empirical form of analyzing texts” that “breaks down the components of a program or a newspaper into units which are then able to be counted” (McKee, 2001, p. 147). Initially, a content analysis method was considered for the purposes of this study but several obstacles, both logistic and philosophic, challenged this approach as the preliminary research progressed.

The first barrier was logistic in nature. Although the Peabody Archives is an expansive and unique media library, its catalog is incomplete. An original submission tape does not exist for every title in the database; the only available data for some submissions are the title, producing station and the year it was produced. Attempting a content analysis without having access to all 218 titles would have impacted the validity of this study by potentially skewing the results.

The second barrier was more philosophical in nature. Some researchers have grown critical of content analysis as a methodological approach, citing “the issue of exactly what is meant by ‘content’” as the central problem (Van den Bulck, 2002, p. 83).

The primary goal of this study is to examine how the environment, through television, is presented to and embedded in our culture. To turn this endeavor into an enumeration for mathematical and statistical analysis reduces a visually oriented semiological study of meaning into standard deviations and variances. These sorts of results, although unquestionably suitable for many research efforts, seemed antithetical to the aims of this particular research study. Media researcher Alan McKee (2001) asserts that if academic research “only ever ask[s] the same questions, in the same way, [it] will continue to get similar answers” and only “by asking new questions, and coming up with new ways of thinking about things” might one hope to “get different kinds of knowledge” (p. 140). The textual analysis techniques employed during this research study aim to follow methodological guidance of scholars like McKee and others and are therefore informed by a qualitative research framework.

Textual Analysis

Prominent media-studies scholar Roger Silverstone defines a text as a unit of discourse, a sentence, a paragraph, a book, a television program, which can be identified as an autonomous and clearly defined unit of communication organized and structured according to decipherable rules – rules of grammar, narrative and rhetoric” (Silverstone, 1985, p. 167). Silverstone’s conceptualization of text is markedly broad and therefore encompasses almost all forms of communication, both formal and informal. Furthermore, his definition does little to address the explicit and latent meanings invariably attached to any form of text. It is necessary to build upon Silverstone’s basic unit of discourse to arrive at a conceptual understanding of text that will guide this study.

Fiske (1987) suggests that “no text is simply a pattern of signifiers: a text is a bearer of meanings” (p. 84). Words, images and any other communication mode that fits Silverstone’s definition “identify and limit the arena within which the meanings may be found” (p. 84). As the name would imply, to conduct an analysis of a text is to employ a methodology borrowed from literary criticism and structural linguists (Potter, 1996). Textual analysis seeks to understand how texts “define culture” (Potter, p. 62). “Instead of focusing on people as constructors of culture,” textual analysis places the focal point on the text themselves, as “cultural influencers” (p. 62).

“Textual analysis is to discover and illuminate the polysemy within texts” (Burns & Thompson, 1989, p. 3). “Such an analysis endeavors to ‘see’ each particular text in its difference – which does not mean in its ineffable individuality, for this difference is ‘woven’ in familiar codes; it conceives the text as taken up in an *open* network which is the very infinity of language, itself structured without closure; it tries to say no longer *from where* the text comes, nor even *how* it is made, but how it is unmade, how it explodes, disseminates – by what coded paths it *goes off*” (Barthes, 1978, p. 126-127).

Semiology

Numerous approaches within the textual analysis methodology have been developed and applied to studies of media, among them are discourse, narrative and semiotics analysis. Discourse analysis, rooted in the philosophic tenants of Michael Foucault, asserts that “communication occurs by way of forms of ‘text and talk’, adapted to particular social locations, topics and kinds of participants” (McQuail, 2010 p. 555). Narrative analysis, popularized by Russian literary critic Vladimir Propp, “seeks to fit messages into a pattern of storytelling” (Potter, 1996, p. 139). Semiotics, developed in the

19th century by Charles Saunders Peirce and Ferdinand de Saussure, focuses on “the analysis of signs and their functions” (p. 135). This technique examines the ways in which images make meaning (Rose, 2007). This technique provides a useful analytical toolbox for considering how the images of television documentaries help shape the environmental frame for both the individual documentary and for the environmental narrative frame since 1960.

Semiotics is a particularly well-suited analytical approach for the study of environmental images in the media. The use of iconic environmental images, suggests Howard-Williams, evokes “deeply held symbolic frames of reference” (Howard-Williams, 2011, p. 29). The analysis will reveal what connotative and denotative meanings the images signify (McQuail, 2010), how those meanings are connected to a wider system of meaning through context and culture, and an articulation of the decoding based on ideology (Rose, 2007). To do so, this study will employ a semiological analysis of five television documentaries, each produced during a separate decade of the last 50 years. The observational process of data collection is unstructured, a preliminary viewing of each piece will be conducted wherein all visual images and relevant context without predetermined criteria will be recorded. Upon subsequent viewings, emergent image patterns will be identified and focus will be narrowed accordingly (O'Leary, 2010). This technique allows each program to speak for itself and it allows embedded to signs to emerge independently of a preconceived checklist.

To categorize the prevailing signs, this study will make use of Charles Sanders Peirce's delineation of the three “differing ‘modes of relationship’ between sign vehicles and what is signified” (Chandler, 2002, p. 36; Hawkes, 1977, p. 129): symbolic, iconic,

or indexical (Chandler, 2002; Pierce, 1867). According to Pierce, every image fits at least one of the modes and often they fit more than one. The two major signs this study will examine are iconic and symbolic. The iconic mode signifies through likeness. A photograph of a sunflower is an iconic representation of the real sunflower. The symbolic mode has “a conventionalized but clearly arbitrary relationship between signifier and signified” (Rose, 83). A visual symbol is one that represents something without being related or necessarily similar to that which is being signified; for example, the American flag.

Another series of concepts that this study utilizes are what Leeds-Hurwitz (1993) describes as “connections among codes” (p. 159). The first concept for describing the connection of a code is continuity. Continuity “refers to maintenance of the status quo over time” (p. 159). A sign has a particular meaning in a culture across time. If that meaning does not change then it maintains its continuity. The next concept is layering. Layering is “when an old sign acquires a new meaning yet retains the original meaning as well” (p. 161). Layering is particularly important for this study, as historical context tends to influence meaning layered onto signs. The third and final relevant concept for this study is reinterpretation. As a sign acquires more layers over time, “some of the old meanings may drop out of the system, relinquishing their place to the new” (p. 163), this is referred to as reinterpretation.

The Documentaries

As mentioned in the introduction, the source for the television documentaries analyzed in this study is the Peabody Collection media archives. Each program resides in the collection as a historical and cultural artifact, visually articulating the ideological and

political particularities of the time during which it was produced. The selection process was based primarily on information gathered from the entry record in the database. A qualifying run time (at least an hour, no more than two) and the availability of a user copy were the two contributing factors in compiling a list, for each decade, from which to choose. Once the lists were complete, the researcher randomly selected a single program title. This program title then became the representative from its corresponding decade. It is necessary to note, however, as Newcomb's 1988 study of "One Night of Prime Time" illustrates (Potter, 1996), that because this study follows a qualitative, unstructured methodology, the process by which each title was selected becomes less important than the semiotic relevance each titles brings to the analysis.

The first documentary, entitled *Breathe at Your Own Risk*, was produced in 1962 by WOR-TV, an independent station serving the greater New York City area. The second title, *Impact: The Energy Game*, was produced in 1976 by KYW, a local station in Philadelphia, PA. The national Public Broadcasting Service in Arlington, VA produced the third program, titled *Power Struggle*, in 1986. *After The Warming*, produced by PBS in Owings Mill, MD in 1990, is the fourth title. The final documentary, *Too Hot Not to Handle*, was produced by HBO in 2006. Through these five pieces of television and environmental history, this study will unearth the overt and latent semiotic meanings, communicated through imagery, to reveal the progression of the environmental frame.

Methodological Limitations

All research methodologies face limitations. Without such limitations the vast array of methodological approaches present in academia would be superfluous. Some scholars consider textual analysis methods to be highly subjective. Carley (1993)

suggests that despite its richness, the analyses “typically lack precision and inferential strength” (p. 76). Textual analysis provides the interpretation of one researcher; the results cannot be generalized without some element of determinism (Creeber, 2006). McKee (2001) challenges this characterization by asserting that in describing any piece of media “as a ‘text’, we are implying a certain approach to it, including the fact that we do not think it has a single correct interpretation” (p. 140). As previously stated, this study does not propose that the researcher’s readings of the selected television texts are in any way definitive or absolute. Instead, this study offers one possible reading, as is common in literary criticism, meant to improve and further understanding about the relationship of the media and the environment. The researcher is approaching this study as both a student of journalism and ecology and will therefore be able to bring knowledge and reflections from both disciplines.

Research Question

Several previous studies have utilized The Peabody Collection as a database from which to pull information about various broadcasting and social research inquiries. Researchers have considered the potential impacts of current documentary film as it relates to public involvement and political activism. Also, much research has revolved around the environment and the media. However, researchers and scholars have not spent much time looking longitudinally at environmental imagery in television documentaries to observe how the iconic and symbolic meanings of those visuals transform over time.

A study and consideration of environmental imagery on television has benefits for scientists, journalists, television producers and directors. A careful analysis of the ways in which the environment and environmental imagery is presented in the mass media should

add to the broader discussion of how concern for environmental degradation is generated and perpetuated in society. This study should also provide further evidence that collaboration and openness between claims-makers, including scientists and activists, and agents of the media, such as journalists and media producers, is an imperative as society advances into an increasingly resource-limited world and the environmental challenges that human population growth creates.

An additional benefit of such a study is to encourage interdisciplinary engagement among scholars. This study pulls from the scholarly work of ecologists, sociologists, anthropologists, linguists, film theorists, historians, communication scientists and media scholars. By reviewing and applying research from all these seemingly divergent disciplines, the researcher avoids the myopia of some academic research and acknowledges the holistic approach embraced by this study

The research questions guiding this study: How is the environment and environmental risk visually represented in non-fiction American television programs? Do these images change over time and if so, how? How do these images inform the overall frame through which the environmental is presented?

CHAPTER 4

ANALYSIS

Analysis of five television documentaries from the Peabody Collection revealed that particular symbolic visualizations of the environment appeared fairly consistently throughout the five programs and worked, in context, to construct and reinforce culturally derived meanings of nature. First, each documentary was briefly summarized and situated within its historical context. The second step in this analysis was to identify the images/signs and categorize them using Charles Sanders Peirce's delineation of the three modes of a sign: symbolic, iconic, or indexical (Peirce, 1867; Chandler, 2002). Additionally, using Wendy Leeds-Hurwitz's sign connections, this analysis considered the ways in which meanings link together longitudinally, through continuity, layering, reinterpretation and transformation (1993). Finally, the signs and codes were explored at a thematic and historical level to ascertain the frame through which nature was being presented in each documentary.

“Breathe at Your Own Risk” (1962)

The first documentary is, as the title suggests, a program about the potentially harmful effects of air pollution. The show's narrator, John Scott, appears consistently throughout the program as both explainer and interviewer. The program begins with a montage sequence of industrial smoke stacks and people in hospital beds. Once Scott has sufficiently introduced the issue of air pollution, a meteorological expert is brought in to diagram the phenomena of temperature inversion, the primary agent of blame in this

program's presentation of air pollution. Scott then engages in a series of interviews with experts ranging from the Commissioner of Pollution Control in New York City to the director of the National Cancer Institute. In total, five experts speak on the issue of air pollution. During portions of these interviews, smoke stacks, aerial photography of New York City and shots of a man suffering from the effects of emphysema appear.

The focus of the documentary then changes to an examination of another source of air pollution, the automobile. A montage of Los Angeles including freeway traffic, exhaust pipes and a wide shot of the downtown LA skyline heavily obscured by smog is presented while Scott and the meteorologist discuss how LA's particular geography influences temperature inversions. Scott interviews two more experts, the chairman of the engineering and research arm of the automobile manufacturer's association and the regional program director of public health services in New York City. The men engage in light debate about the auto industry's response to pollution control.

Following these interviews, images of scientists in white coats interacting with scientific machinery and data, conducting experiments on humans, animals and plants appear as Scott describes current research being done on the effects of pollution on people and agriculture. Scott quickly segues into a brief history of air pollution, tracing it all the way back to the cave man, represented by a cartoon drawing of a primitive man comically reacting to fire. Subsequently, two more experts are interviewed while shots of buses and busy highways appear. The final segment of the documentary is a series of "man on the street" [MOTS] interviews wherein average citizens reveal a "vague awareness of air pollution" but they certainly don't realize that "air pollution can kill" (*Breathe at Your Own Risk*, 1962). Scott concludes the documentary by remarking of

the first National Conference on Air Pollution, “the conference can only be a success if it generates public awareness, public concern and greater effort toward the achievement of a cleaner, healthier environment.” Notably, this concluding statement is the first utterance of the word “environment” (1962).

Impact: The Energy Game (1976)

This documentary begins with a montage of images of New York City in the midst of a blackout. Some MOTS interviews are conducted. The narrator, Charles Beirbauer, then appears in a studio setting. As an aerial shot of the statue of liberty appears on the screen and Beirbauer begins to explain that the purpose of the documentary is to examine the major players in the “energy game” so that the viewer can make educated decisions about America’s future sources of energy. The entire context of the program is framed as an actual board game, with each type of energy represented by a single game piece. Natural gas is represented by an old-style streetlight and is described as “an old, reliable friend” (*Impact: The Energy Game*, 1976). Oil is represented by an oil derrick and is described as “versatile but troubled” (1976). Hydroelectric is represented by a plastic cube contained two repellant liquids (one clear and one blue), generating a wave-like impression, and is described as “one of the oldest and well-exploited sources” (1976). Coal is actually represented by a piece of coal and is described to likely be a more prominent source in the future because “it is abundant in this country” (1976). The final energy source described for this game is nuclear. A model of a conceptualized atom represents nuclear energy and it is described as “receiving top billing because it’s presently the most controversial” (1976).

The program then shifts to interviews that introduce broad issues of energy. An interview with a consumer advocate as well as the president of Philadelphia Electric helps define the major issues of the debate. An aerial shot of power lines spanning across grasslands appears during this discussion. The program returns to Beirbauer in the studio. Inexplicably, a new piece has arrived on the board. The piece is described generally as “other sources” and it is represented by a flowerpot chock full of indecipherable objects. Beirbauer and the Energy Game will continue to be a thread woven throughout the rest of the documentary.

Various interviews are conducted: the Director of the Federal Energy Administration Regulations, the Chairman of the Sun Oil Board, the President of Westmoreland Coal and the General Manager of Philadelphia Gas Works. Throughout these interviews numerous images appear on the screen. An old stock photo of an oil tower gushing with oil, mounds of coal sitting just outside the mine from which they were extracted, assorted images of a power plant that emphasize the maze-like structure of the facility, and a shot of the price at the fuel pump as gas is presumably pumped into a car. As the president of Westmoreland Coal is speaking, a montage of shots of coal appear: train cars carting coal away from the mine, a wide shot of the whole operation and several shots showing workers as they work to bring coal from underground to the plant.

The focus returns to Beirbauer and the Energy Game. The narrator presents projections for energy use percentages, by source, for the year 1985. With the benefit of perspective, this was a particularly interesting part of the program. The documentary asserted that by 1985, 45 percent of the nation’s energy consumption would come from

coal, 26 percent from nuclear, 12 percent from oil, 11 percent from hydroelectric, 4 percent from gas, and 1 percent from other – the as of yet undefined conglomeration of energy sources. From this analysis, the documentary cuts to a montage of electric consumer goods: a hand mixer, an electrical cord plugging into a power outlet, a light, a clock, a vacuum, a refrigerator, a television and a window air-conditioner. The next image shows construction of a nuclear power plant. The juxtaposition of these images does not go unnoticed. Next a graphic representation of a United States map indicating the locations of existing nuclear plants, sites approved for future nuclear plants, and blueprints for potential sites across the country. Images of anti-nuclear power protestors rioting in the streets, preventing a bus from passing appear on the screen.

The documentary asserts that by 2000, 47 percent of the nation's energy consumption would come from nuclear, 32 percent from coal, 8 percent from oil, 8 percent from hydroelectric, 2 percent from gas, and 2 percent from other – the *still* undefined conglomeration of energy sources. In this final portion of the documentary, the focus shifts to those unidentified energy sources described as “other”. A montage of various representations of the sun is presented. Solar energy is discussed as a potential alternative energy source. In reality, according to the U.S. Energy Information Administration, only 8 percent of the energy budget from 2000 was nuclear. Natural gas comprised 24 percent of total consumption, coal was 23 percent, and gas accounted for 38 percent, while renewables, including hydroelectric, made up 6 percent. (EIA, 2010).

Power Struggle (1986)

This documentary begins with an image of a bright blue sky, interspersed with some puffy clouds but as the camera pulls out it is revealed that those clouds are instead

the smoky exhaust billowing out from an industrial smokestack. The program immediately visually frames the *Power Struggle* referenced in the title by using a split-screen to pit alternative energy sources (represented here by solar panels, wind turbines and a hydroelectric dam) against fossil fuels (represented here by smoke stacks, an oil refinery and a piece of coal). The female narrator identifies herself as the actress Meryl Streep.

As Streep defines the challenges of transitioning from foreign sources of energy to developing safe, domestic sources, the screen cuts to images of coal and industrial smoke stacks. The question becomes clear: what sources of energy will be viable for American going into the future? The first interview, with former director of the Solar Energy Research Institute, is shot in front of a nuclear energy power plant with solar panels lining the base. This image sets up the gist of the rest of the documentary, that nuclear and solar are the two preferable options for future energy needs. The interviewee makes a direct reference to “living lightly on the planet” which is the first time within this environmental narrative that the earth is referred to in a sense of stewardship (*Power Struggle*, 1986).

The next image to appear on the screen is a juxtaposition of two large nuclear cooling towers situated amongst a grassy field on which cows are grazing, seemingly unaware and unaffected by the massive construction looming behind them. As the interviews continue, it is of note that the background for two different interviews (one with a renewable energy advocate and one with a oil representative) is the same although shot from a different perspective. The background is comprised of graphic representations (similar to the game pieces in the previous documentary) hanging from

the wall behind the interviews. Both fossil fuels and renewables are represented but they are separated from each other. When the renewable energy advocate is interviewed, images of the sun, water, etc. can be seen in the background. When the oil representative is interviewed, images of the more traditional fossil fuels are decipherable in the background. This shot composition helps to visually reinforce the positions each of these individuals represents.

Another feature of this documentary that is new to this particular environmental narrative path is that many average citizens are interviewed. This gives a voice to people other than official stakeholders in the debate. The inclusion of such interview voices can be considered an acknowledgement that the citizenry has become a legitimate stakeholder in the debate over energy and the environment.

The disaster of Three Mile Island is represented visually as Streep and various interviewees discuss the safety of nuclear energy. Most of the shots are wide-angle aerial shots that keep the viewer at a distance from the disaster. This method prevents any really intimate identification with the near catastrophe and perhaps was intended to downplay its significance. Alternatively, the wide-angle shot could communicate to the viewer just how vast the physical structure of the nuclear plant is, thus increasing the implied anxiety.

The documentary provides an overview of alternative sources of energy, beginning with solar. During this discussion, various shots of solar panels are shown, one in particular is an upward pan from wildflowers to panels interspersed with the flowers, suggesting that their presence has minimal impact on nature. In direct contrast to the dirty, dark, dingy images of processes by which fossil fuels are collected for

consumption, the solar panels are shot so they reflect a bright blue sky. The discussion turns to wind energy and images of wind farms shot from close up and as aerial views appear on the screen. As a contrasting image to the nuclear cooling towers, which appear ominous, the turbines are shown with animals grazing in the foreground of the shot.

When the discussion turns to biomass as an alternative, Streep introduces a farmer who is benefiting from his production of biomass for fuel. The visual imagery here is strikingly different from that of the vast inside emptiness of the nuclear plants. Shots of tractors suggest a different, perhaps more natural engagement with the living world as a resource.

The documentary presents garbage burning as a potential alternative energy source. This practice yields some interesting visual representations. Dump trucks hauling copious amounts of discarded consumer goods, a massive mechanical claw that is used to scoop up piles of potential fuel for sorting, and fires burning the remnants of a throwaway culture. The claw, in particular, seems visually resonant. It is reminiscent, on a much larger scale, of the claw used to grasp toys in an arcade game familiar to many in American culture. It is interesting to note that many of the toys grabbed up by players would eventually be discarded and find their way to a trash pile, once again in the grasp of the claw.

The final noteworthy visual element in this documentary appears during a discussion of new efficiency standards for consumer goods. Among these images are vehicle prototypes that run on alternative energy sources. These “futuristic” vehicles are shown glossy and bright, driving at various locations while synthesized music plays. The potential for building increasingly more energy-efficient appliances is discussed, presumably appealing to American consumer culture.

After The Warming (1990)

This documentary is vastly different from the other four analyzed in this study. The program begins with an image of an animated spinning globe and a computerized voice welcoming the viewer to the Global Information Network and providing the date, which is January 1st, 2050. We are in an imagined, guided by James Burke, a long-time BBC/PBS television host. Burke, framed as a small figure in a sweeping meadow, provides the viewer with a “look back at” a series of news reports that appeared between 2000 and 2050. Among the sobering details documented by voice of a faceless reporter and vivid visual imagery were incidents of starvation, rainforest destruction, floods, epidemics and toxic waste spills. In a moment of eerie foresight, one of these alarming stories focuses on hurricane surges and “a full-scale evacuation” ordered in New Orleans (*After The Warming*, 1990). When the camera returns to Burke he informs the viewer that, in fact, none of these events had taken place because of the changes the world made, starting in 1990.

Burke and the viewer, with the aid of “some state-of-the-art 2050s technology” then go on a simulated journey of environmental change throughout history starting with humans being driven out of the trees in Africa by a drought. During the course of the journey, Burke continues to remind the viewer that much of history was shaped by the human struggles with changing environments. The first part of this program takes the viewer from ancient Africa through to 1989, concentrating primarily on the important role the industrial revolution and consumerism had and is having on climate change.

During the second portion of this program, Burke uses his technology to show the viewer what happens between 1990 and 2050. Burke assures the viewer that the

“greenhouse effect scare turned out to be a trigger for something much more important” (1990). Worldwide consumerism, industrialism, and deforestation are heavily implicated in the rise of the greenhouse gas emission levels in the 1990s. A series of droughts in the late 1990s cause food shortages, riots and starvation and, as a result, suddenly people started to pay attention to the greenhouse crisis. By the early 2000s, a worldwide council is established to oversee the implementation of a plan to deal with the impending catastrophe. Despite rising temperatures and a grim forecast for the future, the industrialized nations led the way in developing renewable energy sources and a sustainable way of life. And having safely survived the warming, the viewer is returned to the year 2050.

Too Hot Not to Handle (2006)

This final documentary deals most directly and specifically with issues surrounding global climate change. Unlike the previous documentaries, the structure of this program is not guided by a narrator but rather an occasional textual graphic, generally appearing as white text on a black background. The environmental narrative of the program is primarily interview driven. In total, the 55-minute documentary brings 41 voices to the discussion of global climate change. In contrast, *Breathe at Your Own Risk*, the 1962 documentary, offered just 10 in the same run time. This structural change is likely a reflection of both an increased level of scientific sophistication of the audience as well as a move towards a faster-paced, choppy presentation style by the program producers.

The first image, and one that is woven throughout this program (similar to the Energy Game in *Impact: The Energy Game*) is an animation of a spinning globe, situated

in space. In the opening sequence, the spinning globe is intercut with other images including fire, an ominously hot sun, power lines, industrial smoke stacks, while Angela Lansbury sings “Dear World”. This rapid montage visually implies that the earth is in peril as a result of the threatening endeavors of man while the lyrics, “someone has poisoned you dear world...” reinforce this notion aurally. The title of the documentary then appears on the screen in large, red, capital letters. For the first time in this particular analysis, the opening sequence of a documentary to sets the frame immediately: The earth is under threat.

As the documentary unfolds, various environmentally charged images (most of which have been noted in this study) are presented. During the introductory statements by key speakers, who reappear often throughout the program, we see a montage of crowds and individuals, sweating, fanning themselves or shielding their eyes from direct sunlight. The final image in this montage is very important. It is the American flag waving in the wind with the sun glaring through the fabric. The juxtaposition of these two images would not always imply oppositional meanings but in this case, the sun is not a welcome resource. Instead it is a menacing foe, threatening the American way of life, as suggested by the sinister rays that penetrate the fibers of flag that symbolizes the nation.

The documentary goes on to present a series of segments, each introduced with a red text graphic describing consequences of a warming planet. The segments are structured around expert interviews. The first segment is “Heat Waves”. Ambulances rushing down the street, people wheeled away on stretchers with oxygen masks, elderly people grimacing under apparently oppressive heat, a rising thermometer, and finally, emergency workers carrying body bags of those who had, for this narrative at least,

succumbed to the temperature. Although images of overheated people have already been used as visual signs earlier in this program, this time they are lethal and more likely to elicit alarm in viewers.

The screen shows the spinning globe again before a montage of fast cuts begins again, this time using images closely associated with American consumer culture: cars, smoke stacks, spinning globe, gridlocked traffic, Las Vegas, spinning globe, an industrial complex, cars and back to the spinning globe. By returning continually to the spinning globe throughout this montage, the images reinforce the interconnectivity of all these images. Rampant consumerism cannot be separated from its global consequences. The documentary concludes by offering up some alternatives to fossil fuels and other resource-heavy staples of modern life. The program stops short of suggesting that a change in lifestyle may be the only solution to the climate crisis.

The Signs

The Smoke Stack

The smoke stack appeared consistently in all five documentaries. In *Breathe at Your Own Risk (BAYOR)*, the oldest of the films, the smoke stack appears a half dozen times in 55-minutes. The modern environmental movement was just getting underway in America in 1962, the year Rachel Carson's *Silent Spring* was published and *BAYOR* was shown.

The first half of the 20th century brought with it the increased industrialization of American cities and a burgeoning consumer culture, resting primarily “on a full-fledged vision of nature as little more than a means to maximize economic profits” (Steinberg, 2009, p. 173). During this era, images of factories and industry likely connoted both the

industrious character of the American working class and a major component of American economic stability. Although individual reformers and advocates had warned of the public health hazards of urban life (Cox, 2010) before the release of *Silent Spring*, this book introduced the general public to the notion that “all of nature was bound up in an interdependent web of life, which humankind had the potential to destroy” (Steinberg, 2009, p. 247).

The proximity, composition and situated location of each smoke stack varied in *BAYOR*. Billowing smoke, however, remained consistent throughout the shots. The image was most often juxtaposed against the sky and often the shot was wide enough to include the factory belching smoke. What the factories made was not specified. Smoke stack images were typically accompanied by an ominous music bed.

Given the historical context surrounding the production of this documentary, it is reasonable to assume that making our pollution visual and embodying it as a smoke stack was novel. This documentary was among the first to sound alarm bells regarding industrial pollution and its impact on ecosystem health, with the narrator even suggesting that “polluted air can kill” (*Breathe at Your Own Risk*, 1962). Additionally, because of the newness of the environmental movement, the 1962 television viewer was not yet been trained automatically link smoke stacks with environmental harm.

The historical context for the second documentary, *Impact: The Energy Game* (*ITEG*), begins six years before its 1976 release. In addition to the inaugural Earth Day celebration, 1970 witnessed President Richard Nixon create, by executive order, the Environmental Protection Agency and sign into law The Clean Air Act. Nixon’s seemingly pro-environmental politics were more pragmatic than philosophical. Nixon

was quoted privately as saying “[i]n a flat choice between smoke and jobs, we’re for jobs” (Brands, 2010, p. 169). The environmental movement was well underway in America by 1976 and, due to global events, the focus had widened a bit. Just three years earlier, in 1973, the American economy was thrown into chaos by an Arab petroleum producers’ oil embargo; a retaliatory measure “against the United States for siding with the Israelis” when war broke out between Egypt and Israel (Steinberg, 2010, p. 271). The short-lived embargo underscored the perils of foreign oil dependency, jolting Americans from their habits “of being in a hurry and driving fast” (Brands, 2010, p. 196).

ITEG reflected America’s heightened uneasiness about reliance on imported oil. The smoke stack appears less often than in the earlier film and is tied to discussions of coal as an energy source. It is reasonable to think that the producers of this particular documentary included the image only for its denotative quality and did not consider its possible connotations. It is also reasonable to suggest that a historically situated viewer, given the anxieties over energy, might assign a new meaning, or layer, to this sign. The denotative role of the smoke stack in this documentary is a representation of the domestic coal industry, a notion that might have brought some comfort to a viewer in 1976. The symbolic meaning of the 1962 smoke stack maintains continuity with the 1976 image, but with additional meaning as well. As a representation of a coal smoke stack, the image remains iconic but it also takes on symbolic qualities as it also signifies the domestic production of energy.

Ten years later, the 1986 documentary *Power Struggle (PS)* indicates that anxiety over energy remained at the forefront of the American psyche. In terms of historical context, however, the 1980s brought major environmental legislation to a screeching halt.

President Ronald Reagan pushed for the deregulation of industry and, by appointing “a staunch foe of big government” to head the EPA, reduced the agency’s budget by 22 percent (Steinberg, p. 254). Reagan subscribed to “the premise that public lands and other resources should be transferred to the private sector as soon as possible” (Brands, 2010, p. 234). Further solidifying his reputation as an anti-environmental president, he once “asserted that trees caused most air pollution” (p. 235). Reagan’s actions did seem to motivate some environmentalists to work harder and forge new and unexpected corporate alliances. These new partnerships “involved an approach to regulation that employed market incentives, as opposed to new rules or taxes, to compel corporate compliance” (Steinberg, 2010, p. 254). Reagan’s policies did not move the nation closer to energy independence.

In 1985 scientists publicly confirmed that chlorofluorocarbons (CFCs) “used in air conditioning, aerosols, refrigerators, and other products were breaking down the protective ozone layer” (Cox, 2010, p. 32). Scientific research directly implicated human processes of production and consumption in the depletion of the Earth’s ozone layer. Americans in the 1980s were confronted with measurable evidence that their actions could and would impact the world at large. It is worth noting that, unlike the current debate over global climate change, “ozone depletion generated little policy conflict or media attention and international policies to control [CFCs] were implemented with little news or public discussion” (Miller & Riechert, 2000, p. 49). In 1987, 24 countries, including the United States, signed the Montreal Protocol, agreeing to phase out production of CFCs (Cox, 2010).

The smoke stacks in *PS* are deliberately poised in opposition to the alternative energy solutions discussed throughout the documentary. Heavy smoke billows from the stacks in every instance and the composition of the shots portrays them as filthy intrusions into nature and emphasizes their dirty unnaturalness. Some continuity exists between these images and the iconic stacks of *BAYOR* as well as the symbolic stacks in IEG. Also, given the emerging scientific evidence that burning coal was contributing to acid rain formation, more symbolic meanings can be layered onto the existing significations. The smoke stack now represents direct degradation to the surrounding ecosystem, a meaning that is directly correlated with the hole in the ozone. In addition to layering of meanings, an emerging reinterpretation of the smoke stack is also detectable in *PS*. The image, as it is intentionally juxtaposed against solar panels and wind turbines, begins to signify old and outmoded technology. This reinterpretation is in direct opposition to its symbolic meaning two decades prior. At one time, the smoke stack signified progress and economic productivity of the early 20th century but in the wake of the introduction of alternative energy, those meanings start to drop away.

The imagery of the smoke stacks does not appear in *After The Warming (ATW)* until the second hour of the program. The visuals are introduced while Burke is discussing the fictionalized account of the quest for western industrialization by Eastern European countries, as well as Russia. *ATW* was broadcast in 1990, just a year before the generally accepted end of the Cold War and a time during which “the Soviet Union quietly slipped out of existence” (Brand, 2010, p. 276). The smoke stacks are included as part of a montage sequence labeled “Western World 1994”. In addition to several images of smoke stacks from varying angles, the montage images include neon lights, people

eating, fast food restaurants and power lines. The smoke stacks clearly appear as iconic representations of industry. The symbolic meaning is a continuation, in part, of the meaning from the programming of the previous decade. It is cast with mostly negative connotations, juxtaposed amongst images of consumption and overconsumption. The association of smoke stacks with the western propensity for overconsumption provides the image with a new layer of symbolic meaning. Additionally, the obvious correlation between the industrial complex and the introduction of the foreboding, fictitious Russian/Eastern European pursuit to emulate western cultural habits, given the particular world political climate, adds yet another symbolic layer to the smoke stack. Reagan had called the Soviet Union an “evil empire” and Americans had negative feelings toward all things Soviet (p. 219). The prominence of smoke stacks during the program’s discussion of such a reviled place connects the two visually and aurally, solidifying the negative symbolic undertones of the image of the smoke stack.

By the time *Too Hot Not to Handle (THNTH)* came out in 2006, President George W. Bush had deregulated “coal-fired utility plants and oppose[d] the Kyoto Protocol...to reduce greenhouse gas emissions” (Steinberg, 2010, p. 288). The Bush administration also “eased rules for industry in reporting their chemical releases into the air and the water” (Cox, 2010, p. 90). The debate over global warming was changing, fueled in part by defeated 2000 presidential candidate Al Gore and his PowerPoint presentation via documentary, *An Inconvenient Truth* (Brand, 2010). The summer of 2005 brought a series of damaging storms, the worst of which was Hurricane Katrina. Scientists stopped short of blaming global warming for the increase in the summer storms’ strength and

numbers but “Katrina and the other storms made terrifyingly real what could be at stake if the climatologists’ theories proved correct” (370).

The main role of the smoke stacks in *THNTH* is purely symbolic. Although the image of the smoke stack is still iconic, in that it directly signifies the real smoke stack, the symbolic significations overshadow anything more realistic. Some symbolic meanings are carried over from previous decades. Continuities in meaning include air pollution, dirty industry and old technology. As was the case in *PS*, reinterpretations of meaning continue through reinforcing and oppositional juxtaposition of the smoke stack and other images. The oppositional juxtaposition of the smoke stack and images of more modern alternative energy sources works to isolate coal power as antiquated and unsightly. In montage sequences, the smoke stack appears among images of the searing sun, power lines, the Las Vegas strip, extreme weather and a glacier breaking apart. Together these images reinforce the restless conflict between American consumer culture and its impacts on the global environment. The individual smoke stack loses some autonomy and partially assumes a singularly packaged identity representing all the damaging elements of American society.

The Automobile

The automobile is deeply and profoundly tied to American culture and identity. “The idea that cars could free people from train and streetcar schedules, instead propelling them on their own through space, conformed to American ideals of freedom, individuality and democracy” (Linder and Zacharias, 1999, 69-70; Steinberg, 205). In *BAYOR*, the narrator takes a supremely cautious approach to the automobile as a potential contributor to air pollution. This 1962 documentary was first broadcast just six years after

the passage of President Dwight D. Eisenhower's Federal Aid Highway Act of 1956. Construction of the interstate highway system solidified the image of "the speeding car along the open road [as] a metaphor for progress in the U.S. and for the cultural taming of the American wilderness" (Wilson, 1992; Murray & Heuman, 2010, p. 158). Additionally, the U.S. automotive industry and the construction of the highway system were adding jobs and money and fueling the post-WWII economy (Brand, 2010).

The images of the automobile in *BAYOR* are varied. Most occur during a montage sequence introducing the topic of air pollution and the auto. A couple shots show an individual automobile, on a suburban street. One image is a close-up shot of exhaust being expelled from a tailpipe. This image is reminiscent of the smoke stack and notable because it detaches the "offending" component from the more "favorable" passenger parts of the automobile. The majority of the images situate the automobile within an urban area, surrounded by dozens of other cars, ensnarled in traffic. The shots are comprised exclusively of wide framing. The situational context provided by these images deliberate implicates that only urban areas suffer the ills of air pollution and therefore the problem is not a direct concern for viewers who have moved to the suburbs. It is not the single automobile, driving in a suburban neighborhood or along a newly paved interstate that causes pollution. The problem resides in congested, urban areas, devoid of manicured lawns and swimming pools.

In addition to signifying an iconic representation of the automobile, the image, by 1962, had already assumed symbolic meaning for the average television viewer. As previously mentioned, the automobile was a symbolic representation of freedom and individuality, an ideology built on individuals' rights to consume and on freedom of

mobility. *BAYOR*, by only directly implicating cars in urban areas, keeps this meaning intact. However, the subtle visual association between the smoke stack and the tailpipe does suggest the potential for layering new meanings in the future.

The 1970s brought anxieties for Americans and their automobiles. Eisenhower's interstate system "ushered the United States onto the world stage in search of the one resource that keeps America moving, tying the country's future to one of the most politically volatile regions on the planet" (Steinberg, 2010, p. 270). The 1973 oil embargo and subsequent gas shortage "epitomized the waning of America's economic supremacy" and provided a cautionary tale for the nation's automobile worshipping culture (Brands, 2010, p. 196). *ITEG* addressed the potential sources of domestic energy but the program stopped well short of suggesting that Americans' mobile lifestyle was linked to the nation's oil addiction.

The automobile makes few actual appearances in *ITEG*. The beginning of the documentary introduces the oil crisis by showing a gasoline pump and a shot of the analog numbers turning over quickly on the price display. The car does not reappear until much later, during a sequence showing what the program's producers imagine the year 2000 might look like. The automobile is included amongst other images that connote positive meanings: a serene coast with a small child and a lighthouse and children doing art projects. These images, working accordantly in a reinforcing juxtaposition, quiet apprehension about any potential changes to the American lifestyle. The automobile, as a sign, maintains signifying continuity from the previous decade.

By the time *PS* was broadcast in 1986, President Jimmy Carter had already called upon the American people to drive less (Steinberg, 2010); a partial meltdown at the

Three-Mile Island nuclear facility had raised safety concerns about nuclear energy; and the “Reagan-era backlash against environmentalism” was well underway (Buhs, 2009, p. 361). These political and environmental circumstances further legitimized the exploration of domestic and alternative sources of energy. *PS* reflects a newfound urgency, noticeably absent from the previous decade’s *ITEG*. The documentary makes use of oppositional and reinforcing juxtaposition of images, adding a new layer of meaning as well as a reinterpretation of the symbolic meaning the automobile.

The first image of the automobile presented in this documentary is a wide shot of traffic at night. The night obscures clear definition of any one single automobile. The darkness is foreboding, casting the image of the automobile in a distinctly different light, both literally and figuratively. In a somewhat unconventional oppositional juxtaposition, a montage sequence of more energy efficient vehicle prototypes is presented. This series of images suggests a new layer of meaning for the traditional symbol of automobile. The symbolic representation of the automobile might be transformed into the futuristic automobile and the traditional image could go the way of the smoke stacks, to be reinterpreted as a symbol of old, dirty technology.

In 2003, just three years prior to the broadcast of *THNTH*, the Department of Energy reported that total annual highway fuel use, having swelled since the energy crisis of 1973, rose “from 111 billion gallons to 170 billion gallons used per year” (Steinberg, 2010, p. 294). Clearly Americans’ attachment to the automobile had not diminished. But by the middle of the first decade of the 21st century, awareness of and attention to the environmental effects of America’s car culture was becoming much more universal (Murray & Heuman, 2010). The automobile’s symbolic function as a vehicle for freedom

was competing with its newer reputation as an agent of gridlock. Americans were spending more time in their cars, getting to and from work, not necessarily hitting the open road. By 2000, 34 million commuters were crossing county lines to get to work, an increase of more than three-and-one-half times the number who had done so in 1960 (Pisarski, 2006). For the average American, the automobile was a necessity, not a luxury, of modern life.

Additionally, the 00s delivered to Americans the first truly viable alternatives to gasoline-powered automobiles. According to the Department of Energy's National Renewable Energy Lab, "[h]ybrid passenger cars arrived in the United States in model year 2000" (Laboratory, 2011). Somewhat reminiscent of the prototype vehicles in *PS*, these new hybrids were slowly reviving and reinventing the symbolic representation the automobile projected in the 1960s. Building on the image transformations of the 1970s, the shots of hybrids in action bolster the positive connotations of old, a revived and revised symbol of progress and freedom on the open road.

The first image of the automobile presented in *THNTH* is in the montage sequence. The other images, as mentioned previously, include industrial smoke stacks, the searing sun, power lines, the Las Vegas strip, extreme weather and a glacier breaking apart. The reinforcing juxtaposition of these images works to replace any individual meanings with collective meanings. These images together connote over-consumption and global warming; the viewer is less likely to consider each one independently. Thus the automobile, in this context, slips further into its symbolic representation of a contributor to climate change. Fading away are its 1960s significations of freedom and independence. For the 2000s commuter chained to the steering wheel, the symbolic

meaning of the automobile has been flipped on its head. Interestingly, about halfway through *THNTH*, there is an image of a single car, driving along “the open road”, a reference to the meanings symbolized by the automobile in previous decades and method for defining the problematic, conflicted relationship America has with its automobiles.

The Natural World

The concept of the natural world is problematic from the outset. Biologists, anthropologists, sociologists, and philosophers, among others, define “the natural world” myriad ways. Terms like wilderness and nature are culturally loaded and require an analytical discussion far beyond the scope of this study. For the purposes of this inquiry then, the natural world will consist of non-human, non-engineered and non-manufactured entities. The researcher acknowledges that some will argue that animals like cattle are the result of engineering and manufacturing practices but, for this particular study, all animals will be considered part of the natural world.

Images of the natural world are noticeably absent from *BAYOR*. To viewers in 1962 and, more than likely, to the producers of the program, the natural world and human society and culture existed in separate spheres. Even as the environmental movement gained momentum in the 1960s, “there remained a language of the environment that provided ‘disjointed and at times contradictory’ accounts of humans’ place in nature and assumed a ‘long-standing separation of the social from the ecological’” (Gottlieb, 2002, p. 5; Cox, 2010, p. 53-54). Eugene Odum biographer Betty Jean Craige (2001) cites a 1967 essay by Lynn White that attributed “the oppositional relationship between Western human society and nonhuman nature to the Judeo-Christian myth that God had created man in his own image and had made all of nature for man’s benefit” (p. 105). By 1962,

natural lands were being replaced by “subdivisions, shopping centers, and fast food restaurants” all situated “around the new highway system” (Steinberg, 2010, p. 203). Most Americans kept their day-to-day interactions with nature confined to the neatly manicured patch of Kentucky bluegrass in their front yards. It is not surprising, then, that the first documentaries about air pollution were so exclusively focused on anthropocentric concerns.

In 1969 the Cuyahoga River in Cleveland, Ohio caught on fire as a result of heavy oil pollution. Even water sprayed from fire-hoses on rescue tugs onto burning ships caught fire. The image became “the poster child for the ills of modern America” and provided evidence of the unequivocal relationship between America’s culture of consumption and the degradation of rivers, wetlands, biodiversity, and air quality (Steinberg, 2010, p. 240). The fire on the Cuyahoga River was the visual manifestation of the main tenets of Carson’s *Silent Spring*.

The nature imagery in *ITEG*, although more prevalent than *BAYOR*, remains limited and is presented in a form still mediated by humanity. As previously discussed, the primary focus of *ITEG* is energy. Nature does not work its way into the narrative until the very end of the hour, when the program prognosticates about the year 2000. The first image is wide shot of a pristine coastline; the second is presumably the same beach with a small child running along the shore. This image of natural world connotes purity and benignity. The inclusion of the small child within the shot reinforces those meanings. This image is intended to suggest that, with the energy situation solved, the future is placid and bright, safe and familiar. These connotations directly contrast the photographic

images of the Cuyahoga River fire from earlier in the decade. Symbolizing nature in this way works to reassure the viewer about the future.

PS addresses similar energy issues as *ITEG* but nature images play a far more significant meaning-making role. The first image of the natural world that the viewer encounters in *PS* is of a forest. Historically, trees in America “stood in the way, not only of Progress, which was obvious, but of deeper notions of order and light” (Turner, 1994, p. 258). Trees, and the forests that contained them, symbolized the untamed wilderness for pioneering Americans. Ridding the nation of wilderness, or relegating those natural areas to designated places “apart”, like national parks, is an example of Lynn White’s 1967 claim linking the Judeo-Christian myth and human domination over nature. This image of the forest in *PS*, then, draws on hundreds of years of historic symbolism, deeply and imperceptibly engrained in the American psyche. The forest is not only polysemous, but its multiple significations are somewhat antithetical – a nature that should be protected and a nature that must be tamed and harvested. Upon further consideration, however, the symbolic meanings of the forest may not, in fact, be so diametrically opposed.

The rest of the images in *PS* include nature in oppositional juxtapositions. A shot of cows grazing in a meadow pulls out wide to include a massive nuclear cooling tower just in the distance. This image juxtaposition, pitting the natural world against the nuclear power plant reinforces the anxieties Americans had about the safety of atomic energy. Only seven years prior to the broadcast of *PS*, “reports of a possible meltdown of the reactor core at the Three Mile Island nuclear plant became breaking news and captured headlines worldwide” (Cox, 2010, p. 157). By using cows as a symbolic

representation of nature, the documentary also reinforces an anthropocentric viewpoint. Cows are, for the most part, domestic farm animals raised specifically for human beef and dairy consumption. The proximity of the cow to the nuclear power plant symbolizes the potential hazards to a major American food source and, even more broadly, a way of life. Later on in the program, another shot of livestock grazing in a field is presented. This time, however, the camera pulls out wide to include a windmill farm. The new image is meant to be referential but oppositional to the meaning conveyed by the cattle and the nuclear power plant. By protecting nature, these images suggest, Americans are in turn preserving their own consumptive propensities

THNTH abounds with images of the natural world. The first series of images of nature start with a slow pull out of a pristine mountain range complete with sunrays shining through the clouds, that image crossfades into an image of a solitary canoe on a lake, framed through tree branches, also included in the montage are cyclists riding through a meadow, lake water glistening in the sun and a flock of geese flying at sunset. Most often these images appear in direct contrast to the montages of smoke stacks and traffic jams previously discussed. Interestingly, half of the images in this montage include humans engaging with nature in some sort of outdoor recreation activity. As was the case in *PS*, the images of people engaging in leisure activities in nature imply that the destruction of the natural world will jeopardize American's opportunity for relaxation and psychic relief.

The Globe

The 1989 fall of the Berlin Wall and the end of the Cold War in 1991 both hastened the already advanced permeation of global market economics. "By the 1990s,

the fashionable term for the integration of world markets was ‘globalization’” (Brand, 2010, p. 335). For better or for worse, world economies became irrevocably tethered to each other while Americans enjoyed apples from New Zealand, grapes from Chile, and lettuce and strawberries from Mexico, all at bargain prices (2010). This shift toward a global society ushered in a new perspective on environmental issues. Mirroring the interdependence of national economies, environmental issues took on a global identity that manifested itself in the visual imagery of the media at the time.

The image of the globe in *After The Warming* exemplifies this emerging global viewpoint. The image runs consistently throughout the whole two-hour program. It is presented as a transitional image between topics, as the iconic backdrop for the fictional “Global Information Network”, and as a transforming image; from globe to hourglass. It is clear then, that the symbolic representation of the globe is multifaceted and quickly acquires several layers of meaning. As a transitional tool, the globe functions as a visual binder. Each time it appears it reminds the viewer of the global implications and the global perspective presented by this particular documentary. The incorporation of the globe into the logo of the fictionalized “Global Information Network” reinforces a notion of interdependence as the world moves into the future. The imagined news network of the future does not have an overt national identity although it is noteworthy that all the employees speak perfect English. The network, instead, is a representative and spokesperson for the global community; a strong indication of what the projected importance was for globalization and future societies from a 1990s perspective. The final image of the globe transforming into an hourglass, adds one more layer of symbolic representation that works on anxieties about running out of time. The merging of these

two images presents the world as a ticking time bomb. Collectively, these symbolic layers of meaning lend themselves well to what Beck and Albrow assert is a “the widespread, mediated awareness of global environmental risks, and the capacity for environmental groups to organize and communicate at the global level, [which] has laid the grounds for a cultural ‘remoralization’ in which individuals think and act in relation to global categories and values” (Beck 1998b, 75; Albrow, 1996, 83-84; Szerszynski & Toogood, 2000, p. 218).

The globe is again prominently featured in *THNTH*. By 2006, globalization was well established and its free-market practices dictated many of the environmental policies in the United States. “Deregulation and an ardent faith in market discipline inform debates in areas as vast and ecologically significant as biotechnology and water resources to energy use and climate change” (Steinberg, 2010, p. 269). The notion that national environmental practices and policies have global consequences is no longer a fringe idea and this awareness is well articulated in *THNTH*. The image of the globe does not appear in different contextual situations, as it did in *AFW*. It does, however, maintain a consistent presence through the program, just as it did in the previous documentary. It appears at the end of each transitional montage sequence. The montage sequences have already been discussed at length, but it is important to note the symbolic significance of the globe as the final image in these sequences. As previously stated, the montages feature imagery representational of environmental hazards such as over-consumption. Szerszynski and Toogood (2000) argue that “the ‘staging’ of global civil society is marked by a heightened salience of icons, motifs and exemplars – of condensing symbols

of globality and interconnectedness, and of exemplary figures and stories which embody the notion of ‘acting for the world’” (p. 219).

The Polar Bear

In 2007, a year after *THNTH* was broadcast, the International Panel on Climate Change issued its fourth study and “found a 90 percent likelihood that human activity was the driving force” behind the current world warming trend (Steinberg, 2010, p. 287). By 2005, a year before the release of *THNTH*, “scientists were finding evidence that polar bears [were] drowning in the Arctic sea due to the melting of ice floes from climate change” (Cox, 2010, p. 67). In 2008, a year after the U.S. Fish and Wildlife Service’s proposal was submitted; the polar bear was listed as a threatened species under the Endangered Species Act (2010). The polar bear does of course fall into the earlier category of *the natural world* as it is defined by this study. However, during the 2000s, the symbolic meaning of the polar bear underwent such a dramatic reinterpretation that the researcher deemed it worthy of closer study.

The polar bear does not appear as either an iconic or symbolic sign in any of the documentaries before *THNTH*. Instead, almost immediately, the polar bear has become what Cox (2010) describes as a single image that represents a much larger event or situation. Since 2005, the polar bear has taken on immense symbolic meaning in what political scientist Murray Edelman refers to as a “visual condensation symbol” which has “the ability of such symbols to ‘condense into one symbolic event or sign’ powerful emotions, memories, or anxieties about some event or situation” (Edelman, 1964, p. 6; p. 67-68). The polar bear has hence become a symbolic embodiment of the entire climate crisis. *THNTH* and subsequent environmental documentaries will not have to explain the

plight of the polar bear as it relates to climate change; the meaning will be implied in a single image. “It’s easier to reduce a complex environment issue – such as climate change in the Arctic – to a story about polar bears” (Corbett, 2006, p. 181).

The Frames

Breathe at Your Own Risk: As previously mentioned, this documentary was produced during the earliest days of the modern environmental movement. Driven by a truly anthropocentric perspective, no utterance is made about the impact of air pollution on the natural environment, nor does the documentary present any imagery alluding to the natural world. In fact, no reference to the environment is made at all outside of the implication of its meteorological functioning in the worsening of air pollution due to temperature inversions. The documentary does not, however, downplay the significance of the air pollution as a serious threat to public health, warning that “polluted air can kill” (“*Breathe at Your Own Risk*”, 1962). The endangerment frame is utilized in *BAYOR* to present this environmental hazard as a potentially serious menace to modern society. The imagery of the smoke stack and the automobile, coupled with the historical context of *Silent Spring* and the first rumblings of the consequences of unchecked consumptive practices bolster the endangerment frame. It is noteworthy, however, that the endangerment frame in this case is limited specifically to the threats against human health, animal and ecosystem health are not a consideration.

Impact: The Energy Game: This documentary, broadcast amidst the political and societal strife of the 1970s energy crises, addresses various issues related to energy and where it might come from in the future. Once again, the environment takes a backseat to the human plight. The documentary concentrates most of its informative and interpretive

efforts on breaking down the energy budget of the 1970s and predicting the energy budgets of future decades. The environment is not entirely absent from the discussion however. Because much of the exploration of future energy alternatives revolves around the use of nuclear energy, the conversation opens up to include the potential impacts such an energy source might bring to the surrounding environment. Ultimately, *ITEG* does not imply that the concerns associated with the current 1970s energy crisis and energy budgets into the future are cause for much distress. This documentary uses a “responding frame”: weak association between the natural world and the automobile, and a future where energy problems are apparently solved. *ITEG* acknowledges that engaging in a dialogue about energy is important but the program also suggests that the dilemma will be resolved without much difficulty.

Power Struggle: This documentary uses an environmental frame more closely resembling the frames of later (or more current) documentaries. Like *ITEG*, the main subject matter of *PS* is energy. Unlike *ITEG*, *PS* takes the problem of energy seriously, perhaps because it was made well after the accident at Three Mile Island and the real dangers of relying on nuclear energy were at least partially exposed. *PS* presents the energy debate as an unsubtle clash of good versus evil. Fossil fuels and the individuals who represent them are unfavorably framed (visually). Contrastingly, alternative energy sources are presented in a positive visual form. One shot of a solar panel reveals a cluster of white puffy clouds in its mirror-sharp reflection. The frame utilized by this documentary is one of scientific or technological solutions. The problem is not, *PS* asserts, the consumptive lifestyle that requires major energy commitments. Instead, the problem is that the science and technology that will save the future and allow Americans

to continue over-consuming has just not been fully indoctrinated and accepted into the mainstream.

After The Warming: As previously noted, this documentary approaches the environment through a rather unconventional method. Although speculative imagery has been presented in previous documentaries, like *ITEG*, the entire second half of *ATW* is delivered as a fictional account of the future. The recognition that human activity has had and will continue to have major environmental implications, tacitly addressed in *PS*, is treated in a much more overt fashion. Much of the imagery is either representative reenactments of historical events or the prognostications of fabricated future events. Interestingly, however, despite its rather novel delivery, the frame of *ATW* does not stray far from its 1990s predecessor. A major thrust of the documentary is that once the environmental problems became so critical that they could no longer be avoided, westerners and Asians worked together on extensive scientific and technological improvements that seemed to solve the environmental problems facing the world. Like *PS*, the frame of *ATW* is one of scientific and technological solutions. However, unlike *PS*, the suggestion that life in 2050 mirrors that of 1990 in terms of consumption is not made. In fact, Burke refers to such practices as “so much carbon in the air” (*ATW*).

Too Hot Not to Handle: The final documentary examined for this study definitely takes a tonal departure from the documentaries of previous decades. The imagery, the music and the textual graphics work in tandem to project a much more sinister theme. Alternatives to the status quo in terms of energy and other natural resources are presented and compared using vivid imagery. The confirmation of the cyclical relationship between human activity and the environment is very explicitly demonstrated through interviews

and imagery. The frame through which the environment is presented in this documentary is one of calamity. Even the title, reminiscent to *BAYOR* in its foreboding quality, suggests the potential for “pending doom and utter disaster” looming in the future (Corbett 240). *THNTH* does offer alternative technologies as part of the solution but the overarching focus is, instead, on the current environmental collision course.

CHAPTER 5

CONCLUSIONS

After carefully unpacking these five environmental television documentaries using textual analysis, it is clear that the way in which the environment is presented, or framed, in the media is not static. There is a systematic visual language for representations of the environment in the media. These images are presented as either iconic or symbolic representations of meaning. This language works to construct and reflect the cultural and historical relationship with the environment at any particular time. Through consistent representation and repetition over time, and as new signs are added to the environmental dialogue, these meanings become deeply embedded in culture. In *Breathe at Your Own Risk*, the environment was a secondary frame. It was indirectly referred to in a meteorological sense and the impact of the air pollution was visually implied, through images of smoke escaping the stacks and physically entering the environment, but the impacts were not implicit and any potential connections were therefore left up to inferences by the viewer. By the time *Too Hot Not to Handle* was produced in 2006, a visual sign system of the environmental narrative in the media had become much more overt and direct.

Over time these images, through the processes of layering and reinterpretation, can take on new meanings and shed older ones. A smoke stack in the 1960s does not carry the same connotations as that same smoke stack in 2010. Therefore, a crucial component in understanding these shifts in meaning comes directly from a consideration

of the historical context during which each of these programs was produced. Without recognition of the particular political and cultural situations of the time, a semiotic analysis is incomplete.

Future Studies

Myriad options exist as areas of potential future study. The media landscape is changing so quickly, television no longer has a stronghold on the collective attention of Americans. Programming from the 1950s was delivered on one of three or four television networks and American families of the time gathered around and tuned in as a family unit. Today information is accessible not only on 250 different network and cable channels, but also through online sources. This fractured media landscape starts to deteriorate the audience reach of current and future television documentaries. It would be interesting to compare the ways in which the environment is represented across platforms as well as across various producing agents. Additionally, future studies could include a measure of the correlation between these major environmental events and the amount of coverage contained in the archives. Do these programs serve as a proactive informant or as a documenter, after the fact? Other facts of the production process, such as audio, editing and shot framing could also be analyzed.

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Appendix A: Environmental Documentary from in the Peabody Collection Archives (1954-2008)

Program Title	Year	Producer	Location	Entry Category	Content Category
<i>Our Beautiful Potomac</i>	1954	WRC	Washington, DC	PST	W
<i>Giant of the Earth</i>	1955	KLZ	Denver, CO	PST	G
<i>Decision or Dilemma</i>	1956	KPIX	San Francisco, CA	PST	P
<i>California Crisis: Water</i>	1957	KRON	San Francisco, CA	PST	W
<i>Assignment Four: Water</i>	1957	KRON	San Francisco, CA	PST	W
<i>Phil the Forester</i>	1959	KFRE	Fresno, CA	PST	HE
<i>The House We Live In</i>	1960	WCAU	Philadelphia, PA	PST	HE
<i>Pollution in Paradise</i>	1962	KGW	Portland, OR	PST	W
<i>Breathe at Your Own Risk</i>	1962	WOR	New York, NY	PST	A
<i>Northeast '62. Pollution of the Mohawk</i>	1962	WRGB	Schenectady, NY	PST	W
<i>Poison in the Air</i>	1963	KNXT	Los Angeles, CA	PST	A
<i>War in the Redwoods</i>	1964	KRON	San Francisco, CA	PST	P
<i>Water Safety Special</i>	1964	WFLA	Tampa, FL	PST	W
<i>Ten Years Later: Our Beautiful Potomac</i>	1964	WRC	Washington, DC	PST	W
<i>Assignment Four: No Deposit, No Return</i>	1965	KRON	San Francisco, CA	PST	G
<i>Give Back My Song</i>	1965	WAIL	Atlanta, GA	PST	W
<i>The Water Crisis</i>	1965	WCAU	Philadelphia, PA	PST	W
<i>The Forgotten River</i>	1965	WCBS	New York, NY	PST	W
<i>Let's Clear the Air</i>	1965	WSTV	Steubenville, OH	PST	A
<i>Pollution. Last Chance for a Great Lake</i>	1967	WSPD	Toledo, OH	PST	W
<i>Cosmopolis</i>	1969	ABC	New York, NY	PST	P
<i>21st Century. What Are We Doing to Our World?</i>	1969	CBS	New York, NY	PST	HE
<i>The Slow Guillotine</i>	1969	KNBC	Burbank, CA	PST	A
<i>Who Killed Lake Erie?</i>	1969	NBC	New York, NY	PST	W
<i>Eye On New York. DDT/SOS</i>	1969	WCBS	New York, NY	PST	G
<i>Mission Possible. They Care for a City; They Care for the Land; They Care for a Nation</i>	1970	ABC	New York, NY	PST	S
<i>CBS News Special. Earthday : A Question of Survival</i>	1970	CBS	New York, NY	PST	HE
<i>CBS Evening News With Walter Cronkite. Can the World be Saved?</i>	1970	CBS	New York, NY	PST	S
<i>The Gifts</i>	1970	EPA	Washington, DC	PST	G
<i>The Eighth Day</i>	1970	KING	Seattle, WA	PST	W

1985	1970	KTTV	Los Angeles, CA	PST	P
<i>Alone in the Midst of the Land</i>	1970	WMAQ	Chicago, IL	PST	G
<i>Our Vanishing Wilderness. [No. 2], The Prairie Killers</i>	1970	WNET	New York, NY	PST	HE
<i>Our Poisoned World : Centerpiece Series - Water</i>	1970	WOOD	Grand Rapids, MI	PST	W
<i>Do You Miss America</i>	1970	WQAD	Moline, IL	PST	G
<i>Pollution... In Columbus?</i>	1970	WRBL	Columbus, GA	PST	G
<i>Can the World Be Saved?</i>	1971	CBS	New York, NY	PST	S
<i>Oil On Troubled Waters</i>	1971	KOMO	Seattle, WA	PST	W
<i>Project VI, 40 Billion Dollars, Down the Drain</i>	1971	WDSM	Duluth, MN	PST	W
<i>White River : Our Most Important Stream</i>	1971	WFBM	Indianapolis, IN	PST	W
<i>Montage. The Crooked River Dies - An Epilogue</i>	1971	WKYC	Cleveland, OH	PST	W
<i>Oceans : The Silent Crisis</i>	1972	ABC	New York, NY	PST	W
<i>E-Day '72</i>	1972	WOR	New York, NY	PST	HE
<i>Focus 30. Please Don't Drink the Water</i>	1973	KYTV	Springfield, MO	PST	W
<i>The Energy Crisis--An American White Paper</i>	1973	NBC	New York, NY	PST	E
<i>Urban America. The Detroit Connection- The Great Clean Air Debate</i>	1973	WBC	Pittsburgh, PA	PST	A
<i>Eye on...:The Shortage Surplus</i>	1973	WCAU	Philadelphia, PA	PST	E
<i>More Power to You</i>	1973	WMAQ	Chicago, IL	PST	E
<i>CBS Reports. Caution: Drinking Water May Be Hazardous to Your Health</i>	1974	CBS	New York, NY	PST	W
<i>New York Illustrated: Fuel Conservation</i>	1975	WNBC	New York, NY	PST	E
<i>The Nuclear Reaction</i>	1976	KMGH	Denver, CO	PST	E
<i>Troubled Waters: The Corps in Missouri</i>	1976	KYTV	Springfield, MO	PST	W
<i>Impact: The Energy Game</i>	1976	KYW	Philadelphia, PA	PST	E
<i>Wellsprings</i>	1976	WPBT	Miami, FL	PST	P
<i>Nuclear Power - Servant or Master?</i>	1976	WPIX	New York, NY	PST	E
<i>Energy: The Facts... The Fears... The Future</i>	1977	CBS	New York, NY	PST	E
<i>Hot Spot: A Report on Rocky Flats</i>	1977	KMGH	Denver, CO	PST	E
<i>Will the Flame Go Out?</i>	1977	WAVE	Louisville, KY	PST	E
<i>The Columbia: A River of Lakes</i>	1978	KING	Seattle, WA	DCT	W
<i>Air Pollution. No. 1, Poison in the Wind</i>	1978	KMGH	Denver, CO	DCT	A
<i>Air Pollution. No. 2, A Sun Kissed Poison</i>	1978	KMGH	Denver, CO	DCT	A
<i>Unit III: No Way to Treat a River</i>	1978	WAVE	Louisville, KY	DCT	W
<i>Land Use - 1997</i>	1978	WMPB	Owings Mills, MD	PST	P

<i>Wisconsin Waterway</i>	1978	WPNE	Green Bay, WI	PST	W
<i>North Anna : A Particle of Doubt</i>	1978	WWBT	Richmond, VA	DCT	E
<i>ABC News Closeup: The Killing Ground</i>	1979	ABC	New York, NY	DCT	G
<i>Just a Minute: Mexican Oil Spill</i>	1979	KDFW	Dallas, TX	PST	W
<i>The People's Voice: Coal</i>	1979	KET	Lexington, KY	DCT	E
<i>The Final Frontier</i>	1979	KGO	San Francisco, CA	DCT	W
<i>Fire in the Water</i>	1979	KMGH	Denver, CO	DCT	E
<i>Western Issues: Palo Verde: Arizona's \$3 Billion Nuclear Option. Part 1</i>	1979	KOOL	Phoenix, AZ	DCT	E
<i>Western Issues: Palo Verde: Arizona's \$3 Billion Nuclear Option. Part 2</i>	1979	KOOL	Phoenix, AZ	DCT	E
<i>Looking Back at the Future</i>	1979	KPRC	Houston, TX	DCT	P
<i>Politics of Poison</i>	1979	KRON	San Francisco, CA	DCT	G
<i>Whose Crisis Is This?</i>	1979	KTCA	St. Paul, MN	DCT	E
<i>Blowout: A Special Report</i>	1979	KUHT	Houston, TX	DCT	E
<i>Impact - Getting to Work: Crisis for the Commuter</i>	1979	KYW	Philadelphia, PA	DCT	P
<i>The People of Three Mile Island</i>	1979	PBS	Arlington, VA	DCT	E
<i>Fluorocarbons: The Unfinished Agenda</i>	1979	PBS	San Jose, CA	DCT	A
<i>Running on Empty</i>	1979	WBNS	Columbus, OH	DCT	E
<i>The Inheritance</i>	1979	WCCO	Minneapolis, MN	DCT	E
<i>The Moral Equivalent</i>	1979	WFAA	Dallas, TX	DCT	E
<i>Nuclear Energy: Sweet Dream or Deadly Nightmare</i>	1979	WLOS	Asheville, NC	DCT	E
<i>In Our Nuclear Backyard</i>	1979	WMAQ	Chicago, IL	DCT	E
<i>The New Miners</i>	1979	WPNE	Green Bay, WI	PST	G
<i>A Slow Motion Tragedy</i>	1979	WSM	Nashville, TN	DCT	G
<i>ABC News Closeup - Water, a Clear and Present Danger</i>	1983	ABC	New York, NY	DCT	W
<i>U.S. Cancerous Fish Investigation</i>	1983	CNN	Atlanta, GA	PST	W
<i>Dioxin</i>	1983	KYTV	Springfield, MO	DCT	G
<i>Lake Kissimmee's Endangered Shores</i>	1983	WCPX	Orlando, FL	DCT	W
<i>The Inland Sea Named Erie</i>	1983	WKYC	Cleveland, OH	DCT	W
<i>Deep Trouble</i>	1983	WTOG	St. Petersburg, FL	DCT	W
<i>Pollution In Paradise</i>	1984	KING	Seattle, WA	DCT	W
<i>Pollution In Paradise</i>	1984	KING	Seattle, WA	DCT	W
<i>Agua Negras: Black Water Time Bomb</i>	1984	KPBS	San Diego, CA	DCT	P
<i>NOVA - Acid Rain: New Bad News</i>	1984	WGBH	Boston, MA	DCT	G

<i>Acceptable Risk</i>	1985	KETV	Omaha, NE	DCT	G
<i>Fields of Fear</i>	1985	KPIX	San Francisco, CA	DCT	G
<i>On the Line: Water?</i>	1985	KTVK	Scottsdale, AZ	PST	W
<i>Cousteau: Mississippi</i>	1985	TBS	Atlanta, GA	DCT	W
<i>Not a Drop To Drink</i>	1985	WYES	New Orleans, LA	PST	W
<i>Nuclear Legacy</i>	1986	KCTS	Seattle, WA	DCT	E
<i>The Poisoning of Paradise</i>	1986	KGTV	San Diego, CA	DCT	W
<i>Power Struggle</i>	1986	PBS	Arlington, VA	DCT	E
<i>Nova - Toxic Trials</i>	1986	PBS	Arlington, VA	DCT	G
<i>National Geographic Society - Chesapeake Borne</i>	1986	PBS	Arlington, VA	DCT	W
<i>Rouge Rescue '86</i>	1986	WJBK	Southfield, MI	PST	W
<i>Chemical Town U.S.A.</i>	1986	WNET	New York, NY	DCT	W
<i>Happy Earth Day 2 You!</i>	1990	KCBS	Los Angeles, CA	PST	HE
<i>After The Warming</i>	1990	MPT	Owings Mills, MD	DCT	GW
<i>Profit the Earth</i>	1990	NETV	Lincoln, NE	DCT	S
<i>Nova - The Big Spill</i>	1990	PBS	Washington, DC	DCT	E
<i>Nova - Poison in the Rockie</i>	1990	PBS	Washington, DC	DCT	G
<i>The American Experience - The Wilderness Idea</i>	1990	PBS	Washington, DC	DCT	HE
<i>Race to Save the Planet: The Environmental Revolution</i>	1990	PBS	Washington, DC	DCT	S
<i>Race to Save the Planet: Now or Never</i>	1990	PBS	Washington, DC	DCT	S
<i>Race to Save the Planet: Only One Atmosphere</i>	1990	PBS	Washington, DC	DCT	S
<i>Race to Save the Planet: Do We Really Want to Live This Way?</i>	1990	PBS	Washington, DC	DCT	S
<i>Race to Save the Planet: In the Name of Progress</i>	1990	PBS	Washington, DC	DCT	S
<i>Race to Save the Planet: Remnants of Eden</i>	1990	PBS	Washington, DC	DCT	S
<i>Race to Save the Planet: More For Less</i>	1990	PBS	Washington, DC	DCT	S
<i>Race to Save the Planet: Save the Earth, Feed the World</i>	1990	PBS	Washington, DC	DCT	S
<i>Race to Save the Planet: Waste Not, Want Not</i>	1990	PBS	Washington, DC	DCT	S
<i>Race to Save the Planet: It Needs Political Decisions</i>	1990	PBS	Washington, DC	DCT	S
<i>Outrage at Valdez</i>	1990	TBS	Atlanta, GA	DCT	E
<i>Black Tide</i>	1990	The Discovery Channel	Landover, MD	DCT	E
<i>Ground Zero</i>	1990	VH-1	New York, NY	PST	HE
<i>Thunder in the North</i>	1990	WISC	Madison, WI	DCT	G
<i>Troubled Waters</i>	1990	WLOX	Biloxi, MS	DCT	W

<i>Save Our Sounds: Troubled Rivers</i>	1990	WRAL	Raleigh, NC	PST	W
<i>The Bay and Beyond: Searching for Balance</i>	1990	WTKR	Norfolk, VA	DCT	W
<i>WTTW Journal - Recycling: The Case Against Garbage</i>	1990	WTTW	Chicago, IL	PST	G
<i>WTTW Journal - Coming Clean</i>	1990	WTTW	Chicago, IL	PST	HE
<i>Chicago Matters. Town Meeting. The Muck Stops Here</i>	1990	WTTW	Chicago, IL	PST	S
<i>Hooked on Oi</i>	1991	KING	Seattle, WA	DCT	E
<i>Point of view: Sea Of Oi</i>	1991	PBS	Arlington, VA	DCT	E
<i>Point of view: Chemical Valley</i>	1991	PBS	Arlington, VA	DCT	G
<i>On the Waterways: Upper Mississippi</i>	1991	PBS	Washington, DC	DCT	W
<i>On the Waterways: Florida</i>	1991	PBS	Washington, DC	DCT	W
<i>On the Waterways: North Atlantic</i>	1991	PBS	Washington, DC	DCT	W
<i>Our Biosphere: The Earth in Our Hands</i>	1991	The Learning Channel	Washington, DC	DCT	HE
<i>River of Pain: The Pigeon River Pollution Controversy</i>	1991	WKXT	Durham, NC	DCT	W
<i>News 6 Close-Up: Beneath the Calm Waters</i>	1991	WTVR	Richmond, VA	DCT	W
<i>Endangered Florida</i>	1991	WTVT	Tampa, FL	DCT	P
<i>In Peril on the Sea</i>	1992	KCBS	Los Angeles, CA	DCT	W
<i>Nick Environmental: Global Warming: CO2 Challenge</i>	1992	Nickelodeon	New York, NY	PST	GW
<i>Power Struggle</i>	2000	CLTV	Oak Brook, IL	DCT	E
<i>Why the Orcas of Puget Sound Are Dying</i>	2000	KIRO	Seattle, WA	DCT	W
<i>Hell Or High Water: The Middle Rio Grande Water Challenge, Part 1</i>	2000	KRQE	Albuquerque, NM	DCT	W
<i>Hell Or High Water: The Middle Rio Grande Water Challenge, Part 2</i>	2000	KRQE	Albuquerque, NM	DCT	W
<i>What's Up With the Weather?</i>	2000	PBS	Arlington, VA	DCT	GW
<i>Water: The Drop Of Life</i>	2000	PBS	Hartford, CT	DCT	W
<i>Hot Planet</i>	2000	The Weather Channel	Atlanta, GA	DCT	GW
<i>Oil Field of Dream</i>	2001	KSTP	St. Paul, MN	DCT	E
<i>Trade Secrets: A Moyers Report</i>	2001	PBS	Arlington, VA	DCT	G
<i>The Sprawling of America. No. 1, Inner City Blues</i>	2001	WGTV	Ann Arbor, MI	DCT	P
<i>The Sprawling of America. No. 2, Fat of the Land</i>	2001	WGTV	Ann Arbor, MI	DCT	P
<i>When the Well Runs Dry</i>	2001	WRAL	Raleigh, NC	DCT	W
<i>America Undercover: Blue Vinyl</i>	2002	HBO	Los Angeles, CA	DCT	G
<i>FocusWest: Draining the West and Los Americanos</i>	2002	IDAHOPTV	Boise, ID	PST	W
<i>P.O.V. - Fenceline: A Company Town Divided</i>	2002	PBS	Arlington, VA	DCT	G

<i>NOW with Bill Moyers: Kids and Chemicals</i>	2002	PBS	New York, NY	DCT	G
<i>At ISSUE: The Laws of the Land</i>	2003	KUSA	Denver, CO	DCT	P
<i>Dust to Dust</i>	2003	KUSM	Bozeman, MT	DCT	G
<i>Nature - A Mystery in Alaska</i>	2003	PBS	Arlington, VA	DCT	P
<i>Chain Reaction: The United Nuclear Story</i>	2003	WJAR	Providence, RI	DCT	E
<i>Secret Life of Georgia's Whales</i>	2003	WSB	Atlanta, GA	DCT	W
<i>The Whistleblower</i>	2004	COURT TV	New York, NY	DCT	E
<i>The Troubled Waters of Puget Sound</i>	2004	KIRO	Seattle, WA	DCT	W
<i>P.O.V. - Thirst</i>	2004	PBS	Arlington, VA	DCT	HE
<i>Strange Days on Planet Earth: Invaders</i>	2005	PBS	Arlington, VA	DCT	HE
<i>Strange Days on Planet Earth: The One Degree Factor</i>	2005	PBS	Arlington, VA	DCT	HE
<i>Strange Days on Planet Earth: Predators</i>	2005	PBS	Arlington, VA	DCT	HE
<i>Strange Days on Planet Earth: Troubled Waters</i>	2005	PBS	Arlington, VA	DCT	HE
<i>We Were Warned: Tomorrow's Oil Crisis</i>	2006	CNN	Atlanta, GA	DCT	E
<i>Too Hot Not to Handle</i>	2006	HBO	New York, NY	DCT	GW
<i>Sierra Club Chronicles - The Day the Water Died</i>	2006	Link TV	San Francisco, CA	DCT	GW
<i>Washing Away: Losing Louisiana</i>	2006	LPB	Baton Rouge, LA	DCT	P
<i>Katrina: A Flood of Tears</i>	2006	NECN	Newton, MA	DCT	P
<i>American Experience - The Alaska Pipelin</i>	2006	PBS	Washington, DC	DCT	E
<i>Nova - Dimming the Sun</i>	2006	PBS	Washington, DC	DCT	GW
<i>Moyers on America - Is God Green?</i>	2006	PBS	Washington, DC	DCT	HE
<i>Design: e2 - The Economies of Being Environmentally Conscious: The Green Apple</i>	2006	PBS	Washington, DC	DCT	S
<i>Design: e2 - The Economies of Being Environmentally Conscious: The Green Machine</i>	2006	PBS	Washington, DC	DCT	S
<i>Dust to Dust: The Health of Effect of 9/11</i>	2006	Sundance Channel	Salt Lake City, UT	DCT	A
<i>Global Warming: What You Need To Know</i>	2006	The Discovery Channel	Silver Spring, MD	PST	GW
<i>The Call of the Loon</i>	2006	WCFE	Plattsburgh, NY	DCT	G
<i>The Green Monster: It Came From the River</i>	2006	WTLV	Jacksonville, FL	DCT	W
<i>Anderson Cooper 360: Planet in Peril, Part 1</i>	2007	CNN	Atlanta, GA	DCT	HE
<i>Anderson Cooper 360: Planet in Peril, Part 2</i>	2007	CNN	Atlanta, GA	DCT	HE
<i>Louisiana Speaks: Our Voice. Our Plan. Our Future</i>	2007	LPB	Baton Rouge, LA	PST	S
<i>Farmers' Almanac TV</i>	2007	PBS	Arlington, VA	DCT	S
<i>A Global Warning?</i>	2007	The History Channel	New York, NY	DCT	GW

<i>Chronicle - FutureBoston: Portland, Oregon</i>	2007	WCVB	Boston, MA	PST	S
<i>One Degree</i>	2007	WFAA	Dallas, TX	DCT	GW
<i>Revenge of the River</i>	2007	WTLV	Jacksonville, FL	DCT	W
<i>The Nuclear Option</i>	2008	CNBC	Englewood Cliffs, NJ	DCT	E
<i>The Hunt For Black Gold</i>	2008	CNBC	Englewood Cliffs, NJ	DCT	E
<i>30 Days: Off the Grid</i>	2008	FX	Los Angeles, CA	DCT	S
<i>ABC Environmental Special</i>	2008	KGO	San Francisco, CA	DCT	S
<i>Crossfire: Water, Power, and Politics</i>	2008	KLAS	Las Vegas, NV	DCT	P
<i>Six Degrees Could Change the World</i>	2008	National Geographic Channel	Washington, DC	DCT	GW
<i>Earth Report: State of the Planet</i>	2008	National Geographic Channel	Washington, DC	DCT	HE
<i>Earth Report: State of the Planet</i>	2008	National Geographic Channel	Washington, DC	DCT	HE
<i>Frontline - Heat</i>	2008	PBS	Arlington, VA	DCT	GW
<i>The Return of the Cuyahoga</i>	2008	PBS	Arlington, VA	DCT	W
<i>Revolution Green: A True Story of Biodiesel in America</i>	2008	Stephen Strout		DCT	S
<i>Burning the Future: Coal in America</i>	2008	Sundance Channel	New York, NY	DCT	E

Appendix B: Environmental Documentary Category Trends (1950s - 2000s)

