The Ethics of Shaping Perceptions of Reality:

What Journalists Can Learn From Cartographers and Shamans

by

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Dedication

From the day I stepped into a Floridian classroom until the last words of this essay were written, Hugh LaFollette (a fellow Belmont alumnus) has been an inspiration and a role model. In his class, I was bit by the ethics bug and learned what it meant to be not only an ethical journalist and an ethical professor, but also an ethically minded person in general. If I ever stand in front of a classroom, I hope to radiate the same sort of dedication to my students. Thanks for helping shape this thesis and my academic career.

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Table of Contents

Abstract

Journalism has the unique ability to shape the public's perception of reality. Because humans are limited in experience and knowledge, an understanding of the world is shaped by what information is available to each individual. As a major societal institution, journalism has a public forum with which to release relevant, timely and useful information that can influence these perceptions. When it comes to building perceptions of reality, there *are* potential harms that can arise such as enhancing fear, confusion, stress, and building a worldview that can lead to uninformed or destructive decisions. Essentially, a journalist has as much ability to disable as enable, to inhibit as empower, and to befuddle and confuse as inform or educate. This paper explores what journalists can learn from two other communicative roles—cartographers and shamans— that view, gather, condense and distribute information that can shape perceptions of reality. Both roles have vastly different techniques, but both have codes of ethics that can help journalists morally disseminate information better. From a descriptive ethical analysis of other communicators, a normative ethical prescription for journalists arises as well as an ethical strategy for other communicators in this abundance of information age.

Chapter 1

Introduction

Walter Lippmann (1922) noted that all people experience a portion of reality but not the whole picture. Journalists have the unique ability to shape how the public perceives and thinks about the world. News can instill fear, doubt, and misinformation that can seriously alter one's understanding of reality in a harmful way due to a lack of care for information, but the news media are not the only ones. This thesis explores what journalists can learn in the ethical realm from cartographers and shamans. These two communicating disciplines make interesting points of comparison because both create public discourse, which, in turn, shapes people's perception of reality. It is important to compare similarly focused roles that communicate information in an authoritative way because a misguided perception of reality can cause unnecessary, yet avoidable, harms to the receiver. There are ethics to which cartographers and shamans adhere that are not of typical concern to journalists, but might nevertheless strengthen the press' morality toolkit. Essentially, a journalist may be able to do better, more ethical work by realizing how they relate to cartographers and shamans.

The term *perception of reality* will be used to indicate one's subjective understanding of the world. There are entire philosophical discourses on what constitutes

reality, or whether reality can be known, but this is beyond the scope of this work. The focus of this thesis is on three disseminators of information—journalists, cartographers and shamans. There are arguments that the "receivers" of information have their own set of responsibilities such as actively seeking out multiple versions of truth, but this paper focuses on the ethics of those who release information to the public. When the producers publicize information, it has the ability to shape how the receivers view their own subjective reality—their own understanding of life. What is real for an indigenous tribesman is quite different from what is real for a broker on Wall Street, yet both have the ability to be harmed by wrong, faulty or carelessly released information.

It should be noted that this is different from the idea that information can convince someone to cause harm. Many have questioned the correlation between violence and television, whether television causes children to become violent or if children with violent tendencies merely watch television. However, in this scenario, violence is a secondary effect. This thesis is more concerned with how journalists disseminate reality-building information and how that data has an ability to shape one's frame of mind. Researchers still have not determined if television causes violence, but most agree that television does shape the reality for those who view it (Gerbner, 1982). According to Berger and Luckmann (1966), reality is socially constructed. So, whenever a news article is seen or read, it influences how the viewer or reader perceives the world. When information is received, the receiver's version of reality must incorporate the new data.

Instead of simply discussing traditional journalists (because the term is morphing, for better or worse, to include bloggers, organizations like Wikileaks, public relation

teams, citizen journalists and anyone with a Twitter account), the term *journalist* will represent all news disseminators, including all levels of the news media hierarchy (eg. editors, publishers, etc.), for this better resembles today's press environment. Newer forms of journalism can influence perceptions of reality as much as the traditional press. Because of such changes, and because average citizens can act as journalists, this thesis explores the ethics of information dissemination amidst three distinctive roles. This way, all news disseminators can have a better grasp of how to ethically approach information.

Cartographers are artists who combine data, aesthetics and technique to design maps that communicate spatial information. They diagram the physical world. Mapmaking is considered an art because the designers have liberty to choose what information is included, how it's organized and what geographical reality should be portrayed. They decide the scale, the projection and the visual aesthetics that orient the reader. A tourism map should widely differ from a topographical or zoning map. The reader expects the information to be accurate and up-to-date. If not, a disconnect forms between the actual landscape (reality) and the map produced by the cartographer. Maps are fast becoming driven by computer technology, thus changing the nature of cartography, but the essential elements still apply.

Shamans are indigenous community leaders who act as wisdom-keepers of a group of people. They possess leadership qualities that set them apart from non-shamans, and the community validates their role through rights of passage. Shamans vary based on their unique perspective and set of gifts, but all are entrusted with the historical knowledge and cultural wisdom of their population. They are mediators between the spirit world and the living. As spiritual leaders, they enter altered states of mind to

3

acquire divine knowledge. They interpret these experiences through symbolic stories to explain the acquired information, which often frames the perception of reality for the listener.

By understanding how cartographers and shamans are similar to journalists, those who use their designated platforms to release news and information to the public will gain a multi-disciplinary understanding of what it means to be a responsible communicator. The two major points of focus will be on how each role conveys information as well as what responsibilities are important to each. Once these are established, it will be easier to discuss specific aspects of cartography and shamanism that can supplement a journalists' ethical toolkit.

Research Questions

RQ1: How are journalists similar to cartographers and shamans?

RQ2: In terms of ethics, what can journalists learn from cartographers and shamans?

RQ3: Can making comparisons between communication roles help journalists ethically build perceptions of reality?

A Review of Literature

Before analyzing what journalists can learn in the moral arena from cartographers and shamans about affecting perceptions of reality, a foundation on the subject is crucial. It is necessary to review the major advancements in the sociology of knowledge, follow how it has been applied to the press, and hear a few arguments that are reshaping media ethics before delving into comparisons between the roles. With a simple understanding of this fundamental background, it will become clearer why there exists a need to compare journalists to shamans and cartographers.

Sociology of Knowledge

The study of conscious experience began first as a philosophical discourse called phenomenology, or the relationship between what happens and how it is experienced. Immanuel Kant spearheaded this field with "the Critique of Pure Reason" in 1781. He wrote of a distinction between phenomena and "noumena"—the "thing-in-itself" which cannot be experienced through human senses, such as ideas (Kant, 1996). The sociology of knowledge developed from phenomenology as the relationship between human thought and the social context within which it arises. In *The German Ideology*, Karl Marx and Friedrich Engels claimed that people's ideologies, including their social and political beliefs and opinions, are rooted in class interests, or the circumstances in which they live. "Life is not determined by consciousness, but consciousness by life" (Marx & Engels, 1970). Though the book was not published for nearly a hundred years after it was written, it was an early preface to the sociology of knowledge.

Prior to the Marx-Engels publication, Emile Durkheim, one of the fathers of sociology, looked to break the discussion away from psychology and philosophy by pioneering this subfield. Though he did not coin the phrase "sociology of knowledge," his concept of collective representations initiated the discourse and put phenomenology into a social framework.

Collective representations are symbols that help to order and make sense of the world. In Durkheim's book, *The Elementary Forms of the Religious Life* (2001), he analyzes religion as a social phenomenon. He claims that sacredness is created through collective effervescence, or a heightened energy when the group comes together. The energy is directed onto objects or symbols that become sacred with collective support. So if an idea is considered sacred, it acts as a collective representation of the society, or an agreed upon ideology that is developed within a specific social context. For example, a single person may be awestruck by a tree, but when the whole society together reveres the tree in solidarity, it becomes collectively sacred. Durkheim extends his example in *The Cultural Logic of Collective Representations* (2010). He claims that the overarching system of shared norms and beliefs is what holds a society together; what defines the group as a group. Having a shared history is also part of the equation, but these are all collective representations that create shared order within the world.

Karl Mannheim (2008) took a less relativistic approach by coining the term "relationism." Mannheim felt that previous attempts to describe the sociology of knowledge were too subjective, and allow for no claim to truth and no persuasive power. Basically, if everyone's reality is at the mercy of other forces, then no one can have the slightest bit of objectivity. Mannheim believed that certain things are indeed true, but

only in certain times and places. However, this does not make them any less true (Tuchman, 1978, p. 177).

Philosopher and social scientist Alfred Schütz focused his work on the attitudes of social actors who experience events. Schütz (1945) claims that when an event occurs, all competent individuals interpret the event with the same cognitive ability, but from differing points of view. An anarchist and a conservative will read the same news article in extremely varying ways. Furthermore, people accept their own reality (whatever its content may be) as "natural," or the way things are. Put differently, humans have an innate ability to assume their version of reality is "normal." Schütz argues that most do not adapt an attitude of doubt toward phenomena; actors in the social world accept phenomena as given. So, a newspaper "reader may attack the slant of a specific story or of a specific newspaper or newscast, but newspapers, newscasts, and news itself appear as objective givens" (Tuchman, 1978, p. 185-188). Lastly, Schütz believes that social actors create both meaning and a collectively shared sense of social order, dependent upon shared meanings. The Uses and Gratifications media theory aligns with this mindset; people seek out "objective" news that supports their point of view (Katz, Blumler & Gurevitch, 1973).

Berger and Luckmann (1966) expanded upon Schütz with their treatise in the sociology of knowledge. They argued that reality is socially constructed. Children form their perception of reality first from parents, who have also formed their perception of reality because of social experiences. Institutions such as religions, governments, etc., in order to exist at all, must constantly update their methods and ideologies to legitimize their existence in an evolving civilization (Berger & Luckmann, 1966, p. 47-92). As part

of society, institutions and people both create and are affected by an ever-changing social system. Similarly, as an institution, the press is influenced by other social institutions and mostly reinforces standard cultural values such as the dominant political and economic systems (Parenti, 1993, p. 69).

Michel Foucault contributed to the sociology of knowledge from a psychiatric point of view. In his work, *Madness and Civilization* (1964), Foucault discusses the historical understanding of madness. He argues that the concept of insanity is always evolving. His work contributed to the sociology of knowledge by showing that ideas change over time. However, he breaks with others and dismisses a link between social structures and the way in which we see our world. Instead, Foucault believes ideology and consciousness is shaped by discourses, or ways of seeing, describing and thinking about things. In other words, we are shaped by the conversations and experiences that we have. The more an individual consumes discourses from the media, the more that individual will be shaped by what is being communicated.

Though all of these theorists have contributed to shaping the discussion on how perception of reality is constructed, importance lays not on which theory is more accurate or who better describes how reality is shaped. Instead, they are provided to set a backdrop on the subject that can help orient the conversation around the idea of constructing perceptions of reality. Sociologists have laid the above foundations for mass communication and media studies—a branch of sociology that arose in the 1960s and 70s. With an overview of the sociology of knowledge and an understanding of the more influential notions, we can discuss the actual press.

How Journalists Create Reality

There are several theories that argue that the press has an ability to sway the public's understanding of reality and that the news culture perpetuates the persuasion. Instead of briefly mentioning many of them, I'll focus on a few of the more pertinent arguments that will carry the discussion over into the comparisons between journalists, cartographers and shamans.

Known as the original media theorist, Walter Lippmann (1922) predated many of the scholars who shaped the sociology of knowledge. He stated "the only feeling anyone can have about an event he does not experience is the feeling aroused by his mental image of that event" (p. 16). He explains that humans fabricate pseudo-environments to make sense of the complexities of the world. Each person has a unique perception of reality based upon what each person encounters. "We shall assume that what each man does is based not on direct and certain knowledge, but on pictures made by himself or given to him" (p. 24). Lippmann points out that newspaper articles produce "images" that develop our understanding of the world. He also makes clear that people have built-in stereotypes that "preserve us from all the bewildering effect of trying to see the world steadily and see it whole" (p. 94). No one experiences everything, so stereotypes are a product of biological limitation that orient an understanding of reality.

Any newsworthy event is often a highly complex topic, for no story happens in a vacuum. However, condensing all of that information into manageable, consumable chunks is referred to as "framing" on the part of the journalist. Expanding on Lippmann's treatise, Goffman (1971) states that every competent person views experiences through a frame—a schema of interpretation, or a collection of stereotypes—

to make sense of the world. People "frame reality in order to negotiate it, manage it, comprehend it, and choose appropriate repertories of cognition and action," says Todd Gitlin (1980). Gitlin argues that media frames "organize the world both for journalists who report it and for us who rely on their reports" (p. 7). This allows journalists to process vast amounts of information easily and package it for efficient relay.

Maxwell McCombs (2004) coined the term "agenda-setting" in response to the ability of the journalist to influence items on the public agenda. He reiterates Lippmann and argues, "citizens deal with a second-hand reality, a reality that is structured by journalists' reports about events and situations" (p. 1). Through decades of research, agenda-setting theorists realize that the news media might not be successful in telling people what to think, but they are stunningly successful in telling their audience what to think about (p. 2). Because there is a limited amount of resources as well as limited space on television screens and newspaper pages, only a few issues ever really make it into the public arena, but they are often the topics that the public deem important. For example, an analysis of the 1974 US presidential found that readers of newspapers with higher degrees of adverse criticism of politics and public affairs had higher levels of cynicism (p. 127). Some have argued that the news media only mimics what society is already interested in, but over and over again, research shows that there is a four to eight-week lag in time between when the press begins focusing on an issue and when the public finally deems the issue important, thus proving the news media does in fact shape public opinion (p. 44).

George Gerbner (1982) argues television 'cultivates' a particular view of the world in the minds of viewers (Williams, 2003, p. 179). With Gerbner's twenty years of

research, his conclusions reveal that heavy television viewing homogenizes people's image of the world. With more television exposure, viewers internalize the political and social picture of the world presented on the screen. For example, because the medium tends to report and represent violence more often than it happens in real life, heavy television viewers are more likely to be concerned with crime and violence. Also, viewers tend to underestimate the number of elderly people in society because there are proportionately far fewer old people on television than in society (p. 179-180). Gerbner's work focused on television viewing in totality, but television remains the most widely used source for national and international news, so the cultivation theory extends into the world of journalism (Pew Research Poll, 2001).

In the book, *Inventing Reality* (1993), Parenti admits that many use the media to reinforce their previously concocted opinions, but claims that in addition to other socializing agencies, such as family and school, some opinions might first develop in response to media exposure. "Lacking any competing information, we often unwarily embrace what we read or hear. In those instances, the media are not merely reinforcing previously held opinions, they are implanting new ones" (p. 22). He also points out that it is not just the reporters who form the news. To maintain a sense of independence and the appearance of objectivity—the benefits of a free press—those within the news business have a difficult time admitting that the final news "is not what reporters report but what editors, producers, and owners decide to print or broadcast" (p. 59). The entire news culture affects what information is released to the public.

In *Creating Reality: How TV News Distorts Events* (1974), David Altheide writes about the different factors that contribute to television news production. He says, "there

11

are three overriding and interdependent contributors to the news scene: commercialism and ratings; competition with other stations; and the community context, especially political ties" (p. 29). He claims that journalists distort what they claim to represent and in the process, add to social problems. He argues, "the organization of news for practical reasons encourages the adaptation of a convoluted way of simplifying events" which he calls the *news perspective* (p. 9). He describes how news workers look at the world, how they are influenced by commercialism, political influence, the demands and constraints of their medium, their equipment, and their scheduling.

Jonathan Rauch (1993) coined the term "reality industry" to describe the institutions "charged with producing true statements about the external world. Its mission is to tell us how things *really* are" (p. 38). He echoes Parenti, but goes further to say this industry consists of educational institutions, religions, government, as well as journalists. He argues that "the Western notion of objectivity, of how to sort reality from myth, has prevailed largely by a kind of imperialism" that stamps out other traditions and marginalizes all who are not part of white, male culture (p. 12).

Jim Willis (1991) says journalism contains a "shadow world." When there is more to a story beyond the reporter's immediate reach; when there are more than two sides to a story (as is usually the case); when sources are misinformed or are simply lying to further their own ends; when a reporter is only able to witness one small area of a rather large space; when journalistic codes of ethics fail to provide specific, operational definitions of the abstract concepts of "fair play" and "objectivity" and "balance," journalists are unable to develop a full picture of reality (p. 4). "You have something less: hazy pictures of a kind of shadow world that appear all the time in the most

responsible of the world's news media" (p. 4). The shadow world is a natural place containing the blind spots of journalists.

To elaborate on Willis' idea, Murray, Schwartz and Lichter (2001) focus on how journalists misconstrue facts. "It's important to realize that even the best newspaper imaginable could not possibly offer anything like an accurate reproduction and distillation of reality" because news is concocted through the subjective decisions of reporters and editors who have blind spots (p. 32). Statistical information is often misconstrued, misrepresented or not fully understood. Journalists do not have time to understand everything about which they write. They depend on press releases from organizations and government bureaus to convey accurate information, on scientific and economic reports to explain highly complex analyses of important findings, and on "hedgehogs" to simplify information.

Historian Isaiah Berlin divided intellectuals into two categories—hedgehogs and foxes, terms used by a Greek poet who stated, "the fox knows many things, but the hedgehog knows one big thing." Murray, Schwartz and Lichter (2001) point out that journalists often give hedgehogs the spotlight by focusing on simplistic, one-dimensional explanations. When journalists refuse to examine alternative explanations, because of lack of time or due diligence, society may fail to grasp and prevent avoidable harms, or may put negative emphasis on a minor problem without knowing about the underlying issue.

More recently, Steve Salerno (2008) argues that journalism is not just sloppy and in need of a clean-up, but is fundamentally flawed in its ability to accurately portray reality. He states:

> *"…today's system of news delivery is an enterprise whose procedures, protocols, and underlying assumptions all but guarantee that it cannot succeed at its self-described mission. Broadcast journalism in particular is flawed in such a fundamental way that its utility as a tool for illuminating life, let alone interpreting it, is almost nil"* (p. 52).

Salerno also quotes Tom Rosenstiel of the Project for Excellence in Journalism who told *USA Today*, "News outlets have found they can create more identity by creating franchise brands around issues or around a point of view" (p. 56).

Marcel Broersma (2010) discusses objectivity in his essay, "The Unbearable Limitations of Journalism: On press critique and journalism's claim to truth." He wonders why the principle of authentic journalism is still so vivid in media ethics and in public discourse. Instead, Broersma thinks discussions on journalism should not be based on the assumption that news ever could be objective or representative of truth, but rather journalism is a "performative discourse designed to persuade readers that what it describes is real" (p. 21). Under this assumption, journalists are competing with others in the reality industry to form the representation of reality that will be most believed by the public, whether they consciously realize it or not.

It is with all of these ideas, and especially Broersma's, that we move into a comparison between journalists, cartographers and shamans. Any two roles can be compared and contrasted, but with these arguments as a backdrop, it will become more obvious why cartographers and shamans were chosen and how the two roles, similar to journalists, have the ability to shape perceptions of reality. Journalists are at the mercy of many contributing factors and often forget how their information can cause harm. Cartographers and shamans also share this limitation but are often more cognizant of potential harms when communicating to the public.

Methodology

For journalists to learn from the other two communicating roles, I break the major part of this essay into two sections: "Cartographer as Journalist" and "Shaman as Journalist". If journalists are to learn ethics from each, then it is important to verify that the other roles *do* journalist-like activities. In each section, I discuss how the roles build perceptions of reality. To keep it relevant to journalism, I analyze two different news events—one hard news subject and one slow news subject—from the perspectives of each to show how the roles gather information, filter and reduce the information and then release it to the public. I emphasize their roles as trend-spotters, storytellers, as harborers of information, and on their objectivity or subjectivity. Lastly, I conclude both sections by assigning a role-related responsibility to each based on how they approach information. Because each role has the potential to cause harm with misinformation, each has responsibilities toward their audience, and it will therefore be beneficial to see how the non-media roles view their responsibilities based upon how they approach information.

Once I have a framework of how the roles utilize information as well as what responsibilities are important to each, I discuss how journalists can better construct perceptions of reality by incorporating ethics from the others. In the analysis, I delve into a descriptive, or comparative, ethical analysis to see how cartographers and shamans understand ethics compared to journalists. Descriptive ethics is a survey of how a community understands morals and what ethics they deem important. I use ethical codes from cartographers and shamans to pinpoint what these two roles value beyond the scope

15

of the main journalism code of ethics from the Society of Professional Journalists. By understanding the ethical codes of each, in addition to how they interpret information and view their roles as communicators, I will use normative ethics, which focuses on how one *should* act, to argue whether journalists can learn from cartographers and shamans to fulfill their own role-related responsibilities while simultaneously expanding, or supplementing, their ethical toolkit.

Chapter 2

Cartographer as Journalist

Klinghoffer (2006) says maps are merely projections of the cartographer's mind. Mapmakers impose their own vision upon the world. The information presented may seemingly appear objective, but it is to a considerable extent a product of the cartographer's cultural and political biases (p. 6). Like journalists, a question of objectivity arises when the hand of a fallible human constructs a recreation of the world. In addition, those who purchase maps have varying needs leading cartographers to emphasize certain features over others (p. 39). In the same way journalists will produce articles catering to the needs of editors, publishers and owners, cartographers produce maps to fit the needs of specific audiences. Outdoor enthusiasts want to know trails, campsites and scenic points. Navigators need a great deal of coastal detail. Military strategists are more concerned with logistics and terrain. It is unrealistic to include all possible information on a map, and trying to do so would create a chaotic, indiscernible image that would confuse more than inform. To produce an effective map, most information has to be left out.

As Mark Monmonier (1991b) points out, "not only is it easy to lie with maps, it's essential. To portray meaningful relationships for a complex, three-dimensional world on

a flat sheet of paper or a video screen, a map must distort reality" (p. 1). One method that enables a cartographer to accentuate certain features is the map's projection. The Mercator projection, which displays Europe directly in the center of the map and shows an enormous Greenland that looks larger than Africa, has been popular since its introduction in 1569. A recent survey asked geography students to map the world. Most drew their own continent, as well as Europe, larger than it is in reality. Africa was drawn too small, even among the African students (Kinghoffer, 2006, p. 78). Clearly maps can influence perceptions of reality. All projections attempt to turn a three-dimensional area into a two-dimensional map while accurately portraying the regions. Similarly, a journalist's job is to condense extremely complex issues into just a few hundred words, arguably into a two-dimensional view of reality. Key points have to be overrepresented, distorted or left out completely to fit into the column (and to keep the attention of the reader, and to please the editors). Even book authors pick and choose what relevant information is included within the pages of a manuscript.

Cartographers use visual symbols to emphasize the features deemed important to the map's message. Maps assign semiotic value with each symbol size, shape, hue and texture. Seemingly obvious physical landmarks like water can vary with every map. The cartographer has liberty to assign importance by selecting a representative width for each stream. Plus, the mapmaker decides how detailed the stream is by *smoothing*— diminishing detail and angularity—or *enhancing*—adding detail to make it more realistic (Monmonier, 1991b, p. 27). A smooth line might represent a coastline even though the shore is dynamic and often jagged. Bodies of water might be prominently displayed for wildlife viewing or left practically transparent when showing underground pipes.

Similarly, a journalist decides what aspects of an article are included. An entire feature article can be written about one small, but representative aspect of a larger story to accentuate the human side, or a broad article can point out the major statistics and summarize the event without delving into specifics.

One of the most important aspects of journalism is the ability to tell a story. Some may question how maps tell stories, which by definition need a sense of time, or duration. However, there are many types of maps that do just that. Graphic models describe, interpret and explain spatial patterns and trends. They can be especially useful for interpreting the steps or stages of historical geographic processes (Monmonier, 1993, p. 209-16). A series of maps by year can show progress, or a single map can show the growth of a population with lines representing time intervals, revealing the direction of development. Maps of human population growth use arrows to point toward where scientists believe early hominids migrated. Digital maps can be animated, showing continents separating, empires expanding, and cancer spreading throughout a body.

As Denis Wood (1992) points out in *The Power of Maps*, even a standard tourist map can tell a series of stories and myths. A highway map of a state pronounces the state's sovereignty by not including other states. A simple red square on a legend indicates nothing by itself, but when the symbol represents a point of interest, it "imposes itself on us as an assertion that [the state] *has points of interest*; in fact, it speaks *through* the map *about* the state" (p. 103). The very inclusion of symbols can reveal the character and history of the represented region. Assuming the government funds the map, it is likely designed to promote the uniqueness and charm of the state in a way that can only be portrayed visually. A Florida map may induce feelings of leisure, paradise and

serenity while a Wyoming map may showcase ruggedness, vast expanses and a rustic way of life. All maps use symbols to tell a story. All news articles use words, which are essentially representative symbols with meaning attached, to tell stories too. Essentially, cartographers, like journalists, "frame" the contents of the map by adding stereotypes into the image to portray one set of ideas that the reader accepts as natural or "objective" but really has very subjective biases.

Now, I'll move on to two different "news topics" to expose how cartographers approach an unfolding story. The first—a hard news subject—will show how modern mapmakers are concerned with land acquisition for mining purposes. The second—a slower developing subject—describes how cartographers portray climate change. These two were selected because both are relevant to cartographers and shamans and can therefore be assessed from both roles. Furthermore, the inclusion of two such topics stems from David Orr's essay, "Slow Knowledge" (1996), which says there is fast knowledge, driven by rapid technological change plus the rise of the global economy, and then there is slow knowledge that takes years and context to process.

Hard News: San Luis Potósi, Mexico

On November 10, 2010, the transnational mining company First Majestic Silver (FMS) announced that it had acquired "all the real estate interests including the original mill and infrastructure and underlying royalties and bonuses which were associated with the Real de Catorce Silver Project in San Luis Potósi State, Mexico" (First Majestic Silver Corp., 2010b). In the acquisition, the Canadian-based company bought 6,326 hectares of desert land containing a major silver depository. Mexico is the world's

leading silver producer and FMS already has multiple mining sites in the country. With an estimated $1.325 billion worth of silver, the Real de Catorce project cost roughly $3.0 million in cash and shares. The company is "currently evaluating its alternatives for future production in the area, including the evaluation of past exploration works in order for future underground development, mining and processing plant alternatives." In other words, before mining, the corporation is sifting through the information at their disposal to maximize efficiency and begin plotting out a plan of action. These days, mining projects are fully mapped before companies decide to invest.

Mining has always been a tricky business, but with the help of modern Global Information Systems (GIS)—complex digital maps that contain all known information on a physical region—the process can be less harmful to the environment, more precise and therefore less dangerous to workers while maximizing production. According to First Majestic's 2010 annual information form (First Majestic Silver Corp., 2010a), the company uses conventional, manual methods as well as computer databases to calculate tonnage and average grades of the mineral resources (p. 29). It compiles all information by incorporating the data into a digital catalog, thus creating a geologic model with GIS software (p. 38). Essentially, the corporation engages in cartography by using computer software to create highly detailed three-dimensional geological models.

GIS maps organize geographic data so the viewer can select what information is necessary for a specific project or task. It often has a table of contents that allows the reader to add layers of information, showing anything from residents' education levels, ages, and employment status to geological features. Many countries have an abundance of geographic data for analysis and governments often make this information publicly

available. GIS maps are interactive; users can scan the region in any direction, zoom in or out, and change the nature of the information contained in the map (ESRI, 2006, p. 2). The most well known, publicly available GIS map is Google Earth.

For mining purposes, data sources vary from "geologic maps, hyperspectral airborne and multispectral satellite images, and geophysical images to databases in many formats" (p. 3). Furthermore, old mineshafts can be surveyed and digitized, accounting for infrastructure within the mine and other attributes such as elevation and height (p. 11). The GIS software is designed to drive productivity by analyzing mine and ramp designs, blast patterns, dump designs, and pit optimization among other features. Essentially, the entire operation from start to finish can be accurately mapped on a screen, taking much of the guesswork out of the process. Or put into more relevant terms to our discussion, the information can tell the story of a mining operation from start to finish.

The downside to paper maps is that they're drawn at different times and at different scales. It's difficult to visualize how the mine is actually laid out with multiple versions of the same thing. Previously explored mine shafts often twist throughout the whole complex as former miners followed the high-grade reserves, but with a GIS map, information from various sources can be made into a three-dimensional working model.

With the mine at Real de Catorce, First Majestic Silver likely ran all relevant data through a computer before purchasing the land. During the first stage, the exploration manager may have used GIS to plot geological features and create a mineral potential map. The mining geologist may have evaluated the effects of acid mine drainage to decide the kinds of remediation that would be cost-effective. The engineering geologist may have evaluated slope stability conditions to decide the best route for new roads

(Bonham-Carter, 1994, p. 3). Groundwork is scheduled for 2015 and will not begin until the mine's narrative is entirely and precisely plotted in the computer. That way, the corporation will be able to maximize their financial and human efficiency. Their actions will also have far less of an environmental impact than mining strategies of the twentieth-century.

As Bonham-Carter (1994) states in the book *Geographic Information Systems for Geoscientists*, the "ultimate purpose of GIS is to provide support for making decisions based on spatial data" (p. 3). Journalists often do the same thing by combing through sources and looking for trends to provide information for the public to make educated decisions. With words, journalists try to paint a picture of the world and often recreate events that have already happened, whereas those who utilize GIS maps sift through historical data to recreate geological or spatial events, or as mining corporations go, produce a working model for a major investment strategy. Both the journalist and the cartographer can tell the narrative of the mining operation in a variety of ways. The journalist would try to capture the "essence" of the endeavor by telling the story of the mining corporation, a miner, or some other element that affects society and the cartographer uses statistics to plot data on a computer to aid the efficiency of the events, or to build the story before it happens so the project runs smoothly.

Slow News: Climate Change

Because climate change is such a complex subject and has the potential to affect all living species on the planet as well as weather patterns, there are practically an infinite number of ways to map the multifaceted phenomenon. However, the most revealing

visual representations portray variations over a period of time, so virtually all attempts to map climate change are methods of telling intricate stories. A map of rising seawaters will show an outline of the current coastal boundaries in addition to superimposed future coastal boundaries—represented by differing colors or textures—that portray changes in sea level due to an increase in overall global temperature. Maps can be as specific as a climate-related migration of a single species or as broad as the movement of entire ecosystems across a continent, affected by changing rainfall patterns, levels of carbon dioxide and temperature fluctuations.

Modern mapping techniques that approach climate change need GIS maps to notice trends and to understand the implications and nuances of a shifting environment because vast amounts of data are required to analyze the far-reaching and convoluted issue. With so much information worth exploring, spread out over the entire planet, computer analysis is often the only way to measure subtle changes in temperature risings, species fluctuations and oceanic disturbances among others. Spectral data, collected by means of remote sensing instruments, is one of the most common sources for information, but this process is not geared for large-area change detection (Loveland, Sohl, Stehman, Gallant, Saylor & Napton, 2002, p. 1092). Sensors like the National Oceanic and Atmospheric Administration (NOAA) Advanced Very High Resolution Radiometer (AVHRR) provide information on general changes in vegetation. High-resolution imagery makes it easier to identify and quantify more fine-scale nuances that are associated with anthropogenic change. The easiest technique for portraying change is the comparison of one location over many dates, preferably from multiple, independent

sources (p. 1092). Like journalists, those who analyze data related to climate change are conscious of the need for accurate information from diverse sources.

One method of mapping is to compare countries by showing what areas will be impacted the most. Busby, White and Smith (2010) released a paper, "Mapping climate change and security in North Africa," which maps vulnerability across the region. Climate-related hazard was just one of the measurable variables alongside population density, household and community resilience, and governance and political violence. Additionally, the paper analyzes four potential mechanisms where climate and security concerns are connected: conflict, migration, terrorism and humanitarian disasters (p. iii). The researchers mapped climate-related hazard exposure, change in number of heat wave days, change in number of drought days, and the composite vulnerability of every nation. It turns out the Ethiopian people will have it hardest over the next century, but it is helpful to see the data of the whole region portrayed visually.

The Center for Global Development put an interactive map online (2011) that draws upon information from a dataset that quantifies the global vulnerability to climate change. The comprehensive dataset is the first to cover the entire world. Countries are colored in descending order of impact, from dark red to yellow. On the left of the screen, the Internet user can select maps based on the potential risks of weather-related disasters, sea-level rise, agricultural productivity loss and overall vulnerability. On the right, the user can select a region and filter the data by income status to show how socioeconomic populations will be affected. Interactive maps allow readers (or interactors) to manipulate the information being presented, thus allowing for a more comprehensive understanding than what just a single map can give. Online journalism is able to do the

25

same, but only with access to an Internet connection. Interactive graphs, charts, photo galleries, maps, videos as well as text can make up a news story. For example, on the tenth anniversary of September 11th, *the New York Times* (NYT) put a map online that allowed anyone to pinpoint the exact location where they first heard the tragic news and choose a color that represented their mood (from angry to hopeful), creating an interactive national mood map where journalism incorporated cartography. The NYT also let web users watch videos, view photos, read stories, navigate a virtual, pre-9/11 World Trade Center plaza and a virtual WTC memorial being dedicated on the tenth anniversary. The Internet is allowing journalists to do more than they have ever done.

Sheppard (2005) argues that there is a growing need to adapt to climate change, but public awareness lags behind. He feels that an increased use of maps and visualizations may offer advantages in expanding peoples' awareness of climate change and therefore possibly affect behavior and policy. Communicating visually might just be the *only* way to fully inform the public on the dangers and implications of a shifting environment. When cartographers incorporate the environmental *and* human impact of climate change, maps have the unique ability to show the whole scale of one of today's most pressing subjects. Trying to explain the complexities with words alone is nearly impossible, but maps visually summarize vast amounts of data in a way that explains and informs—exactly what the very best journalists attempt to do.

The Cartographer's Role-Related Responsibility

Cartographers are visual informers who attempt to represent reality in semiotic form by using maps and computer images to replicate the physical world. Like

journalists, they take vast amounts of information and filter it into clear illustrations of geographical phenomena. In doing so, locational stories are told in graphic form to aid the public's understanding and to convey a message that the cartographer deems important and necessary. Therefore, the **role-related responsibility** of the cartographer is to condense spatial information by graphic means into visual representations of the physical world in order to educate the public so they can make informed decisions based on an accurate understanding of the landscape.

As highlighted by the acquisition of land by First Majestic Silver Corporation, cartographers help create an understanding of the environmental layout, which can lead to increased production, less ecological harm in mining practices, as well as time efficiency and profit maximization for shareholders. By taking vast amounts of data, acquired through public datasets and company-sponsored research, three-dimensional models of a mining site can help project managers and engineers plan the most proficient utilization of resources. Otherwise, decisions are less accurate and involve a higher degree of risk for workers in the mine as well as the local ecosystems. The cartographers, or team of people who produce the maps, rely more heavily on precise information than journalists. In fact, the information itself is the most important part of the modern cartographer's toolkit. Though they have liberty to choose what is displayed and how it looks, the cartographer values accuracy and objectivity to an extent that journalists just cannot because of the higher degree of human fallibility and bias in news writing. Journalists often depend on human sources, making the journalism process susceptible to inaccuracies, but with statistics as the main source for GIS maps, computers filter the data

and all that remains is how the cartographer chooses to portray it on a screen, depending on who needs the information.

When it comes to changing climates and the evolution of environmental phenomena, cartographers tell stories more akin to journalists than a traditional map or even a standard GIS map can do. By default, a map that plots change must tell the difference between what was, what is and what might or will be. The information acts like the words of a news article, but because it has less of a symbolic meaning, the data speaks for itself. Though technology always produces better methods for collecting data, the modern cartographer has more precise methods than a journalist to recreate events. An immense amount of information, as well as periods of time must be condensed to show the magnitude of this slow-evolving process. In this sense, cartographers do what journalists cannot with mere words alone: reveal the full scope of the issue. Plus, by using data through computers, a portion of subjectivity is removed and therefore GIS maps are much more accurate than even maps created a few decades ago, let alone a news article that tries to describe a complex scenario in a few hundred words. The reporter does not have the luxury of taking pure information and plugging it into an algorithm that spits out a story within a predefined word count, though someday this might be possible. Until then, journalists have a greater chance of misrepresenting truth than those who produce GIS maps.

Good cartographers are quite aware of their ability to represent reality and conscientiously keep the reader's lack of knowledge in mind. They must be well aware of how their visual information might confuse or mislead the viewer who tries to understand the physical world, arguably more than journalists, because everything, down

to the color selection, is thought out to make the image easy to understand. Assuming the viewer believes the representation of the landscape, the work of the mapmaker produces a perception of reality. Essentially, the information displayed on the image becomes the image of reality within the mind of the map-reader, because no person has the ability to see the full extent of geographical information represented on the map. The cartographer draws reality. The reader trusts the cartographer's portrayal even though there is a chance the data is incorrect, misconstrued or outdated. Like journalists, they can cause harm through faulty information and therefore try to abide by a set of ethical codes knowing that much of the map-reader's understanding of the landscape is dependent on the cartographic ability to accurately portray the physical world.

Chapter 3

Shaman as Journalist

Endredy (2009) describes the shaman as "one that can enter states of consciousness that radically extend the human sphere through undergoing a complete transformation in their view of the world and the universe" (p. 9). Shamans are compelled into vocation through rites of passage, genealogical divination, or communal selection. Shamans are spiritual leaders whose "expertise is both in the cosmic and physical worlds and whose knowledge covers the ways of plants and animals as well as spirits and deities" (p. 5). They serve the community as conduits to the more-than-human world. However, journeys into other realms are not undertaken purely as an indulgence. There is always a clear task involved. Essentially, the role of the shaman is "to journey to other worlds and to use revealed knowledge for a positive outcome" (Drury, 1996, p. 17).

Just as the role of shaman is unique to each culture, the shamanic initiation process varies, but a few underlying themes are static. Shamans are always chosen. Who or what does the choosing depends on the culture and the individual, but "there are signs and omens that are interpreted by other shamans or the individual as to whether to walk the shaman's path" (p. 49). Journalists, though not chosen by tribal leaders or

psychologically unique characteristics, still obtain their status through a selection process. Whether it is as simple as being hired by a newspaper or as lucrative as having a career in one field—thus, having authority to speak on certain topics—any publicly recognized journalist is granted a platform by some form of initiation. As stated earlier, all people can become journalists, so for the non-traditional journalist who may have luckily had a cell phone camera rolling at the right place and time, the initiation process is admittedly less complicated, but nevertheless still important. Being a journalist requires nothing more than having the means to send a newsworthy item into the public sphere and capture the audience's attention. The non-traditional journalist's luck is as important of an initiation process as the reporter who spends years investigating.

Barbie Zelizer (1992) wrote an essay called "On Communicative Practice: The 'Other Worlds' of Journalism and Shamanism." This is one of the very few essays, possibly the only peer-reviewed article, that compares shamans to journalists. Zelizer points out that both the journalist and the shaman are "high priests" of two kinds of public discourse. The journalist is focused on media performance whereas the shaman is a functionary of a specific kind of religious experience (p. 19). She says both journey to the world of "the other" and are therefore "stabilizing agents who solidify consensus and reinstate social order on their return" (p. 21). Furthermore, both are marginalized, distancing themselves from society to better see its idiosyncrasies, and connect back through the act of storytelling. With an outsider's view on the world, both have the ability to understand and balance society from a distant perspective. In turn, both are accorded legitimacy within their cultural environments (p. 22).

31

Zelizer says the most important connection between journalists/shamans and society is what they do with their power. Shamans are constituted through a notion of curing whereas journalists use their power to exhibit an issue, object or problem. "In the same way that shamans cure through trances, journalists display through stories. The basic premise of a free press is directed at solving communal problems" (p. 27). The shamanic cure and the journalistic display of information become "explanatory devices which contextualize the crises or upsets of social groups." Both use their cultural status as communicators to confront community problems.

Lastly, Zelizer argues that shamans and journalists use their power to uphold consensus in five key ways: by maintaining order, shaping moral conscience, naming phenomena, providing egalitarian means of expression and serving as public memory (p. 27-28). Though both are far-removed from one another ethnographically, the two essentially play the same role within their respective environments. Shamans use their status to convey cultural meaning by way of subjective experience and heightened awareness while journalists theoretically use their status to convey cultural meaning by way of objective reporting and credible informational sources.

Znamenski (2007) writes that even with this elevated status, shamans are not safe from accusation and demotion if they do not perform at a level that the community considers acceptable. Candidates are trapped in a double bind. "The individuals chosen by spirits to become practicing shamans run the risk that their powers might go wrong, which would lead to accusations of witchcraft and possible death" (p. 105). Similarly, the public can shun journalists, though more likely through humiliation and not execution, if bias interferes with accurate reporting. Especially with television

broadcasters who are more publicly visible than newspaper writers, when individual personas cross a moral or professional line that garners public scrutiny, media organizations—perhaps with advertiser influence—will pressure them to resign.

I will now revisit the two different "news topics" first described in the previous section to showcase how a shaman looks at the exact same information in a completely different way. Again, the first—a hard news subject—will show how shamans are concerned with land purchased by a Western mining company, while the second—a slower developing subject—describes how shamans react to climate change.

Hard News: Mining in San Luis Potósi, Mexico

When the transnational mining company First Majestic Silver (FMS) announced that it had acquired land around Real de Catorce for mining purposes, the local population began a petition to stop the corporation's actions. Seventy percent of the area purchased by FMS falls within the Wirikúta Reserve, an area that was designated a Natural Sacred Site in 2001. According to the Official Journal of the State of San Luis Potósi, "Sacred Natural Sites are sacred spaces for indigenous peoples, and where ceremonies with a divine character are performed. In these sites, reality is seen and perceived under a magic, spiritual and natural perspective, and ritual offerings and ceremonies of the indigenous people do take place" (UNESCO, 2003, p. 49). The claimed land overlaps the Huichol people's sacred mountain as well as the only underground water source in the region—an aquifer that nourishes 16 villages and an ecosystem recognized by the World Wildlife Fund as among the three most biologically rich and diverse deserts in the world (p. 48).

Ripinsky-Naxon writes about this location in the book, *The Nature of Shamanism* (1993). The Huichol are the only major group in Mesoamerica that has been able to preserve its indigenous religion and ethos. The desert is where the Huichols have their "Cosmic Center—*Wirikúta*, the land of the divine ancestors, the sacred peyoté country— to which a person must journey at least five times before he can become a shaman" (p. 115). The Huichol believe that on the sacred mountain, the sun was born. According to tradition, a god appeared in the form of a deer and with his antlers, raised the sun into the heavens. The group holds rock formations in the most sacred regard (Endredy, 2009). Because rocks are hundreds of millions of years old and mountainous regions are not completely stagnant, the indigenous believe they speak wisdom to the trained shamanic eye (p. 142).

Huichol shamans utilize *tékas*, or sacred stones. Guardian tékas are used for safety and protection from malicious spirits, people, or other shamans; they intuitively warn and/or give advice. Luminous tékas collect energy from sacred places and then can be used to transmit energy in a healing way. Adversely, shadow tékas withdraw negativity and are then buried for an extended period to release dark energy back into the earth. Dreaming tékas can "focus the often random perceptions, images, and messages that a shaman is accessing" in an altered state of mind (p. 143-147). In journalism terms, these stones act as sources of information that shamans can use for various purposes. While mining corporations see the desert hills as a storehouse of natural resources, the indigenous see them as living entities filled with information. Journalists, on the other hand, would note the aesthetics of the hills and the rocks and would try to portray its desolate beauty but would neither see the financial potential of the silver deep below its

surface nor the formation's ancient wisdom. Cartographers use GIS maps to reveal the information as scientific data to maximize productivity, whereas shamans use experience and tradition to see the same information as timeless, and priceless, knowledge.

One reason why the Huichol travel hundreds of kilometers to Wirikúta each year is to collect the sacred peyoté cactus. When the shaman leading the pilgrimage finds the plant, he declares that he has 'seen the deer tracks'. In an attempt to channel the creation myth, he shoots the cactus with a bow and arrow as if it were a deer because the plant represents the god that provides life (Drury, 1996, p. 62). During the peyoté ceremony, the shaman shares the story of the Great Shaman, Grandfather Fire, who led a group of suffering ancestral beings on the first peyoté expedition (Ripinksy-Naxon, 1993). Their ailments were caused "by the lack of contact with the revitalizing divine Deer (Peyoté), because they were deprived of the healing powers of its miraculous flesh" (p. 139). Ceremonial participants are ritually cleansed and prepared to transcend onto a spiritual plane where the individual passes through a portal that separates the ordinary reality of this world from the unordinary, or shamanic, reality of the other (p. 140). There are shamanic assistants whose job is to repeat the chants of the shaman who is "psychically traveling and being used as a conduit for the spirit(s) and doesn't know what he is chanting" (Endredy, 2009, p. 65). The shaman is so deep in trance that he only knows "what has come through him" by listening to what is repeated.

Peyoté is an integral part of the Huichol culture, "simply because it serves as a major element that unifies and helps to preserve the traditional values, beliefs, and health of the tribes" (p. 116-117). The ceremonies and pilgrimages that revolve around the plant instill the spiritual aspects of life, reinforcing the individual and community's place in the

world. The plant creates a state of mind in the shaman that allows cultural information to be passed along that, the Huichol believes, is not accessible any other time. In comparison with journalists, peyoté is another source of rich information, or perhaps a library for doing research. There is nothing like it in journalism terms, except possibly the Internet where one can "surf" the web or get lost in cyberspace's seemingly infinite corridors of information and return with enlightenment, or at the very least, some sort of new perspective. Nature and tradition are the most important data at the shaman's disposal. Whether utilizing tékas, peyoté, oral tradition passed along through ritual, or the re-enactment of mythical stories, the Huichol understand reality by adhering to the shaman's discourse. Through every generation, the same knowledge is passed on to ensure continuity, but it is from the delicate balance of nature that the shaman figuratively mines his sacred information.

Slow New: Climate Change

Weather, animal migration and seasonal patterns have always been key components of indigenous, hunter-gatherer societies. Because the people depend on nature for supplies, they have a significant connection to phenomena that may be shifting as a result of climate change. Without the use of modern instrumentation, the culture relies on observation. If any sort of natural phenomena does not go according to plan, or is hindering society, the people depend on the shaman to communicate with the spirits of nature, predict upcoming events and restore order between the community and the environment.

Human activity interferes and often plunders the earth's bounty, causing an imbalance both in vegetative nature and among the souls of the animal world. Shamans perform the function of an "important psychological and cultural *adaptive mechanism*" (Ripinsky-Naxon, 1993, p. 65). This means that if the spiritual and physical conditions are not in equilibrium, resulting in natural calamities, the shaman is expected to restore harmony, balance and beauty. Both journalists and shamans are expected to notice trends, spot disruptions, inform the community and offer solutions to fix the problems. But additionally, shamans are expected to personally restore the balance and correct societal problems themselves. To prevent catastrophes, sacrificial offerings are routinely provided to appease the spirits. If there are weather disruptions or a lack of animal resources, shamans invoke the gods for assistance.

Mircea Eliade (1964) was one of the first to document the "archaic techniques of ecstasy" within shamanic cultures. Séances with the gods or other spirits can be demanded by collective problems such as storms, scarcity of game or unfavorable weather (p. 291). They are always held in the evening and in front of the entire village. Shamans sing in a "secret language" to evoke the spirits and then undertake ecstatic journeys to the air where they have conversations with the dead and upon returning to earth, describe the realm of the sky to the spectators (p. 290). Thus, like a journalist, the shaman tells stories of acquired knowledge that the audience believes because it came from the society's authoritative voice.

Many shamanic societies rely on gods to provide balance. Often, a god of the atmosphere—and in agricultural religions, a fertility god—presides over the skies, the fruitfulness of flocks and the abundance of harvests. In North American Eskimo tribes,

the shaman can pray to the god for fair weather and even end a storm by a complicated ritual involving "the aid of helping spirits and the evocation of the dead as well as a duel with another shaman, during which the latter is 'killed' and 'resuscitated' several times" (p. 290). In most Indo-European communities, located in Central Asia between Europe and the Far East, a horse sacrifice is made to Bai Ülgän—the atmosphere god (p. 198). The Altaic shaman enters into a trance, abandons his body and journeys to the sky, taking the soul of the sacrificed animal to present directly and concretely to Bai Ülgän (p. 200). The shaman will sometimes imitate the god's voice to create a more dramatic dialogue (p. 199). Here, the shaman acts like a journalist by quoting a key source, in fact, *the* key source in determining weather patterns. Like a narrative journalist telling a personal account, the shamanic experience *is* the story, complete with dramatic flair, quotations from gods and spirits, and a storyline account of the journey.

Because shamans are alleged to have divination, clairvoyance, and close relations with animals, they can foresee changes in the atmosphere and locate wildlife for hunting (p. 184). Eliade explains that the relationship between the shaman and animals are spiritual and of a mystical intensity "that a modern, desacralized mentality finds difficult to imagine" (p. 459). For primitive man, donning the skin of an animal was a symbolic act where the shaman "became" the animal, feeling transformed into the creature, but even today, shamans believe they can change themselves into animals, albeit more psychologically (p. 459). Connecting with, or becoming animals and other metaphysical beings referred to as spirit animals, gives shamans an authority to communicate on behalf of the creatures. Again in this instance, the shaman's method of informational gathering is through trance. Acting as a vessel through which spirits can talk, shamans are the only

ones with access to the most powerful records in the community's database. Journalists also have unique access to community records and historical figures.

On a non-spiritual level, shamans are keen on interpreting natural events. In regions of the Mayan world, shamans know to plant their sacred crops, especially corn, when the migrating Swainson hawks arrive. Thousands of hawks fly from North America to Argentina in April and back again in October. In the spring, when the shaman sees the hawks coming, he immediately informs the community to begin planting corn and the rains usually appear within a week or even a single day (Endredy, 2009, p. 126). Both the shaman and the community, who depend on weather conditions for bountiful crops, are susceptible to wrong information based on the potential disrupting of migratory patterns through climate change. The shaman who depends on natural clues must interpret events and inform the public. Because the society depends on this knowledge for its survival, the information is more vital to the community's existence than the information journalists provide to interested consumers. Good journalism provides information that can better the lives of the audience, but rarely is that information essential to one's daily survival.

The Shaman's Role-Related Responsibility

Shamans are cultural leaders in many ways—psychologists, healers, storytellers, historians, and wisdom-keepers. Symbolically, this closely resembles the duty of today's journalist. Shamans are compelled into a vocation that serves his community; many journalists are too. Yet unlike journalists, shamans blend many fields of knowledge. They understand geographic ecology and the natural landscape as much (or better) as the

human side of life. This unrivaled insight into both ecological phenomena and the community is just what journalism strives to do at its best. Essentially, the shaman's **role-related responsibility** is to utilize information—by way of oral tradition, guidance from elder shamans, the ritual use of sacred plants, and other ecstatic experiences—to maintain a natural and cultural balance while keeping the people's traditions alive and helping the community understand their cultural reality.

As highlighted by the Huichol people of San Luis Potósi, shamans pay homage to nature's vast storehouse of information. Through generations of discovery and passed-down knowledge, all aspects of the ecosystem—even a single stone—can act as a transformative source that enables the shaman to gain information. Shamans understand that an imbalance of nature, whether created by a mining company or climate change, can have detrimental effects on the community's operations as well as the delicate balance of all species within the environment. They are much more keen than Western journalists in knowing how creatures, weather phenomena, plants and even rock formations can communicate messages. In the famous words of an Eskimo shaman, "The greatest peril of life lies in the fact that human food consists entirely of souls. All the creatures we have to kill and eat, all those we have to strike down and destroy to make clothes for ourselves, have souls, as we have" (Ripinsky-Naxon, 1993, p. 128).

Shamans interact with the metaphysical world through ecstatic experiences that range from ingesting sacred plants to entering transcendental states through séance, leading the shaman on a spiritual journey. These are typically only designated for those perceptive to the intense voyage, which is why the community relies on the shaman to embark on the non-physical adventures and report back what happens, or if possible,

communicate with the spirits on behalf of the people. In journalism terms, the event happens in the mind of the shaman and his memory acts as the tape recorder, the video camera, the photo lens, the notebook and pen, the search engine as well as the record of public information. To "broadcast" the information back out, the shaman uses storytelling through oral interaction. Because of this process, the information is highly subjective, belonging solely to the thinking subject. On the other hand, journalists are expected to remove their bias and subjectivity to reduce the level of inaccuracy and slant, though, as stated elsewhere, this is not wholly possible. The indigenous community fully understands the nature of the process and continues to grant shamans a cultural platform to project their images of reality.

By allowing shamans to have this authoritative role, the people give them an unspoken oath of commitment. The community's perception of reality is shaped by what the shaman experiences, interprets and then conveys through narrative. Whether the experiences of traveling to the heavens exist as actual phenomena or not, what the shaman understands often becomes what the culture believes. This knowledge is passed down through each generation through ritual and is continuously validated when new shamans assimilate to the values of the culture. Therefore, in sociological terms, shamans act as major indigenous institutions that socially construct reality. Like journalists, they have the ability to cause harm with this "power" and therefore try to abide by a set of ethical codes knowing that much of the community's tradition and well-being is dependent on the shamanic ability to utilize information with the utmost care.

Chapter 4

Ethical Analysis

There are several professional journalism organizations that have developed ethical codes like the International Federation of Journalists, the American Society of Newspaper Editors, the National Press Photographers Association, the Radio-Television News Directors Association and the Associated Press Managing Editors, among several others. Furthermore, individual print, broadcast and online news organizations may have their own set of ethical codes. For this essay, the Society of Professional Journalists (SPJ) Code of Ethics will be used as the point of comparison because the organization has been around for over a hundred years and is one of the leading voices on the subject of journalism ethics. Its Code of Ethics is "voluntarily embraced by thousands of writers, editors and other news professionals" and "is widely used in newsrooms and classrooms as a guide for ethical behavior" (Society of Professional Journalists, 1996). The code is intended not as a set of legally enforceable "rules" but as a resource for ethical decision-making.

It is important to analyze what journalists can learn from the ethics of cartographers and shamans because the three roles have similar communicative responsibilities toward an audience. Each seeks out, filters and interprets information in

unique ways to tell pertinent stories. Each notices trends and each has the ability and authority to shape perceptions of reality. Cartographers are near one end of an objectivity continuum whereas shamans are on the other and the journalist falls somewhere in between. Some may argue that objectivity is an ideal toward which all journalists should strive toward in order to accurately depict events, but shamans understand the value of properly applied subjectivity that can only be attained through intuition and observation. A descriptive ethical analysis will lead us to a normative ethical solution.

Cartographic Ethics

   Throughout history, maps were used to deceive, mislead and shape politics (Kinghoffer, 2006; Wood, 1992; Buisseret, 2003). Mapmakers in Renaissance Europe were artists, both challenged and excited by the prospect of visually representing reality from various angles, but armies and the ruling elite realized that the information gave them power to expand empires, and maps became vital tools of war and imperial expansion (Buisseret, 2003). Though cartographers were not directly responsible, maps enabled a slew of ethical dilemmas (eg. killing, causing pain, depriving of freedom, etc.) that arose during wartime. Those who controlled maps controlled the seas, the land, and essentially the world. During the twentieth-century, nations produced maps with omissions and wrong information to confuse the enemies (Kinghoffer, 2006, p. 110). It may be true that all maps must withhold some information, but purposefully misleading breaks ethicist Bernard Gert's sixth moral rule: do not deceive (Gert, 2004, p. 40). While maps can enable people with helpful information, they also have the potential to hinder

readers if faulty or outdated information is provided, which breaks Gert's third moral rule: do not disable (p. 33).

With the rise of ethics permeating all parts of the academic world, it was only a matter of time before cartographers realized that a set of moral codes were needed to mindfully approach the power bestowed upon them. J.B. Harley (1991) and Mark Monmonier (1991a) were among the first to make a plea for an ethics of cartographic representation in light of new computer advancements. Harley argued that a code of ethics needed to be agreed upon by many people who wanted the same thing. After years of discussion and contemplation, the GIS Certification Institute (GISCI, 2008a) created a Code of Ethics for modern cartography as well as Rules of Conduct to "express the primary examples of ethical behavior consistent with the Code of Ethics" (p. 1).

The Code is built upon four styles of ethics: virtue ethics, utilitarianism and deontology (p. 2). The Code draws on the work of other professional societies, but a few guidelines that are unique to the GIS profession include:

> *"the encouragement to make data and findings widely available, to document data and products, to be actively involved in retention and security, to show respect for copyright and other intellectual property rights, and to display concern for the sensitive data about individuals discovered through geospatial or database manipulations"* (p. 1).

The Code also invites cartographers to accept and provide fair critical comments on professional work, to recognize the limitations of one's own knowledge and skills, to practice integrity and not be unduly swayed by the demands of others. The Rules of Conduct encourage an open-source, letting people see what information is listed about them and therefore enabling them to fix inaccurate information (GISCI, 2008b, p. 5). The Rules recognize that some applications of GIS products may harm individuals, but should be used to "benefit society, and enhance the well-being of individuals and groups"

(p. 2). It also encourages ethical discussions with those who violate the code, a more developed form of accountability than is listed on the SPJ Code of Ethics (Society of Professional Journalists, 1996).

What separates modern cartographic ethics from journalism ethics is how information is shared, protected and respected especially when it has the potential to deceive, disable or infringe upon the privacy of individuals or the work of others in the field. There is more of an emphasis on a community of GIS professionals that hold each other accountable and utilize each other's skills and information out of respect for the profession and realization that knowledge is limited, but enhanced with numbers.

Shamanic Ethics

Likewise, shamans around the world have been discovering the need to develop codes of ethics. Because shamans are located on every continent and Western spiritualists, psychologists and doctors have started adapting shamanic traits, many scattered groups have published codes of ethics, but there is no overarching code, nor could there be, for shamans are unique to every community and culture they serve.

The Four Worlds Development Project printed the Native American Indian Traditional Code of Ethics in the book, *The Sacred Tree* (Bopp, 1982). The list calls for adherents to give thanks, reflect and seek courage and strength to be a better person everyday. It calls for respect of every person, especially "elders, parents, teachers and community leaders." In addition, privacy and conversation between others should be respected—no interrupting. The code calls for truthfulness at all times, under all conditions, for an observation of balance and moderation in all things, of self-reflection

and an understanding of what leads to personal well-being as well as destruction. Lastly, it calls for an ability to listen and follow guidance, which comes in many forms: prayer, dreams, times of quiet solitude, and in the words of wise Elders and friends. The Shamanic Ministers' Global Network Code of Ethics (Venus Rising, 2011) has similar mores but a few additional ones—letting go of competition, remaining teachable and open-minded while practicing humility, patience, tolerance and flexibility, treating everyone with consideration and dignity, and asking for assistance while traveling toward higher consciousness. Most of these are not listed or mentioned in the SPJ Code of Ethics, save treating people kindly, but all of them could help journalists do more ethical work.

In 1999, a gathering of the most prominent indigenous healers from seven tribes met for the first time to discuss the future of their forest, their work and their people. Known as the Union of Yagé Healers of the Columbian Amazon, they jointly signed a declaration including a code of ethics. Though focused on the healing side of shamanism (not necessarily the communication side), the Code remains relevant. It claims that the mandate to work as indigenous doctors is to serve others and continue the teachings of elders—a great compromise and an enormous responsibility to "our selves, to our communities, and to the entire world" (UMYAC, 2000, p. 31). The first code is to respect "all of creation" as well as culture. The second is an oath to respect and defend life and an affirmation to always work for the good of all, to be of service to others and to never use knowledge to cause harm to others. The fourth admits that an authoritative title cannot be considered until the elders and community recognizes the individual's work. The fifth sets a high standard by which shamans should live—a righteous life that can be

an example for others. The sixth is a call to strengthen all unions and to join forces for the benefit of all so divisions do not arise. The tenth is a call to respect the land: "We reaffirm our intellectual property right over our ancestral medical knowledge and our rights as indigenous peoples over the resources that we have employed for many centuries" (p. 35).

The one thread that these codes share is a reverence toward people, culture, the environment and self—an eco-feminist form of ethics bent toward nature and a less hierarchical mentality, which is quite different from the traditional ethics of journalists. Whether the information gathered by shamans comes from elders, friends, experience, ecological insight or sacred objects and plants, it is time-honored and sacred information. The SPJ Code of Ethics tends to respect sources and the process of gathering and disseminating information, but shamanic code emphasizes balance amongst all parties, including nature and personal reflection. Because the traditions, stories and insights are subjectively filtered, shamans allow themselves as much inner-peace as possible. As communicative conduits, the shaman understands that the role is only as good as the state of mind accessing the information, very different from journalists.

Toward An Ethics of Information

Philosophies such as Milton's "Areopagitica" and Mill's "On Liberty" as well as legal precedents dating back hundreds of years in Western nations have elevated the status of the press in most democratic nations. Protected by constitutional clauses the world over, there seems to be few things more important to democratic functionality than a healthy and robust free press. To perform the enshrined duties as ethically as possible,

there should be no rock (or téka) left unturned in discovering the most upright ways to gather, interpret and disseminate information.   Because differing standards of communication have developed amongst various populations over time, it is reasonable to assume that there are ethical standards which journalists should learn but have not yet been addressed or adapted by current ethical codes. Communicating in the information age can take a step forward when a variety of perspectives are considered.   By discovering and potentially adapting the methods of others communicators, journalists can more efficiently and effectively perform the basic duties of ethical news dissemination.   All information has the ability to shape perceptions of reality, so journalists should be aware of different communicative methods to minimize harms while remaining ethical practitioners.

Cartographers believe all gathered information should be shared openly and made available for correction. Of the amount of information gathered by a journalist, only a small portion gets revealed to the public. Even so, the only opportunity for the public to correct wrong information is to contact the publication and hope the editors write a correction in a future article or on an editorial page that points out the faulty error. With more and more information going to open sources like Wikipedia, which allows individuals to edit, update and fix any errors, could journalists benefit from shifting their traditional method of communication to an open-source format that blends time-honored journalism with the important perspective of collective knowledge? The rise of Twitter and weblogs and their impact on global affairs shows that people are interested in the newsgathering and dissemination process. The press continues to lose credibility as media corporations gain more control and power to influence public discourse from the

top-down. More than half of the population of the United States does not trust the press (Harris Interactive, 2008). Additionally, 67% believe traditional journalism is out of touch with what Americans want from their news because of media organizations' "lack of empathy and political bias" (Harvard University, 2007). While some might argue that distrust toward the press is healthy, research proves otherwise. Because of its status as a societal pillar, those who trust the media are physically healthier (Tokuda, Fujii, Jimba, & Inoguchi, 2009). Continuing the current standards, and thus enabling media distrust is actually unethical and harmful to the health of the public. Adapting the ethics of modern cartography is to recognize that those with communicative power should not necessarily have full control over information when the risk of wrong information or distrustful practice outweighs the benefits. The top-down approach to information has contributed to the lack of trust, so finding ways to let people interact with and even correct faulty information, perhaps through an open-source news outlet, could promote transparency and may be one way to rebuild the public's trust.

The idea of objective reporting has supported traditional journalism, but even objectivity in the news can confuse the public. A study appeared in the Journal of Communication (Pingree, 2011) showing that people are more likely to doubt their own ability to determine truth after reading an article that simply lists competing claims without offering any idea of which side is right. This is reflected in the "climate change" debate where a small percentage that questions the phenomena is given equal presence in news coverage as the high percentage that agree with climate change's existence. The public sees both sides and hesitantly agrees with an opinion instead of knowing how to interpret the information (Boykoff & Boykoff, 2004). By reporting multiple sides of an

issue, journalists are ironically disabling the public from making educated decisions, two of Gert's moral violations in one—disabling the reader and not doing one's journalistic duty (Gert, 2004, p. 20).

Both cartographers and shamans highly value information itself instead of, or at least in addition to, the methods of communication. Cartographers, more so than either shamans or journalists, are bound to data. Recreating a visual representation of a visual world has given mapmakers an elevated sense of accurate portrayal and ethics toward the public. People are better able to detect the map's accuracy by simply looking at the land themselves. Newsreaders are much less able to verify information without doing extensive research on their own time. The aid of computers has reshaped cartography; digital maps are more complicated but more accurate than maps have ever been. Journalists have access to more information than ever before and have more methods for releasing that information (photos, videos, interactive charts, tweets, etc.), but they still rely on words and quotes to describe events, and with language comes a higher chance that the news can be misinterpreted. However, these insights should only elevate the importance of the journalist's ethical responsibilities.

Shamans also place a high value on information, going so far as to call it sacred. Like a cartographer, data is the shaman's most important commodity. Even in their role of "healer," shamans use information from the individual needing healing as well as information from experience and wiser shamans. They are the sensing organs of their community. Though the data is filtered through the shaman's mind and not a computer, information is not simply obtained by conducting interviews and restating ideas from other sources. Information can come in all forms, from the subtleties of nature to the

intuition of a perceptive mind. While this is not verifiable like the cartographer's research or the journalist's camera, shamans do not rely on other methods to capture important details. Research is showing that with search engines at our fingertips, people are forgetting information more frequently because the brain realizes that data can be accessible elsewhere, therefore the information is not stored as efficiently (Sparrow, Liu & Wegner, 2011). The shaman's mind acts as the community's search engine and is therefore conditioned to be keener than those who rely on outside sources, such as the journalist.

Therefore, the most obvious ethical trait that journalists can learn from both cartographers and shamans is to place a higher ethical emphasis on actual information. On its own, information cannot harm anyone, but when information is released, it can alter the perception of reality for all who come into contact with it. When information becomes as important as the process of communication itself, the entire process is ethically elevated because what is disseminated are not simply words pertaining to an event, but information that has the ability to cause subjective harm, fear or a wrong idea of the world. Journalists do not merely pass along news; they pass along information that can alter a person's understanding of reality. Blended with the societal importance of a bustling press, the idea that information is sacred places the role of journalist closer to that of a Western shaman. If the common saying that journalists write the first version of history is true, then journalists have even more responsibilities knowing that news sets the tone surrounding the public's perception of any particular event.

Shamans place equally balanced value on where information comes from, how it is gathered, interpreted and released to the public. In fact, shamans see themselves as

conduits of information, and as vital to the communicative process. To embrace the shamanistic side of the equation, self-analysis of the *role* of journalist is just as necessary. Efficient reflection cultivates an ability to see oneself and one's surroundings clearly. As spiritual leaders, shamans constantly remind themselves of their importance within the community. As a constitutionally protected institution, journalists do understand their role's importance, but many forget that the profession is more than just deadlines and paychecks. Shamans try to live an upright life at all times, not just when information is being gathered and released. Shamanism is not simply a job, but a responsibility. Likewise, journalism is not simply a career or profession with responsibilities, but the very existence of the role is a responsibility to society. By broadening the scope of not only how to practice ethical journalism, but also how to approach ethics as an informational conduit, a pattern begins to develop across similar disciplines toward what one might call: an ethics of information.

Information is being utilized and integrated across different segments of society more than ever. By looking beyond the current scope of what it means to be a journalist and to self-reflect not just on journalistic actions, but on how information should be approached when the public's mental and physical health could be at stake, is to open the discussion to include ethics from other communicative roles that could lead to an overall ethical approach to information. When information becomes the center of the journalistic mentality, and a faulty public perception of reality is the cost, the ethics and role-related responsibilities of the journalist must expand. Journalists must view information more ethically and find a balance between objectivity and subjectivity to fully adhere to the demands of the information age.

Conclusion

The goal of this thesis was to shine a different light on how journalists should ethically approach information. I took a descriptive ethics approach to lead to a normative ethical prescription for journalists. By delving into the psychology, anthropology, sociology and history of the three roles, I focused on one subset of ethics— descriptive, or comparative, ethics—to compare the ethical systems of each. After understanding their ethical responsibilities and how they interpret information, I used normative ethics, which focuses on how one *should* act, to understand what journalists could learn from the ethics of cartographers and shamans.

Journalism ethics has largely focused on normative ethics regarding how to gather information and how to avoid causing harms toward sources, victims of events and the public. While all of the discussions have been necessary, there also seems to be a needed dose of perspective. When journalists are understood to be like shamans and cartographers, a communicative pattern emerges across similar disciplines. All three have the ability to shape the perceptions of reality in those who receive the packaged information.

When releasing news, journalists often set the public agenda and raise concerns over topics that may not be very concerning. Journalists can elevate the stress levels, or the quantity of fear, in society. For example, in the 1980s, the *New York Times* released a series of articles on a drug scare leading to a national concern about drugs, but the actual statistics show there was never an increase in drug use, just an increase in press coverage (McCombs, 2004, p. 25). However, this influence is also part of the journalistic allure.

Had it not been for the early colonial press, the political agenda may not have encouraged society to form a new nation, free of British oversight. With the authority to sway the public agenda, journalists are entrusted with a persuasive platform that can shape the opinions and culture of a society.

Similarly, though not as prominently displayed in the public's eye, cartographers who use visual representations of the world can shape the reality of those who view maps. Few people have a grasp on the physical layout of the land and therefore rely on maps for a variety of reasons. Though modern GIS maps have allowed cartographers to be more accurate, mapmakers still have liberty to choose what information is included and how it is revealed. Cartographers can tell stories arguably more objectively than journalists and can aid businesses like mining companies in doing more efficient and clean work thanks to a better understanding of the land. Mapmakers have always been, and are now more than ever, at the mercy of information and therefore value its ability to illustrate the physical world.

Shamans perceive that same information in a unique way to create a more personal understanding of reality. Society entrusts them with the authority to use knowledge to maintain the culture of the indigenous group as well as keep a balance between nature, the community and the spirit world. Information can come from plants, rocks, mythical stories and intuition, but through years of experience and rites of passage into the harrowed role, the community not only supports the shamanic insight, they depend on it for their preservation and health. Journalists and shamans are similar in that they have a special status to tell stories that reinforce the traditions and values of the

society both serve. Through stories, shamans communicate tales from long ago as well as experiences with the non-physical realm when returning from an ecstatic experience.

Journalists serve comparable purposes as shamans and cartographers, though each has special methods to gather information, to interpret the information, and to release that information to interested onlookers. Each has the ability to persuade the public to agree with their perception of reality. Revisiting Broersma's argument, it does seem that journalists compete with others in the reality industry to form a representation of reality that can be believed by the public. Cartographers and shamans may have less competition, but each form representations of reality that the public often believes. Having persuasive ability over others calls for an elevated sense of ethics.

Cartographers have responded by encouraging ethical discourse amongst practitioners and placing a high emphasis on information itself. They believe information should be accessible to others, a humble admittance that no cartographer has all the information, and that it is possible others may have better or more accurate data. Shamans feel their information is sacred, passed down from spirits, from Elder shamans and from nature—a sacred entity on its own. Shamans encourage self-reflection and a sound understanding of the role's importance. Furthermore, they realize that being a shaman is a constant role, not just during times of gathering, interpreting and releasing information. Journalists can learn from both roles.

If anything, journalists should realize that their role is as important as it has ever been. With research proving just how susceptible people are to the nuances of a bustling press, journalism must break old habits and outdated traditions to function more effectively and ethically in the twenty-first century. Otherwise, the public will not be

able to form accurate perceptions of reality. And as we have already started to see with the emergence of weblogs and Twitter, other media for reporting news will steer the course of journalism into territories where corporations are not willing to go. As always, people want credible truth. For the past few centuries, journalists have gotten away with claiming objectivity but it is much more difficult to hide behind newspaper pages, nightly television news and interactive webpages when the information exists elsewhere. Finding an Aristotelian (or shamanic) balance between objectivity and subjectivity would help the journalist, who inherently has biases and stereotypes like all other people. An elevated intuition, a willingness to quietly listen to all information from all varying sources, and a humble acknowledgment of journalist's limitations might help the press regain credibility and trust from the public, thus strengthening the ability to adhere to responsibilities that journalism codes encourage as well as the wherewithal to shape the public's perception of reality more ethically.

Furthermore, studying the ethics of other communicative roles might begin to reveal an ethics of information that can help all communication roles learn from each other, placing an ethical awareness of information's power and capacity to shape perceptions of reality at the center of the information age.

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