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Cover photo: An artesian well, belonging to catfish farmer Ronnie Pucek, in the Edwards Aquifer in 1993. © Peter Essick

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Commentary: The legacy of Charlie Flagg: narratives of drought and overcoming the monster in West Texas water policy debates

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Abstract: The 40th anniversary of the publication of Elmer Kelton's 1973 novel *The Time it Never Rained* coincides with one of the most severe droughts on record in Texas. Meanwhile, as of 2005, local groundwater conservation districts in Texas are required by law to determine how much groundwater they want to conserve for future generations. Such policy decisions have led to debates in West Texas among agricultural producers over whether pumping restrictions amount to erosion of the famous "rule of capture" and private property rights. This article presents Texas water law history, the Ogallala Aquifer, and its users as a continuing story in which producers and government policy-makers are actors. This paper first summarizes the ways in which water challenges in the American West and elsewhere have been classified according to different disciplines and then shows how each of those ways of knowing can be understood as a kind of storytelling. The author uses Kelton's drought novel and scholarly insights into how narrative works as a means of interpreting and contextualizing comments made by producers and others at several West Texas agricultural water policy hearings. The article concludes that policy-makers must consider the human instinct to translate complex and often contradictory knowledge from multiple domains into a less confusing story line.

Keywords: narrative, Elmer Kelton, groundwater management, drought, Ogallala Aquifer

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Terms used in paper

Short name or acronym	Descriptive name
groundwater management areas	GMAs
High Plains Underground Water Conservation District	HPUWCD
Production and Marketing Association	PMA

INTRODUCTION

This year (2013) is the 40th anniversary of the publication of Elmer Kelton's novel *The Time it Never Rained.* Its theme of water challenges is as timely now as when the novel was first published in 1973. The recent multi-year drought that has gripped much of Texas reminds us that the hardships faced by lead character Charlie Flagg in the scrub rangeland around San Angelo during the 1950s continue to plague Texans. Today, it is not just farmers and ranchers who endure these hardships; urban and suburban residents throughout the state face watering restrictions, encroaching wildfires, and almost unbearable summer heat.

Data bear out the severity of recent Texas drought conditions. According to State Climatologist John W. Nielsen-Gammon, the 12 months between October 2010 and September 2011 were the driest 12 consecutive months on record for the state—drier by 2.5 inches than the 12-month period set during the 1950s drought (Nielsen-Gammon 2012). Nielsen-Gammon calls the 2011 drought "unprecedented in its intensity," while regional news reports suggest that the drought is beginning to take a serious economic toll on the region. "Shaken and stirred: For many, job losses mean leaving friends, family, home" is the headline over an early 2013 article in the *Lubbock Avalanche-Journal* after an international food production and marketing company announced layoffs of 2,000 workers at a Plainview meat processing plant (Hoff 2013). Cargill, Incorporated attributed the layoffs to the multi-year drought that has reduced cattle supplies in the region.

Understanding some of the ways residents process such severe drought is the goal of this article, which asserts that *The Time It Never Rained* is essential reading for anyone in Texas involved in water and general environmental policy (Kelton 1973). While it is a good novel in its own right, the main reason for endorsing it as important background reading for policy-makers is that Kelton's plain-written prose helps us understand deep-seated suspicion of government regulation in the name of the environment—a suspicion that if anything has grown since the 1950s. In that vein, *The Time it Never Rained* can serve as a literary exemplar of traditional West Texas values, along with the challenges those values bring to attempts at fostering environmental stewardship—particularly water conservation.

A cursory survey of newspaper articles and Internet stories about recent Texas droughts reveals that Kelton's novel continues to speak to Texans. For example, James Decker writes in *Cattle Call*, a blog of the National Cattlemen's Beef Association Young Producer's Council:

> Elmer Kelton's novel "The Time It Never Rained" masterfully tells the story of the 1950s Texas drought and the bleak life in West Texas during those miserable days. And unfortunately, the year 2011 has shaped up as an unwanted sequel to that 1973 literary masterpiece (Decker 2011).

Similarly, a July 23, 2011 headline over an editorial in the *Austin-American Statesman* proclaims "The Time It Never Rained has come again." The editorial continues by reaffirming the need for stringent water conservation measures in the Austin area (Austin American Statesman Editorial Board 2011).

To understand the enduring power of Kelton's 40-year-old novel to represent rural Texan attitudes, it is necessary to consider the power of any story to encapsulate cultural values, beliefs, and even scientific knowledge. To that end, this article first summarizes the ways in which water challenges in the

American West and elsewhere have been classified according to different disciplines—such as geological and hydrological science, law, and economics—and then shows how each of those disciplinary ways of knowing (i.e. epistemologies) can be understood as a kind of storytelling. The latter part of this paper presents Kelton's drought novel and scholarly insights into how narrative works as a means of interpreting and contextualizing comments made by producers [1] and others at several West Texas agricultural water policy hearings.

NARRATIVE WAY OF KNOWING THE OGALLALA AQUIFER

The urge to tell and hear stories is intrinsic in human behavior and has been the subject of academic study through the field of literature, typically found in departments of English and other languages but also in fields such as history, anthropology, sociology, mass communications, and psychology. Science is concerned with stories to the extent that it classifies reality and posits cause and effect relationships among different aspects of that reality. These theories of cause and effect are situated in time and place, which, of course, also form the essential background or "setting" against which stories play out. For the French philosopher of language Paul Ricoeur, narrative is nothing less than a way of coping with the passage of time. That passage of time in the presence of others involves actions that lead to the formation of one's identity [2].

The passage of time both in prehistorical and historical settings underlies all of the ways we have understood water and water policy in the American West since the 19th century. We need only look at geology of the Ogallala Aquifer that provides water to Texas' High Plains region and to 7 other Great Plains states stretching north to South Dakota. Its formation as a vast underground bed of saturated sand is a story that begins prehistorically 10 to 12 million years ago during late Tertiary (Miocene/Pliocene) geologic time, when runoff of water and sediment from the Rocky Mountains splayed out in a great alluvial plain that filled the contours of the land to the East (HPUWCD 2013). Geological representations of the aquifer, like nearly all geological representations, are stratified—the story of time's passage represented like the cross section of a cake by the layers of earth, rock, saturated sand, and sediment.

Fast forward into historical time of the late 1800s when settlers moving West tapped the aquifer, first with windmills and later with centrifugal gasoline-powered pumps. Indeed the presence of such underground bounty could not help but remind the stern Protestant settlers of Old Testament accounts of Moses and his brother Aaron striking a desert rock to bring forth the water from underground. "Take the staff, and assemble the congregation, you and your brother Aaron, and command the rock before their eyes to yield its water," the Lord commanded Moses (Numbers 20: 7-8). When that water from eons past is exposed to the atmosphere through evaporation from the surface or through transpiration from plants, it becomes the main character in the hydrological cycle. This story is more often represented progressively in science visuals as water vapor rising from the ocean into the atmosphere on one side of the image, forming clouds over the center, and raining down onto the land on the other side.

Once brought to the surface from underground or already found there in streams and lakes, the water becomes part of another story—that of human societies allocating its use through laws and policies. Indeed, the old adage that "whiskey is for drinking and water is for fightin'" [3] summarizes a century's worth of water law in the American West. Countless courtroom dramas have played out in Texas over who owns the water, dating to the 1904 Texas Supreme Court ruling that established the famous "rule of capture" after a landowner sued the Houston & Texas Railroad for depletion. [4] Under this rule, "absent malice or willful waste, landowners have the right to take all the water they can capture under their land and do with it what they please, and they will not be liable to neighboring landowners even if in doing so they deprive their neighbors of the water's use" (Potter 2004 p. 1). This 1904 case established "precedent," a legal term referring to the story that everyone refers to henceforth when faced with challenges involving similar characters and settings.

How much water (or any resource or commodity) that a community uses is understood in economic theory through different types of models, which are stories of how "independent variables," such as average daily temperature and population density, affect the "dependent variable"—in this case, the "demand" for water. Economists model these relationships with formulas and data that show whether a change in any independent variable results in a change in the dependent variable, and whether that change is significant enough to indicate that something meaningful (a story of cause and effect) is happening. As economist and rhetorical scholar Deirdre McCloskey notes, the question economists often ask after being presented with a long mathematical equation is usually a simple one: What's your story? (McCloskey 1998).

[1] "Producer" is a term used to mean anyone who produces a product from agriculture, such as a crop or livestock. In West Texas it applies to farmers and ranchers. In this article I will use it synonymously with "farmer" or "cotton farmer."

[2] For a summary of how the concepts of identity, time, and narrative are theoretically linked in Ricoeur's work and others, see Ritivoi 2008.

[3] This adage is often attributed to Mark Twain, although there is no evidence that he actually said or wrote it.

[4] For a detailed history of Texas water law, see Mullican and Schwartz 2004.

In literary disciplines, the ways in which stories [5] work is the subject of narrative studies. Narrative is the mental reconstruction of a sequence of events, or as English professor David Herman and other scholars show in their research, the way in which human experiences and other aspects of reality are organized and interpreted to provide meaning (Herman 2002). Often the events confronting characters in a story are challenging, and it is the response to those challenges that makes up the plot of the story. Stories that contain plots, character types, and symbols that recur across time and cultures are commonly known as "archetypal stories," a concept based on the psychological theories of Carl Jung and their use in analysis of myth by Joseph Campbell. Such narrative patterns involve similar types of characters facing similar challenges. Archetypal stories shared across a culture preserve for that culture knowledge that "has been learned assiduously over the ages" (Ong 1982 p. 41).

CHARLIE FLAGG: ARCHETYPE OF THE RUGGED INDIVIDUALIST

Charlie Flagg's situation in *The Time it Never Rained* could be seen as archetypal, preserving the lesson of endurance found in various Old Testament stories of God testing man via various environmental stresses. For instance, in the story of Job, a pious man of ancient Palestine is afflicted by unimaginable trials—loss of his animals, his family, his home—a seeming betrayal by God. Yet, Job remains steadfast in acceptance of God's wisdom, even if he questions why He would punish a just man. In the end, he is rewarded for his patience with new wealth and offspring.

The steadfast endurance of Job replays in *The Time It Never Rained,* which revolves around Charlie's efforts to keep his ranching operation going during the tenacious 1950s drought. But the novel also addresses other timeless themes of farming and ranching life in Texas (and any semi-arid area). A strong theme throughout is that of relations between peoples, in this case Anglo and Hispanic Texans. At times, these relations are loving and respectful and at times patronizing and resentful. Other themes include relations between ranchers and oilmen, ranchers and bankers, fathers and children, illegal immigrants and the Border Patrol, and Texans and their guns.

Charlie's story could also be seen as 1 or more of 7 basic plots in story telling as identified by literature scholar Christopher Booker (2004). At a general level the plot in *The Time it Never Rained* is a kind of tragedy. But Kelton's story could also more specifically be seen as one of Booker's plots called "overcoming the monster." Booker gives various examples of famous monsters and their vanquishers in literature, from the ancient Greek Medusa and Perseus to H.G. Well's Victorian era "fungoid" Martians who are finally bested by "humble earth bacteria" (p. 23-29). Such monsters typically act either as predators stalking the earth, as guardians of a treasure, or as avengers for past human transgressions.

Kelton sets up the monster plot line in the prologue by immediately animating drought as a predatory creature. He writes: "It crept up out of Mexico, touching first along the brackish Pecos and spreading then in all directions, a cancerous blight burning a scar upon the land" (1973 p. 1). Like a dragon, this drought monster smothers the grass and even weeds "with its hot breath" (p. 1).

An equally dangerous monster in Kelton's novel, however, is the federal government, a seeming behemoth of insensitive agencies and bureaucrats that attempt to dictate West Texas agricultural policy from afar. The rural Texan's suspicion of government today, especially liberal government, had its roots in the post-New Deal era that Kelton captured in his story of Charlie Flagg. Within the first few pages Charlie runs afoul of a federal agriculture agent of the Production and Marketing Association (PMA)—one of the predecessor agencies of the U.S. Department of Agriculture's Farm Service Agency. Kelton's third person limited perspective lets us into Charlie's mind where we learn that the agent determines the amount of different kinds of crop a farmer could grow and what kind of price supports and financial aid he would receive from the government. In Charlie's mind the trade-off is akin to selling one's soul to the Devil: "Here he sold his freedom bit by bit, and was paid for it on the installment plan," Kelton writes (p. 6). Charlie's response to the agent's request for him to attend a PMA meeting is terse, dismissive, and tempered with the West Texan ideal of rugged individualism: "What I can't do for myself, I'll do without" (p. 9).

Throughout the novel as the drought tightens its grip, ranchers become more dependent on government aid. Fellow ranchers at one point ask Charlie to go to Washington on their behalf to argue for more price supports. Charlie's refusal, his stubbornness to participate in the government programs proves the prudent path, however, as the novel reaches a climax with ranchers in despair over the financial ruin brought on in part by their indebtedness to the federal agency.

Because he stubbornly resisted government assistance for ranchers and its attendant controls, Kelton's most famous character has been venerated among conservatives; the *National Review* in 2010 listed *The Time It Never Rained* as one of the 10 "great conservative novels" (Miller 2010). Indeed, in the novel, even the representatives of liberal collectivism at its most evident—federal agricultural agents—begrudgingly admire Charlie as "[o]ne of those *rugged individualists*," although they predict that his refusal to take aid will turn him

[5] Some scholars make a distinction between "narrative" and "story," whereby a story is the action that occurs and narrative is the telling of that action. This paper will use the 2 terms synonymously.

into a "*ragged* individualist" (Kelton 1973 p. 9 emphasis original) [6].

Flagg invariably is the most admired literary character in a class that the author of this article teaches on Texans and their land. Undergraduates almost all identify with Charlie, seeing in him traits that they admire in the adults in their lives, traits that before reading the novel they did not fully recognize as being part of their own values and ideology. They seem liberated, freed to identify with a character that is quintessentially West Texas, perhaps having previously suppressed such regional enthusiasm in an effort to seem more urbane and intellectually mature, or what they often call "politically correct."

Kelton has said that attitudes like Charlie Flagg's toward land ownership in part go back to feudal times in Europe and Britain (where the Anglos and Germans of Texas came from via the American South). In feudal times peasants worked for the Lords who were the landowners. So when they got to the New World, they coveted land of their own that was not controlled by anyone else; thus, no "Land Lords" (Kelton 2009 personal interview). Exploring this cultural heritage of intense individual freedom in Texas through *The Time It Never Rained* sheds light on why local attitudes make it so difficult to forge a national or international policy for dealing with environmental challenges such as drought.

The ranches around Kelton's hometown in the 1950s used wells to fill stock tanks, but depended largely on rainfall to provide grass for their livestock. Today, much of Texas, including the High Plains and Panhandle regions, rely primarily on groundwater, including that provided by the Ogallala (also known as the High Plains Aquifer); it provides nearly one-third of the irrigation groundwater in the United States (USGS 2013). At one time the Ogallala contained 20% more water than Lake Huron—the second largest of the Great Lakes (Pielou 1998). Much of that water table has been depleted, losing an average of a foot per year and approaching 5 feet per year in the Southern High Plains during the peak irrigation years of the late 1950s (HPUWCD 2013) [7]. The cause is frequent droughts (1860s, 1930s, 1950s, 1990s, 2011 to present) leading to higher irrigated agriculture use and, therefore, significant aquifer drawdown.

Despite the depletion, major voluntary reductions in irrigation demand on the Texas High Plains will be difficult. The Texas High Plains cotton industry drives the regional economy, producing an average of 3.66 million bales per year in the decade 2000–2010 on the Texas Plains (PCG 2004 [8]). Typically about half is irrigated while half is dryland, that is, totally dependent upon rain (Burns 2012) [9]. But because it takes 100 gallons of water or more to make 1 pound of cotton, the effect is that we are exporting what has become known among environmental scholars as "virtual water" in T-shirts, etc. from the Ogallala [10, 11].

A HIDDEN AND OCCULT WONDER

Given the multiple overlapping narratives that shape the ways in which we view the Ogallala Aquifer and water policy, it is not surprising that attitudes among stakeholders would both reflect the complex factors involved in knowing water, but would also attempt—if even subconsciously—to reduce those many factors to a simpler story line. In research over the past 10 years, reading reports and other texts about water in Texas, attending public meetings, and interviewing farmers and others, the author of this article has found that knowledge about water and about the environment in general, is forged out of paradoxes. Multiple stories coexist in all people.

For example, at times drought is seen as a cycle and at other times as the result of sin. In the former the story originates

[6] Yet, Charlie Flagg—like his creator Kelton—is not as smitten with God or guns as conservative rural America would seem to be today. Charlie seems at least as reverential toward the hill where the old Comanche warrior bones were said to have been found as he was toward the Judeo-Christian God. He has sympathy for illegal immigrants and is willing to turn the other way despite U.S. Border Patrol agents' efforts to prod him into being their eyes and ears.

Kelton himself has argued that cowboys are first and foremost pragmatists, concerned about affairs of the day. "He may be in church every Sunday, or he may spend the Sabbath getting past a hangover," Kelton wrote in a July, 2008 Texas Monthly article titled "True Grit" (Kelton 2008). He lamented that the term "cowboy" had taken a beating because of political uses that peaked during the administration of President George W. Bush, having become synonymous with a "shoot-from- the-hip" swagger. To wit: Charlie does not carry a gun, which is more typical than not of working cowboys, Kelton wrote in the same article

[7] The average annual decrease of stored groundwater in the entire 8-state range of the High Plains Aquifer between 2000 and 2007 was 10 million acre-feet per year, according to a report from the U.S. Geological Survey. See Stanton JS. et al. 2011.

[8] This website was created in 2004 and has data through 2010, as of June 11, 2013.

[9] Reports in late 2013 (See Musico 2013a) suggest that the amount of irrigated cotton acreage on the Texas High Plains has dropped to 37 percent, reflecting an increasing awareness of conservation needs by farmers. Of course, variations in rainfall and fuel costs for pumping also affect farmers' yearly decisions on how much to irrigate.

[10] For a detailed discussion of the concept of virtual water, see Renault D. 2002.

[11] Meantime, we are rapidly reaching the technological limits of efficiency in using that water. In the 1870s–1880s windmills dipped 30 to 40 feet into the ground. In the early 1900s, centrifugal steam pumps pulled water out of wells to feed irrigation ditches that delivered maybe 50% of the water captured to plants. Center pivot irrigation started 1950s and is 75% to 95% efficient. Buried drip irrigation is almost 100% efficient. There is not much more irrigation efficiency to be had.

from beyond human controls, while in the latter it results from human behavior. Nature can be perceived both as benevolent and, more often lately, malevolent; government can protect us from the vagaries of the environment or betray us in favor of policy that places the environment ahead of people; land and water can either be held in stewardship for God or used as resource for *homo economicus;* sustainability can be both wise conservation of the environment or slothfulness—as in the no-till farmer who may be looked down upon by some for letting his land "go to weeds."

Such binary thinking has always characterized our human view of the environment. Some early reports were overly optimistic about the potential for settlement on the Great Plains, writing that ". . . abundant columns of water would be found to gush out over this immense plain," (Marcou 1858 p. 30). They used terms for the aquifer such as the "land of underground rain," "underground river or lake," or "rainfall on demand." Conversely, other reports have been overly pessimistic, calling the land "non-irrigable" (Johnson 1900/1901).

Part of the problem with honestly assessing the environmental future of the Texas High Plains (and the Great Plains overall) has been that the water lies underground. The geological phenomenon known as an aquifer was ruled to be abstract: "secret, occult, and concealed" by the Ohio Supreme Court in 1861 [12], and despite sophisticated metering and mapping technology today, there is still room for conjecture, myth, and hope (perhaps arbitraging uncertainty to one's advantage) because the aquifer is hidden to our eyes. Most farmers on the Texas High Plains would seem to accept hydrological studies of the aquifer decline; many have experienced it first hand in their shrinking well yields. Still, the comment made by one farmer at a 2011 water hearing reveals that as with any hidden resource, it is possible there could be more bountiful, even divine, surprises: "Farmers meet me in your fields," the speaker exhorted. "Repent and He will fill the aquifer back up" (HPUWCD March 2011 hearing, author's notes).

The difficulties of understanding just what the aquifer is came clear at a 2006 panel discussion at Texas Tech University on regional water issues, which opened with the comment from 1 water official: "A lot of people do not understand the Ogallala Aquifer" (2006 author's notes). "It is not an underground lake, river, or water bottle." In our moments of childlike candor, the water must be seen as a hidden and mysterious world of wonder. It is believed to be God's bounty to give or withhold—just as in the Old Testament. In the late 19th and early 20th centuries railroad companies, newspaper editors, and other "boosters" appealed to the inner child of any potential settler who might be lured by spacious land above and underground magical realms below. These boosters oversold the potential of the region to sustain agriculture; hence, old promotional postcards of Plainview, Texas made it look like a tulip field in Holland or the Garden of Eden [13].

LEGAL RULINGS: CLEARING OR FURTHER MUDDYING THE WATERS?

One who is confused about the geology of an aquifer might be forgiven also for trying to make its complex legal aspects more manageable through strong narrative—especially after delving into the documents about Texas water law. While laws about an individual's rights to the water under his or her land would seem unambiguous at first glance, a closer look unravels too simplistic an understanding [14]. Wording from the 1904 Texas Supreme Court rule of capture opinion cites English common law precedent that a property owner may dig for water and "apply all that is there found to his own purposes at his free will and pleasure"; any depletion of a neighbor's water would be recognized as a loss, but not a legally actionable injury (*East* ruling as cited in Potter p. 1-2).

Yet, as in many complicated legal matters dealing with water, the 1904 ruling left room for debate that continues into the 21st century. Specifically, the Supreme Court did not rule out action in the case of "malice or wanton conduct" and also permitted the state legislature to regulate groundwater (Potter 2004.). The 1904 decision did not clearly define what was meant by the right to capture water, or when the property owner had a "vested interest"—that is, a consummated right that cannot be taken away without compensation. Thus, the 1904 ruling would seem to have violated a basic principle of common law, which holds that a person does not really have a right unless he or she has some means of seeking remedy when that right is threatened [15].

The first such groundwater regulation came to Texas in 1949 when the legislature passed a law allowing parts of the state to create underground water conservation districts (Green 1973). Two years later 13 regional counties formed the High Plains Underground Water Conservation District (HPUWCD) No. 1 after an election approving its creation, but not without

[12] For a history of hydrological knowledge including the Ohio Supreme Court case in 1861 known as Frazier vs. Brown and its precedence for Texas water law, see Mace et al. 2004.

[13] For this example see "Typical Irrigation Well near Plainview, Texas 1937" at Image-archeology.com http://www.image-archeology.com/Plainview_TX.htm

[14] As Eckstein and Hardberger (2009) note, even terminology that governs water law can seem inconsistent. They write, "One of the more troublesome aspects of water law can be the divergence often encountered between legal and scientific definitions, as well as among subfields of the law. Although the vocabulary used by the various communities can overlap, the meanings ascribed by each to various terms and concepts may differ significantly."

[15] The principle dates back to Roman law, often quoted as a positive assertion: Ubi Jus Ibi Remedium ("Where there is right there is a remedy").

some of the same resistance that appears in water policy narratives today, more than 60 years later [16]. While some producers asserted that local control was preferable to state control, others remained vehement against any control beyond the property owner, tossing around invectives like "socialism" or humorous quips suggesting that asking whether one preferred federal, state, or local control was tantamount to asking which hangman you would prefer (Green 1973). Charlie Flagg was not alone in 1950s Texas by any means.

Subsequent state government actions regarding groundwater management have never fully resolved the underlying philosophical tension between private property rights and the need to conserve for the common good; individualism versus collectivism beats out a powerful story line that can be heard over the seeming noise of various laws, government agencies, and scientific models. Producers or anyone looking for clarity run across conflicting messages from the Texas Legislature and the Texas Supreme Court—confusion that is seen even in the terminology used and the alphabet soup of administrative hierarchies. For example, there is the distinction between a groundwater conservation district and groundwater management areas (GMAs), where the former is defined by elected representatives of a political entity and the latter is a geologically based concept determined by aquifer boundaries. Frequently, several political districts overlay the same aquifer, requiring joint planning among the political entities (Lesikar et al. 2002). So we have the HPUWCD as a political entity stretching over 2 geological entities, or GMAs; a small portion of the district covers 3 counties near Amarillo that are within GMA #1, while the main part of the district in the Southern Plains is within GMA #2.

Until 1985 water underground was classified in government parlance as lying in "underground water reservoirs," a misleading term conveying the old idea that the saturated sand was actually a large lake. The Legislature in 1995 and 1997 established the GMA concept, and in 2001 ceded full administrative control of these management areas to the Texas Water Development Board (Mace et al. 2008). A subsequent law in 2005 added clout to the water board by mandating that conservation districts work with each other by 2010 to determine "desired future conditions" for aquifers: it is these 3 words that have generated much of the debate and resistance from some producers.

Setting desired future conditions means each district overlying an aquifer must agree on how much of that aquifer's water should remain after a period of time in the future. As Mace et al. write in their 2008 history of Texas Water Law, "In essence, a desired future condition is a management goal that captures the philosophy and policies addressing how an aquifer will be managed. What do you want your aquifer to look like in the future [17]?" The High Plains district (HPUWCD) has thus established what is known as the 50/50 rule, meaning that the goal for its portion of the Ogallala in Texas is to have 50% of the saturated thickness remaining in 50 years, which would be 2060. But other districts overlaying the common geological entity (GMA #1) set different goals for the same time period, ranging from 40% to 80% (Brauer 2009).

The "desired future conditions" approach is seen by some observers as a fanciful but pointless attempt to introduce water conservation measures. In his 2006 book *Ogallala Blue*, author William Ashworth quotes a Nebraska-based geologist who is highly skeptical of a plan to preserve a percentage of the Ogallala Aquifer's saturated thickness. Such plans do not consider the composition of the aquifer at different levels, the quoted geologist argues, and it is composition that determines how much water can be accessed (Ashworth). But Ashworth then quotes a Texas geologist and water official who acknowledges limitations to the 50/50 rule, yet argues that such efforts—even when involving "voodoo and bluff"—are a necessary first step in making stakeholders aware of the need to conserve groundwater (p. 227-228).

Since groundwater conservation districts began setting desired future conditions, legislative and judicial actions in Texas have added more potentially confusing information that producers, municipalities, water districts and other stakeholders must sort through in their attempts to navigate water policy. First, at the behest of landowner lobby groups, the Legislature addressed a nagging question in state water law—whether a property's owner right to capture the water meant he or she owned that water before capture. If so restrictions on its use amounted to a legal "taking," and this could lead to suits for damages. In 2011 Texas Gov. Rick Perry signed into law a bill that stated, "The Legislature recognizes that a landowner owns the groundwater below the surface of the landowner's land as real property" (SB 332 Texas Legislature online 2011). Yet, further wording asserted that the new law did not "affect the ability of a district to regulate groundwater production" as established under previous law (SB 332).

The Texas Supreme Court weighed in similarly in a 2012 case brought by 2 property owners near San Antonio who had

[16] The HPUWCD #1 now comprises all or part of 16 counties.

[17] The law as written in the Texas Water Code - Section 36.108, Joint Planning In Management Area (2007 Section d) reads as follows:

> Not later than September 1, 2010, and every five years thereafter, the districts shall consider groundwater availability models and other data or information for the management area and shall establish desired future conditions for the relevant aquifers within the management area. In establishing the desired future conditions of the aquifers under this section, the districts shall consider uses or conditions of an aquifer within the management area that differ substantially from one geographic area to another.

challenged restrictions in how much water they could pump from Edwards Aquifer region. The court in *Edwards Aquifer Authority vs. Day* ruled in the property owners' favor and to the delight of producer groups. The ruling held supported the vested interest claim, meaning a landowner would have to be compensated for any taking of his or her groundwater rights. Critics have asserted that the ruling erodes the power of conservation efforts and has "sown confusion about the capacity of the state to regulate natural resources, while ignoring the science that ought to drive policy decisions" (Torres 2012 p. 144).

The abstract to a pair of 2013 commentaries on the implications of the Day case makes clear, however, that the Supreme Court ruling has by no means settled the debate:

> The decision is complicated and, in places, seemingly contradictory. By opening groundwater management to regulatory takings, a door to another complicated area of law has been opened. Although the Day case answers some questions, others remain unanswered. And there are strong opinions on what Day means and doesn't mean (Johnson and Ellis 2013 p. 35).

Charlie Flagg, the rancher in Elmer Kelton's novel of the 1950s, would probably not be surprised at the complexity of the science and the shifting court rulings and laws that attempt to come to terms with Texas water challenges today. Toward the end of the novel Charlie and another landowner are arguing with a federal auditor about changes in subsidy policies that cost Charlie's friend $30,000. "They can't make regulations retroactive," Charlie says. "That's against the United States Constitution" (Kelton 1973 p. 315). It is that U.S. Constitution that conservative landowners opposed to new water laws invariably cite in public hearings regarding water district policies such as the 50/50 rule for desired future use. Thus, we can turn our attention in the remainder of this article to such hearings, and to the narratives that a vocal group of landowners has voiced in the Charlie Flagg tradition.

HIGH PLAINS HEARINGS: "LOBBING AN INCENDIARY RULE BOOK"

If every story has a climax, as we often see in literature, the HPUWCD's efforts to establish a desired future condition for its part of the Ogalalla Aquifer reached that climatic period in the spring of 2011. The district had drafted proposed rules toward the 50/50 goal that would extend its control beyond regulations established in the 1950s to govern the spacing required between water wells. According to the district's monthly *Cross Section* newsletter for March 2011, the proposed amendments included designating "high water decline areas." These were areas of the region that had seen greater declines than other areas and, thus, would merit tighter restrictions. Other amendments required producers to meter their wells and report annually how much they had pumped and also established an "allowable production rate" for each well—a cap on how much each well could pump in a year (HPUWCD 2011).

District officials set dates for 5 public hearings throughout March 2011, including the March 24 hearing in Lubbock. The *Lubbock Avalanche-Journal's* account made the hearings seem more like a military campaign than a policy meeting. Hundreds of people turned out, including, it would seem, the ghost of Charlie Flagg. On the other side were unlikely opponents, 5 board members—all of whom were "conservative, deliberative West Texans with ties to agriculture," according to reporter Elliot Blackburn (2011b).

Blackburn's article asserted that "board members lobbed an incendiary 48-page rule book into their 16-county region about a month ago, immediately drawing the attention of growers, cattlemen and their suppliers who faced watching their livelihoods burn up under a dry Texas sun" (Blackburn 2011b). Much of the anger from producers was directed at the proposal to impose greater restrictions on those in high decline areas. Many argued that such restrictions would place these producers (who had bank loans initiated when there were no such restrictions) at a disadvantage in trying to make a living from their land.

The following week the district withdrew the most contentious amendments. "We have heard you loud and clear," then District Manager Jim Conkwright was quoted in the newspaper account (Blackburn 2011b). Revised proposed amendments dropped all mention of high decline areas and, instead of immediate implementation, established a 4-year phase in period for pumping restrictions to reach the desired annual goal of 1¼ feet per acre. Having diffused much of the anger, the board set 2 additional hearings on the revised amendments for June 27, 2011—one in Dimmitt and the other in Lubbock.

District officials recorded these hearings and provided the author of this article a CD copy of the recordings after a written request. After listening and transcribing opening and closing statements from district officials and comments from each attendee, the author then looked for patterns among the comments—an informal kind of "coding" process that is typical in humanities and social science qualitative research. The coding process involved noting the stories told by the speakers or those implied in the speakers' arguments.

RHETORIC AND THE NARRATIVE OF OVERCOMING THE MONSTER

Aristotle and other ancient rhetoricians developed taxonomies of how such arguments worked. Rhetorical "proofs" persuaded either because the speaker or author marshalled

convincing facts (arguments of *logos*), because he or she exhibited a trustworthy character (arguments of *ethos*), or because he or she excited the passions of the audience (arguments of *pathos*). Rhetorical studies consider figures of speech that affect meaning, such as metaphor; stylistic moves that make speech or writing memorable (such as repeating the opening consonant in series of words); and commonplace arguments that recur in different cases, such as the argument that providing for the future residents is a necessary goal in any water policy (e.g., "we need to save water for our grandchildren"). Oftentimes commonplace arguments such as the one about saving for grandchildren are mini-stories that are expanded in novels and songs into grand epics with a moral.

Narrative, as we have seen, is the telling of stories, cause and effect relationships in time. Hence, stories can be seen as a kind of rhetorical proof, perhaps revealing one's character or ethos to be commendable and therefore believable, or as commonplace argument, perhaps forecasting that consequence Y is likely to follow X because it did so in the story one is telling. Modern rhetorical scholar Jimmie Killingsworth argues that narrative is a kind of rhetorical appeal that convinces by showing the audience members how they can identify and associate with the events the speaker or writer tells of (Killingsworth 2005).

We have already seen how the various ways of knowing the aquifer, from the hydrological to the legal, all have an element of story telling and persuasion. As would be expected, such persuasive stories also are easy to spot in transcripts of HPUWCD June 27, 2011, hearings related to the Ogallala Aquifer.

At those hearings speakers were each limited to 3 minutes to present their stories and arguments; some used prepared notes and others appeared to speak from the cuff. Some spoke at both hearings. Before each hearing HPUWCD Manager Jim Conkwright opened with about 15 minutes of background, explaining the changes that district officials had developed since the initial 50/50 proposal was floated and shot down in March. The most obvious rhetorical move in Conkwright's opening words was to establish the ethos of the board and paid employees as being reasonable and responsive to suggestions. Conkwright said:

> I've already discussed the public meetings. We felt like these were of great benefit to the district and I've heard back from many of you who say you feel like the changes that were reflected in what you are here to testify on today show that the board and staff heard and incorporated those thoughts and ideas into those amended versions of the proposed rules (June 27, Dimmitt).

The manager's opening comments at both hearings also established a sense that district officials and producers were partners rather than adversaries in water policy. Conkwright frequently used the pronoun "we" when addressing the groups, as in "We've got 4 years to get there" when describing the annual pumping limitations. "This will be a learn and figure this thing out time period," he added later, strongly establishing a setting in which the officials and producers were all together on the same learning path regarding conservation.

This opening appeal designed to establish the ethos of district officials as partners rather than adversaries may have diffused some of the Charlie Flagg-like suspicion on the part of the producers, who nevertheless remained critical of the 50/50 policies even with the proposed changes. While much of that suspicion can be understood as inherent in an epic story of identifying and overcoming the monster, Conkwright's opening comments did seem to convince many producers that if indeed they were fighting a monster, it was not the HPUWCD. A speaker from Hockley County who attended both hearings established his ethos as that of a good man, a private property owner, a Christian, and "a constitutionalist" but also spoke as if the district officials were on his side in the battle to defend private property rights.

"Carroll, James, Bob, Bruce, Jim," the Hockley County producer said, addressing district officials familiarly. "I will stand with you . . . in public, in private, with all my heart and with all my conviction and with all my energy [so] this board can vote no and resist implementing these rules upon free Texans" (June 27, Dimmitt).

At the second hearing, the speaker clearly identified the monster he saw threatening Texas farmers as that of "socialists," "statists," "collectivists" in government who are attempting to "perform this horrid act in the name of conservation…." (June 27, Levelland). The speaker even further villainized the monster by referring to it as "National Socialist," which of course was part of the official name of Hitler's party during the Third Reich. Invoking another war image—this from the 19th century war of Texas independence from Mexico—the speaker said, "I wanted to let you know that we as Texans are at an Alamo moment" (June 27, Levelland).

A speaker from Lubbock who addressed both hearings invoked an archetype that is common in overcoming the monster narratives, that of the monster as a shapeshifter or a trickster who disguises himself to hide his nefarious intentions (e.g., the wolf in sheep's clothing). He first asserted that the private property owner was a better steward of water and other natural resources than was a "tyrannical" government. He then added, "It is totally unnecessary to implement a fascist form of government upon the people of Texas under the guise of preserving water for those 50 years from now" (June 27, Levelland). In addition to invoking the trickster enemy story line, this comment also contained the rhetorical commonplace argument of dissociating appearance from reality by asserting that what may appear to be conservation is really a government power play.

This speaker from Lubbock revealed either an instinct or training in Classical rhetorical argument techniques, including clever word plays and figures of speech. "Meters, limits, restrictions, grace periods, limits to report, adjustments, penalties, fines, well shut downs, spot checks—what country do we live in?" he asked at the Dimmitt hearing. This opening comment employed rhetorical asyndenton, the stacking of nouns without intervening conjunctions, which suggests a wearying and overwhelming effect from many actions—as if the monster systematically laid waste the freedoms of area farmers. The rhetorical question at the end also added emphasis, allowing the hearer to fill in an answer that this country could not be the United States.

A farmer from Hockley County argued at the Levelland hearing against proposed rule changes by combining the commonplace argument of consequence—that allowing X to occur will lead to Y—with the related narrative of stopping the monster (in this case regulation) before it became invincible. "There's nothing here to stop the water rules from coming in and becoming even more oppressive in the future," he said. "When you make laws, regulations, a lot of times it's like taking a prescription medicine," the speaker said. "There's unintended consequences." He then repeated the phrase "You're going to force people. . ." followed by examples, as in "You're going to force people out of some crops they have produced for years" (June 27, Levelland).

Often the monster is an enemy from outside the tribe, like the Philistine giant Goliath who threatened Israel in the Old Testament. A speaker from Lamb County at the Dimmitt hearing evoked the outside enemy image of "newcomers" to the community, people who use services such as the hospital but "don't pay their bills." He contrasted these newcomers with people like himself, those whose ancestry in the regions dates to the 19th century, those who gave land and money for roads, highways, railroads, schools, and churches (June 27, Dimmitt). Another version of the outside invader is oil companies who pump water into the ground for fracking subterranean rocks to free their oil. "If the water hogs want war, we'll give them war," the same speaker said (June 27, Dimmitt).

The relationship between oil companies and farmers in Texas is interesting and complex. It is not uncommon to see oil pump jacks mixed in among the cotton fields, farmers receiving extra income from the leases. Politically, oil workers and farmers may be aligned in their distrust of environmentalists in government, but they can be at odds over such resources as water. Such suspicion dates to the early 20th century when some farmers across the country resisted the incursion of automobiles and tractors into their horse drawn lifestyles. In Kelton's *The Time it Never Rained* Charlie Flagg responds "dubiously" to a suggestion that perhaps the drought-parched land would be better used for oil rigs than ranching. He says:

> Maybe, but you pay a price for it. An oilfield scars up the land. And them oil people, they don't care much about the land, most of them. They're only interested in what's under it. They'll use up your water or leave it polluted with salt if you don't watch them. There'll come a time in this country when a barrel of water is worth more than a barrel of oil (1973 p. 305).

Another speaker at the Levelland hearing offered a variation on theme of big business as the monster by pointing to Xcel Energy—a utility holding company based in Minnesota that provides power to 8 states, including much of the Texas Panhandle and Eastern New Mexico. The speaker alleged that Xcel was using water without care for steam generation and cooling at its Lamb County power plants. "They'll still be able to pump all they want," the speaker said. "I mean, I know everybody wants electricity. I want electricity, too. But this is everybody's water. It's not just their water" (June 27, Levelland). A representative of Xcel countered that the company uses just 4% of the county's groundwater and has various technological systems in place for reclaiming and reusing water.

A theme that has been present in American history since the Revolution is that of conflict between urban and rural interests. Often the big city is demonized as a monster looming over much lower populated, vulnerable rural areas. One speaker at the Levelland hearing echoed a common complaint that residents of Lubbock and even the city government itself is careless, allowing water to run down the streets and watering in the heat of the day. In West Texas this urban versus rural story line reached its climax in the spring before these hearings. That's when oil businessman and Panhandle landowner T. Boone Pickens backed off his proposal to sell water from under his land to San Antonio or Dallas, 2 cities several hundred miles to the Southeast. Instead, a deal was reached to keep the water for smaller rural Panhandle municipalities as Pickens agreed to sell his rights to the Canadian River Municipal Water Authority (Blackburn 2011a). Certainly this agreement helped diffuse much of the anger toward Pickens, and resolved much of the story line that had him as the monster.

Uneasiness among rural Texans toward the growing urban islands in their midst has led to subtle twists in the overcoming-the-monster story line, particularly in how that story accommodates the rugged individualist character. As we have seen, the 1904 Texas Supreme Court introduced what might have been the 20th century's mantra of muscular individualism, "the rule of capture," into Texas parlance; that phrase on its own, however, does not convey any value judgment for the 21st century on how large a capturing entity might be. Indeed, the law has been paraphrased half jokingly in Texas lore as "the law of the biggest pump."

Perhaps not surprisingly, then, the rule of capture itself has been characterized as a kind of monster—the mythological Greek Hydra, a water snake with many heads that has the power to regenerate those heads when severed. In a scholarly article, Eric Opiela—a Karnes City, Texas lawyer and candidate for the 2014 Texas Agriculture Commissioner Republican primary—called the rule of capture "outdated," in part, he argued, because it makes distinctions now disproven between surface water and groundwater, and because it was enacted before the growth of large cities and their big pumps. Evoking the shapeshifter and trickster image he concluded that "The rule of capture has grown from a simple tort preclusion doctrine into a two-headed Hydra that also purports to recognize a property right in groundwater" (Opiela 2002 p. 13). Undoubtedly this theme (cities as monsters) that is underlying the Texas Agriculture Commissioner race in late 2013, and which appeared briefly in the 2011 High Plains water district hearings, will continue well into the 21st century as a compelling story line.

CONCLUSION: GOOD GUY-BAD GUY STORIES WILL PERSIST IN WATER POLICY

Three weeks after the HPUWCD hearings in Dimmitt and Levelland, the board of directors voted to approve the amended 50/50 management plan for its portion of the Ogallala Aquifer. The vote at the July 19, 2011 board meeting was 4-0 in favor of the plan. The following year, in August 2012, a group calling itself "Protect Water Rights Coalition" mailed out a newsletter with the headline "Taking Property Is Not Conservation," accusing the water board of being dysfunctional and announcing that the protest group had sought legal counsel (Protect Water Rights 2012) [18]. The water district followed with a post card titled "Rumor VS Fact" that said nothing had changed from the July 19 vote—countering rumors that the district would not enforce the new policies (HPUWCD no date). But the following year, at an October 8, 2013 meeting, the HPUWCD directors agreed to hold a hearing before the next board meeting to consider an additional 1-year moratorium on penalties for landowners who did not install new wells (Musico 2013b) [19]. At that November 12, 2013 meeting, they voted unanimously for the 1-year extension through the end of 2014; the vote came after all but one of a dozen speakers rallied either for the extra time or for doing away with the 50/50 policy permanently. Speakers, including some from the water rights coalition, reprised themes of property rights and "water-grabbing" government officials in the state capital, Austin. "I think DFC (desired future conditions) is linguistic trickery," one landowner said. "Desired means mandatory"(HPUWCD November 2013 hearing, author's notes). The landowner who did not want the moratorium extended likened the Ogallala's condition now to an old cattle trail chuck wagon carrying a water pail, with cowboys dipping more than their fair share—thus, jeopardizing the entire journey. Clearly the 50/50 debate and the colorful story lines that people use to understand it will continue for the foreseeable future.

Of course, it must be emphasized that the comments quoted in this article came from just a few of the hundreds of people who attended the various HPUWCD hearings. Many producers seem at peace with the ruling. Yet, the persistence of these kinds of comments at such hearings reveals that Elmer Kelton's fierce individualist Charlie Flagg is still very much alive in West Texas. Charlie does not sound quite as angry in Kelton's novel of 1950s Texas as the outspoken Lubbock-area cotton farmers do—perhaps only because he boycotted such government meetings. But no doubt he would recognize the frustration felt by such rebels.

Paradoxically, while anti-government attitudes remain strong in rural Texas today, so does the willingness to take federal subsidies for crop insurance and other such assistance. Texas ranks number one in such subsidies—$27.3 billion worth between 1995–2012, according to U.S. Department of Agriculture figures gathered by the Washington D.C.-based Environmental Working Group. Texas received the largest total subsidy amount for the period of any state, with other farm belt states like Iowa and Illinois coming close behind (EWG 2013) [20].

The coexistence of anti-government attitudes with acceptance of subsidies at least among some producers exhibits a key finding in this research. All of us embody multiple perspectives that at times are fragmented and paradoxical, modulated by expediency, pragmatism, and the need for economic well-be-

[18] The water rights coalition has since established an Internet presence with a Web page whose mission as stated is "fighting non-compensated government takeover of private property"(Protect Water Rights Coalition 2013); the group also has a Facebook page with links to various media interviews.

[19] Composition of the HPUWCD board of directors by 2013 had changed substantially from the 2011 board that passed and amended the 50/50 rule. Two of the 5 directors had resigned and another 2 were defeated in the 2012 election. Turmoil over the new district water restrictions and metering requirement likely contributed to the turnover, according to *Lubbock Avalanche Journal* reports (Young 2013). Additionally, long -time District Manager Jim Conkwright retired in the summer of 2013; the board chose farmer and former South Plains Underground Water Conservation District Director Jason Coleman as the new manager.

[20] The issue of farm subsidies increasingly has become a topic of debate in regional and national politics. Some argue that they often are an unfair entitlement to already wealthy farmers and should be eliminated. Others counter that such subsides are necessary to ensure the stability of the U.S. food and fiber supply given unpredictable weather and economic variables. The debate brought challenges to Texas Gov. Rick Perry's credentials as a Charlie Flagg brand of fiscal conservative in his bid for the 2011 Republican Presidential nomination when news media reported that he had taken $9,624 from the Conservation Reserve Program between 1991 and 1998—admittedly a small, but symbolic amount (Ratcliffe 2011)

ing. Knowledge of water and the aquifer is derived from multiple domains (science, history, religion, law, etc.). But as we have seen in this article, all these types of knowledge of natural phenomena and their impacts on people contain stories with plots. Some of the most powerful of these stories are archetypal accounts of good and bad, cause and effect. An account of a natural phenomenon or event, such as drought, that blames identifiable groups (cities, oil drillers, government employees) may not work for consensus building, but accounts that downplay human responsibility may be ineffective. The plot does not convince us; sadly, we seem to need a human enemy, not some vague enemy like drought, or worse, an enemy that is the child of all of us, like climate-change gasses. There is always an urge to find the bad guy.

The need for good and bad characters may be strongest in cultures with a strong monotheistic religious background, where creating a shared identity among God's people also requires an outside group that is ungodly. Such in-group–out-group identity formation is especially necessary in areas of scarce resources (e.g. water), according to scholar of religion Regina M. Schwartz. In *The Curse of Cain: the Violent Legacy of Monotheism* she asserts that the notion of a Biblical covenant between God and his people "has left a troubling legacy of the belief in land entitlement, one that continues to ghost territorial disputes" (Schwartz 1997 p. 42). When West Texas farmers and ranchers argue that they have worked the land for more than 100 years only to face onerous restrictions now, they in effect are arguing that government policy is threatening their covenant with God.

The federal or state government is easily portrayed as the enemy or monster at large—even the Antichrist of Biblical prophecy. Robert Fuller in his book, *Naming the Antichrist: The History of an American Obsession* asserts that millions of Americans hold an apocalyptic worldview that ultimately means the triumph of believers over the out-group. "Because they tend to view their nation as uniquely blessed by God, they have been especially prone to demonize their enemies," Fuller writes (1995 p. 4-5).

Elmer Kelton's Charlie Flagg did not share such a strong identity with Biblical prophecy as Schwartz and Fuller are identifying. He was much more the pragmatist. Like many farmers he might pray for rain, but also would work hard to ensure that at least some of his stock survived if God did not oblige. His suspicion of government agriculture programs and pity for those who took such aid was perhaps less borne out an apocalyptic worldview and more out of the pragmatic belief that no one can better care for his or her resources than the person who owns them and depends upon them.

Still, Kelton as a West Texan embodied the strong Protestant ethic that dominates the region. Perhaps because of this strong ethic evident in his prose, not everyone has been smitten with Kelton's novel. The author of this article has encountered several people including some students whose response to the novel was more in line with that of University of Texas literary scholar Don Graham, who has dismissed Kelton's writing and themes as being overly steeped in Calvinistic self-denial, a style of "staid rectitude" (Graham 2011 p. 50). One colleague of the author of this *Texas Water Journal* commentary article put the book down after a few pages, offended by Charlie Flagg, who he said, reminded him too much of his own "authoritarian daddy."

Yet, in trying to forge some kind of consensus about water conservation and other environmental issues in Texas, it is vital to consider attitudes that are admired as part of the Texas rural heritage. Such attitudes may seem rife with paradoxes, streaked with stubborn individualism. Thus, we can look forward to many legal and political battles over ever-scarcer water resources and over policies such as the 50/50 rule that aim to preserve some of that water in the Ogallala Aquifer. And we can wonder with some apprehension whether such individualism is sustainable for Texans, indeed for the millions worldwide who suffer from lack of water and from other environmental deprivations. Still, we cannot ignore those attitudes or fail to respect them, or fail to take into account the very human tendency to translate complex and often contradictory knowledge from multiple domains into a less confusing story line.

Those involved in water science, law, and policy who are practiced and fluent in the specialized language and knowledge afforded by their fields may at times be frustrated when trying to introduce their expertise into the public—especially when that public's economic livelihood and traditions are challenged by the specialized expertise. Such threats to one's traditions inevitably will evoke anxiety, and anxiety is a breeding ground for narratives involving good and evil—the battle against monstrous outside forces. The resulting chain of responses to threats is universal in human society; no one of us is immune to this "fight or flight" instinct.

Therefore, the most penetrating lesson of this research would seem to be that anyone involved in water policy or any other policy, for that matter, must always be aware that specialized knowledge will often be heard in a quite a general way—a familiar story line that places the hearer in a situation that requires all of his or her wit and wherewithal to prevail. Often such stories borne out of anxiety will fade over time and the realization that regardless of what stories one follows, the science is unequivocal—in this case, that the Ogallala Aquifer is being depleted rapidly. Cooperation and conservation are necessary to preserve at least part of it for the next generations.

For now the HPUWCD's willingness to hold repeated hearings on the same water policy issues would seem to be the most prudent course of action. One would have to think that the tenacious Charlie Flagg ultimately would learn from

a patient government board like the HPUWCD, even as his story was likewise teaching and inspiring members of that board.

REFERENCES

Ashworth W. 2006. Ogallala blue. Woodstock (Vermont): The Countryman Press. 330 p.

Austin American Statesman Editorial Board. 2011 July 23. 'The time it never rained' has come again. Austin American Statesman. [Internet]; [cited 2013 June 10]; Available from http://www.statesman.com/news/news/opinion/the-time-it-never-rained-has-come-again/nRcst/

Blackburn E. 2011a April 8. City supplier buys Pickens' water rights. Lubbock Avalanche Journal [Internet]. [cited 2013 June 10]. Available from: http://lubbockonline.com/local-news/2011-04-08/city-supplier-buys-pickens-water-rights

Blackburn E. 2011b March 27. Water conservation district to drop plans for strict rules on water use. Lubbock Avalanche Journal [Internet]. [cited 2013 June 10]. Available from: http://m.lubbockonline.com/local-news/2011-03-27/water-conservation-district-drop-plans-strict-rules-water-use

Booker C. 2004. The seven basic plots: why we tell stories. New York (New York): Continuum. 713 p.

Brauer DK. 2009. Desired future conditions in Texas: what is it about and why should agricultural researchers care? Wetting Front: Soil and Water Management Research News [Internet]. USDA-ARS Conservation and Production Research Laboratory. [cited 2013 June 12]: Winter 2009. Available from: http://www.cprl.ars.usda.gov/Wetting%20Front/WF_Vol11-No2.pdf

Burns R. 2012 February 1. Drought may mean more dryland cotton in Texas High Plains. Southwest Farm Press [Internet]. [cited 2013 June 10] Available from: http://southwestfarmpress.com/cotton/drought-may-mean-more-dryland-cotton-texas-high-plains

Decker JM. 2011. The time it never rained, part two. Cattle Call: The Voice of NCBA's Young Producers' Council [Internet]. [cited 2013 June 10]; Available from: http://thecattlecall.wordpress.com/tag/james-decker/

Eckstein G, Hardberger A. 2009. Scientific, legal, and ethical foundations for Texas water law Texas Tech School of Law Legal Studies Research Paper Series [Internet]. Lubbock (Texas): [cited 2013 June 12]: 5-35; No. 2010-10. Available from: http://ssrn.com/abstract=1560007

[EWG] Environmental Working Group. 2013. EWG farm subsidies. Environmental Working Group [Internet]. Washington (DC): Environmental Working Group. c. 2007–2013 [cited 2013 June 10]. Available from: http://farm.ewg.org/progdetail.php?fips=48000&progcode=total&page=states&regionname=Texas

Fuller R. 1995. Naming the antichrist: the history of an American obsession. New York (New York): Oxford University Press. 232 p.

Graham D. 2011. State of minds: Texas culture & its discontents. Austin (Texas): University of Texas Press. 183 p.

Green DE. 1973. Land of the underground rain. Austin (Texas): University of Texas Press. 295 p.

Herman D. 2002. Story logic: problems and possibilities of narrative. Lincoln (Nebraska): University of Nebraska Press. 477 p.

[HPUWCD] High Plains Underground Water Conservation District. 2011 March. Meetings scheduled for public comments on proposed amendments to District rules. Cross Section [Internet]. Lubbock (Texas): High Plains Underground Water Conservation District. [cited 2013 June 10]; 57(3). Available from: http://www.hpwd.com/public/pdfs/March%202011%20Cross%20Section.pdf

[HPUWCD] High Plains Underground Water Conservation District. 2013. Ogallala Aquifer. High Plains Underground Water Conservation District [Internet]. Lubbock (Texas): High Plains Underground Water Conservation District; [cited 2013 June 10]. Available from: http://www.hpwd.com/aquifers/ogallala-aquifer

[HPUWCD no date] High Plains Underground Water Conservation District. No date. Rumor vs fact. High Plains Underground Water Conservation District. Postcard mailed in 2012 to producers and others.

Hoff C. 2013 January 24. Shaken and stirred: for many, job losses mean leaving friends, family, home. Lubbock Avalanche Journal. Sect. A 1 (col. 30). Available from: http://lubbockonline.com/business/2013-01-23/when-cargill-plant-closes-many-workers-will-leave-plainview

Johnson RS, Ellis GM. 2013. A new day? Two interpretations of the Texas Supreme Court's ruling in Edwards Aquifer Authority v. Day and McDaniel. Texas Water Journal [Internet]. [cited 2013 June 10]; 4(1):35-54. Available from: http://journals.tdl.org/twj/index.php/twj/article/view/6990

Johnson WD. 1900/1901. The High Plains and their utilization. U.S. Geological Survey Annual Report. Vol. 21: Part IV. 609-741.

Kelton E. 1973/1984. The time it never rained. New York (New York): Tom Doherty Associates (A Forge Book). 400 p.

Kelton E. 2008 July. True grit. Texas Monthly [Internet]. [cited 2013 June 11]; Available from: http://www.texasmonthly.com/story/true-grit?fullpage=1

Killingsworth MJ. 2005. Appeals in modern rhetoric: an ordinary-language approach. Carbondale (Illinois): Southern Illinois University Press. 172 p.

Lesikar B. Kaiser R. Silvy V. 2002. Questions about groundwater conservation districts in Texas [Internet]. College Station (Texas): Texas Cooperative System, Texas Water Resources Institute, The Texas A&M University System; [cited 2013 June 11]. SR-2002-036. Available from: http://ebookbrowse.com/gdoc.php?id=402656681&url=353916ae68a145471cbe310aa328b726

Mace RE, Petrossian R, Bradley R, Mullican WF 3rd, Lance C. 2008. A streetcar named desired future conditions: the new groundwater availability for Texas (Revised) [Internet]. Austin (Texas): Texas Water Development Board; [cited 2013 June 12]. Available from: http://www.twdb.texas.gov/groundwater/docs/Streetcar.pdf

Mace RE, Ridgeway C, Sharp JM Jr. 2004. Chapter 5: Groundwater is no longer secret and occult – a historical and hydrogeologic analysis of the East case. In: Mullican WF 3rd, Schwartz S, editors. 100 years of rule of capture: from East to groundwater management [Internet]. Austin (Texas): Texas Water Development Board; [cited 2013 June 12]. p. 63-88. Report 361. Available from: https://www.twdb.state.tx.us/publications/reports/numbered_reports/doc/R361/5%20CH%20Mace.pdf

Marcou J. 1858. Geology of North America with two reports: The Prairies of Arkansas and Texas, The Rocky Mountains of New Mexico, and the Sierra Nevada of California. Originally made for the United States Government. Paris: printed for the author by Zurcher and Furrer. 144 p.

McCloskey D. 1998. 2nd edition. The rhetoric of economics. Madison (Wisconsin): University of Wisconsin Press; 248 p.

Miller JJ. 2010 January 25. Conservative lit 101. National Review Online [Internet]. [cited 2013 June 11]; Available from: http://www.nationalreview.com/node/193637

Mullican WF 3rd, Schwartz S, editors. 2004. 100 years of rule of capture: from East to groundwater management. Austin (Texas): Texas Water Development Board. 173 p. Report 361. Available from: http://www.twdb.texas.gov/publications/reports/numbered_reports/doc/R361/R361.pdf

Musico J. 2013a Nov 10. Limited water means Innovations to agriculture. [Internet]. [cited 2013 November 11]. Available from: http://lubbockonline.com/local-news/2013-11-09/limited-water-means-innovations-agriculture

Musico J. 2013b Oct 8. Water district to consider delaying landowner requirements. Lubbock Avalanche Journal [Internet]. [cited 2013 October 15]. Available from: http://lubbockonline.com/local-news/2013-10-08/water-district-consider-delaying-landowner-requirements

Nielsen-Gammon JW. 2012. The 2011 Texas drought. Texas Water Journal [Internet]. [cited 2013 June 10]; 3(1):59–95. Available from: http://journals.tdl.org/twj/index.php/twj/article/view/6463

[Numbers 20: 7-8]. In: Coogan, MD, editor. The New Oxford Annotated Bible. New York (New York): Oxford University Press; 1973/1977/1991. 638 p.

Ong WJ. 1982. Orality and literacy: the technologizing of the word. New York (New York): Routledge. 204 p.

Opiela E. 2002. Commentary: The rule of capture in Texas: an outdated principle beyond its time. University of Denver Water Law Review. Fall, 2002:87. 34 p. Available from: http://www.texscience.org/water/rule_capture/Opiela_2002_rule_of_capture_texas_outdated_principle.pdf

Pielou E C. 1998. Fresh water. Chicago (Illinois): University of Chicago Press. 275 p.

Potter HG, III. 2004. History and evolution of the rule of capture. In: Mullican WF 3rd, Schwartz S, editors. 2004. 100 years of rule of capture: from East to groundwater management. Austin (Texas): Texas Water Development Board; 1-9. Report 361. Available from: http://www.twdb.texas.gov/publications/reports/numbered_reports/doc/R361/R361.pdf

[PCG]. Plains Cotton Growers Inc. 2004. High Plains cotton production 1928-present [Internet]. [cited 2013 June 11]; Available from: http://www.plainscotton.org/esw/stats/1928-Present.html

Protect Water Rights Coalition Newsletter 2012 August. Taking property is not conservation. Also available [Internet] [Cited 2013, November 11] from: http://www.protectwaterrights.com/Newsletter.html

Protect Water Rights Coalition 2013. [Internet] [Cited 2013, November 11] from: http://www.protectwaterrights.com/

Ratcliffe RG. 2011 October 7. Will subsidies to farmer Perry come back to haunt presidential hopeful Perry? Austin American Statesmen [Internet]. [cited 2013 Oct 15]. Available from: http://www.statesman.com/news/news/state-regional/will-subsidies-to-farmer-perry-come-back-to-haun-1/nRdK5/

Renault D. 2002. Value of virtual water in food: principles and virtues. Land and Water Development Division (AGL), Food and Agriculture Organization of the United Nations [Internet]. [cited 2013 June 10]. Paper presented at the UNESCO-IHE Workshop on Virtual Water Trade 12-13 December 2002 Delft, the Netherlands. Available from: http://www.fao.org/nr/water/docs/VirtualWater.pdf

Ritivoi AD. 2005/2008. Identity and narrative. In: Herman D, Jahn M, Ryan M-L, editors. Routledge encyclopedia of narrative theory. Abingdon (Oxon): Routledge. 231-235.

[SB 332 Texas Legislature online] 2011. Texas Legislature [Internet]. [cited 2013 June12]; Available from: http://www.capitol.state.tx.us/tlodocs/82R/billtext/pdf/SB00332F.pdf

Schwartz RM. 1997. The curse of Cain: the violent legacy of monotheism. Chicago (Illinois): University of Chicago Press. 211 p.

Stanton JS, Qi SL, Ryter DW, Falk SE, Houston NA, Peterson SM, Westenbroek SM, Christenson SC. 2011. Selected approaches to estimate water-budget components of the High Plains, 1940 through 1949 and 2000 through 2009 [Internet]. Reston (Virginia): U.S. Department of the Interior, U.S. Geological Survey; [cited 2013 June 10]. Scientific Investigation Report 2011-5183. Available from: http://pubs.usgs.gov/sir/2011/5183/pdf/sir2011-5183.pdf

Texas Water Code [modified 2007 August 11]. Texas Water Code - Section 36.108, Joint Planning In Management Area, Section d) [Internet]; [cited 2013 June 10].Available from: http://law.onecle.com/texas/water/36.108.00.html

Torres G. 2012. Liquid assets: groundwater in Texas. Yale Law Journal Online [Internet]. [cited 2013 June 10]; 121(2012 Dec 4). Available from: http://yalelawjournal.org/2012/12/4/torres.html

[USGS] U.S. Geological Survey. [modified 2013 April 29. National Water-Quality Assessment Program. High Plains regional groundwater study: High Plains aquifer system [Internet]. Reston (Virginia): U.S. Department of the Interior, U.S. Geological Survey. [cited 2013 Jun 11]. Available from: http://co.water.usgs.gov/nawqa/hpgw/HPGW_home.html

Young, Adam. Turnover continues on water district board, replacement sought. Lubbock Avalanche Journal [Internet]. [cited 2013 November 12]. Available from: http://lubbockonline.com/business/2013-03-20/turnover-continues-water-district-board-replacement-sought