STANDING UP TO EXPERTS: THE POLITICS OF PUBLIC EDUCATION

Scott Thurman, B.F.A.

Thesis Prepared for the Degree of

MASTER OF FINE ARTS

UNIVERSITY OF NORTH TEXAS

December 2010

APPROVED:

Ben Levin, Major Professor
C. Melinda Levin, Committee Member and
   Chair of Department of Radio,
   Television and Film
Ron Wetherington, Committee Member
James D. Meernik, Acting Dean of the Robert
   B. Toulouse School of Graduate Studies
James D. Meernik, Acting Dean of the Robert
   B. Toulouse School of Graduate Studies
In a small room in Austin, Texas, a group of 15 people are single-handedly deciding what is taught to the next generation of American children. The highly politicized 15 member Texas Board of Education is currently going through the once-in-a-decade process of rewriting the teaching and textbook standards for its nearly 5 million schoolchildren. Texas is also unbelievably influential on the standards that textbook publishers use as a basis for their textbooks nationwide. Over the last 10 years, the textbooks adopted by this board found their way in upwards of 65% of American classrooms. My goal is to shed light on this important issue and the key players in this process – I explain their goals, explore the scope of their influence, and delve into the personal motivations behind their actions, which will affect public education throughout the country.
Copyright 2010

by

Scott Thurman
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>INTRODUCTION</td>
<td>1</td>
</tr>
<tr>
<td>Treatment</td>
<td>1</td>
</tr>
<tr>
<td>Goals of the Production</td>
<td>2</td>
</tr>
<tr>
<td>Feasibility</td>
<td>4</td>
</tr>
<tr>
<td>Equipment</td>
<td>6</td>
</tr>
<tr>
<td>Funding</td>
<td>7</td>
</tr>
<tr>
<td>Creative Team</td>
<td>8</td>
</tr>
<tr>
<td>PRE-PRODUCTION</td>
<td>10</td>
</tr>
<tr>
<td>Subject Matter Research</td>
<td>10</td>
</tr>
<tr>
<td>Character Research</td>
<td>17</td>
</tr>
<tr>
<td>Distribution Possibilities and Audience</td>
<td>21</td>
</tr>
<tr>
<td>Theories and Rationales</td>
<td>23</td>
</tr>
<tr>
<td>Documentary Films</td>
<td>24</td>
</tr>
<tr>
<td>PRODUCTION</td>
<td>28</td>
</tr>
<tr>
<td>Overview</td>
<td>28</td>
</tr>
<tr>
<td>Ethical Issues and Challenges</td>
<td>29</td>
</tr>
<tr>
<td>Reconceptualization during Production</td>
<td>31</td>
</tr>
<tr>
<td>Releases, Copyright and License Agreements</td>
<td>32</td>
</tr>
<tr>
<td>POST-PRODUCTION</td>
<td>33</td>
</tr>
<tr>
<td>Overview</td>
<td>33</td>
</tr>
<tr>
<td>Style and Theory</td>
<td>35</td>
</tr>
<tr>
<td>EVALUATION OF CREATED WORK</td>
<td>38</td>
</tr>
<tr>
<td>Pre-Production</td>
<td>38</td>
</tr>
<tr>
<td>Production</td>
<td>40</td>
</tr>
<tr>
<td>Post-Production</td>
<td>41</td>
</tr>
<tr>
<td>Success in Integrating Proposed Theories</td>
<td>42</td>
</tr>
<tr>
<td>CONCLUSION</td>
<td>44</td>
</tr>
</tbody>
</table>
Appendices

A. BUDGET ITEMIZATION ............................................................................................. 45

B. DISTRIBUTION OUTLETS..................................................................................... 49

C. PRODUCTION and POST PRODUCTION SCHEDULE........................................... 51

BIBLIOGRAPHY ............................................................................................................. 54
INTRODUCTION

Treatment

In a small room in Austin, Texas, a group of fifteen people are deciding what is taught to the next generation of American children. Texas is currently going through a once-in-a-decade process of rewriting its’ textbook standards, which is decided upon by the highly politicized 15-member State Board of Education. Concern over the standards has developed across the United States, because this board not only influences textbooks in Texas, but also throughout the whole nation.

After the 2006 election, Republicans claimed 10 of 15 board seats. Seven were held by far right conservatives, and one by a close ally considered a swing voter, giving the far right an effective majority. The right wing faction of the State Board of Education (SBOE) aims to have students discuss the weaknesses of evolutionary theory in science class, define the United States as a Christian nation governed by Christian principles and clear up misconceptions about the concept of “separation between church and state,” which they rightfully claim was not exactly written in the Constitution. Conservatives argue that the language in previous textbooks originated from a liberal academic perspective.

Textbooks must be in line with the Texas Essential Knowledge and Skills, or TEKS to be purchased by the state. Teachers, professors, business people, and even parents can serve on writing teams that craft the original TEKS document. The document goes through a revision process as the writing teams make corrections based on SBOE, public and expert advice. A majority of the board passes the final language in the TEKS and then textbook publishing companies that want to market their products in Texas begin adjusting content in their books accordingly.
Chairman of the Board Don McLeroy stated in a March 2009 hearing, “I disagree with these experts. Somebody’s got to stand up to experts!” He was referring to experts from the National Academy of Sciences and one particular science expert in the board room, Ron Wetherington. McLeroy’s passion for the language in the TEKS document may be appropriate; after all, it acts as a framework for the teachers. The board also selects which textbooks will be provided to the public schools from the Texas Permanent School Fund.

All the polarizing issues found in the current environment of national politics are played out in this small meeting room in Austin, Texas. Standing Up to Experts shines a spotlight on the key players in this process – their goals are explained, the scope of their influence is explored, and the personal motivations behind their actions are discussed. The players in this film represent a wide array of personalities and desires. Some see the board as a stepping-stone to future political success. Others see it as their ordained quest to preserve the teachings of the Bible. Still others see it as their duty to ensure that their children, who are in public schools, have access to the best possible education that will prepare them to compete for jobs in the global marketplace. In all of this, one thing is assured---these board members are in the right place at the right time. They have the opportunity to affect a generation of Americans. And as Abraham Lincoln said, “The philosophy of the classroom in one generation will be the philosophy of government in the next.”

Goals of the Production

Simply put, the goal is to show people something they don’t know. The film will startle viewers with information about the board’s influence, brief them on the political process of revising educational standards, and encourage individuals to take a more active role in the
political issues that effect the education of children. Viewers will also be impacted by the tension between real people who represent opposing views on everything from the science of evolution to the “separation of church and state.” Politicians representing constituents throughout the state with differing opinions on everything from the intent of our founding fathers to the validity of scientific theories eventually reconstruct the final language in the TEKS. Board members like Don McLeroy, who take an active role in revising the TEKS language, have stated that they don’t want to simply be a “rubber stamp” for experts.

By hearing from board members and from educators and experts outside of the meetings, viewers will more deeply understand the individuals who play key roles in shaping Texas’ educational standards. I’ve been invited into their homes and allowed to question their personal views and bring such into the open. Likewise, I have shown each person’s participation within the community in an ultimate effort to put into context their thoughts and actions at board meetings, as well as develop personalities with which a broader demographic can connect. By soliciting comments and suggestions from each after showing them clips of the edited film, I intend to tell a story where all major participants are pleased with the way they have been represented. I don’t plan to compromise my overall intent by catering to each person’s opinions; however, I do want to create a balanced view of the issue and have participation from major characters in panel discussions after the film is shown. Along with responses from faculty and peers, this feedback is important in achieving a more objective perspective and eventually more discernable to a larger audience.

By asking intriguing philosophical questions about the role of science in our daily lives and the influence of religious perspectives on our governmental policies, I’d like to encourage viewers personally to continue questioning and seeking satisfying information, without being
spoon-fed “correct solutions" to issues. The documentary has the potential of informing a wider segment of the public on this matter and, in so doing, should motivate individuals to become more informed participants in future approval processes. Such will occur only if I have achieved my goal in motivating audiences to seek information beyond the content of the film.

*Standing Up to Experts* is about understanding the relationship between science, American history, religion, and politics. It’s also an interesting documentation of characters involved with the political situations surrounding the Texas State Board of Education as well as the opportunity for those individuals to voice their opinions during an important era for public education in Texas and throughout the nation.

**Feasibility**

In 2008, I became interested in science education in the United States, especially the teaching of evolution. After reading an article in the *New York Times* by theoretical physicist, Briane Greene, on the role that science plays in our daily lives, I wanted to know more about the current science education that children in Texas were receiving. As I began making contacts in Texas with science teachers and experts, I learned about the many political issues surrounding the Texas State Board of Education and how they were affecting the future of the state’s science education programs. I began traveling to Austin every other month to record State Board of Education (SBOE) meetings, while slowly gaining access to board members, as well as state and national leaders involved in science education.

In 2009, I contacted two opposing political groups active on SBOE issues. Both organizations provided information to the public and had a vocal presence at board meetings through public testimony and press conferences. These groups were headed by two articulate
spokespeople, Kathy Miller for the Texas Freedom Network on the political left and Jonathan Saenz for the Free Market Foundation (now Liberty Institute) on the political right. Both were naturally open to being on camera, and as our personal friendships grew, I was able to find additional time with both as they worked in the office and on other assignments at the capital.

Later in the year, I gained more access to two right-wing members on the SBOE, Don McLeroy and Cynthia Dunbar. At this point I still intended to provide detailed explanations of scientific theories and unfold multiple political points but soon realized I needed to broaden the message because I didn’t have time to cover the details of each issue. The people were becoming much more interesting to me than the issue, and as I earned their trust, I found myself in a better position to tell the personal stories of a few influential characters as they were connected to these political issues.

Early on, I remember some tips from documentary film director Albert Maysles as he described working with subjects and gaining trust--“The determining factor is I empathize with the people I film” (Stubbs 5). Maysles goes on to talk about how documentary filmmakers also perform a very basic need for their subjects, “You’re paying attention to that person, you’re giving access to that person, you’re fulfilling for that person a very basic need that we all have, the need to be recorded exactly for what we are” (Stubbs 6). Perhaps the main characters I’ve chosen have given me a small amount of access because they trust me, or maybe they simply want to be heard. Through my empathy with them over the last couple years, they’ve allowed me to act as a conduit for their public message.

Don McLeroy takes every opportunity to speak with the press and has been painfully open to the sharp pens of “liberal” media. Don has allowed me even more intimate access to his activities and perspectives, but with that intimacy comes an even greater responsibility to portray
Don fairly. Cynthia Dunbar is also very open to the press, but she is much more guarded with her message, basing her words on the makeup of the audience. Eventually, I would have to follow Dunbar to Washington D.C. to record a public speech she gave at a political prayer rally. After a year of developing these relationships, I was more poised to tell the story and have since made every effort at portraying these characters in a fair and honest way, especially since they’ve trusted me to do so.

**Equipment**

As a graduate student at the University of North Texas, I’ve been granted access to professional equipment that will help me achieve my goal. I used the Panasonic HVX-200A throughout the entire project; I later shot most of the primary footage with the Panasonic HPX-500. These cameras have worked especially well for documentary filming due to the 200A’s small size in combination with the extremely high quality images from the 500. I’ve kept the aspect ratio consistent at 16:9 and the frame rate at 24p for a more filmic look. In the beginning, I was shooting 1/24 shutter speed and later switched to 1/60, after I found the 1/24 caused the video to flicker near fluorescent lights. The tripod has always been used for interviews and at Board meetings, but more recently I’m using it more during Observational shoots as I’ve learned to anticipate activity. At times, a nice compromise was a monopod, but it was difficult to pan with.

Audio is an important aspect of production, and my strategies for getting the best quality sound more often dealt with whom I had on my crew rather than the actual recording space. For some shoots, I’ve been on my own, placing the boom microphone on top of the camera. For board meetings, an extra long XLR cable allowed me to plug directly into an audio feed supplied
by Texas Education Agency staff. The extra long cable was needed due to the large number of news cameras in the area. Sound from the boom microphone on one track and an audio feed from the board on track two allow me to have a backup if needed. I can also mix the two tracks together to provide clear audio and a subtle echo that reinforces the feeling of being there. For observational shoots, wireless microphones allow us to hear key characters in conversation from at least 50 feet away. These small wireless microphones often save the day when I can’t get the camera setup quick enough or the subject is not within view. I did have a few technical problems along with environmental difficulties such as dealing with the wind or walls, but the advantages these wireless microphones provided made them worth using. However, I did learn to take several backup wireless microphones, along with a pocket of AA batteries. Interviews were done using a combination of boom and wireless microphones, ensuring good audio quality from multiple sources.

The lighting equipment used for interviews included a light box as the key light, a reflector for fill, and a pro light with the umbrella reflector for the background, providing a nice gradient shift from white to grey. For outdoor conversations, a reflector was often used in shady spots because I directed characters away from hot spots (over-exposed areas). A white projector screen was used as the background for all interviews, allowing me to keep a consistent look throughout. During post-production, I’ve continued to use Final Cut Pro software to edit the film, along with Adobe Photoshop for still images.

Funding

The documentary budget, which includes the crew, travel, and food expenses, from pre-production through post-production, totals $6,800. I’ve received production funding from the
Texas Filmmakers Production Fund. Several possible distribution/marketing grants for which I may receive funding include the Sundance Institute Documentary fund, Gucci-Tribecca fund, and the Humanities Texas fund. Additionally, I will be working with special interest groups who can help promote private screenings in an attempt to acquire additional financial support.

Creative Team

• Scott Thurman, Director, Producer, Editor, and Cinematographer: Scott is a graduate documentary filmmaking student at the University of North Texas. He earned a Bachelor of Fine Arts degree from Texas Tech University, with a focus on digital photography and printmaking.

• Billy Loftin, Assistant Camera: Billy has been the chief photographer at KVII Ch. 7 in Amarillo for the past eight years.

• Zac Sprague, Assistant Camera: Zac earned a Bachelor of Arts from UNT and currently resides in Austin, Texas, as a freelance photographer and editor. Zac has also served as the assistant director of photography for Standing Up to Experts for the second half of production.

• Fadi Wahbeh, Production Sound: Fadi is a graduate documentary filmmaking student at UNT and has assisted Scott with the production of Standing Up to Experts for the past two years.

• Daryn Williams, Assistant Editor: Daryn is also a graduate documentary filmmaking student at UNT and has assisted Scott with editorial organization and sequence development.

• Byron Flescher, Photographer: Byron works as a commercial photographer in Austin and has assisted with production stills during the SBOE meetings.
• Vijay Dewan – Researcher: Vijay is an attorney in New York and has contributed to the research for both science and history/social studies curriculum.
PRE-PRODUCTION

Subject Matter Research

My interest in science sparked around 5th grade, but in the last few years I’ve become more interested in America’s understanding of the nature of science. I found a Gallup poll with information on Americans’ acceptance of evolutionary theory, which stated that almost half of the population does not accept evolution, specifically human evolution. The topic of evolution is interesting to me because it’s a very contentious issue that has major social and theological implications. At the time, I intended to do a short documentary on a biology teacher in Texas whom I could observe in the classroom, in an effort to highlight lessons on human evolution. I hoped to provide the public with a better understanding of the science of evolution as it was commonly misunderstood by both those who accepted and rejected the theory. In addition, my goal was to promote enthusiastic and creative teaching strategies for current and future teachers.

Like most states, Texas needs more qualified teachers. As I began talking to science teachers and administrators, I learned that many of them were concerned about recent political policies that may have compromised the scientific integrity of instruction in the classroom. Board members have the power to amend science standards for public schools, which act as a framework for the curriculum that teachers follow. I decided to switch topics to the State Board of Education because I was having trouble gaining permission to bring a camera into public schools. I also felt the political situation would be more accessible and interesting to a larger audience.

Before I began research on the State Board of Education, a few things in popular culture caught my attention and motivated me to address this topic. In 2008, I saw a documentary called Expelled and felt it was a serious threat to science education, specifically the public’s
understanding of evolution. *Expelled* is a documentary that follows narrator Ben Stein as he interviews science professors who claim they have been “expelled” from universities and research groups for their advocacy of intelligent design and criticism of Darwinian evolution. Intelligent design proposes that certain aspects of our world are a result of an intelligent cause, rather than undirected, natural processes. As I learned more about *Expelled*, I discovered a website rebuttal to the film called “Expelled Exposed,” sponsored by the National Center for Science Education (NCSE). “Expelled Exposed” suggests that intelligent design advocates were dismissed from their duties for alternative reasons and provides information on the history of the intelligent design political movement as well. Later, I learned of the Discovery Institute (DI), a public policy think tank in Seattle, consisting of several departments including the Center for Science and Culture, which is best known for its advocacy of intelligent design. Many of the Discovery Institute fellows were interviewed for *Expelled*.

As the political issue surrounding the Science standards in Texas gained national attention, both the National Center for Science Education or (NCSE) and the Discovery Institute or (DI) became heavily involved. NCSE sided with the moderate Republicans and Democrats, in this case referred to as the political left, while DI had political support from the far right Republicans on the board. Although DI still promotes intelligent design, their support of teaching intelligent design in public school science class came to a halt in 2004. *Kitzmiller v. Dover Area School District* was a federal court case, which ruled that intelligent design was a form of creation science, based on religious convictions rather than scientific facts, thus violating the Establishment Clause of the First Amendment to the United States Constitution. In 2008, for the Texas Board of Education science meetings, the Discovery Institute fellows were now
supporting the political concept of teaching the “strengths and weaknesses” of scientific theories, rather than simply promoting intelligent design.

Eventually I was able to interview Eugenie Scott, president of the National Center for Science Education; however, the Discovery Institute was very protective of its public image and did not allow me to interview any of its fellows for the documentary. In fact, they went to great lengths to prevent me from filming any of their sponsored conferences in Texas. Supporters of intelligent design often speak at these conferences, which often deal with the relationship between science and religion. I gained a better understanding of the Discovery Institute’s strategy after reading about the “Wedge document,” their political, social and academic agenda that aims to “reverse the stifling materialist world view and replace it with a science consonant with Christian and theistic convictions” (Wedge document). After learning of Discovery Institute’s “Wedge Strategy,” I became more interested in their influence on the political situation in Texas and set out to learn all I could about the 15 members of the Texas State Board of Education.

“The State Board of Education, an elected 15-member board, and the Commissioner of Education oversee the public education system of Texas in accordance with the Texas Education Code” (Texas Board of Education). The board’s primary responsibilities include adopting policies, setting standards for educational programs, and overseeing the Texas Permanent School Fund, which pays for textbooks approved by the board.

About every ten years, the board revises the Texas Essential Knowledge and Skills or TEKS document. This serves as a guideline for every subject taught from kindergarten through high school. The writing teams work on the document for eight months before presenting it to the board. For both the science and history board meetings, six additional experts were selected
to review the TEKS document and respond before the final vote. These experts were each nominated by two board members, but just like the 15 members of the board, the experts were evenly split on their views towards evolutionary theory. Three of the experts selected by Democrats and moderate Republicans fully supported the science of evolution, while the other three selected by far right Republicans had their doubts (two of them were fellows of the Discovery Institute). Every aspect of the science curriculum was reviewed and rewritten, but special emphasis was placed on one part of high school biology TEKS that dealt with teaching students the “strengths and weaknesses” of scientific theories.

During the Science TEKS revision process, the writing team removed the “strengths and weaknesses” language. The far right conservatives on the board felt this removal of wording was an attempt to stifle academic freedom, while the Democratic and moderate Republican board members claimed, “the revised policy allowed for discussion and ultimately proper science education” (Utter 284). In the final days, board members on the right and left compromised on new language requiring teachers to “analyze and evaluate scientific explanation using empirical evidence, logical reasoning, and experimental and observational testing.” (Texas State Board of Education) This phraseology is in line with the definition of science from the National Academy, which states that the “use of evidence to construct testable explanations and predictions of natural phenomena, as well as the knowledge generated through this process” will be used (NAS 10). However, experts suggest that like the original “strengths and weaknesses” wording, alternative language added throughout other parts of the Science TEKS leaves the door open for teachers to bring in pseudo-scientific theories such as intelligent design.

Kenneth Miller, a long time defender of evolution and author of the leading high school biology textbook in Texas, claims that political strategies by conservative board members in
Texas represent part of a much larger cultural battle for “America’s scientific soul.” He notes, “Something has arisen that may indeed signal a change in our national character. That something is most visible in the debate over evolution. It reveals a deep and profound split in the American psyche” (Miller). Charles Darwin recognized the religious/cultural conflicts that would arise from his theory, but he claimed an evolutionary perspective was not all “gloom and doom.” Darwin observed, “There is grandeur in this view of life, from so simple a beginning, endless forms most beautiful and most wonderful have been, and are being, evolved” (298 Darwin).

Kenneth Miller along with other prominent scientists such as Francis Collins and Francisco Ayala also practice the Christian faith and consider themselves theistic evolutionists (evolutionists who believe that religious teachings are compatible with the current scientific understanding of evolution). However, many Christians interpret the Bible more literally in certain passages that pertain to the origin of life. In fact, depending on the degree to which one interprets their Holy Scripture literally, classifications of creationism can be given. “Most broadly, a ‘Creationist’ is someone who rejects natural scientific explanations of the known universe in favor of special creation by a supernatural entity” (National Academy of Sciences 37). At the opposite end of the spectrum, scientific materialism refers to the philosophy of materialism, which holds that all things are only composed of matter, and supernatural phenomena do not exist. Scientific naturalism is more commonly used by scientists to refer to the scientific approach, which does not accept supernatural explanations as valid science. In the documentary Expelled, the filmmakers pitted scientific materialism, specifically aspects of evolutionary theory that have theological implications, against religious scientists advocating intelligent design, while ignoring the beliefs of many theistic evolutionists and young earth
creationists. The Discovery Institute has also found that although there are several different types of creationists, many people of faith totally reject evolution; therefore, intelligent design acts as a “big tent” philosophy against the materialistic world-view, pleasing all creationists while brushing aside differences about the age of the earth. Classifications of creationism such as young-earth creationist and old-earth creationist refer to this difference of opinion.

Far right conservatives on the board consist of both young-earth and old-earth creationists, but all agree that taking out the “strengths and weaknesses” phrase is suppressing the academic freedom of the teachers. This argument for academic freedom can actually be argued by both sides of this debate as articulated by Kevin McGuiness, an author on the subject. “If schools which are promoted as being secular in nature are allowed to operate as covert mechanisms of religious indoctrination, then apparently secular institutions subvert both the academic and religious freedom of parents, children and teachers. However, in many cases indoctrination within the classroom concerning allegedly scientific theories may also undermine the religious freedom of the children who are being taught and the unquestionable right of their parents to control their moral instruction” (McGuiness 218).

Since our government funds public schools, religious beliefs cannot be encouraged or discouraged. This policy comes directly from the First Amendment, “Congress shall make no law respecting an establishment of religion, or prohibiting the free exercise thereof.” Arguments over the role that religion would play in the instruction of public school children would resurface in the history standards revision process the following year.

In 2010, I began hearing Don McLeroy refer to American exceptionalism in local and national news. “As a discourse, American exceptionalism includes a complex assemblage of theological and secular assumptions out of which Americans have developed the lasting belief in
America as the fulfillment of the national ideal to which other nations aspire” (Pease 7). Far right conservatives were also proclaiming the United States was a “Christian Nation,” referring to the intent of our country’s founding fathers, commonly citing phrases such as “In God We Trust” and “One Nation under God.” The New York Times ran a lengthy article about the Texas Board of Education, referring to these concepts from far right conservatives. “Many of the points that have been incorporated into the guidelines or that have been advanced by board members and their expert advisers slant toward portraying America as having a divinely preordained mission” (Shorto 36).

As a few moderate Republicans sided with the far right conservatives in the history standards, it appeared the political far right (also referred to as the religious right) was well organized and effectively promoting Christianity in the Texas Essential Knowledge and Skills, but the influence of Christian organizations on political policy have played a big role in public education for decades. “Reverend Pat Robertson’s Christian Coalition in the late 1980s and 1990s, has profited from the lessons of the Moral Majority era, and now focuses its impressive and far more successful political activism of local politics—state assemblies, school boards, state political parties” (Marty 452). When a Democrat on the Texas board suggested students be taught about the “separation of church and state” during the history standards revision process, far right Republicans reminded everyone that that language was nowhere to be found in the U.S. Constitution. David Bradley, a Republican from Beaumont representing district 7, promised one hundred dollars to anyone who could find where the term “separation of church and state” was mentioned in the Constitution. Among other writings, this concept comes from a letter Thomas Jefferson wrote in reply to the Danbury Baptists, explaining the First Amendment in the Constitution to mean that no religious majority will become the state’s official church, thus
building a “wall of separation” between church and state. However one author suggests that “church” and “religion” are not synonymous with the founding fathers modeling the United States’ governmental structure from religious concepts. “Jefferson was not talking about ‘religion and politics’, politics is about people, and religion is what drives people.” (NPR)

Character Research

First and foremost, this film is about people---those few passionate citizens who are fighting to shape the course of American education, and the future of America with it. In the summer of 2008, I contacted Benjy Wood, president of the Texas Association of Biology Teachers, and he allowed me to send my request for a documentary subject to several hundred biology teachers throughout the state. A few responded and I would later film with these teachers; however, none of them represented the enthusiastic qualities I was seeking in an effort to promote better science teaching. I was surprised at how few responses I received from my request to film, but later I found this shortage was due to the controversial subject of evolution, not necessarily by the science teachers but rather from the administrators who would not allow the teacher and students to be filmed.

I later met Kevin Fisher, a science administrator for the Lewisville school district who served on the biology writing team for the science TEKS revisions. Kevin informed me of the current political problems on the state board of education, and although I never intended this to be a political documentary, I slowly shifted focus to the board. Later I was introduced to Gerald Skoog, a professor of science education at Texas Tech University, and one who has certainly been the most involved up to that point, spending countless hours in discussion with me about
the history of the evolution/creation debate and biology textbooks in Texas. From this knowledge I set out to learn how the board members felt about science education.

To some, Don McLeroy may be considered the antagonist of the story, but to others he’s the tragic hero. McLeroy is a young earth creationist, who believes that the earth is less than 10,000 years old and that dinosaurs and man lived together. These personal views, among others, place him on the political far right along with other Christian fundamentalists on the board. He once told me that the difference between the far right board members and the moderate republicans came down to how they interpreted the first chapters of the Bible. McLeroy’s willful desire to influence science education is shown at board meetings, during interviews, while cleaning teeth as a dentist, and on the campaign trail after failing to be re-appointed to chair of the board in May of 2009. While some may disagree with most of what he has to say, it’s hard to dislike Don McLeroy.

Don McLeroy has been a member of the board for well over a decade and was the chairman during the science deliberations. McLeroy isn’t an educator, and he’s far from an expert on science. He’s a small-town dentist from Bryan, Texas. Don sees his role on the board as one that is ordained by God. He believes his purpose is to ensure that students of Texas are taught about an America with a moral fiber and with a backbone – a Christian backbone. His politics may make liberals want to cringe but his disposition is endearing. This is exemplified as he passionately teaches fourth graders about his belief in the literal truth of Noah’s ark during a Sunday school class he has been teaching for close to three decades. He engages the children in songs and takes them on a field trip, all the while convincing them that there was more than enough room on the ark to fit all of nature’s creatures. I also follow Don as he confronts his good friend and main opposition Ron Wetherington, an anthropology professor from Southern
Methodist University, as they debate the issues of religion and evolution, including the plausibility of Noah’s ark.

Don McLeroy will be the main focus of my personal narrative. Throughout the debates, McLeroy has been the public face of the board, and that fame eventually led to his downfall. McLeroy was elected to the board in 1998. In 2007, Governor Rick Perry appointed him chairman of the board. However, due to McLeroy’s new-found notoriety as an outspoken board member throughout the science deliberations, on May 28, 2009, the Texas Senate rejected his re-appointment. And finally, in a surprising upset, on March 2, 2010, McLeroy lost his re-election bid to Thomas Ratliff, a moderate Republican and the son of former Texas Lieutenant Governor Bill Ratliff. Although McLeroy will not be on the board next year, he has already succeeded in shaping public education for the next decade.

Cynthia Dunbar may very well be a national political player in the coming years and could be using the State Board of Education as her launching board. Dunbar was elected to the Texas Board of Education in 2006. She is a graduate of Regent University School of Law, founded by televangelist Pat Robertson. In 2008, Dunbar published a book entitled One Nation Under God where she advocated for the prominent display of the Christian religion in the public square. She writes, “The underlying authority for our constitutional form of government stems directly from Biblical precedents.” (Dunbar XV) In the book, she also calls public education a “subtly deceptive tool of perversion” and further argues that “[t]he establishment of public schools is unconstitutional and even ‘tyrannical’.”

During the 2009-2010 academic year, she commuted from her home in Texas to teach in the law school of Jerry Falwell's Liberty University. Her conservative bona fides and legal acumen have allowed her to shape much of the Texas standards throughout board meetings.
While Don McLeroy was the public face of the board, Cynthia was skillfully negotiating during breaks and between formal debates to get her ideals and language into the standards. However, Cynthia’s role during the history standards revision process was much more up front. During the final day of voting, Cynthia opened the meeting with a prayer stating that America is “a Christian land governed by Christian principals.” I filmed Cynthia at the Lincoln Memorial as she ventured to Washington D.C. to speak at the May Day Prayer Service, a rally to “repent for our nation’s sins” and to bring Christianity back into public schools. Although Cynthia did not run for re-election, she plans to tour the nation to promote another book and get her message out to other boards of education throughout the states.

Kathy Miller is the chief spokesperson for the Texas Freedom Network (TFN). TFN was founded by Cecile Richards in 1996 after her mother Ann Richards lost the Texas gubernatorial election to George W. Bush. Cecile was alarmed by the gaining influence of the religious right in Texas and formed the TFN to act as a counterbalance. Kathy has worked with Cecile since the founding of the TFN and took the helm of the organization in February 2009. Apart from her role as the head of the TFN, Kathy has a much more personal stake in this as the mother of two kids who attend public schools. I follow Kathy as she works tirelessly during the debates, lobbying for sound teaching of evolution in the science standards and less alteration of the Texas Essential Knowledge and Skills (TEKS) by board members in the history standards. Kathy explains the rise of the religious right in Texas and what these socially conservative board members are attempting to accomplish through the TEKS revision process.

Ron Wetherington greatly contributed to stopping board members from reinstating the “strengths and weaknesses” language. Ron is an experienced science educator and very effective at communicating principles of science to the public. In this story, Ron is one of the experts who
Don is standing up to. In addition to teaching human evolution and forensic anthropology, Wetherington is the author of *Understanding Human Evolution*, along with four other books on anthropology and archaeology, and he has developed and conducted numerous educational seminars for children and for teachers. Much like Don, whether one agrees or disagrees with Ron, there is no question that he is a kind and honest person. Ron’s painstaking efforts have afforded him great respect from the liberal and conservative board members. Although he repeatedly stood in the way of Don McLeroy’s objective, including testifying in front of the State Senate to remove McLeroy as chairman, the two still remain friends.

Ide Trotter is a retired Exxon engineer, former missionary in Africa, and current spokesman for Texans for Better Science Education (TBSE), a Texas-based intelligent design advocacy group. Like the Discovery Institute, TBSE also defends the teaching of “strengths and weaknesses,” but doesn’t promote teaching intelligent design in public schools. The film follows Ide to the Texas republican convention as he discusses the rise of scientific materialism in the policies of left-wing politicians, lobbyists, and experts involved with the SBOE Science TEKS revision process. The political priority of Ide and members of his organization is to identify moderate republicans on the board referred to as RINOs (Republican in Name Only) and replace them with far right republicans. After the science deliberations, Ide has become focused on the board’s textbook selection process, making sure potential biology books for Texas take a more honest and humble approach to scientific explanations relevant to the origin of life.

**Distribution Possibilities and Audience**

Several different types of people can learn from the documentary—all for different reasons, whether they consider themselves religious fundamentalists, liberals, conservatives,
atheists, minorities, or Christians. Viewers can relate to characters throughout the film who represent many different worldviews and political opinions. Ron Wetherington discusses the misconception that people who accept evolution actually understand the theory, while opponents of Darwinian evolution often understand the scientific claims very well. I’m also interested in articulating strong points from Christians who support religious principles that guide governmental policy, while those opposed to this kind of relationship between church and state can offer opinions on how to maintain a more secular form of government. Minorities will also have a voice as aspects of American history including the African slave trade and early Mexican involvement in Texas are discussed. It’s important to avoid attacking one side or the other, but rather to offer an honest portrayal of all sides of the issue so that a continuing dialogue will be encouraged among the film’s participants and the audience during panel discussions after screenings of the film.

As I finish this version of the film for thesis requirements, I plan to continue working on additional post-production elements and distribution with some financial support from two independent producers, both having agreed to help me produce a feature length version of the documentary. Online communities such as Texas Freedom Network, Liberty Institute, the National Center for Science Education, Texas Citizens for Science and Texans for Better Science Education will also help promote the film. Film festivals will be the most familiar distribution possibility, and with this subject matter, the documentary has a chance to play at many local, national, and international festivals. A list of these festivals and other distribution outlets can be found in Appendix B.
Theories and Rationales

Errol Morris is a documentary filmmaker who has changed contemporary practices by blending traditional filmmaking techniques, appropriating elements of fiction and using technical adjustments to cameras for the interview process so that subjects look directly into the lens behind a “teleprompted” image of Morris’ face. He has stated that there are many avenues to a truthful representation: “No technique could guarantee truth” (Rothman 87). For Morris, “We move closer to the truth not by making brash assertions but only by asking questions and entertaining multiple perspectives” (Rothman 51). Stella Bruzzi describes the challenges that documentarians work through in the filmmaking process, “Documentary film is traditionally perceived to be the hybrid offspring of a perennial struggle between the forces of objectivity (represented by the ‘documents’ or facts that underpin it) and the forces of subjectivity (that is the translation of those facts into representational form)” (Bruzzi 39). The translation of those facts can be classified into different modes of representation. An author on documentary filmmaking, Bill Nichols describes the classification process as follows, “Modes of representation are basic ways of organizing texts in relation to certain recurrent features or conventions” (Nichols 32). From these conventions I can describe the combination of techniques that I’ll be using.

I have followed some of the traditions of the expository mode, interviewing subjects and guiding the viewer along with some text to help understand certain political situations. The expository mode often contains “voice of God” narration and addresses the viewer directly with text or voice over. However, I have not allowed a single narrator to guide the story; the interview subjects act as multiple “narrators” in the film. My style of shooting at the beginning of production can be classified in the expository mode by filming only interviews designed to
have participants define scientific and historical terms and describe the political situation.

I’ve tried to shoot most of the documentary in the observational mode while filming State Board of Education meetings, science conferences, political rallies and classroom instruction as they were happening. The observational mode, often referred to as direct cinema or cinema verite, arose from lightweight cameras and synchronous sound capabilities, allowing filmmakers to operate “on the fly.” Although I pushed to tell the story in the observational mode as much as possible, I found it impossible to assemble all of the important information into a concise cut because so much of the actual standards revision process had already happened before I started shooting or was happening behind closed doors. Among other things, lack of relevant material forced me to request specific information from characters during interviews, causing my mode of filmmaking to blend between observational and expository modes. Nichols describes the expository mode as one that “assembles fragments of the historical world into a more rhetorical or argumentative frame than an aesthetic or poetic one” (Nichols, Introduction 105). With the mix of both modes and arguments from multiple characters, I intend to broaden that frame of reference.

These methods of representation have worked most effectively for me as circumstances have changed. Constant re-evaluation has determined my methods for representing truth, as noted by Rosenthal, “A truth which, far from being abandoned, still operates powerfully as the receding horizon of the documentary tradition” (Rosenthal 61).

Documentary Films

Expelled opened in 1,052 theaters, more than any other previous documentary, and grossed over $2.9 million in its first weekend, the third largest opening for a documentary. It has
earned over $7 million, making it the twelfth-highest grossing documentary film in the United States. *Expelled* is done in sort of a mock-participatory mode. The participatory mode, also called interactive mode, arose from the desire to make the filmmakers’ perspective more evident by including the voice and appearance of the filmmaker within the documentary. In this case, the filmmakers use Ben Stein to represent their quest to find out why certain professors have been punished for promoting intelligent design.

The filmmakers of *Expelled* told pro-evolution scientists that the film was about the “crossroads of science and religion.” In actuality they were creating a film in defense of intelligent design. From *Expelled*, I’ve learned to be honest with the subjects so as to encourage an ongoing dialogue between filmmaker, viewer, and subject. However, I have refrained from informing all participants of my personal political views in order that they would be more open to discussing their own views, especially if those views are in opposition to mine. In my own experience, I’ve noticed those on the political right are fearful of being burned by the liberal media while those on the political left recently suffer from what I call post-*Expelled* anxiety. In other words, many pro-evolution teachers and experts with whom I spoke were reluctant to be interviewed because of what *Expelled* had done to its interview subjects. More generally, most of the public is more cautious of the motives of documentary filmmakers after Michael Moore films grew in popularity.

*Kansas vs. Darwin* is a recent documentary about political attempts to undermine evolutionary theory on the Kansas State Board of Education. After seeing the film, I was encouraged to broaden the focus of my documentary to include the Texas history deliberations in addition to science meetings that were similar to the Kansas issue. I spoke with the director of *Kansas vs. Darwin* and found he also had problems gaining access to board members and key
characters from both sides of the debate. The result of their film was a more subjective perspective on the issue. As Kansas vs. Darwin began screening around the nation, it had difficulty bringing far right politicians that had appeared in the film to be at post screening question and answer sessions with audiences. As a result of conversations with the director and editor, I began taking a different approach in the editing room for my documentary with the portrayal of characters on the far right, and this, in turn, helped me to gain favor from characters while I continued to film them.

Another creation/evolution debate documentary called Flock of Dodos is also done in the participatory style, which is made possible in part because the director Randy Olson was a marine biologist for twenty years before deciding to go to film school. There is an interesting moment when the director attempts to get an interview with one of the anti-evolution board members from the same Kansas issue. Although he is denied the interview, he uses the moment captured on film to his advantage, but not by making the subject look bad for declining the interview. Instead, Randy begins discussing how even though many anti-evolutionists lack the scientific knowledge to defend their views, they present their side in a positive tone whereas evolutionists often speak in negative, matter-of-fact terms that usually turn the general public away. Randy’s main objective with Flock of Dodos was to inform the scientific community about their arrogance and inability to evolve into media-savvy spokespeople for better science education. Rather than discourage the “bad scientists” who had not “evolved into a media-savvy spokesman,” I wanted to communicate a more positive message by promoting the positive. I did this by following Ron Wetherington as he was able to confidently, yet modestly, present the scientific facts to the board and by observing Ide Trotter on the other end of the spectrum as he continued to address the scientific problems with chemical evolution.
The director of *Flock of Dodos*, Randy Olson, will often invite participants of his film to join him for question and answer sessions after film screenings, which gave me the idea to do the same for my own screenings. Even though the participatory method has been labeled as a more subjective approach, Randy’s film may have appeared more objective to participants than did *Kansas vs. Darwin*. After all, individuals in the film from both sides of the issue were willing to participate in discussions after public screenings.

As my documentary subject changed from the politics of science education to both history and science education, I needed a thread throughout the entire story to keep the message cohesive. I found this in the thoughts and actions of Don McLeroy, the lead character who challenges the scientific and American history establishment every step of the way. Part of his journey includes a short campaign and primary election. This section of the film can be compared to an early observational documentary on John F. Kennedy’s primary campaign for the Democratic party’s nomination for United States President.

*Primary* was done in the observational style, in this case referred to as direct cinema. The filmmakers followed Kennedy as he squeezed through cheering crowds and held semi-private meetings amongst his campaign team. This early version of the observational style proved to be more like real life for the viewers, prompting a stylistic split in documentary filmmaking. By mirroring this style for portions of my own film, I’ve been able to reveal a sentimental side of Don McLeroy, providing a more complex portrait of a person who’s been demonized by much of the media. Most importantly, I want these endearing qualities to make the viewer evaluate the arguments for or against a particular political view rather than stereotyping individuals who debate these issues.
PRODUCTION

Overview

The State Board of Education’s political process is revealed throughout the meetings as board members debate, trade votes, and hear from political lobbyists vying for board members’ attention in between parliamentary sessions—all of this while the general public, special interest groups, textbook publishers and educators await these politicized votes. Much of the production was done in the observational mode as I filmed board members at the meetings and a few selected individuals outside of the meetings; the other half of production consisted of formal interviews. Some of these initial interviews included the chairman and far right conservative Republican on the board representing District 9, Don McLeroy, a Dean Emeritus for the College of Education at Texas Tech University, Gerald Skoog, as well as a longtime pro-evolution activist and Brown University Professor of Biology, Ken Miller, and the Executive Director of the National Center for Science Education, Eugenie Scott.

I also spent time with educators all over Texas filming science classes and teacher conferences. As I was filming, I soon realized I was creating a one-sided argument, stacking up expert after expert in opposition to McLeroy and other Republicans on the board who I knew little about. The far right conservatives on the board had experts of their own; however, before I met Ide Trotter, all had denied me the opportunity for an interview. I needed to learn more about the political arguments from far right Republicans and began requesting not only interviews, but also opportunities to observe and record them as they participated in political events or public speeches.

I’ve been filming for almost three years and during this time have captured all of the intense debates at board meetings, while observing a handful of participants outside the State
Board of Education (SBOE) arena. Overall, I’m confident that I have conducted interviews and filmed key episodes in and outside of the SBOE deliberations that will provide informed and relevant documentation for this important film.

Ethical Issues and Challenges

I’m honest in conversations with my subjects about my intentions for the film; however, I do withhold my own personal religious and political views because I find that subjects open up more to me as “judge,” rather than someone who is adamantly for or against their views. I’ve developed good friendships with those whom I agree and disagree with on these issues, and I don’t want to disservice those who have been willing to participate in the film. Some board members and experts have refused to participate, and I’ve struggled with how to represent the thoughts and actions of these characters, as they are relevant to my story. Many of these characters are understandably nervous about how I will frame the issue due to the potentially manipulative nature of the documentary art form.

The Discovery Institute knows exactly how documentary films can negatively cast characters, as was the case with Richard Dawkins in the documentary Expelled. The filmmakers used several cameras on Dawkins for the interview conducted by Ben Stein, allowing the editor to more easily re-shape the dialogue between the two. Although the Discovery Institute did not openly contribute to the direction of Expelled, it did allow some of their fellows to be interviewed, including Stephen C. Meyer. Knowing this, I assumed an interview with Meyer would not be a problem since he served as one of the six experts during the Texas board science debates. Unfortunately I was denied the opportunity to do an interview, and over the course of
two years, I was denied many more chances to film Discovery Institute-sponsored conferences in Texas.

I spoke with John West, senior fellow for the Discovery Institute, at a conference in Fort Worth. After explaining to John my intent to approach the issue more objectively, he began warming up to the idea of an interview with Meyer but explained that the Discovery Institute (DI) would need to record me too as I conducted the interview. This would allow DI the opportunity to construct their own perspective of the conversation if my film skewed from the “truth.”

Several hours before my presumed conversation with John, I had asked a friend/photographer to join me for the conference, which was called “Science & Faith: Friend or Foes,” so we could take some pictures if given permission. The title of the conference and lectures made me curious about the views of Discovery Institute fellows. I enjoyed the opportunity to hear John West’s lecture on “The Rise of Scientific Materialism and Its Impact on Science and Culture,” but I soon became an unwelcomed guest; thus I decided to leave before Stephen Meyer’s lecture, “The Return of the God Hypothesis.”

Unfortunately after being denied permission to film any of these lectures and out of desperation to capture some sort of evidence of the event, I instructed my friend to ask John permission to take some pictures of the speakers without telling him it was for my film. John denied my friend Zac access as well. Zac had already snapped a few exterior shots of the building and the Discovery Institute information booth in the foyer on the way in. When John found out Zac was connected to me, one of the Discovery Institute attendants at the booth who witnessed Zac take the photograph, later asked him to delete it. Since Zac was not shooting on a digital camera, we gave the DI attendant the whole roll of film in an effort to regain their trust,
but John West never followed up on the interview or access to any other events.

I struggled to figure out how I could describe these events in my story without violating any laws; I have kept DI fellows and sponsored events out of my story for the short version. With funding and a better understanding of fair use, I plan to creatively explain how these Discovery Institute conferences and support of intelligent design have influenced the science debates on the Texas SBOE

Reconceptualization during Production

When asked if one can know before filming what the story might be, documentary filmmaker Albert Maysles replied, “You have some sort of an idea, but you’re ready at the same time to abandon that if it doesn’t happen or if something better, something else, comes along” (Stubbs 7). As I was wrapping up production on what would have been a documentary strictly about the politics of science education, something better did catch my eye. The history standards revision process was turning out to be more controversial and possibly more interesting to a wider audience than just the science issue, causing me to rethink the limited scope of my original idea.

As I learned more about the issues pertaining to the revision process for the history Texas Essential Knowledge and Skills, I found many similarities to the science issues. By covering both the science and history meetings, the political nature of the arguments became more apparent. Both subjects held views on contentious issues that reflected a much larger cultural divide between far right conservative Republicans and the Democrats/moderate Republicans. The film had previously developed into a story about politics rather than actual scientific content, and the addition of history deliberations allowed this message to be clearer. Another reason why
this change in subject matter was appropriate is because I had worked extremely hard to gain access to certain individuals, only for an interview or two, when another year of production would allow me to film more with these main characters and further develop them for the new story on both subjects.

Releases, Copyright and License Agreements

All of the subjects have signed release forms or have given consent on camera. I’ve had issues with certain locations, mostly schools and universities, but the people are the ones who make or break the film. Much of the character development for board members who have not responded to my interview requests will come from their words and actions in board meetings, which are open to the public and can legally be recorded and used for the documentary. We placed signs that stated we would be filming in the area, on the door during the board meetings as well as filming of other lectures and events. I’ve also obtained news footage of board hearings and interviews to provide a more national context.
POST-PRODUCTION

Overview

Since much of the film is done in the observational mode, the story arc became most apparent throughout the editing process. Here is the structure for the film:

Introduction – An introduction to the Science TEKS reveals the essence of the entire political argument throughout both the science and history TEKS. Barbara Cargill affirms, “The intellectually elite are not the sole possessors of truth,” and later McLeroy proclaims, “Somebody’s got to stand up to these experts.”

Chapter 1 – Don McLeroy is observed at his dentist office, as he talks with patients about his disbelief in evolution.

Chapter 2 – Basic facts about the SBOE are presented, after which we learn of McLeroy’s motivation for serving on the board.

Chapter 3 – Ron Wetherington discusses the lack of the public's understanding of science.

Chapter 4 – Observations of the Science TEKS vote reveal some of the negotiating between board members as the language in the document is reconstructed.

Chapter 5 – Archival footage reveals Ron Wetherington testifying against Don McLeroy as he loses a 2/3 Senate vote re-confirming him as chairman of the SBOE.

Chapter 6 – Observations of Don McLeroy as a Sunday school teacher, reveal his devotion to the literal truth of the Bible as he describes the story of Noah’s ark.

Chapter 7 – Steven Schafersman discusses the rise of the religious far right political strategy.

Chapter 8 – Ide Trotter is shown at the Texas Republican convention, discussing the
threat of scientific materialism in the biology textbooks for public schools, and the need to rid the board of moderate republicans who often vote with the left.

Chapter 9 – Ron Wetherington invites Don McLeroy to his home for a conversation about the nature of science.

Chapter 10 – Observations of the early History TEKS revision process acknowledge similarities to the science debates, but also reveal new political arguments from both left and right board members concerning the nation’s Christian heritage, concepts such as “the separation of church and state,” and American exceptionalism, as well as debates over specific names to be included as either mandatory for the instructor to cite or merely suggested.

Chapter 11 – We learn Don McLeroy is up for re-election, facing a moderate Republican opponent in the primary election.

Chapter 12 – The Mexican American Legislative Caucus meets to discuss postponement of the SBOE history TEKS vote, as Kathy Miller describes the SBOE process of amending the TEKS document.

Chapter 13 – We follow Cynthia Dunbar to the May Day Prayer rally in Washington D.C. as she speaks before a national crowd about our nation’s Christian heritage and the role of religion in public schools.

Chapter 14 – Kathy Miller discusses the rise of the Texas Freedom Network and current political strategies by far right members of the SBOE.

Chapter 15 – A chipper and charming side to Don McLeroy is shown throughout his election day, but later he is silenced by the news of his failure to be re-elected. We also learn that Cynthia Dunbar will not be running for re-election.

Chapter 16 – During the history TEKS final vote, Don McLeroy, Cynthia Dunbar and
other far right members of the board prevail on most of the contentious issues, setting the standards for another decade in Texas.

Conclusion – Don McLeroy is observed back at the office, describing the future of textbooks, while Ron Wetherington describes the need for more experts, educators, and the public to become involved in the selection of SBOE members and the TEKS revision process.

Style and Theory

The background for all my interviews blends from white to grey. On one level, this is a simple background that I could setup just about anywhere, to keep the look consistent for all interviews. On another level, this represents “shades of grey,” referring to the subtle difference of opinions between all subjects. During these interviews, I often have close-ups of the subjects to see the details of each facial expression. Errol Morris uses a similar style for interviews, and I share his respect for character details acquired from the interview. “The manifestation of language in voice, gesture, facial expression, and posture contribute greatly to the documentary filmmaker” (Rothman 53). Another piece of advice from Morris that helped me during the interview process deals with director-subject interaction. “I developed a two-minute rule, that is if you leave people alone and let them talk without interrupting them, in two minutes they will show you how crazy they really are” (McEnteer 101).

Much of the time I’m just observing McLeroy at work or during the SBOE meetings, but for other seemingly observational scenes with McLeroy, there’s a bit of direction involved. For example, I would have McLeroy wait to get in and out of the car on Election Day so that I would have time to prepare the shot. Less subtle staging, although rarely used, includes a scene where I directed McLeroy to approach the front door of Ron Wetherington’s house for a conversation.
After poor response from audiences about this introduction to the conversation, I removed it. This sort of directing reminds me of some of the original documentary filmmakers such as Robert Flaherty and his filming of *Nanook of the North* (an early documentary on an Inuit family inhabiting the Arctic regions of Canada). Some argue Flaherty’s influence on the actualities of Nanook’s life veered from the truth sought in documentary film. “His non-actors were directed to reenact things he had observed them do and to repeat their actions in multiple takes” (Ellis 21). Although I rarely ask any of the characters to repeat actions, I sometimes request the character to wait for my cue to begin their normal course of action. McLeroy is eager to assist, and I’ve noticed he’s able to behave more naturally than most when directed in this way. I know the attention excites him, and this will be shown in the documentary by his enthusiasm over how much media attention the board receives on contentious issues like evolution. McLeroy also portrays a confidence and authenticity as experts challenge his worldviews or when his position on the board is in serious jeopardy. He agreed to allow me to film the final day of his political race, and he knew that the attention could either be good or bad. I hope McLeroy’s openness and sincerity will convince liberal viewers to separate the person from individual arguments so that issues become less personal and people are less demonized (ironically in the case of McLeroy).

There are additional similarities between my film and early anthropological documentaries. Some of the naturalists at the time felt “the immediate task of anthropology should be to record endangered cultures that might vanish” (Ellis 53). I would often ask myself if this was going to be the end of the religious right political movement or the majority of Anglo-Saxon members on the board as Mexican Americans are quickly becoming the majority in Texas. In line with these early anthropological motives, my documentary could also be
described as “salvage ethnography,” for this particular cultural and political movement in America.

Recent in-progress screenings have provided comments that suggest I should include some sort of narration for the film, but I was somewhat opposed to including an authoritative voice to the perspective of the film. An author on documentary film theory articulates my reluctance, “The very existence of a narrator poses problems because the disembodied voice becomes a mediating presence standing between audience and the film’s ‘evidence’ ” (Rabiger 444).
EVALUATION OF COMPLETED WORK

Pre-Production

As an undergraduate photographer and printmaker, I kept myself somewhat isolated and had the tendency to close myself off from the public as I conducted research or developed my artwork. I discovered early on in the graduate program here at UNT that some of the best topics for documentary films come from popular culture by way of the news, movies, television shows, or word of mouth. I’ve learned to remain open to the public, after all that’s who I want to inform and persuade. The inspiration I get from research can be both positive and negative. For example, I would consider the article from Brian Greene about putting science back into our daily lives to be positive motivation, whereas the film Expelled served as a negative charge urging me to counter the misinformation presented in the film. Looking back, my interest in evolutionary theory was certainly influenced by the fact that Charles Darwin’s 200th birthday was approaching, as deniers and supporters of evolution were incriminating or restoring Darwin’s message to the public.

The most important advice I can give to budding documentary filmmakers is to find something you are extremely passionate about. My interest in the general topic for this film arose long before I discovered the path to communicate that message. In other words, although I didn’t know that I would be focusing on the SBOE, I knew how much science had contributed to my life, and I wanted others to appreciate science in their daily lives as well. Undergraduate Professor Robin Germany would always remind me that “form follows function,” referring to Architecture or any Art form that places priority of the practical use of the object before finalizing the form. In Documentary filmmaking, I apply that concept by concentrating on a simple message and allowing the techniques and subject matter appropriate for communicating
that message to surface. Staying passionate about any single topic can be difficult for me because minor sub-plots easily distract me. Again I am reminded of the advice from Professor Bart Weiss who told me that it’s not just about being passionate, but sustaining that passion as priorities change.

As my subject matter changed, I was hesitant to devote too much time researching every issue surrounding the overall message. Each one of these topics was certainly relevant at the time, but now I see that there was a considerable amount of time spent on aspects of the issue that are no longer apparent in the final story. However, much of this information served a purpose in developing relationships with key characters or helping to put into context relevant issues to come. For example, my knowledge of intelligent design (ID) isn’t necessarily a big aspect of the final documentary; however, this understanding of ID contributed to the first conversations I had with Don McLeroy, as such an understanding later paved the way for more access and a closer relationship. Learning about the history of the ID political movement aided by the Discovery Institute also helped me to understand where arguments against the teaching of evolution originated. Furthermore, the strategies implemented during the SBOE science hearings reflect those used throughout the history TEKS revision process.

As I began research for this film, it was important for me to make my friends, family, faculty, and other graduate students aware of my project. Other people could send me information important to my story. By creating a team of “part-time” researchers, I was able to tap into a much larger source of information. It was also helpful to inform organizations who could help with promoting my film early in the pre-production process, and I learned it’s never too soon to begin talking with potential distributors.
Production

Obviously researching relevant information to become informed before an interview is important, but it was also helpful to follow up with research on discussion topics during interviews that I didn’t fully understand at the time. This was especially important with key characters, so that I would be more informed when filming them. Much of the additional research done during production was an effort to counter the one-sided information I’d immersed myself in during pre-production.

From the beginning of production I wanted to shoot observationally, but as I struggled to tell the story early in the editing process and the subject matter became more complex, I found that interviews could be useful in getting all the information across. It was crucial for me to let go of my original idea to do a completely observational film.

There are definitely some things I regret not doing correctly in production. I waited too long to contact board members even after I’d decided to cover the SBOE. Had I contacted them earlier, my relationship with the board members could have been further developed, giving me better access during the science TEKS revision process. A better planned schedule could have cut back on the amount of travel I ended up doing, and by being more disciplined with obtaining subject release forms, I could’ve avoided spending time acquiring their consent after the fact. I also spent too much time trying to get permission to film Discovery Institute fellows at conferences in the area or for interviews; their political motives are clearer by their absence in the film.

The theory of evolution wasn’t just part of the subject for my film. I’ve also applied the basic concepts of the theory to my filmmaking process. I’ve adapted to circumstances beyond my control and allowed the story to take shape through alternative paths with less resistance.
When I was only allowed limited access to high school science classrooms, I found better opportunities covering the science issues on the State Board of Education and later adjusting further to include the history issues. Of course not all changes in my direction have been beneficial, such as being denied access to film Cynthia Dunbar as she spoke to her church group about the role of Christians in American society, and as she taught Law at Liberty University. However, I’ve learned to stay positive through these roadblocks and keep carving out alternative paths. Most of the opportunities I’ve been able to take advantage of did not come freely, but from sensitivity to the subject matter and appropriate action when doors opened.

Post-Production

I prefer to begin early stages of the editing process right after shooting the first material. Although it wasn’t my strength, I tried to have my production crew view footage immediately after we shot it so that obvious technical errors could be corrected before going out again. In addition to these dailies, I was much better at organizing selected sequences for reference to improve the ongoing research and production process. If I do an interview, research needs to be done on the discussed information to inform me for future shoots, or if the footage is observational, I benefit from constructing sequences to refer to for further story development in production. A quick rough cut of the film allows viewer feedback which is also important for further planning throughout production.

Even though I constantly needed to reevaluate my thematic structure, I still may have relied too much on trying to find the story in the editing room, rather than following any kind of storyboard created along the way. I enjoy editing as an exercise of discovery, and my strength is in working through a reductive process of editing, such as the case with observational
documentaries that accumulate an abundance of footage, rather than an additive process by creating the story before production like in narrative films or with the expository mode of documentary. However, I could have re-constructed a clearer idea of the story on paper throughout production in addition to relying on the concepts formulated from editorial review. I’ve learned that by combining the stylistic approaches of both observational and expository, a balance between elements of the story that have been captured on film and those that have been conceptualized from research needs to be found throughout all stages of production. One primitive example of this balance between elements that are created and those that are discovered can be found in Paleolithic cave paintings found in Lascaux, France. Early humans created buffalo and horse portraits along cave walls that mimicked the shape of these animals, striking a balance between the natural shape of the rock and their own creative ingenuity.

Success in Integrating Proposed Theories

Applying theoretical concepts to the practical methods of filmmaking is often difficult. Throughout production I learned to ask additional questions based on previous interviews as well as anticipate actions during observational shoots that I could not have considered before stepping into production. One particular example of improvisation came during an early SBOE meeting when I discovered that board members were having important conversations about the content of the TEKS between parliamentary sessions with lobbyists, experts, and other board members. These conversations are some of the more exclusive moments captured by the film; however, news crews and other independent filmmakers soon copied our strategy. As a result, board members found more private places to talk or simply told us not to film. In hindsight, I would have used the HPX-500 at further distances and a wireless microphone with the characters’
consent, to capture the content of these conversations without attracting attention. Despite these restrictions, we did manage to get some great material before the media hounds spoiled "our meal."
CONCLUSION

Although I’m proud of the professional quality of my documentary, constructing the film was very much a learning process. From the beginning, the depth of my research was improved by the help of others and by being engaged with popular culture rather than closing myself off. As I improved my interviewing skills, I learned to listen to my subjects all the way through each thought, instead of preparing the next question. Observational shooting also improved through constant attention to the environment and by anticipating the characters’ actions. I’ve always known that a deep passion for the subject can drive my desire to investigate the issue, but the ability to simplify the message and sustain that passion has made it possible for me to represent the people and issues more realistically.

Finally, I have learned from this particular filmmaking process, that I work best by overlapping production with post-production, allowing me to constantly re-evaluate my direction and destination as additional facts are discovered. Most of all, I’m thankful for being granted the time to discover these strengths and preferred strategies as my research has guided me toward alternative subjects and my relationships with the characters have grown, allowing me to create a more accurate interpretation of reality.
APPENDIX A

BUDGET ITEMIZATION
Program: STANDING UP TO EXPERTS
Format: HD

Producer/Director: SCOTT THURMAN

Research: weeks
Prep: weeks
Locations: Texas, Washington D.C.,
Shoot: days
Wrap: weeks
Post: weeks
TOTAL: weeks

Budget date: 7/1/2010

ABOVE-THE-LINE:

<table>
<thead>
<tr>
<th>Pre-Production and Development</th>
<th>#</th>
<th>UNIT</th>
<th>PRICE</th>
<th>TOTAL $ COST</th>
</tr>
</thead>
<tbody>
<tr>
<td>RESEARCH</td>
<td>1000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Books, research materials</td>
<td>1010</td>
<td>allow</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Videos, screenings</td>
<td>1020</td>
<td>allow</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>TOTAL</td>
<td></td>
<td></td>
<td></td>
<td>200</td>
</tr>
</tbody>
</table>

TOTAL ABOVE THE LINE: 200

BELOW-THE-LINE:

<table>
<thead>
<tr>
<th>Crew &amp; Personnel</th>
<th>#</th>
<th>UNIT</th>
<th>PRICE</th>
<th>TOTAL $ COST</th>
</tr>
</thead>
<tbody>
<tr>
<td>PRODUCTION STAFF</td>
<td>4000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Shoot</td>
<td>10 days</td>
<td>50</td>
<td>500</td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td></td>
<td></td>
<td></td>
<td>500</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Production Expenses</th>
<th>#</th>
<th>UNIT</th>
<th>PRICE</th>
<th>TOTAL $ COST</th>
</tr>
</thead>
<tbody>
<tr>
<td>LOCAL EXPENSES</td>
<td>5800</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gas/Mileage</td>
<td>5810</td>
<td>miles</td>
<td>1</td>
<td>800</td>
</tr>
<tr>
<td>Parking lots &amp; fees</td>
<td>5820</td>
<td>allow</td>
<td>200</td>
<td>200</td>
</tr>
<tr>
<td>Meals (Dir/Prod, DP, PA)</td>
<td>5830</td>
<td>meals</td>
<td>8</td>
<td>400</td>
</tr>
<tr>
<td>TOTAL</td>
<td></td>
<td></td>
<td></td>
<td>1400</td>
</tr>
</tbody>
</table>
## Travel and related expenses

<table>
<thead>
<tr>
<th>#</th>
<th>UNIT</th>
<th>PRICE</th>
<th>TOTAL $ COST</th>
</tr>
</thead>
<tbody>
<tr>
<td>6000</td>
<td>TRAVEL EXPENSES</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6010</td>
<td>Airfare</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Dir/Prod, DP</td>
<td>8 roundtrip</td>
<td>100</td>
</tr>
<tr>
<td>6020</td>
<td>Add'l baggage fees for equipment</td>
<td>4 fees</td>
<td>0</td>
</tr>
<tr>
<td>6030</td>
<td>Hotel</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Dir/Prod, DP in NYC</td>
<td>2 hotel nights</td>
<td>1</td>
</tr>
<tr>
<td>6050</td>
<td>Local Transportation/ car rental</td>
<td>10 days</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td><strong>TOTAL</strong></td>
<td></td>
<td><strong>1100</strong></td>
</tr>
</tbody>
</table>

## Post-production

<table>
<thead>
<tr>
<th>#</th>
<th>UNIT</th>
<th>PRICE</th>
<th>TOTAL $ COST</th>
</tr>
</thead>
<tbody>
<tr>
<td>7000</td>
<td>EDITORIAL EQUIPMENT &amp; FACILITY</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7010</td>
<td>Final Cut System (buy/sell)</td>
<td>0.5 allow</td>
<td>1000</td>
</tr>
<tr>
<td>7030</td>
<td>Hard Drives (buy/sell w/FCP system)</td>
<td>12 drives</td>
<td>200</td>
</tr>
<tr>
<td>7140</td>
<td>Tape stock &amp; blank media/ dvd's</td>
<td>1 allow</td>
<td>100</td>
</tr>
<tr>
<td></td>
<td><strong>TOTAL</strong></td>
<td></td>
<td><strong>3500</strong></td>
</tr>
</tbody>
</table>

## Office & Administration costs

<table>
<thead>
<tr>
<th>#</th>
<th>UNIT</th>
<th>PRICE</th>
<th>TOTAL $ COST</th>
</tr>
</thead>
<tbody>
<tr>
<td>9000</td>
<td>OFFICE/ADMIN</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9040</td>
<td>Postage</td>
<td>12 months</td>
<td>25</td>
</tr>
<tr>
<td>9050</td>
<td>Telephone</td>
<td>12 months</td>
<td>25</td>
</tr>
<tr>
<td>9071</td>
<td>Add'l parking space</td>
<td>12 months</td>
<td>50</td>
</tr>
<tr>
<td></td>
<td><strong>TOTAL</strong></td>
<td></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

**TOTAL BELOW THE LINE** 6,600
<table>
<thead>
<tr>
<th>Total Above the Line</th>
<th>200</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Below the Line</td>
<td>6,600</td>
</tr>
<tr>
<td>Subtotal</td>
<td>6,800</td>
</tr>
</tbody>
</table>
APPENDIX B

DISTRIBUTION OUTLETS
Film Festivals
- South by Southwest and Austin Film Fest - Austin, Texas (local, high possibility)
- Dallas International, Dallas Video - Dallas, Texas (local, high possibility)
- Sundance - Park City, Utah (extremely competitive, low possibility)
- Tribecca - New York City (extremely competitive, low possibility)
- Telluride – Colorado (very competitive, medium possibility)
- Toronto Hot Docs – Canada (very competitive, medium possibility)
- International Documentary in Amsterdam (very competitive, medium possibility)
- London – England (very competitive, medium possibility)
- Cannes – France (extremely competitive, low possibility)
- Big Sky Documentary Film Fest - Montana (competitive, medium possibility)
- Full Frame Documentary Film Fest - North Carolina (competitive, medium possibility)
- International Leipzig Film Fest – Germany (competitive, medium possibility)
- Yamagata International Documentary Film Fest – Japan (very competitive, medium possibility)
- Hot Springs Documentary – Arkansas (non competitive, high possibility)
- International Documentary - Germany (very competitive, medium possibility)
- Sheffield International Documentary – England (competitive, medium possibility)
- Silver Docs - Silver Spring, Maryland (very competitive, medium possibility)
- New Zealand International Documentary - New Zealand (competitive, medium possibility)
- Parnu International Documentary and Anthropology – Estonia (competitive, medium possibility)
- Punto de Vista Documentary International – Spain (competitive, medium possibility)
- Helsinki Documentary – Finland (competitive, medium possibility)
- Vision Du Reel – Switzerland (competitive, medium possibility)

Broadcasters
- HBO International Broadcast and Distribution (extremely competitive, low possibility)
- KERA - PBS – Dallas, Texas (somewhat competitive, medium possibility)

Distributors
- New Day Film
- Center for Independent Documentary
- First Run / Icarus Films
- Bullfrog Films
- California Newsreel
- Direct Cinema Limited
- Moving Images Distribution
APPENDIX C

PRODUCTION AND POST PRODUCTION SCHEDULE
August 2008 - Research, make contacts with science experts and high school teachers.

September 2008 - Research, make contacts with SBOE members, gather production materials, Observational filming of evolution lecture at UNT, and high school teacher search.

October 2008 - Research, make contacts with lobbyist and other SBOE participants, high school teacher search, and Observational filming of Julie Fry Science class.

November 2008 - Interview and film Observational of Texas Science Teacher conference, interview Barbara Forrest, Kevin Fisher, Gerald Skoog, and Chris Comer, Interview and film Observational with Laura Ewing, Observational filming of SBOE meeting, establishing shots of Austin, Dallas, and Fort Worth.

December 2008 - Interview and film Observational with Julie Fry science class, Interview Dr. Raymond Eve, and contact high school teachers.

January 2009 - Film Observational for SBOE meeting. Interview Eugenie Scott, Kathy Miller, Kim Blicia, Michael Dowd, Don McLeroy.

February 2009 – Film Observational with Julie Fry science class and UNT campus. Interview Bob Craig, Gerald Skoog, and film Observational in Lubbock.

March 2009 - Interview Cynthia Dunbar, Ide Trotter, Ronald Wetherington, Jonathan Saenz, Gail Lowe. Film Observational at SBOE meeting and Houston.

April 2009 - Interview Pat Hardy and research archival media.

May 2009 - Continue research for additional funding. Gather archival on biology textbooks & evolution imagery.

June 2009 – Film three interviews, and gather archival news and political ads.

July 2009 - Shoot any remaining interviews, and gather archival media on science. Gather music scratch tracks.

August 2009 - Film Observational of science museums and zoos. UFVA rough-cut screening (35 min).

September 2009 – Make contacts with history experts and high school teachers.

October 2009 – Gather archival news of history SBOE issues.

November 2009 – Research history issue. Make contacts with history experts and high school teachers.

December 2009 – Research history issue. Make contacts with politically active individuals during history SBOE meetings.

February 2010 – Re-Interview Kathy Miller.

March 2010 – Film Observational of SBOE History TEKS preliminary vote.

April 2010 – Edit “selects” from history SBOE meeting.

May 2010 – Film Observational with Dunbar in Washington D.C. and SBOE History TEKS final vote.

June 2010 – Film Observational at Republican convention with Ide Trotter.

July 2010 – Film Observational at SBOE general meeting. Further develop contacts.

August 2010 – Edit rough cut for UFVA screening in progress.

September 2010 – Film Observational at SBOE general meeting. Further develop contacts. Color correction and sound design for fine cut.


November 2010 – Film Observational at last SBOE meeting for Don and Cynthia.

December 2010 – Final Cut Screening at UNT.
BIBLIOGRAPHY


Web


Films


