

DISSERTATION

VISUAL RHETORIC OF U.S. AGRICULTURAL FILMS:
AUTEURS, ACTORS AND ASSIMILATION

Submitted by

Joanne Speirs Littlefield

Department of Journalism and Media Communication

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Doctoral Committee:

Advisor: Pete Seel

Katie Abrams
Joseph Champ
Eric Margolis
Dawn Thilmany

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ABSTRACT

VISUAL RHETORIC OF U.S. AGRICULTURAL FILMS: AUTEURS, ACTORS AND ASSIMILATION

Agriculture's role in the expansion of the United States economy is examined through the analysis of five films and their role in presenting societal issues germane to agricultural production. Early in film's history, the ability to motivate others to understand the need for changes in policy, through the use of persuasive visual, aural, and textual techniques was understood to be important to filmmakers—including those representing government agencies and civic groups. The production and distribution of non-fiction films focused on topics relevant to food and fiber production has kept pace with evolving motion picture production technologies since the first films were released in the early twentieth century. This research project analyzes the context in which these films were produced, how and if production objectives and goals were aligned with societal issues, and whether the expected outcomes were obtained.

Research methods include: institutional ethnography/case studies/ethnographic content analysis (including video forensics and hermeneutic data analysis), to identify genre, voice and associated societal issues; in-depth interviews of those involved in the filmmaking where available; historic document analysis using structure of in-depth interviews to interrogate archival materials.

The films analyzed here were produced and presented as an aid for agricultural producers, policy makers and agricultural educators to come together to create a shared understanding on what it would take to produce food, fiber and prosperity for their communities,

and the nation. These all create not only a sense of accomplishment, but the accumulation of wealth and status for a nation that could not only provide for itself, but have an elevated status as the provider for the global community.

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DEDICATION

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INTRODUCTION

Agriculture's role in the expansion of the U.S. economy is clearly examined in the academic literature, from books ranging from Gardner's (2002) *American Agriculture in the Twentieth Century: How it Flourished and What it Cost*, to Rogers' (1997) *Diffusion of Innovations*; and in journal articles analyzing agriculturally-focused narratives presented in fiction books and films. O'Connor (1988) wrote about non-fiction books that "focus on questions of governmental policy and public perception of issues related to the dust bowl of the Great Plains in the 1930s" (p.1200).

The critique and examination of persuasive, agriculturally-focused educational films by scholars, however, is sparse. McCann (1973) noted that despite the fact that the United States Department of Agriculture's (USDA) "films on scientific and technical subjects, forestry and fire prevention, agricultural education and soil conservation have been a responsibility which has served the people well" (p.55), little scholarly examination has taken place. This study, therefore, not only examined the role of films in presenting societal issues germane to agricultural production in the United States, but also how the films might have been produced with the intent of influencing agricultural producers, policymakers, and funding agencies regarding the benefits of moving onto or off of agricultural land, adopting new practices and/or technology. The term "film" will be used interchangeably with "motion pictures" and "video productions" throughout to signify those stored on cellulose-based media (film), videotape, and digital productions.

Rogers' diffusion of innovations research has been widely accepted by scholars—ranging from community health to technological innovation researchers—as the seminal work framing adoption of practices leading to behavior change. The roots of Rogers' work were his graduate studies of Iowa farmers, and how and when they would move to adopt an agricultural practice.

Just nine years after the publication of the first edition of his much-used textbook, *Diffusion of Innovations* (1962) Rogers and Shoemaker published *Communication of Innovations: A Cross-Cultural Approach* (1971). This second edition of his diffusion work discusses more in-depth communication channels and social structures, and focuses on “communication concepts and frameworks in...analysis of the diffusion process” (p. xviii). Rogers’ and Shoemaker’s writings will be referred to again as a component of steps to elicit behavior change, social capital, and the films examined here. It should be noted that third and subsequent editions of Rogers’ work reverted to the *Diffusion of Innovations* title. Rogers does not specifically address films, but he does discuss the role of mass media communication channels, and specifically discusses the agricultural extension model as “the most successful in securing users’ adoption of its research results” (p. 165). He further defines adoption as “full use of an innovation as the best course of action available” (p. 177). These perspectives, and how Extension system employees make use of films in their educational programming, are key components of this research project.

The production and distribution of non-fiction films on topics focused issues relevant to food and fiber production has kept pace with evolving motion picture production technologies since the first films were released in the early twentieth century. Winn (2008) described a “foundational film”, *The Birth of a Nation* (produced in 1915), as pivotal for setting an aesthetic standard. He wrote: “... many filmmakers during the Silent Era—e.g., professional organizations, civic groups, local and state governing bodies, and the federal government—wanted to make movies for noncommercial purposes, to “portray their cause visually”” (p. 33). More than the aesthetics of this film, however, are the blatant racial messages contained within. It’s tumultuous history has been noted by historians such as Italic (2015) who wrote, “Within Griffith’s lovingly assembled images is a story that glorified the Ku Klux Klan, demonized

blacks and sealed the misconception that the Reconstruction era in the South was a disastrous experiment in racial equality.” Early in its history, film’s ability to compel others to understand the need for changes in policy—through the use of persuasive techniques—was understood to be important to filmmakers, and their funders, including those representing government agencies and civic groups. Nichols (2001) wrote: “Persuasion, though, requires a means of representing an acceptable way of doing things, a desirable course of action, a preferable solution that makes these options ones we feel disposed to make our own” (p. 103). A gray area exists between persuasion and propaganda. Prior to World War II, the United States had an *Office of Propaganda*, changed to *Office of Information* following the rise of the Third Reich in Germany and the production of such films as *Triumph of the Will*. The United States outlawed propaganda in 1948 with the passage of the Smith-Mundt Act. This act has been altered since it first became law, and was rescinded in 2013. It has been replaced by state laws which make it illegal to disparage agricultural production practices. This paper will examine not only how changes in film production have taken place, but how disruptions in government message control have taken place with the democratization of technology. Ellul (1965) wrote,

Propaganda must be total. The propagandist must utilize all of the technical means at his disposal—the press, radio, TV, movies, posters, meetings, door-to-door canvassing. . . . There is no propaganda as long as one makes use, in sporadic fashion and at random, of a newspaper article here, a poster or a radio program there, organizes a few meetings and lectures, writes a few slogans on the walls (p. 6).

As these films are examined, along with analysis of accompanying educational materials, so too will an examination of whether these materials might fall under the spurious heading of propaganda.

The representation of a particular reality that is depicted in non-fiction films changes in meaning over time. *Birth of a Nation*, which was heralded as “a blueprint for the feature-length

movie”, and “setting an aesthetic standard”, when viewed through the lens of time, and changes in society, takes a different place in cinematic history. That anomaly will be examined further in this paper. The alignment expressed through non-fiction films with societal issues, and in the case of this research, related to food and fiber production in the United States, reflect the nation’s cyclical highs and lows. Commenting on U.S. economic conditions, Gardner (2002) wrote that the period between 1910 and 1914 were: “...labeled the “golden age of agriculture” and cited for the following half century as an economic ideal to be sought after through government policies” (p.1). A counterpoint of economic prosperity for agricultural enterprises was the need to mitigate potential economic risk and ruin from insect and plant pests. A USDA entomology bulletin, for example, described economic loss to the people of the United States, through insects that carry disease and devastate crops and livestock (Howard, 1909). This issue is considered a factor that led to the USDA production of *The Charge of the Tick Brigade* (1919). Farmers and ranchers in a certain geographic region were called to action by the end of *The Charge of the Tick Brigade* to take steps to protect their cattle herds and thus contribute to the economic well-being of the nation.

The research context for this study lies in the researcher’s background as a visual storyteller, filmmaker, videographer, and photographer. Decades of experience in a career producing the stories of scientists, researchers and others passionate about the natural world—from agriculturalists to foresters to fisheries managers—has been primarily through visual narrative construction. Probing the historical, social and economic contexts of these five films has allowed for not only examination of why and how various techniques are used in them, but has provided a critical examination of the evolution of full-fledged careers and modern day exploration by others interested in pursuing visual storytelling on an ad-hoc basis. Furthermore,

examination of historic archives with the rigor of an in-depth interview has proved to be a challenge, but has added important perspective and dimension to this project.

The films examined span a nearly 100-year span of time, and are situated in approximately 20-30 year increments. They are:

- *The Charge of the Tick Brigade* (1919). First film produced by the USDA Motion Picture Service;
- *The Plow That Broke the Plains* (1936). Pare Lorentz production, funded by the U.S. Resettlement Administration;
- *This is KCJ 812*; (1969). Department of Information, University of Nebraska. Sixteen mm film produced by Thomas Bare of the Cooperative Extension Service, College of Agriculture at the University of Nebraska. Highlights new communication technologies serving agricultural communities;
- *Alternative Livestock Enterprises* (2000). Video production for emerging audience of small landowners in the Rocky Mountains. The production team included Extension agents and subject matter specialists, a university videographer, and talent from livestock enterprises. It was distributed to government access television stations, through videotape/DVD distribution to potential landowners and to county Extension offices for presentation in combination with educational programs;
- *Livestock Mortality Composting for Large and Small Operations in the Semi-Arid West*. (2012) USDA/Western Sustainable Agriculture Research and Education (WSARE) grant-funded project with livestock producers from Montana, Wyoming, Colorado, and New Mexico.

The films were chosen for their potential salience with respect to the corresponding economic, biological, and environmental challenges agricultural producers and policy makers were facing during their respective time periods. Sekula (1983) coined the phrase “mixing pedagogy with entertainment” (p. 187) which most accurately reflects the use of film as an aid to information and education dissemination. In addition, films are a way of grounding us in systems of meaning of the world around us. Giroux (2001) wrote:

Film does more than entertain; it offers up subject positions, mobilizes desires, influences us unconsciously, and helps to construct the landscape of American culture. Deeply imbricated within material and symbolic relations of power, film produces and incorporates ideologies that represent the outcome of struggles marked by the historical realities of power and the deep anxieties of the times; it also deploys power through the important role it plays in connecting the production of pleasure and meaning to the

mechanisms and practices of powerful teaching machines. Put simply, films both entertain and educate (p. 585).

Whether viewed in a movie theatre or in the classroom; whether fiction or non-fiction, films ground us in a system of meaning about the world around us. We learn about other cultures through films, and members of other cultures around the world learn about us through films. My first encounter with the films presented here was in a graduate school class, *Video Ethnography*, at Arizona State University; *The Plow that Broke the Plains*. We were learning about the power of films to tell a snapshot of a situation and how they could be used to communicate to a wider audience.

In 2008, one of the co-producers of the film *Alternative Livestock Production* (Bob Hamblen) asked the Extension communications unit to have the video tape digitized. The team worked with CSU video productions to have this done, and I then worked with Hamblen to edit it to shorter, more Internet-friendly segments. These were uploaded to a website in development, the target audience of which was to burgeoning small acreage owner audience throughout Colorado.

This is KCJ-812 came to my attention in 2011 while analyzing the National Agricultural Library's (NAL) Special Collections, specifically the archives associated with the Association for Communication Excellence (ACE). Staff at the NAL arranged for screening of the 16-mm film, which was produced in 1969. From the opening credits and music to the story that evolved, the film was intriguing in how it set the mood of the late 1960s, as well as presented a specific challenge for farmer's and researchers, and how they approached informing a wider audience of a potential insect infestation to an agricultural crop.

Since 2010 I have been conducting a study of Colorado farmers and ranchers, titled the *Colorado Social History Project*. This project's design includes asking farmers and ranchers

about their land use practices, and the connection between formal and non-formal education. The project is both geographic and commodity-based in scope, and requires me to travel throughout the state, connecting with people of various backgrounds to conduct interviews. It was during a visit to the far southeast corner of Colorado that issues surrounding drought, land use, and shifting population densities became clearer to me. This led to the work of Timothy Egan and the book *The worst hard times: the untold story of those who survived the American Dustbowl* (2006). Reading this led to the subsequent re-introduction to the film, *The Plow that Broke the Plains*.

Through employment with Colorado State University Extension, I was asked to assist with the final phases of the *Livestock Mortality Composting* video production. This film was a collaborative effort of several university and agency subject matter specialists. The producer, in addition to being a livestock Extension agent in Eastern Colorado, was a self-taught photographer and videographer. The project was initially funded for one year, and the group was allowed a year's extension from the grant funders. Towards the end of the second year—partly due to the fact that all collaborators faced the pressure of their existing workload—the project was in danger of not meeting the deadline, and they sought professional assistance from me. This came in the form of final editing, as well as laying the audio track for the Spanish version. It was through this process that a pattern began to unfold for me, connecting these three films. These patterns are evident in many of the Extension materials produced for target audiences: an issue emerges, university research follows to tackle the issue, and a means of communicating the results, and best practices for future endeavors, is sought through the use of Extension connections in local communities. In the case of these three films, the issues were economic

sustainability of agricultural enterprises, insect pressure, and the environmental and economic challenges associated with handling animals that had died at the site of an agricultural enterprise.

During the spring and summer of 2014, while studying for the preliminary exams for degree requirement at Colorado State University, an online search led me to a journal article regarding *The Charge of the Tick Brigade*. This article (Zweig, 2009) discussed the use of film to educate farmers and ranchers in the southeastern U.S. regarding the need to dip cattle with an insecticide to kill ticks. I was intrigued by the discussion about how the film was shown to farmers and their families when they were in town on other business, by their local Extension agent, and the connection of this model as it is carried through, to present day, by Extension agents in local communities. A search on YouTube led me to the archival film, posted by the National Archives. Upon viewing the film, it was clear that rich symbolism was used to communicate the message in this animated short film. This planted the seed for the examination of visual rhetoric. It was also at this point that patterns were beginning to emerge, and a historic trajectory was becoming apparent—that of the role of agriculture in fueling the American economy. *The Charge of the Tick Brigade* was produced in 1919; *The Plow that Broke the Plains* in 1936; *This is KCJ 812* was produced in 1969; *Alternative Livestock Production* in 1999; and *Livestock Mortality Composting* in 2012. While not a precise timeline of—for example—every two decades, the production of these films was more closely aligned with significant societal events. What emerged was an impression of how these films tell the story of that precise series of events that led to the situation faced by American agricultural producers. Close examination revealed how an argument for behavior change through the adoption of certain agricultural practices was presented, and where it had been screened to sway any skeptics. The visual positioning and language—the rhetoric—has been expressed through visual

displays of harmony/devastation/conquering of the elements/reward of prosperity. These are themes common to all five films. Throughout the history of the expansion of the U.S. economy, filmmakers were not the only ones creating discourse that would help fuel the American economy. Civic-minded policy makers—recognizing the need for practical education that would lead to economic prosperity throughout rural areas of the U.S.—also played a role in furthering societal goals that would fuel the American economy. The policy makers were instrumental in the passage of three key pieces of federal legislation, passed over five decades, from the late 1800s to the early 1900s. These provided the financial framework for the acquisition of knowledge by scientists on agricultural topics, and the transfer of that information, applicable to local issues, in communities throughout the region. Land-grant universities were created through the Morrill Act of 1862, (7 U.S.C. § 301 et seq) with a goal to provide educational opportunities to a wider audience on topics such as agriculture and mechanic arts. The Hatch Act of 1887 (7 U.S.C., ch. 14 § 361a et seq.) created centers of agricultural research throughout the U.S. Educational outreach presenting research findings from land-grant university researchers has for over a century been provided to local community members through the Extension system, which was formalized with federal funding by the United States government by the Smith-Lever Act (Agricultural Extension Act) of 1914 (7 U.S.C. § 341 et seq) (Carlson, 1970). The present funding formula continues to combine county, state and federal monies. The model for Extension programming was then and is still today a collaborative effort; the expertise of researchers (specialists) working in specific disciplines, and agents (adapted from the words “change agent” which reflects their community status and their role in designing educational programs to change/improve situations) providing workshops to community members interested in targeted topics. (Hoffman & Grabowski, 2004). The Smith-Mundt Act of 1948 was the first to establish a

post-World War II "public diplomacy" role overseas for the State Department and US media organs, such as *Voice of America* and *Radio Free Europe*. However, the law also barred those agencies from disseminating their "good news" to audiences at home in the United States.

The need to communicate the value of research and education efforts did not go unnoticed by policy makers, and they recognized the need to add professional communicators to the organizational structure. Early in the twentieth century, writers and editors were employed at both the federal and state level to aid in the development of printed materials, designed to persuade those in power to support and publicize the work of university and extension professionals in the field. Archival files of the Association for Communication Excellence (ACE) in the National Agricultural Library's Special Collections contained a report from Jarnigan (1966) which described the work of writers and editors hired by colleges of agriculture at state land-grant universities. These communicators initially focused on text-heavy informational and educational materials on agricultural topics. By the late 1920s, the heads of the communication units with which they were employed began to recognize the need for professional photographers and filmmakers to provide supporting visual material for the printed pieces. In another report from the archives Kinghorn (1929) addressed the pros and cons of hiring skilled employees, versus contracting for photographic work, noting that the expense of hiring a full-time photographer might be offset by hiring a local professional photographer on an as-needed basis, providing them with adequate direction for the types of photographs needed on a regular basis. The ability to tell the story visually with professional photographs, staged and carefully planned, was considered to be a benefit when promoting the story of agricultural progress. Champoux (1999) wrote: "Films offer both cognitive and affective experiences. They

can provoke good discussion, assessment of one's values, and assessment of self if the scenes have strong emotional content" (p. 12).

Efforts to bolster the professionalism of film productions related to agricultural topics continued among professional development organizations, particularly the American Association of Agricultural College Editors (AAACE), the Farm Film Foundation, and the American Plant Food Council. In 1954, an award was created jointly by these organizations to recognize exemplary work. Kinghorn wrote, "Since a large number of the state agricultural colleges do not have an adequate photographic service, the question of how such a service can be satisfactorily organized and maintained is a live problem" (p.1). A recent study (Littlefield, 2013) of present-day videographers who had started their careers in the days of film revealed the nimbleness in learning quickly, and the necessity of adapting to new technology to aid in storytelling.

Close to 100 years ago, the USDA Motion Picture Service provided guidance to federal and state educators regarding how and when to include film in an educational effort. A 1921 USDA report noted:

The question of what type of film is best for a particular purpose depends upon the varying circumstances, but as a general proposition, the most valuable films appear to be the teaching films in which the subject matter is presented simply and clearly, and in which the various scenes are linked together by a story that can be well interpreted by amateur actors.

This revaluing of story films was the result of trial and error. Officials collected reports about the exhibition of their films from extension service agents nationwide. They could therefore judge which kinds of films performed best (p. 44).

Throughout its history, Extension funding streams have varied from agency budgets supplemented by grant-funded projects tightly focused on societal issues. For example, when concerns regarding animal agriculture disease and control were in the forefront, research and

education at land grant universities focuses on solutions that can be communicated to stakeholders and agricultural producers. In another example, when concerns about pesticides or food safety become priority political concerns, more funding has been shifted to research and education efforts (Warner & Christenson, 1984). Visual presentations representing U.S. agricultural issues, when combined with printed material, were produced to inform, educate, and influence, to promote behavior change, including state-of-the-art agricultural production technique adoption. The ability to communicate effectively to audiences continued to evolve in step with mass media improvements, to include broadcast television production, cable television, film, and videotape productions produced for target audiences and distributed through catalog sales, and presentations by county agents and specialists as part of educational programs (Everly, 1972).

One commercially successful film cited often in the literature—due to its presentation of agriculturally-influenced issues affecting a wide region of the Western United States—was *The Plow That Broke the Plains* (1936). The film highlighted the environmental and economic devastation resulting from years of agricultural practices, such as tillage, that led to the Dust Bowl, through the persuasive methods of dramatic music, narration, and visuals. It was directed by Pare Lorentz and funded by the U.S. Resettlement Act. On the heels of its acceptance, Lorentz wrote and directed *The River*, released in 1938. *The River* continued the dramatic pacing of *The Plow that Broke the Plains*, and described the impacts of farming and timber harvesting and soil erosion in the lower Midwest United States. Its persuasive message was one of the factors leading to the creation of the Tennessee Valley Authority, an extensive river damming and hydro-power generation project by the United States Army Corps of Engineers (Black, 2002), which became the site of highly contested and inflammatory political conflicts. Despite

these conflicts, Lorentz went on to a long filmmaking career, making many more non-fiction films which confronted societal issues. Today he is considered to be a master of documentary production by many scholars.

The adoption of new communication technology at land-grant universities, colleges of agriculture, and Extension kept pace with commercial, industrial, and government communication outlets. *This is KCJ-812*—another film analyzed in this research project—highlights the new communication technologies available (two-way radio communication, satellite technology, and expanded use of radio news) to deliver timely agricultural pest information. Visual material produced over the past century to promote American agriculture progress has included photographs, exhibits, posters, flyers, newspapers, magazines, films, slides, and videotape productions. Film distribution has evolved from 16mm films to ¾” U-Matic video tape to DVDs (digital video discs), Blu-Ray disks, and through online digital video posting. These changes were adopted to reflect the evolution of both Extension audience learning styles and distribution channels (Case & Hino, 2010). For example, when the film *Alternative Livestock Production* (2000) was developed, it was distributed on ¾” U-Matic and ½” VHS tapes to Extension agents, specialists, interested livestock producers, and affiliated organizations.

It is not the intent of this research project to explore audience reception, but to explore the means used by the filmmakers to exploit message construction and presentation techniques, narration, visuals, and accompanying music of that time period, to invoke a positive response. That response could be in the form of adoption of a new technology or production practice, funding for strategic educational programs, or policy changes by local, state, or federal governmental entities.

LITERATURE REVIEW

Increased media literacy, hardware and software advances, and accessibility have led to the spread of communication technologies to those closer to the issues. This, in turn, led to advances in the creation of cultural meaning by a larger segment of a social group. Jenkins, Ford and Green (2013) describe this as participatory cultural meaning creation, the result of a “century long struggle for grassroots communities to gain control over the means of cultural production and meaning” (p. 193). *Livestock Mortality Composting for Large and Small Operations in the Semi-Arid West* (2012), for example, produced by a team of university subject matter specialists, took advantage of the knowledge base and distribution network of participants in the project and their contacts. Seyler (2009) writes:

Demonstrative proof is not about manufacturing information; it is about placing information in front of an audience in such a way that the effectiveness of the message is the point, not necessarily the message itself. It is about using whichever technical and artistic means the filmmaker has available that are necessary in order to persuade the viewer (p. 15).

As technology has advanced, so has the capacity for people from all walks of life to be able to create their visual legacy, which through online sources can be shared with a wider audience.

Livingstone (2004) wrote:

In key respects, content creation is easier than ever: one and the same technology can be used for sending and receiving...digital cameras and webcams putting professional expertise into the hands of everyone...the social consequences of these activities—participation, social capital, civic culture—serving to network (or exclude) (p. 6).

Again, using the film *Livestock Mortality Composting* as an example, the committee members involved in pre-production planning all had an interest in using film as one means to carry their message; some had participated in film productions as on-screen experts, but only one person

had any amateur photography and videotaping experience. Still, they were able to secure nearly \$100,000 in government funding for the production. The earliest educational films on agricultural topics produced for wide distribution, to educate American farmers and ranchers, were developed by the USDA's Motion Picture Service. During and following World War I, agencies within the U.S. government were expanding their outreach efforts through the creation of agencies such as the Office of Information. The USDA Motion Picture Service took the lead in using the latest communication technology (films) to present these topics. Zweig wrote: "...during the 1920s and '30s, the USDA maintained its exhibition system by dispatching its 3,000 'county agents'—government employees tasked with living in communities and educating farmers" (p. 123). Films covering topics relevant to rural audiences were made available to county agents through USDA catalogs. The practice of creating visual presentations (either through hiring skilled workers or through contracts) to communicate agricultural research findings to a potentially interested and engaged lay audience, in their own communities, embedded within it the goal of helping them to understand the scope of the problem and what they could do to be part of the solution (Hoffman and Grabowski, 2004). In order to show these motion pictures, film projectors became a standard public presentation equipment item for county Extension agents affiliated with land-grant universities. They also relied on collaboration with schools, churches and other community organizations that made it possible for wider distribution of the films even without the equipment investment. One of the first films, released in 1919, was a short (8:30) animated production, *The Charge of the Tick Brigade*. The film was shown in rural communities, screened at community centers and other public gathering places when farmers, ranchers, and their families were in town on business, but also might have some

free time. Using both non-fiction and fiction films as a component of pedagogical style offer positive cumulative effects, according to Champoux (1999), who wrote:

Film scenes can offer a visual portrayal of abstract theories and concepts...students will likely benefit from the use of film because of a greater feeling of reality. Showing concepts through different film scenes also shows the application of those concepts in different situations...cinema's ability to create a unique experience gives it unbeatable power as a teaching tool (pp. 1-2).

The use of multiple media to show the same concepts...has positive cumulative effects...differences in brain functioning point strongly at choices in instructional media to synergistically use both sides of a person's brain (p. 5).

The visual and auditory effects of...films can convey a message better than printed or spoken word (p. 8).

Showing films before discussion gives students a recallable visual image to which they can compare the topics under discussion...showing a scene before discussion sets a frame of reference (p. 9).

The "pedagogy mixed with entertainment" practice noted by Champoux continues to be foundational to modern educational programs in 2016, through a mix of videos posted to *YouTube*, Facebook, and Instagram social media portals, produced by off-campus (often county-based) Extension agents. Higher-quality visual presentations developed by multimedia producers employed by land-grant universities in colleges of agriculture, Extension, and associated communication units have been produced for online distribution and sometimes packaged in DVDs (Case & Hino, 2010).

Examining Visual Storytelling through Qualitative Research

Visual presentation technology has changed, and the adoption of that technology has become more widespread. In 2016 the person behind the camera might be a subject matter specialist rather than a communication professional. However, the concepts behind storytelling:

- 1.the creation of meaning;
2. the transmission of information;
3. developing cultural

understanding of complex topics, and 4. the overarching goal of encouraging adoption of updated practices, has continued. How these four aspects are interrelated provided the framework for this study.

The evolving nature of qualitative research as it is being undertaken lends itself to ways of examining theoretical concepts and being open to the shift from one theory to another that may be closely aligned but more in sync with the phenomena being studied.

Anfara and Mertz (2006) wrote:

The role of theory in qualitative research extends beyond the confines of a particular study. It ... adds subtlety and complexity to what appears at first glance to be simple phenomena, and allows for building a repertoire of understandings, diverse perspectives, of the same phenomenon (p. 190).

Therefore, a study of media artifacts, such as these films, and the human dimensions associated with them, could have led to a theoretical anchoring in the discipline of media archeology Huhtamo and Parikka (2011), which, according to Littlefield (2014) “apply the tenets of archeological study, that is the sifting of evidence –to learn about the implications of media on society” (p. 118) In contrast, breaking down the meanings of visuals, in combination with an ethnographic approach to studying the phenomena of these films, might have placed this research in the domain of cultural studies, as described by duGay (1997) as the “Circuit of Culture” and further expanded by Champ (2008) to include “a sense of the researcher’s reflexive interpretations, as well as recognizing the meaningful experience of audience members of the research report” (p. 85). This, then, provides a framework for understanding why I have chosen qualitative research methods to gather evidence that supports or refutes an understanding of the role of film is supporting the phenomenon of American agricultural production. It is through blending these perspectives, and considering

the essential components I wished to study as related to message creation, that led to two anchoring theories, which provided a conceptual framework for this research:

- visual narrative analysis/visual rhetoric in films; and
- auteur/authorship

What follows next is further explication of the appropriateness of these as the theoretical foundation for this study.

Visual Rhetoric

Woven throughout all phases of this project are findings related to visual rhetoric; that is, the cultural meaning of images, how they are interpreted, the intent of the image makers and what they expect the image consumers might do with the messages they receive. Scott (1994) examined the persuasive nature of advertising photographs. He wrote:

The sender...crafts the message in anticipation of the audience's probable response, using shared knowledge of various vocabularies and conventions, as well as common experiences...visual elements must be capable of representing concepts, abstractions, actions, metaphors, and modifiers, such that they can be used in the invention of a complex argument. There... must be an ability to guide the order of argumentation via the arrangement of the visual elements (pp. 252-253).

Signs and symbols, voice, authorship, and narrative construction as related to societal issues are some of the aspects analyzed in this project. Media scholars such as Erving Goffman (*Gender Advertisements*), visual sociologists, and others have written extensively about visual rhetoric and its applicability to still photographs. Gronbeck (1978), however, gave special attention to the role of documentaries in shaping community narrative. He wrote: "Documentary is an inherently rhetorical medium" (p. 140). Fewer scholars have considered the role of visual rhetoric by specifically examining non-fiction films related to agricultural topics. O'Connor (1988) wrote

about non-fiction books that “focus on questions of governmental policy and public perception of issues related to the dust bowl of the Great Plains” (p. 1200). O’Connor continued:

The film was not given anything like the careful analytical attention the same authors accorded to manuscripts. The failing is not unusual, and can be explained in part by the fact that few historians think of film or television as anything more than lightweight entertainment, and in part because of the absence of any accepted, coherent, and comprehensive methodology for analyzing them as historical artifacts (p. 1201).

Lester (2007) discusses the discipline of “American Studies” and the intersection of driving political, social, and economic forces. She examines the use of agrarian myth as it applies to novels, feature films, and as part of Congressional testimony. The term “agrarian myth” is used to denote the importance in these presentations of narratives of owning land and providing for one’s family as critical to the formation of American culture. Throughout the 20th century, the agrarian myth was perceived in political rhetoric to be foundational in the success of American society, both in rural and urban communities. (p. 2) While considering these films, three aspects, as outlined by Nichols ((2001) became clear. Nichols wrote: “In every documentary, there are at least three stories that intertwine: the filmmaker’s, the film’s and the audience’s” (p.61). This study is not focused on the reception by audiences, but rather the filmmaker’s perspective with respect to intended audiences. Therefore the three perspectives or “stories” will be examined, for each film.

Voice, and signs and symbols related to visual narrative construction

The early expansion of documentary techniques—specifically with films such as *The Plow that Broke the Plains*—reflected the persuasive media production practices of the time period, which Gronbeck (2008) called “their place in what we know and share with each other (social epistemology) make what we see central to the contemporary world” (p. xxi).

Filmmakers, critics, and researchers might disagree about placing the films under consideration

for this project solely under the category of “documentary”. Rossler (2004) wrote: “Many of these early users saw themselves as carrying out an act of profound social criticism, criticism specifically directed at the domination of groups and individuals epitomized...by all of mainstream Western industrial and technological culture” (p. 54). Rossler argues that the documentary movement began as part of the progressive movement and ends with the Farm Service Administration (FSA) and the Lorentz projects. Sekula (1984) argues that the term “documentary” should never be used, yet it persists in future work in photographic and film production. He wrote: "Documentary photography has amassed mountains of evidence. And yet, in this pictorial presentation of scientific and legalistic “fact”, the genre has simultaneously contributed much to spectacle, to retinal excitation, to voyeurism, to terror, to envy and nostalgia, and only a little to the critical understanding of the social world" (p. 57). Nichols noted: “Documentary represents the historical world by shaping its photographic record of some aspect of the world from a distinctive perspective or point of view” (p. 168).

Documentary is used here to further refine the term “non-fiction film”, but is not the descriptor for all of the informational/educational pieces or what Portello (2014) calls “social-issue films” (p. 55) presented for examination. The statement by Gronbeck might accurately describe each of the films. He wrote, “Throughout its fifty-year history the documentary has been viewed as a mere recorder-of-information, a presenter of counterpoised pro-and-con argument, or a medium leading implicitly or explicitly to social action” (p. 134). The impact of and enduring nature of films is well documented in research disciplines ranging from social cognition and cultural studies to persuasion and rhetoric. Nichols wrote:

...poetics and narrative (for telling stories and evoking moods), logic (for matters conducted in the spirit of scientific or philosophic inquiry), and rhetoric (for creating consensus or winning agreement on issues open to debate)...documentary is about the

effort to convince, persuade, or predispose us to a particular view of the actual world we occupy (pp. 68-69).

During the 1960s, researchers, community-based activists, sociologists, and educators began to appreciate the role of film in a dialogue for community change. Jarnigan (1970) noted that it was not only the presentation of films and transfer of information on educational topics that furthered dialogue regarding issues and potential solutions, but also involving community members in the production process that was pivotal. More than screening a film in a community and evaluating response and behavior change, a wider net was cast by considering how involving community members in the production process might foster wider acceptance. This might come in the form of asking them to be a part of the film (interviewed on camera), assisting on site and topic selection, participating in community events where critical community-based concerns were discussed (using the film as a springboard for discussion), or asking the community members to become part of the technical crew. Thirty-five years later, Van Mele (2006) wrote about the role in participatory communication efforts, referring in this case to international projects in which he was involved. He wrote: "...video production based on principles (participatory in nature) ...can equally lead to doing science in a different way....the actual video production process equally contributed to attitude change among research and development actors" (pp. 140-141). The fourth and fifth films chosen for this analysis, *Alternative Livestock Production* and *Livestock Mortality Composting*, fall into the scope of this perspective. These films were produced with greater input from community members and greater involvement in more phases of the production process; these people represented the actors involved in selecting topics, scenes, genre, and presentation style.

Voice

The perspective of the story/narrator/topic, denoted as ‘voice’, editing and story pace, accompanying music, and presentation of images, all merge to set the overall tone of a non-fiction-based narrative. According to Ascher and Pincus (1984): “A narrative film may begin with a story or treatment which outlines the character and plot...a documentary might begin with research, a written proposal, and often some preliminary footage” (p. 54). The documentary—presented here as a non-fiction visual presentation—presents a compelling story to an audience, with the goal of convincing the audience of a particular perspective or argument. Nichols (2001) described voice as being anchored in the Aristotelean concept of ‘artistic proof’, which is subdivided into three categories; ethos, pathos, and logos. Nichols (2001) wrote: “Each strives to convince us of an argument’s or perspective’s validity” (p. 50). Nichols further defined Aristotle’s principles in relation to artistic evidence in documentary films, as:

-ethical: generating an impression of good moral character or credibility;

-emotional: appealing to the audience’s emotions to produce the desired disposition; putting the audience in the right mood or establishing a frame of mind favorable to a particular view;

-demonstrative: using real or apparent reasoning or demonstration; proving, or giving the impression of proving, the case. (p.50)

The role of persuasive messaging related to agricultural production practices and acceptance/adoption of new technology has been perpetuated in the United States in part through the work of USDA program managers and communicators since the agency was formed.

Douglas (1986) noted that for an institution to maintain credibility, employees must find ways to navigate the organizational culture and its goals in ways that further the organization’s mission.

In the case of the USDA and land-grant universities, the “sacred” is evoked throughout the

twentieth century in messages about a safe, dependable food supply, and the ability of American farmers to feed the world. Smith (2006) wrote:

This is Durkheims's doctrine of the sacred. All the other control exerted by institutions are invisible, but not the sacred...to be recognized by these three characteristics. First, it is dangerous. If the sacred is profaned, terrible things will happen; the world will break up and the profaner will be crushed. Second, any attack on the sacred roused emotions to its defense. Third, it is invoked explicitly. There are sacred words and names, sacred places, books, flags, and totems (p. 113).

The "totems" and "sacred words and names" are visualized in songs such as *America the Beautiful*:

Oh beautiful, for spacious skies,
For amber waves of grain,
For purple mountain majesties,
Above the fruited plain

These are further "invoked explicitly" through the imagery such as those used in many of these films, such as the sweeping vistas and bucolic scenes of fruitful production that fuel American prosperity, both in the U.S., and as depicted in global outreach campaigns. Nichols (1991) noted that the style a documentary producer takes on is "intimately attached to the idea of a moral point of view" (p. 80) It is the "institutional structure" he wrote, that shapes the production. That institutional structure will be examined in these five films.

Finally, it is Perloff's (2003) summary of persuasion that guided and informed the first research question. Perloff wrote: "I define persuasion as a symbolic process in which communicators try to convince other people to change their attitudes or behaviors regarding an issue through the transmission of a message in an atmosphere of free choice" (p. 12). Presenting the options and the cost/benefit analysis with a pseudo-balanced approach lets the viewer's believe they have an option.

Signs and symbols

Gaining a sense of the signs and symbols that are inherent in the symbolic process is the goal of the study of semiotics; symbolic action is represented in the words that are used, the images that are captured, and the manner in which these are presented. These are presented as both connotative and denotative meanings, which, according to McQuail (2010) are “the associations and images invoked and expressed by certain usages and combinations of signs” (p. 346). Figure 1, McQuail’s *Elements of Semiology*, shows how the sign stands apart on a physical plane, as placed by the person wishing to establish a message, and create a meaning that is useful for the message consumer. Denotative describes the physical attributes of a sign; a tree looks like a tree, a bird looks like a bird. Connotative is used to describe what that tree might mean in the context of the message. For example, is it juxtaposed against a burnt-out building, where the tree would symbolize the continuation of life amidst chaos? In a study examining the connotative and denotative meanings in television programs, Seiter (1987) wrote: “Some aspects of the image and the soundtrack that we think of as nonrepresentational activity function as symbolic signs and often carry connotative meanings” (p. 40). These descriptions were useful in analyzing these films. For example, at the indexical level— in the film *The Charge of the Tick Brigade*—a cartoon of an animal lying on the ground with ribs showing, multiple specks over a portion of the animal, and a cloud with cow angels playing harps over the cows (the signs) are what we have come to accept as visual symbols to represent death. Nichols (1983) wrote:

Documentary displays a tension arising from the attempt to make statements about life which are quite general, while necessarily using sounds and images that bear the inescapable trace of their particular historical origins. These sounds and images come to function as signs; they bear meaning, though the meaning is not really inherent in them but rather conferred upon them by their function within the text as a whole... This is not only a matter of semiotics but of historical process. Those who confer meaning (individuals, social classes, the media and other institutions) exist within history itself rather than at the periphery, looking in like gods... Those who confer meaning are

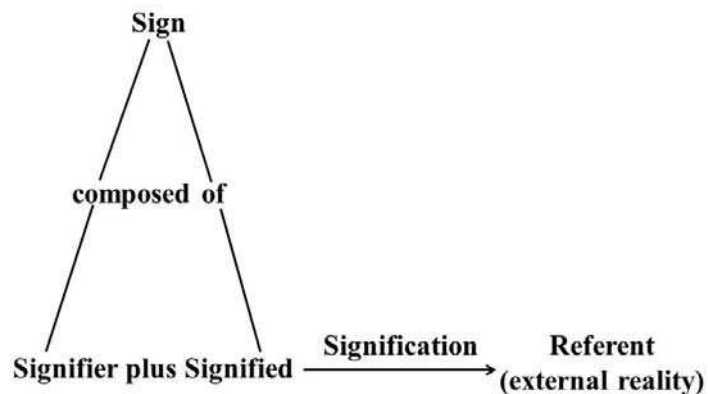


Figure 1. McQuail's Elements of Semiology. He wrote: "Signs in meaning systems have two elements: physical plus associated meanings in the culture and in use" (p. 346).

themselves members of the class of conferred meanings (history). For a film to fail to acknowledge this and pretend to omniscience-whether by voice-of-God commentary or by claims of "objective knowledge"-is to deny its own complicity with a production of knowledge that rests on no firmer bedrock than the very act of production (p. 20)

In other words, more than the imagery itself, it is the sequencing and flow that takes place through pacing and editing techniques, and the juxtaposition of text and imagery that combine to create what the filmmakers intend to fully provide a meaningful message. The Kuleshov Effect Simpson (2008) describes documentaries as "...motion pictures created to persuade..." (p.103) He goes on to describe the potency of films that "...deliberately aim to change the perceptions, beliefs, and behavior of their viewers in ways that furthered the objectives of the filmmakers" (p. 104). Voice is also the manner in which a film is arranged in order to state the case and set forth solutions. Nichols described a "comprehensive treatment of arrangement, as recommended by classic orators" (p. 56) which provided a framework of analysis for these films. Nichols wrote that an arrangement would include:

- an opening that catches the audience's attention

- a clarification of what is already agreed as factual and what remains in dispute, or a statement or elaboration of the issue itself,
- a direct argument in support of one's case from a particular viewpoint,
- a refutation that rebuts anticipated objections or opposing arguments, and
- a summation of the case that stirs the audience and predisposes it to a particular course of action (p. 56)

Each of the films has been examined to determine if they follow this classical arrangement scenario, and, if so, how specifically that was expressed in the production.

Nichols categorizes editing and storytelling techniques according to *expository* and *observational* modes. Expository editing, or what Nichols calls “evidentiary editing” (p. 107), is considered a means to further the particular argument or point of view being presented. He wrote:

Expository films adopt either a voice-of-God commentary (the speaker is heard but never seen)...or utilize a voice-of-authority commentary (the speaker is heard and also seen)...some of the most impressive films chose less polished voices precisely for the credibility gained by avoiding too much polish (p. 167).

In observational mode of editing, according to Nichols, “The filmmaker gathered the necessary raw materials and then fashioned a meditation, perspective, or argument from them” (p. 109).

The treatment (animated short) for *The Charge of the Tick Brigade* provides what was at the time considered a modern approach to the subject. Choosing the perspective (cow, wife, husband, family associations, educational setting; a school auditorium) invokes the familiar to those who viewed it. Wells (2009) wrote, “The use of animation can dilute the implications of meaning—after all, this is the artifice of drawing, puppets, objects, virtual simulacra, etc.—or it can amplify it—the illusionism providing exaggeration and fabricated emphasis, throwing the ideas and issues into relief.” (pp. 3-4) “...the illustrations were but exaggerations of moral and social traits” (p. 8). Burt (2002) wrote, “...rather than seeing animals purely as semiotic devices

it makes more sense to see them as dynamic and fluid agents that are integral to passages of change” (p. 83).

Auteurs and Authorship

A goal of this research project was to unravel the various collaborative processes that overlapped in the process of creating the highlighted five motion pictures, by determining how, why and when various team members take ownership of the project. The term “auteur” is the French word for “author” and began to be used in film criticism in the 1920s to examine the role of, and who identifies as, the author of a film. Hayward (1996) wrote: “At the time the debate centered on the auteur (author of script and film-maker as one and the same) versus the scenario-led film (scripts, commissioned from authors or scriptwriters) – a distinction that fed into the original high-art/low-art debate” (p. 12). The processes may or may not vary depending on the hosting agency personnel involved; thus perhaps the perspectives on “who is auteur” will shift depending on the nature of the genre and topic, the personnel involved, the funding agency, and the target audience. As a project evolves, there is the tendency for a shift to take place as those with diverse creative perspectives create an environment where those lending their expertise at various phases of the creative process. They may identify in some way as the “author”, taking ownership of the production at that phase. For example, the writer of an original book which is adapted to a screenplay sometimes is hired to make that adaptation. They are the auteur/author, but when it has been developed through production, say by a world famous director, the designation of auteur may change to be known as “A _____ film”. Specifically referring to Hollywood productions, Corliss (2008) wrote: “... at best, it (an idea) was proposed, the writer wrote a script, but the director makes the film. The two crafts were seen as riding on opposite sides of a seesaw” (p. 147).

The model for a division of labor that allows each specialist to provide her unique perspective comes from the Hollywood studio tradition. Koszarski (2008) wrote: “Screenwriters decided what Hollywood films had to say, and directors how it would be said” (p. 137). The staffing model used by Hollywood film studios was reflected in private industry, commercial production houses, government agencies, and in higher education communication units. Films, and later, video productions (specifically those funded by government agencies) often included a team of collaborators, from subject matter specialist to filmmaker/videographer. The exchange of information, insight and perspective of each team member was deemed critical to success. Alony, Whymark & Jones (2007) wrote about the evolution of production studios. The operations that had been organized by function were consolidated or disbanded entirely following World War II. Employees then migrated from project to project according to their expertise.

To better understand how the educational and professional background of those recruited to produce these films—as well as how the current social, political and economic issues—might have been reflected in their work, is the foundation of RQ2, but they also provide insight into RQ1 and RQ3. Auteur theory examines the roles of various top-level individuals involved in the development of a film, down to the level of how others involved in the film’s production express their identity. When Wells (1997), wrote about auteur theory and animated films, auteur theory was categorized into “textual” and “extra-textual” (p. 74). Although specifically considering animated films, his definitions can be carried through to the other films examined here. He noted that in the textual category, the auteur is: “ the person who prompts and executes the core themes, techniques and expressive agendas of a film; a figure around whom the key enunciative techniques and meanings of a film accrue and find implied cohesion; a figure who provides the

organising principles” (p. 74). The “extra-textual”, meanwhile, applies to the issues, and specific situations, which led to institutional support of a production. He noted:

The auteur may be understood as a figure who embodies a coherent position about a film which makes complex production processes invisible, and obscures or inhibits an alternative view about the authorially determined claims of others in the execution of the film; a historically adaptable idea which offers a way of implying and understanding how a film should be received; an institutional structure which operates as a “pre-condition” to the film, suggesting that an audience might already “know” the film, without having wholly “read” it. Cynically this might be viewed as “consumption” without “reception” (pp. 74-76).

There might be confusion regarding the distinction between auteur theory and the research around collaborative teamwork and sharing tacit knowledge is to be expected, as there are points of overlap in each of these perspectives. Bernstein (2008) noted: “the notion of collaboration provides a different way of thinking about the producer’s role...the concept of collaboration allows us to think about the ways producers contribute to filmmaking in less traditionally creative terms” (p. 184). Hayward (1996) presents three distinct phases of auteur theory development (figure 2), helping us to understand the placement of auteur theory in relation to political and social perspectives of the day. These range from the initial coining of the term in the 1950s—the author as creator of meaning—to auteur theories role in the 1970s in feminist and semiotics studies, among others. I examined the role of auteur in the creation of meaning, and how that relates to the visual rhetoric of the time periods of each film.

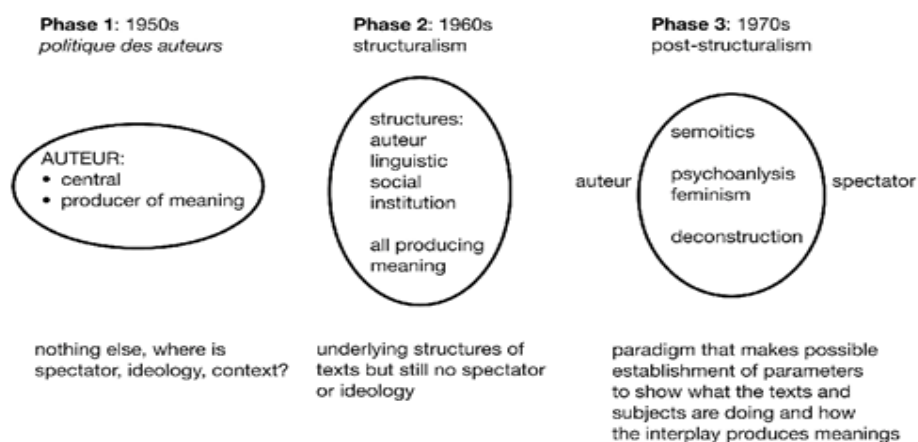


Figure 2: The role of auteur theory placed in relation to prevailing social perspectives of various time periods (Hayward, 1996, p. 15).

Social Actors

The ability to understand the cultural meaning of films on U.S. agricultural topics, and the role that these films played in the creation of personal, community, and institutional identity, are the prominent themes of this research project. An example of this is the continual process of how various facets of society come to terms with the forces of nature are discussed by Leiss (1972) who wrote: "...because of the lasting institutional frameworks through which particular groups control the behavior of others, the new techniques are utilized sooner or later in the service of domination." (p. 163). In the case of U.S. agricultural production, the institutions of federal and state government provide the regulatory framework that is guided by their missions, with research and education often relegated to the local land-grant universities and Extension educational pipelines. Extension, in turn, uses a model of, for example, local agricultural producers trying out techniques and practices through demonstration farms. This coupled with supporting visual educational materials moves new methodology into the hands of local community members.

The march to modernity in agricultural communities did not take place overnight. Berry (1997) discussed the “modern” agricultural ideal when he wrote about the similarities and differences of agricultural production and the manufacturing process. Rather than convincing the more conservative farmers and ranchers to adopt sweeping changes throughout American agriculture, they were brought along more slowly, sometimes, “...one implement at a time.” (pp. 58-59). Perelman (1975) examined the Marxist perspective on agriculture and natural resources under capitalism, as “the expenses necessitated in agricultural improvements” (p. 702). The persuasion techniques used in films were designed to convey not only the importance of a capital outlay, but the resulting improvement for animal and soil health. These all funnel into a improved way of life for farmers and ranchers, their families and communities and the nation.

In another example, considering an audience as a social group (farmers, interested stakeholders), their interaction with an object (the film) provides the social aspect. Questions to be considered might include: Were the intended outcomes of viewing the film met; that is, was a new agricultural practice adopted by a wider group of agricultural producers? Were community-based regulations changed or adopted through ordinances designed to regulate adoption and changed practices? How have the visual arguments presented over time with these films made their way into the accepted landscape representing American agriculture?

Zweig (2008) wrote about the types of films produced by the USDA Motion Picture Service. He discussed the genres that filmmakers there employed when creating the productions. The USDA distribution catalogue categorized the films using terms such as: scenics, animation, narrative, fairy tales, and melodrama. The early USDA films were developed specifically for a rural audience, at times to promote improved agricultural production techniques, but at other times to inform the audience about remote locations. As early as 1921 the U.S. Department of

Agriculture was waging the cost/benefit analysis of films as an education mode. In the report, *What the Department of Agriculture Is Doing with Motion Pictures*, Pickering (1922) noted:

By separating the kind of films they were producing from the presumed triviality of the “theatrical type,” government officials tried to give the moving image more credibility and authority. Yet these same officials often found that audiences weren’t necessarily interested in such authoritative discourse (p.

In late 1923, the USDA issued an internal report on motion picture use that indicates a reconsideration of the value of films, noting that all productions would be considered educational films, dividing them into four groups:

1. Didactic or teaching
2. Publicity
3. Propaganda
4. Semi-entertainment

The report noted:

...the most valuable films appear to be the teaching films in which the subject matter is presented simply and clearly, and in which the various scenes are linked together by a story that can be well interpreted by amateur actors. (p. 79)

That model was mirrored at government agency production units and at communication units at land-grant universities. (Booth, Telg, Smith & Tomlinson, 1992).

The ability to tap into the social learning processes, social capital, and cognitive storage are described by Rist et al. (2006) and others as components affecting behavior change.

Alternative Livestock Production (2000) and *Livestock Mortality Composting* (2012) make use of these elements with the presentation of success stories and challenges of people with whom the viewer might easily relate.

RESEARCH QUESTIONS

The films provide a means to examine the underlying and overt representations of societal issues, related to U.S. food and fiber production. The following research questions were posed to provide associated evidence:

RQ1: Are there persuasion techniques at play in production goals and outcome criteria?

- a. Are there apparent patterns of detail/form/genre: e.g., how are various topics presented, such as the treatment (a dramatic story with precise scripting, actors or characters presented, a historical documentary, comedic approach).
- b. Are there associated variables (such as target audience, intended outcome) related to how treatment methods are used?

RQ2: Based upon my analysis of a list of pre-identified films on agricultural and natural resources topics in the United States, what can I say are the expressed/presented identities of the filmmakers or other team members?

- a. Do expressed/presented identities play a role in promoting overarching societal goals?

RQ3: Based on the above analysis, what appear to be common narratives with the films analyzed?

- a. Are there ways that these common narratives might resonate with dominant narratives and discourses present in U.S. society at the time of their production?

METHODS

The tracing of the roots of U.S. informational and educational non-fiction films on agriculture and natural resource topics, began with historic documents associated with them. This provided a foundation for how films might be used in educational contexts. The institution analyzed here is that of American agriculture (Gardner, 2002). The historic nature of the timeline lends credence to following the advice of media historians, who deemed it critical to ask the questions of documents and other archival materials, as one would when conducting in-depth interviews. The reflexive investigation that ensues takes cues from Chapman (2011), who wrote, “What was its’ provenance? Who made it and who saw it? Under what circumstances was it made, and with what intention? How widely was it disseminated, and what effects or consequences might it have had?” (p. 365). Just as important to this study was how decisions about message creation were made. Lastly, but just as important, was understanding the significance of the role of the production team members in the validity of the message. This qualitative research project is unique, and perhaps more ambitious, because of the combination of historic, ethnographic, image-based, and content analysis components. Intrinsic to this process were various phases, which are outlined below.

Collective Case Study

Each of the films analyzed in this research project was produced within a distinct American socio-economic and political context. The time period spans nearly 100 years, and they were released in approximately 20-30 year increments. Each case study fits into an examination of the phenomenon that is the institution of American agriculture and become what Stake (2005) calls “multiple case study or collective case study” (p. 445). He wrote: “A case

study is both a process of inquiry about the case and the produce of that inquiry” (p. 444), studying the individual films answered questions of why they were created as well as revealed patterns of how solutions to particular issues were communicated.

A transcription of these films, with visual and aural, content was undertaken, except for *The Plow that Broke the Plains* where a script was available in the archives. This allowed for units of analysis to be more easily identified and studied, an important step noted by Patterson and Williams (2002), who wrote,

given the importance that language and the context in which it is embedded is accorded in hermeneutic philosophy, it is essential that the interviews be tape recorded to ensure an adequate database. Transcription of these interviews is necessary for the detailed “dialog” with the data dictated by the “hermeneutic circle” which characterizes the hermeneutic process of analysis (p. 46).

Historic Analysis

Delving into archival supporting documents (letters describing the project, official funding application and notification documents; company documents, publicity materials, other supporting documentation) as revealed through a literature search is a useful exercise in answering these types of questions. Sekula (2003) wrote, “Clearly archives are not neutral: they embody the power inherent in accumulation, collection, and hoarding as well as that power inherent in the command of the lexicon and rules of a language.” (p. 446).

During an analysis of records associated with *The Plow That Broke the Plains*, it was learned that producer Lorentz had the entire production filmed and edited, but no soundtrack. Lorentz commissioned the orchestration but still had no script. To mimic that experience, a cd of the music by was obtained, and an analysis of the film, played on YouTube with the sound turned down, and listening to the film score in association with the images, taking notes on the effect of the visuals with the orchestration.

Since the films examined were all produced through USDA's motion picture service or a land-grant university communications unit, access to such documents are available through the National Agriculture Library (NAL) Special Collections archives in Beltsville, Maryland. It is there, among the other archives on agricultural topics, that a more robust understanding of the language of the American agricultural production system can be analyzed and better understood. Startt & Sloan (1989) wrote, "...it is not the records of an individual that dictate inclusion, but rather how those records might fit into the kept materials of an organization or agency, or perhaps a special type of preserved historical record" (p. 86). It is through these cross-examinations of various sources that a form of triangulation can take place; that is, verifying what is found in one with what is found in another, and how they relate to the research questions. For example, an autobiography revealed statements about a film, while the archives (official documents, personal correspondence) revealed other perspectives. Still another source, such as a critique of a film, provided another perspective. All of these sources, when analyzed, led to the conclusions on the nature of each of the film's role in reporting on and promoting the American agricultural ideal. The analysis of archival materials presented a challenge to researcher bias. The researcher's career as a "recorder of information" on agricultural production and research at land-grant universities is the lens through which artifacts were considered. In order to view the films and supporting documents as factual, prior knowledge of filmmaking on these topics was a consideration.

In-depth, semi-structured interviews

The series of semi-structured, open-ended interviews conducted allowed for a deeper understanding of the relationship between those involved in producing the films and how their experience could inform answers to the research questions. Face-to-face and telephone

interviews were conducted, using the questions in the interview guide (appendix 1) as a start; other questions emerged as the interviews went on. For example, rather than asking interviewees directly “What roles do persuasion techniques play in production goals and outcome criteria?” or “What are apparent patterns of detail/form/genre: e.g., how are various topics presented, such as the treatment (a dramatic story with precise scripting, actors or characters presented, a historical documentary, comedic approach)?” could be confusing and potentially off-putting to respondents due to the academic nature of the questions. Questions such as, “How was script developed?”, “What issues in the agricultural community were high priority, do you think, at the time of this production?” and “What educational video formats informed the final presentation style?” were meant to elicit responses that would inform answers the research questions. The same questions were asked of all respondents, but because of the open-ended, semi-structured format, other questions did arise. In addition, responses that diverged from the questions asked added deeper meaning to the context of these films and their creation. A third reason for the recorded interviews was for future work; perhaps a documentary on documentary styles among agricultural communicators.

The key characteristics of in-depth interviews, according to Guion, Diehl & McDonald (2001) includes open-ended questions, a semi-structured format, the use of active listening skills to seek understanding and interpretation, and recording responses. Guion, Diehl & McDonald wrote that these types of interview are: “most appropriate for situations in which you want to ask open-ended questions that elicit depth of information from relatively few people” (p. 1)

Following the protocol outlined here, the in-depth interviews for this project included:

- Livestock Mortality Composting

Team members of the 2012 production training video and accompanying manual

- Jessica Davis
- Sarah Lupis
- Tommy Bass
- Michael Fisher

- Alternatives in Livestock Production

- Colorado State University videographer Ron Bend, producer
- retired Colorado State University Extension agent Bob Hamblen
- Colorado State University subject matter specialist Nancy Irlbeck
- former CSU animal science professor Ann Swinker

- This is KCJ-812

- Retired filmmaker Tom Bare, from the University of Nebraska and South Dakota State University
- former dean of the University of Nebraska College of Agriculture and Life Sciences, Ted Hartung

Interviews were video and/or audio recorded, transcribed and analyzed. As Margolis (1994) noted: “The use of non-print media offers opportunities for the investigator to record social processes directly, to explicitly enter into the process, and to record the effect of that

interaction” (p. 127). The files were captured on SD memory cards, which will be donated to the agricultural archives, the *Colorado Agriculture Bibliography*, at Colorado State University’s Morgan Library. The archives include photographs, reports and other primary and secondary materials about Colorado’s agricultural and rural past. According to their website: “The website and bibliography reflects Colorado’s contribution to the Preserving the History of the United States Agriculture and Rural Life Project.” An additional rationale for recording the interviews lie in the researcher’s ability to set a level of professionalism as well as really focus on the interviewee without taking notes during the interview. The recordings could then be analyzed at a later time. As noted above, examination of archival materials, at the National Agriculture Library, FRD Library available online sources, associated with the earlier films provided a framework for the question list for these interviews.

Ethnographic Content Analysis

Ethnographic content analysis (ECA) encompasses wider research goals than quantitative content analysis (QCA). Altheide (1987) describes ECA as a more “reflexive movement between concept development, sampling, data collection, data coding, data analysis, and interpretation.” (p. 38). The research goal of ECA, for example, is discovery and verification, as opposed to quantitative content analysis (QCA) which is verification alone. Additionally, ECA is considered reflexive and circular in nature, and includes numbers and associated narrative rather than numbers alone.

In order to address issues of credibility in this study, it was important to consider the circular nature of analysis. Guion, Diehl & McDonald explained that “verification” was important when they outlined the various stages of in-depth interviewing. They wrote:

“Verifying involves checking the credibility of the information gathered and a method called triangulation is commonly used to achieve this purpose. Triangulation involves using multiple perspectives to interpret a single set of information” (p. 3). Taking this a step further to encompass the entire research project, what was learned in the initial phases of the study, by examining the first film in the chronology, *The Charge of the Tick Brigade*, brought forth issues that led to deeper understanding when analyzing later films, and conducting subsequent interviews. Therefore, before making final analysis and conclusions, a full range of analysis of all films was completed. Issues of triangulation were addressed through the multiple forms of evidence analyzed to specifically construct a greater understanding of the role these films had in the promotion of American agriculture, and agriculture’s importance to a robust economy.

During the proposal phase of this research, an approach to the timeline was suggested, as follows: Instead of proceeding from the first film to identify aspects that could inform the in-depth interviews, the considerable biographical resources available on Pare Lorentz provided a rich repository of the political, economic and societal issues that compelled him to undertake the production of *The Plow that Broke the Plains*. A close review of three published books allowed for a review of the types of government-associated documents that provided contextual clues as to the issues of the day and the choices made by funding agencies and other interested parties in these types of creative ventures. The FDR library in Hyde Park, New York has an entire section devoted to the Pare Lorentz archives. With such a wealth of materials already written about Lorentz’s career, it might seem that there would be little to add with this research to the body of work. However, situating Lorentz’s work within the context of these other films, and in the chronology of events related to U.S. agriculture, allowed for reflection and perspective that generated dialogue with the in-depth interview participants.

A barrier related to examining archival material related to the USDA Motion Picture Service was revealed when it was found, through an online search, that production records did not begin until 1926. Zwarich (2009) wrote extensively about the tick eradication campaign in *The Bureaucratic Activist*. Her bibliography, as well as that of Winn (2012), provided specific resources to guide a focused trip to the National Archives (July, 2015). Extrapolation is made from reports on expenditures, letters of support and reports for earlier time frames, including the time period in which *The Charge of the Tick Brigade* was produced. It was also learned through this research that most of the production records for Bray Studios were destroyed in 1936.

The historical perspective and analysis alone might suffice; however the ability to examine the historic trajectory across nearly a century provides the framework for how creative projects and collaboration evolve.

Visual elements

When utilizing ECA as a means of understanding the societal context for the films, units of analysis might include what Patterson and Williams (2002) describe as a hermeneutic approach to categorizing elements of the films according to:

- funding organization
- genre
- voice
- camera angles/sequence of shot
- accompanying music and narration
- sequence of shots
- signifying representations in animation/clothing/appearance

By closely breaking down elements of the film in this way, and then cross-referencing the findings with responses to the interview questions, we are allowed a deeper understanding of the phenomenon of these films. Contextualizing the films, for example, according to the goals

of the funding organization, or the genre chosen (and in vogue at the time) provides more than a snapshot of the film's role in furthering the goals of the producers.

More specifically, when examining the film, *The Civil War*, Lancioni (2008) contemplated what emotions various angles and camera movements were trying to elicit. She wrote, "Slow panning and tilt shots frequently are used to build suspense, but filmmakers can also use them to create a pattern of audience expectation that differentiates itself from conventional viewing patterns." (p. 109). This holistic approach ties the types of shots observed in this manner to elements such as the accompanying music or narration, or the signs and signification observed. Therefore, more than simply counting types of camera angles and techniques used, greater understanding of the interrelationships is possible.

Visual Forensics

The term "photographic forensics" is often misinterpreted by a lay audience to mean the photography that takes place at crime scenes. In a similar way, video forensics has been described by some researchers, such as Milani, et al. (2012) and Rocha, et al. (2011) as the such things as "source camera identification, forgery detection and steganalysis" (p.1) (the detection of hidden meaning) as well as the diverse ways film is altered in various phases of distribution. For the purposes of image-based research, Rowe (2002) uses the term forensics to examine photographs for embedded clues; that is what can be ascertained of the setting by such things as clothing of the time period, media placement such as billboards or posters. This analysis differs from semiotic analysis, according to Margolis and Rowe (2011), in that style and symbolism representative of the era in which the photograph was captured would be taken into account. Production treatment differences (varying according to topic and target audience) of visually-based

material is revealed through this closer scrutiny. For the purposes of this study, extrapolating components of photographic forensics to video forensics provided important contextual societal, political and economic clues to the nature of the visual production for the era in which it was produced.

Data Collection

Colorado State University Institutional Review Board (IRB) approval was obtained in April, 2015. The application included the consent form approval of the population sample and interview questions.

In July of 2015, research trips to the *Pare Lorentz Archives* at the Franklin Delano Roosevelt Library (*The Plow that Broke the Plains*) and to the National Archives (*The Charge of the Tick Brigade*) allowed for a closer examination of the archives than could be achieved through viewing online resources alone. This provided a means to substitute the role that in-depth interviews with living members of film production crews that followed would have in providing evidence to support or provide rebuttal to the questions.

In-depth interviews with ten people took place in the late summer and early fall, 2015. Seven interviews were videotaped and three were conducted over the telephone and audio recorded. The interviews with living auteurs/collaborators took place after the archive visit due to the availability of participants.

ANALYSIS

Code Book Contents

When organizing this ethnographic content analysis (ECA), an introductory code book was developed, as noted above. This method of analysis organization followed in the mode developed by Altheide, who, when assessing television news reports, examined the visual quality and clarity, drama and action, thematic considerations and visual and aural portrayal that he attributed to illustrating the situation. Altheide analyzed television news coverage surrounding the incidents related to the 1979 Iran embassy takeover, he noted standard news production techniques that were incorporated, and wrote, “ECA offers an approach for systematically studying the use of visuals and text as features of format” (p. 72). For this research project, when considering other items associated with the film, two categories emerged: *Aesthetics* and

Content; potential items might include the following:

Aesthetics

- Pacing
- Voice (i.e. from whose perspective is the story told)
- Camera techniques
- Editing techniques
- Music
- Montage, realist, other associated theories

Content

- Topics covered
- Audience
- Issues framing
- Behavioral educational objectives
- National agricultural production objectives

These lists were used as a guide; moreover, other noteworthy themes emerged during analysis. Wood (2008) examined two films under the lens of “American capitalist ideology” (p. 85), listing components that were prevalent in the films; some of which were useful in this study:

- Capitalism, the right of ownership, private enterprise, personal initiative; the settling of the land
- The work ethic; the moral excellence of work
- Marriage and family
- Nature as agrarianism
- Nature as the wilderness
- Progress, technology
- Success and wealth
- The rosebud syndrome - money isn't everything; money corrupts
- America is the land where everybody is or can be happy
- The ideal male
- The ideal female
- The settled husband/father

Two forms of analysis of the research findings took place. The first was an organic approach of viewing of the films online and taking notes regarding the components such as pacing, narration, camera work, special effects, and music. Hendrix and Wood (1973) built an argument around the rhetoric of film according to classic rhetoric theory and communication theory. They wrote, “A classical framework has three advantages; it is complete and systematic, it focuses on the distinctly suasive functions and qualities of the message and it is richly suggestive of detailed points for analysis” (p. 108). The five skills are memory, invention, arrangement, style and delivery. Therefore, these will be the five categories used for critique of both the films themselves and the responses from research participants.

The second form of analysis was with the use of ATLAS.ti, qualitative research software. ATLAS.ti allows for analysis of text, photographs, video and audio files. A sample of the reports generated includes results of various queries, memo and code families, networks, hyper-links and associations. This software provided a means of coding the interview

transcripts and films, organizing thoughts about various formats (in the form of memos), and the ability to visualize patterns and associations among the various films, archives and interview transcripts. The workspace is shown in Figure 3 (below).

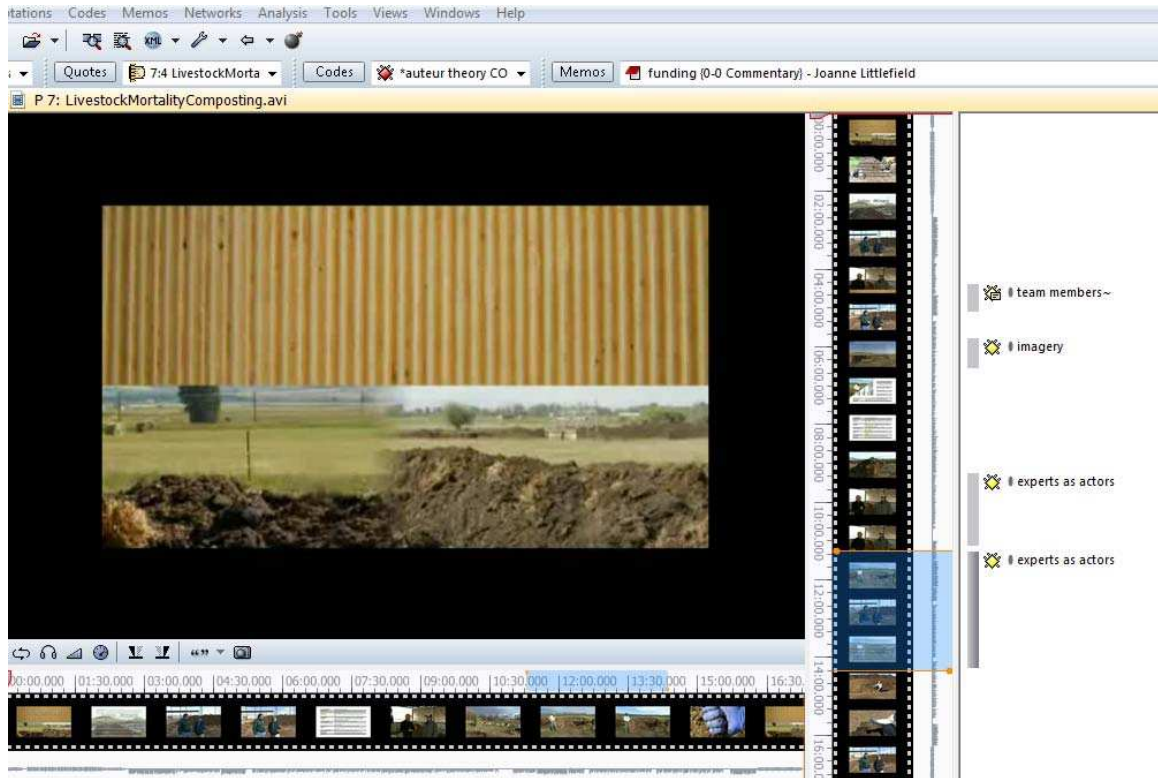


Figure 3: Sample workflow on screen using ATLAS.ti software highlighting how films are coded.

RESULTS

The five films examined here were selected for their salience in attempting to create change in U.S. agricultural production practices and policy. Divergent in genre, production team composition, intended audience, and outcome objectives, the films nonetheless share the common goal of eliciting an emotional response that the producers (and their funders) hoped would promote progress, fuel the local agricultural economy, and preserve natural resources for future generations. All of the films examined here were presented in expository mode, with a voice of God or voice of authority commentary (Nichols, p. 105). *Charge of the Tick Brigade*, as an animated presentation, appears to further fall into Nichols' definition of "observational mode" (p. 109). The final film, *Livestock Mortality Composting in the Semi-Arid West*, is problematic in that it wavers from fitting the expository mode, as it instead employs multiple voices of authority with a continual presentation of science-based evidence by members of the scientific community. Each of the five films is separately discussed as they relate to each of the research questions. Quotes from the interview subjects are used to illustrate key points in support of concepts developed throughout this dissertation. However, in the case of the first two films, quotes from archival materials are used as a substitute. Therefore, what might look like a displacement of citations in the results section are, in reality, more field-based, material evidence that lends credence to the findings and the discussion.

Explication of each of the films is provided within the construct of the research question goals, as well as their historical context. Following that is a discussion of the common themes, narratives and perspectives, again with an eye as to how they relate back to the research questions. The three categories of research questions are:

1. Persuasion techniques;

2. Expressed/presented identities of filmmakers and the juxtaposition with societal goals;
3. Common narratives as related to discourse on U.S. agriculture.

RQ1: Persuasion Techniques

This research examined strategies the filmmakers employed to bring about:

- 1) behavior change;
- 2) bringing issues to the forefront of the public sphere, germane to agricultural topics, to calculate what an anticipated response might be, and;
- 3) understanding of the impact of the modern world and technologies on those who looked to the land for their economic prosperity and way of life.

An examination of associated records, combined with detailed analysis of the films themselves provided the evidence to support connections regarding the backdrop against which these productions were financially, ideologically, and philosophically supported. In this section, each film will be analyzed according to persuasive criteria set forth by Nichols, as outlined earlier:

- an opening that catches the audience's attention
- a clarification of what is already agreed as factual and what remains in dispute, or a statement or elaboration of the issue itself,
- a direct argument in support of one's case from a particular viewpoint,
- a refutation that rebuts anticipated objections or opposing arguments, and
- a summation of the case that stirs the audience and predisposes it to a particular course of action

The Charge of the Tick Brigade

By late 1918, Americans were weary from the effects of the Great War, and the widespread flu pandemic. U.S. health department records noted that 675,000 people—from a total U.S. population of 105 million—died from the disease. While a misnomer, the flu was called the “Spanish Flu”. These two events led to a mistrust of things of a foreign nature. It is

this frame of mind that the makers of *The Charge of the Tick Brigade* exploited early in the film when they show the enemy (the tick) in what appears to be a French beret (figure 4), or to show the thug nature of the enemy. A later frame shows a dialogue bubble with the tick using an English slang threat. We don't see a close-up of any of the other ticks, just the horde of them descending on the cattle, but because of this presentation of the tick leader, viewers are left to assume that they are all of a conspiratorial nature. Context is significant so it is important to remember that this film was produced at the close of the Great War, when emotions were high among Americans regarding the peril of enemy invasions.



Figure 4: A frame from early in the film *The Charge of the Tick Brigade* illustrating the enemy tick, portrayed as a foreigner, and a tough guy (fist out).

U.S. agricultural policy under President Woodrow Wilson emphasized economic vitality and improved farming production practices, among other things. The cotton boll weevil had continued to decimate crops in the Southern states, and attempts to bolster the economy included increasing cattle herd sizes. These efforts were met with resistance on some fronts, in part because of the costs of treating diseased or potentially diseased animals. Zwarich (2009) wrote:

In attempting to change livestock raising habits from subsistence to income-producing levels...USDA officials ran up against a culture wherein many Southern farmers who didn't already have significant cattle holdings displayed little interest in making the necessary capital investment in milk or meat production.

Despite government support to offset costs, widespread adoption of the eradication program was not obtained for many years. Public outreach campaigns in the early part of the twentieth century included circulars, such as those depicted here (figures 5, 6 and 7), newspaper articles, and posters. The information contained in these outreach materials match the content of *The Charge of the Tick Brigade*. Cattle tick fever was endemic in the south and marketing booklets such as the one pictured above advocating for tick control focused on life cycle and economic loss, in a factual manner, but with an emotional plea as evidenced through the contrasting cattle photographs (Figure 6). It should be noted that tick eradication efforts would continue to be high on the list of USDA priorities for decades.

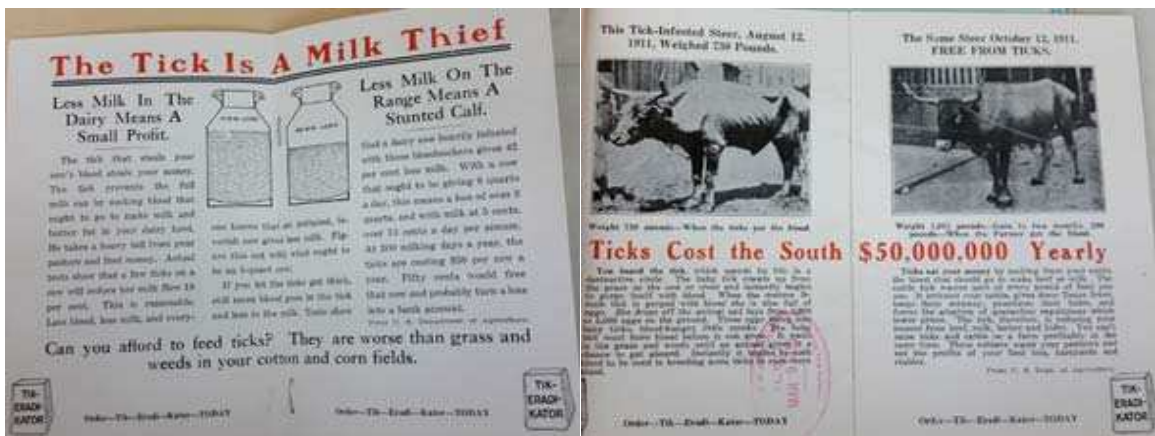


Figure 5.

Figure 6.



Figure 7.

Figures 5, 6 & 7: Pages from a 1911 marketing pamphlet promoting tick control (*National Archives*).

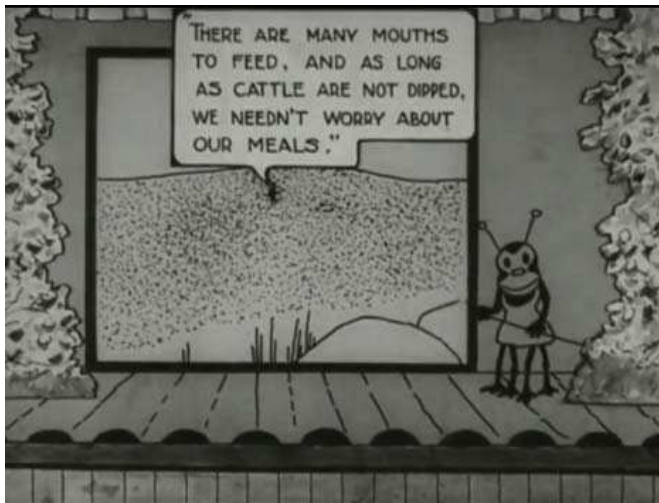


Figure 8: Frame from the second half of *The Charge of the Tick Brigade* showing the production's treatment of concepts presented in the marketing pamphlet shown in figures 5, 6 & 7.

It was under these tensions that Bray Studios produced *The Charge of the Tick Brigade*. Animated film productions—cartoons—were gaining popularity and forward-thinking USDA officials tapped into the growing trend of cartoons as a means of educating rural audiences. With a \$10,000 federal appropriation in 1918, the government agency commissioned Bray Studios to create the eight-minute animation, which provided an alternative to viewers from the heavily science-based film productions of earlier years. The same information outlined in the pamphlet above was presented in *The Charge of the Tick Brigade*, using a different approach.

Beginning with the title, the irony of this production is noted. *The Charge of the Light Brigade*, a poem by Alfred Lord Tennyson, heralds the defeat of British troops during the Crimean War. At once, the title infuses the sense of hopelessness for the tick brigade at whose supposed mercy the cow family dwells. The animation starts by depicting a cow in leisure, shaded under an umbrella, chewing, and reading a magazine. In the next scene, a close-up of the

magazine reveals the title: *How to Be Beautiful Though Married* (figure 9). This visual representation is placed to further humanize the experience for viewers.



Figure 9: Frame from *The Charge of the Tick Brigade* showing close up of era-appropriate reading material for a woman.

The cow is then bothered by an itching and the tick that jumps off her casts a challenge to her to go ahead and get her husband, which she does. He (a bull in short pants, smoking a pipe in his leisure) is startled and off they run to challenge the tick. They are overcome by a swarm of ticks who the challenger calls to action. The animators make use of an hourglass to show the elapse of time and devastation.

The pacing of the eight-minute presentation takes advantage of visual cues and shortcuts to engage the audience as well as represent distance and time. Making use of the newest invention, the rotoscope, which allowed for animators to ink over a continual bottom layer, we see the cow running off for a great stretch of time to get to where her husband is lounging. Their resistance to ticks by first running to the area where they have been noted, and then staying in that pasture and ignoring them, is futile and as the months go by, death results (Figure 10).



Figure 10: Frame from *The Charge of the Tick Brigade* depicting death.

From here the film cuts to a school auditorium, another visual representation familiar to viewers. “Mrs. Tick” quickly describes a tick’s prodigious reproductive capabilities through an auditorium screen, and the resulting kindness of the cattle producers in feeding her family and their generations. A call to action from the USDA (dip your cattle) follows to conclude the presentation. A map toward the end tells cattle producers whether this is likely to be a problem in their area. An Animal Health Programs circular from 1971 stated:

An all-out, State-Federal cooperative eradication program was instituted by the U.S. Department of Agriculture (USDA) in 1906. In 1943, 37 years later, the tick had been eradicated from the United States except for a narrow buffer zone under Federal and State quarantines along the Texas-Mexico border. There, reinfestations occur, and an active program is required to prevent spread into adjacent areas.

The Charge of the Tick Brigade is just one of the film-based efforts to foster tick eradication efforts. *Mollie of Pine Grove Vat* was produced in 1922. Showing these films to farmers in remote locations presented challenges, but the outreach efforts that integrated films (entertainment with pedagogy) fared better than lecturers without accompanying materials.

Zwarich wrote:

Ed F. Pickering, traveling motion picture exhibitor and federal agent, was proud of his work. On August 25, 1922, in a lengthy letter to his supervising officer in Washington, DC, he indicated as much. Pickering had encountered many remote landscapes and isolated peoples during the previous year's travels around the Southern United States in the Bureau of Animal Industry's (BAI) specially appointed motion picture truck. On one occasion, after spending seven laborious hours traversing a 9-mile stretch of very rough road (which required jacking the truck over tree stumps and rocks and even towing it with a team of mules), he and his fellow government officers approached one rural mountain village with what must have been a sense of trepidation. Only a few weeks earlier, a lecturer on tick eradication had been crudely stoned by an unappreciative audience in the same village (p. 19).

The Plow that Broke the Plains

The decade between the end of the Great War and the Great Depression was filled with progress and prosperity, but not necessarily for farmers. Falling commodity prices in the U.S. made the lure of cheap land appealing and led to a great migration to the West. Years of cultivation and the promise of overseas markets (figure 11) led to devastation.

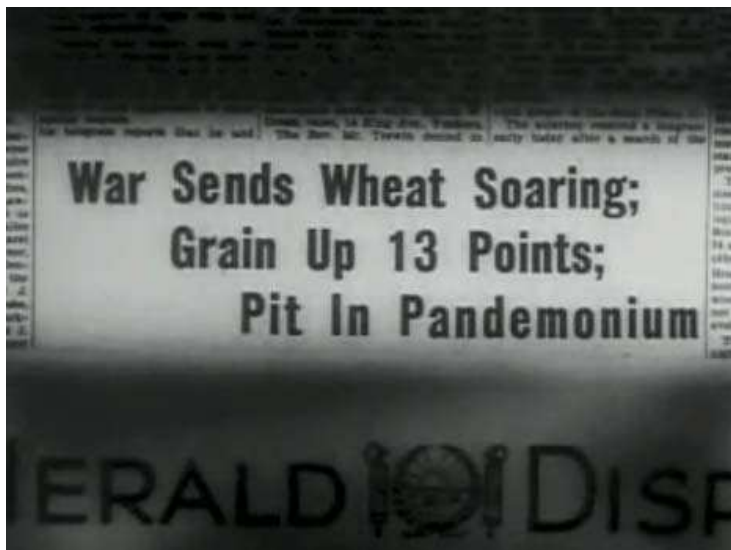


Figure 11: Frame from *The Plow that Broke the Plains* uses newspaper headlines to anchor the time period and issues for viewers.

Still referred to as the “Dirty Thirties”, for many in the Great Plains region of the United States in the 1930s, reality ran the gamut from sweeping and dusting in and around the home daily, to the larger scale of watching soil, crops and livelihoods dry out and blow away. Snyder

(1968) wrote, "...farmers were being driven off their land; drought, winds, and floods were ravishing the soil, crops were failing; the land and the forests were wasting away through misuse" (p. 21).

The stark contrasts between prosperity and despair were provided through the tempo that writer and film critic Pare Lorentz brought to the film *The Plow that Broke the Plains* (1936). Lorentz's interest in telling the tale of what he had seen during on an earlier road trip across the U.S. led him to approach funders about producing a film. Lorentz (1992) wrote: "I remembered the great vast landscape from my first trip in 1924, particularly the huge arc of sky. I also remembered one day in New York when...a heavy, slow-moving, gray cloud, dust from the drought-stricken Great Plains, blew down in the middle of Manhattan...and settled like an old blanket" (p. 36). When first outlined to potential funders, Lorentz's vision of who the target audience was and how they might be influenced by such a presentation was not well-developed.

Snyder (1968) notes the persuasive effects of repetition and parallel structure that Lorentz carried into his subsequent work. The repetition of text, both spoken and written on screen, combined with sweeping music, carries the viewer through the varying emotionally-charged sequences. Snyder wrote:

Such lines as "High winds and sun, high winds and sun," "without rivers, without streams, with little rain": "Wheat will win the war"; "Baked out, blown out, and broke"; are all repeated after other lines have intervened. The melodies of "Mademoiselle from Armentieres" and "Old Hundred" are both repeated in Thomson's score; the second time each melody is used, it serves to make ironic comment on the pictures it accompanies (p. 196).

Identification is a common element in all five of these films, setting the stage for viewers to understand that the issue being presented is not of some distant community, but rather, directly affects them and their local community. Snyder continued:

The first device used in *The Plow* to get viewer identification is the map of the United States. The effect is to make the viewer feel immediately that the Dust Bowl is an American problem, his problem. The identification is continued when animation is used to insert the first show of the Great Plains within the designated area on the map. Other visual symbols are used throughout the film to reinforce identification: an American cowboy, a covered wagon, reapers pulled by horses, a parade with many American flags, the Negro jazz drummer (figure 14), a windmill, “flivvers”. The musical themes Thomson selected add identification to the process—he used many hymns, familiar cowboy songs, and popular music (p. 213).



Figure 12: Frame from *The Plow that Broke the Plains* shows a “Negro jazz drummer”. Interspersing this image with an image of a ticker tape rapidly spewing paper and then falling to the ground creates the emotional connection to the capitalist frenzy of the time period.

The film closes showing farmers in various stages of giving up on their futile enterprises, packing up their vehicles and families and heading off in the distance, which the narrator describes for us as “west”. While the Resettlement Administration’s goal was to move thousands of people off marginal crop production land, resistance to funding this venture led to only partial fulfillment of the program goals, moving thousands fewer people and only taking a fraction of the land out of production. The film’s influence brought awareness to a wide audience and could have played a role in the evolution of the Resettlement Administration to the Farm Service Administration (FSA). The shift to acceptance of providing public support is reflected in

changing the title of the bureau. Still, American farmers continued to struggle to keep up with production needs in the U.S. and abroad throughout World War II.

This is KCJ-812

According to the USDA (1990), the period from 1955-1974 was a time of “increased emphasis on rural development and renewal.” Progress and connectivity are two premises of *This is KCJ 812*, both shown through the image of the soaring radio towers against the sky, shot from the ground below, looming above the viewer, perhaps depicting a look into the future (figure 13).



Figure 13: Frame from *This is KCJ 812*. The latest technology is showcased as the modern communication channel for traditional Extension outreach efforts.

Aural and visual methods of showing the progressive nature of the land-grant system and Extension in Nebraska is further carried out through the spoken narration and the use of a map to depict all the areas of the state that are now connected. This is contrasted with the traditional way of doing business of the time period, showing Extension agents and their clientele at the site of

an agricultural production issue. Typically, this process was not only time consuming, but could lead to near-devastation of a crop due to insect pressure. Bare noted,

In most cases somebody could call an Extension office and the Extension office could then call the specialist and get an answer, or they would ask the specialist to come out in the county, and look to see what the problem might be. But that might take a couple of days, and when it comes to, you know, entomology particularly, you could have an outbreak of some kind that could wipe out half the crop in the couple of days before people go there to find out what the problem was to spray.

The film was produced to be viewed by state Extension directors from around the U.S., at a national meeting in Washington D.C. It was intended to highlight the work Nebraska Cooperative Extension was doing to connect farmers with research at the university through the latest technology to promote agricultural advances. Producer Bare used his ability to create a story visually through the scenes he edited together to create a “day in the life” of an Extension entomology specialist. He said, “We could catch up with the Extension specialist, get them to talk to or stop by someplace else on that same trip to find out if there were other problems.” The opening shot shows a man driving a sedan in an agricultural area, stopping to examine a crop closely. He is interrupted from his field observation by his car horn honking, which alerts him that a call is coming in over the two-way radio; an interchange with the administrative office on campus follows. An insect outbreak that has been reported to the main office, and the specialist drives to see a farmer at his nearby farm (figure 14).



Figure 14: Frame from *This is KCJ 812*. Traditional Extension outreach efforts of the time period included site visits. Viewers could identify with this scenario.

There he determines that it is, indeed, an outbreak of armyworms, which has the potential to infest other fields. He is able to call back to the administrative office via his two-way radio, to instruct the radio producers on the university staff to publicize the insect outbreak through a radio broadcast that will alert farmers in the area to take action. Interspersed are long shots of radio towers (connectivity, noted above) and a visit to the Extension director's office where a view of the state map allows the viewer to identify with the situations at many levels.

The inclusion of a radio interview was intentional, according to Bare, in order to create that connection with how Extension agents typically used mass media's influence to deliver messages designed to encourage farmers to take action, such as spraying for insect pests. He said:

A couple of the specialists, when they had found a specific problem, would call the radio station that was in that county, and they'd quickly make a minute or two minute

comments and you couldn't get it out any faster than that. You could get an immediate report out, "Hey, you have problems in your corn, you have problems in your soybeans."

In this interview excerpt, Bare is relating the advice he had garnered from those he sought advice from, as he went about constructing the narrative for this film. His ability to relay this evolution of program development events into the storyline was further supported through the visuals that he matched to the narrative. The end result is a film that shows administrators responsible for supporting the funding of new technology throughout the nation. Agricultural production was rapidly increasing with the uptick in new technology. Between 1960 and 1970, yields increased. In 1960, statistics (about.com:money:inventors) noted that one farmer could feed 25.8 people; in 1970 one farmer could feed 75.8 people in the U.S. and abroad. Farmers were faced with an indirect pressure to face higher stakes, as there was an implicit need to make a greater investment in equipment and higher-valued purchases inputs to support these yield expectations. Higher stakes required quicker answers, in this case, that took the form of timely, university responses to pest problems. The adoption of new technology allowed for this more rapid response to take place, and the use of mass media to further relay the message spread the news to a larger, potentially affected target audience.

Alternative Livestock Production

American agriculture continued to expand throughout the next decade and a half, but the 1980s was a time of crisis for farmers; from 1981 to 1986 farmers experienced "the worst financial crisis since the Great Depression" (Barnett, 2000, p. 366). By the late 1990s, however, urbanites in many parts of the West, including northern Colorado, were seeking freedom from the constraints of an urban lifestyle. This movement resulted in people with limited agricultural or rural experience buying mini-farm/ranches for not only the associated tax credits, but also seeking alternative sources of revenue on land they purchased, to offset the costs. There was an

upward spiral of development of lands previously dedicated to agricultural production, increasingly sold as 35-acre parcels. That was the situation in Northern Colorado that led to the production of one of a series of video productions, *Alternative Livestock Production*.

Videographer Ron Bend discussed how he gathered images to support the storyline of “land for sale” and new opportunities. He said,

...there was shot of a for sale sign in front of a ranch, or a small ranchette, things like that. So I would just go and, after developing the script, the narration, I knew I would have to have visual proof for these different points of the narration. And so I would just try to find a way to make that happen.

Co-producer of the film. Hamblen, noted:

As long as you developed \$1,000 of gross sales—then you could be classified as ag land. Which was quite a tax break for ag land versus residential...and that gave an impetus then for a lot of people breaking off farms or ranches in minimal or marginal land, breaking that off from a true agricultural setting to more of a recreational pastime setting.

At the same time right-to-farm laws were adopted throughout the United States in the late 1990s.

These laws were enacted to protect farm and ranch owners and operators from lawsuits by those residents new to the area who would potentially object to what they considered “nuisance”

(noise, smell and other operational factors of an agricultural enterprise). Hamblen said:

Land used to be monitored and cared for by one owner, in other words a 160-acre land plot was normally taken care of by one farmer; now you had that broken up into four tracts with people with limited experience and limited equipment and what we were finding is then we were having a tremendous amount of weed control issues, overgrazing issues with livestock and other functional things that came into play with farmers around then that, the county of Larimer anyway put together Right-to-Farm rules.

Several people associated with *Alternative Livestock Production* were interviewed, including the videographer/editor, a subject matter specialist and two who considered themselves the producers and “authors” of this production. Bend noted:

I would think it would be Ann and Bob as the two primary movers behind making this happen. If not author maybe 'executive producers'. I think of Ann and Bob at the time...obviously they came up with the need for the project; they secured funding for the project, and then also secured all of the content experts for the project. And whatever I did for writing and stringing all this together, selecting sound bites, was approved by Ann and Bob and so I think in terms of who owned the vision for the project? It was pretty firmly in their court. You know I would certainly be on board as part of the team to collect what they wanted to collect but as a video producer/editor/videographer, I was counting on them to be the ones that point me in the right direction.

I don't remember watching any particular documentary and thinking that I want to emulate that particular style. It was just more, “let's go talk to these people and find out what the stories are, what the concerns are” and try to make a video that first and foremost, hopefully, informs people who might be wanting to get into this type of production, this kind of alternative livestock production.

The video begins with a collage of the types of animals to be featured in the production, a panning shot of rural settings mixed with an urban corridor in the background. This, with the accompanying narration, immediately sets the stage for what the viewer could expect to learn. The interviews range from successful agricultural producers, on site (figure 15) to scientific experts in a laboratory setting (figure 16). The production shifts from these two types of experts throughout, to meet the educational production goals.



Figure 15



Figure 16

Figures 15 & 16: Frames from *Alternative Livestock Production* shows a livestock producer on site with his buffalo herd (left) and university subject matter specialist (right). Viewers are told of effective practices as the production switches from producers-as-experts to subject matter specialist as-expert throughout. This model grounds believability in reality and science.

Livestock Mortality Composting

By the second decade of the 21st century, livestock producers and employees throughout the U.S. were curious about how to effectively handle one of their consistent realities: dead animals. Research had revealed that on-site processing using proper compost techniques that aided decomposition could be economically advantageous. The team that oversaw production of the film *Livestock Mortality Composting* determined that the best means to illustrate this was by combining university research spokespeople with on-site interviews of successful operators. A committee of researchers, educators and producers guided the project, and met via telephone conference calls, and face-to-face, regularly. They provided guidelines for the producer, Michael Fisher, according to Bass, who said:

They were mapping out of the types of scenes they wanted, whether it be physical images, clips of something being done related to compost management or just interviews...at some point...looking at...all the footage...what was good, what was

gonna stick and then putting all that together based on this broader framework, of walking someone through this mortality composting.

The structure of the program emerged into two categories, with interviews of a mix of researchers and on-the-ground personnel. Colorado State University Soil Scientist Jessica Davis was one of the co-principal investigators. They included, according to Davis:

...producers who were doing the composting on their own farms, because we wanted to show that this wasn't that hard, that producers were actually doing it, and that producers have more credibility with other producers than somebody unknown to them. And then the other group was scientists, you know, people who had credibility in the field of composting, who had experience...we were trying to get at credibility in both areas.

The video production was intended for use in tandem with other web-based and print materials; the entire package either used as stand-alone training or as a companion to an educational program. Perhaps because of this, an initial sequence is lacking which would explain the purpose of the production. The program flows from an on-camera description of composting basics, by university soil scientist Davis. This is followed by visuals of large scale compost piles (figure 17), tables with proper nutrient loads, and graphics that show the proper stacking of dead animals and other materials.

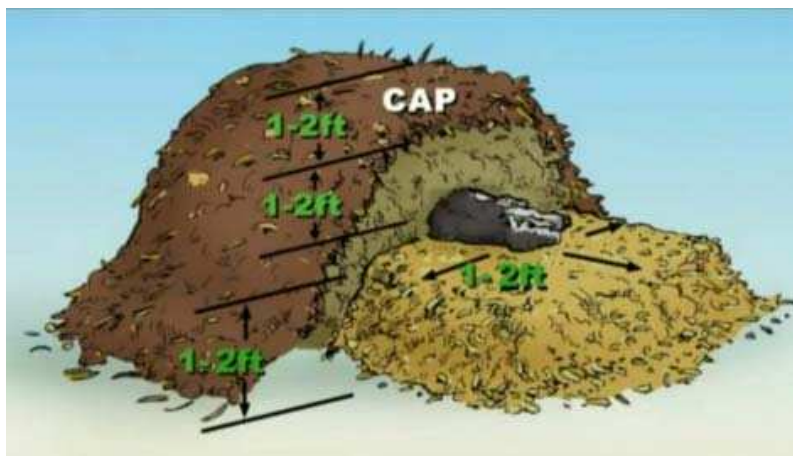


Figure 17: Frame from *Livestock Mortality Composting* is one of the graphics used to demonstrate proper composting techniques that the filmmakers used to mix science with real life situations.

An effective pattern of: expert/graphic instruction/producer testimonial/expert/graphic instruction/producer testimonial, allows viewers to be visually brought through the process. This pattern also sets the stage for viewers to continue to identify with the situation and how it relates to their livestock operation. They hear from scientists, but also people “just like them” which, the filmmakers expected, would lead to eventual adoption of the techniques outlined. Fisher noted:

We’ve gotten feedback that people appreciated it, people appreciate that it gets the information across without being too ivory tower-like. The average producer can sit down and watch it and be able to understand what’s being said. And we’ve heard from NRCS people and Extension agents both, from multiple states, that they appreciate it because it covers a topic nobody’s ever covered for them.

One member of the planning committee likened it to a video equivalent of an Extension bulletin, while another (who self-identified as the video producer and author) called it a documentary. Interviews are presented of two people (a subject matter specialist questioning a producer who has been successfully composting dead animals) at mid-range, and interspersed with field shots of the construction of a proper compost pile and more data-driven tables and graphics.

Summary

The use of special effects in the first two films of this retrospect, such as animation backgrounds, pacing through camera angles and shots, and music combine to transport viewers to a simulated reality that is both resonant with their daily life, but also disrupting to what they accept as everyday life. Persuasive elements such as the sweeping vistas, dramatic music and sonorous narration of *The Plow that Broke the Plains* take viewers into the devastated world on the Plains, and showcase the result of unwise agricultural practice adoption. The producers were relying on the fact that viewers would be caught up into an experience that may, or might not, mirror their own, with a sense of despair and hope, in equal measure. The next two films begin

by setting the stage for a simulated entry into a world that the viewer might identify with; an agricultural scene (with music to further set the pace) of achievable bucolic serenity combined with economic and environmental sustainability. Narration sets the stage for a presentation by authorities. *Alternative Livestock Production* makes use of introductory remarks by a professionally trained male narrator (voice of God) which invokes an important message to come. We are meant to pay attention! The sonorous voice echoes news broadcasts of the time period, which tells the viewer to stay tuned. The final film relies on imagery and title pages and credits, followed by a scientist (we know this because of her identification in the lower-third portion of the screen) introducing the subject and setting the stage for a highly scientific film to come.

The films further rely on accompanying material to elicit community conversation around the issues. While they could be used for standalone presentations, the accompanying discussion and instruction provided context that it was anticipated by the creators would provide a solidification of the educational and political goals of the funders and promoters.

RQ2: Expressed/presented identities of filmmakers and the juxtaposition with societal goals

A constant theme throughout examination of these films—related to those who produced them—was that someone had the vision of the need for the type of information to be delivered in film format. They were able to articulate that vision to the appropriate people that would fund its production; funders were convinced to either hire professionals to execute the ideas, or had enough confidence in the proposal to allow the project to move forward even with a low level of professional filmmaking among the team members. Auteur theory, as noted earlier, is categorized into textual category as noted by Wells; “the person who prompts and executes the

core themes, techniques and expressive agendas of a film; a figure around whom the key enunciative techniques and meanings of a film accrue and find implied cohesion; a figure who provides the organising principles” and “extra-textual” associated with the issues, and specific situations, which led to institutional support of a production” (p. 74). The scope of RQ2 will be explained using these criteria, for each film. Subquestion 2A asks if expressed identities played a role in promoting overall societal goals; this will be examined as well.

The Charge of the Tick Brigade

Max Fleischer, who later in his career produced the popular cartoons *Betty Boop*, *Popeye* and *Superman*, (also inventor of the rotoscope) is believed to be the writer on *The Charge of the Tick Brigade*. Animated shorts continued to gain wide acceptance in the mix of film types the USDA produced. In addition to his art and graphic design background, Fleischer had a keen interest in science and mechanics; choosing him to write the script for *The Charge of the Tick Brigade* was a testimony to how he developed other educational productions throughout his career. He would have developed this script from resources provided by USDA, including maps, pamphlets, and written reports. Fleischer wrote:

Max felt strongly that all educational films as well as training films should be entertaining in order to keep their audiences interested. He soon became aware that the writing staff at this company didn't have a clue about how to do this. He immediately wrote a thirty-four page “bible” applying the theory and practice of motion picture script techniques to the presentation of industrial and educational films. (p. 129)

Archival files on Bray Studios, compiled by Stathes (2011) have been incorporated into an online repository, *The Bray Animation Project*. When contacted by email (2015) specifically about *The Charge of the Tick Brigade*, he responded,

One thing I can say, though, having watched many early animated films from this period, is that some of the animation appears to have been done by Pat Sullivan. Sullivan's studio and his animator Otto Messmer were known for Felix the Cat. Sometime in 1918-1919, Sullivan was producing a few cartoons for Bray, and he may have lent a hand on *Brigade*...some of his drawing style seems to be present.

In terms of how much the studio was paid to produce the short, or how much time was spent, I'm afraid that information is probably lost to the sands of time. I'm not sure if the studio ever kept records of how long each release took (they did document their final release schedules of the films, but who knows when each production was begun...and who knows on what basis these commissioned shorts were done). Any information that might have been documented of this sort was probably destroyed as part of the 1936 company reorganizing.

In order to fill a demand for new cartoons each week, Bray set up four units that worked on a staggered schedule, making cartoons that each took a month to complete (figure 18).



Figure 18. In-betweeners and inkers who worked at the Bray Studios were the employees who added detail.

As an example, funded by and distributed by the USDA, the credits for *The Charge of the Tick Brigade* lists “Bray Studios” as the production company. Winn (2012) wrote,

The USDA had decided to produce the bulk of its films in order to maintain strict control over content, the department did not avoid all commercial collaborations...by approving the motion picture's scenario before allowing Bray Studios to produce the movie.

Bray Productions was a sub-contracted animation studio, founded in 1914, with commercial success in animated cartoons. The film itself was a production by “modernist Max Fleischer” (Zweig, p. 118) early in his career, using pioneering animation production (Pointer, 2011). Further examination of archival materials related to this film might have revealed who

identifies as the primary author. In retrospect, it is perhaps Fleischer's subsequent commercial success that led researcher Zweig to credit Fleischer, even while the film credits do not. The discrepancy of "who is auteur" could simply be a case of the difference between what the market perspective would support, or which research or academic domain is writing about the film, or what administrative and funding mechanism was in place. The fact that a search in the archives revealed that the USDA Motion Picture Service archives dated from 1925 on, and Bray Studio files were destroyed in 1936, no explicit evidence was found to support a clear answer to the question of ultimate auteur.

The Plow that Broke the Plains

The film credits for *The Plow that Broke the Plains* reveal the names of others involved in the production, but this film was promoted in the popular press as a "Pare Lorentz Film". Lorentz himself reflected on his credentials in the 1992 autobiography, *FDR's Moviemaker: Memoirs & Scripts*. In addition, two other books, *The People's Films; a Political History of U.S. Government Motion Pictures* (1973) and *Pare Lorentz and the Documentary Film* (1968) provided information on the standing Lorentz had in the film community that would make it appropriate for him to be considered the auteur. Meanwhile, a USDA employee, R. L. Baumhardt (2003) writing about the Dust Bowl, noted, "The damaging effect of excessive tillage contributed significantly to soil erosion throughout the Dust Bowl, but it may have been overstated as in Rexford Tugwell's film *The Plow that Broke the Plains*" (p. 190).

As Lorentz's career evolved, he was considered "FDR's filmmaker", a leader in social film activism, and, in his later years, a grandfather of documentary filmmaking, and. Lorentz (1992) wrote:

Shortly after Mr. Roosevelt took office in March 1933, I went about the city trying to get money to make a newsreel of the tragic events that were going on in our country, including the foreclosure on homes and dispossession of farms, failure of banks, and the migrants from both industry and farms riding the freight trains west... (p. 28)

The secretary (of agriculture) said that the Agricultural Department was an old, old establishment and very set in its ways and would probably not be a good place for me to try to work. He mentioned, however, a brand new organization called the Resettlement Administration... (Administration head Rexford Guy) Tugwell was so enthusiastic that he suggested that we make eighteen movies... I suggested the Dust Bowl... (p. 36)

While leaders in their respective fields contributed to the production, Lorentz was reluctant to turn over control. In fact, he edited the film and worked with the musicians in creating the musical score before any of the scripted narration was written. Lorentz wrote:

From the beginning of my moviemaking years, even though I had never set foot in the cutting room or been behind a camera, I wished to keep control of the three elements of my film—pictures, music, and words—and to emphasize the elements in that order... A cut movie and a matching full length score... but no words... When I had finally written the words... I asked Thomas Hardie Chalmers to narrate them for me. Typically he bellowed... I did not, however, because of his great voice and forceful personality, let him see the film before he narrated my words (pp. 40-41).

Lorentz's keen insight into the film business as a critic for large news outlets meant he was in the right place at the right time to procure funding for this film. Baumhardt, meanwhile, referred to it as "Rexford Tugwell's" film because of the financial commitment that Tugwell secured as the undersecretary of agriculture and administrator for the Resettlement Administration, the sponsor of the film (MacCann, 1973, p. 57). Both Lorentz and Tugwell were successful in promoting the overarching societal goals of the time period—moving people off non-productive cropland and resettling them to other parts of the U.S.

This is KCJ-812

The writer/cameraman/producer/editor/director for this film was Tom Bare. He had 10 days to complete the project. Throughout his career Bare produced a multitude of

news and feature stories about agricultural topics, first in Michigan and then in Nebraska. His academic training was in film production. While in Nebraska, he produced news-style short pieces for the local television and radio station; these were also distributed more widely throughout Nebraska through the state educational television network. With respect to KCJ-812, the question was posed: Who is the author of this film? Is it the director of Extension who initiated the program, had the idea, and commissioned Bare to produce it? Bare was the producer of this film and while he considers himself the author as well, he credits the administrator who requested the film as the person with the core idea. Bare said:

I suppose in essence, I was the author of the film because I was the producer...I did most of the shooting myself, I think I probably shot 100% of that film, and put it together. The Extension director said, "Hey, I need this to take to the meeting in D.C." And I said, "Hey that's okay, let me see what I can put together for you." And I did and he came over and he took a quick look when I was, had my rough edit done, and that's how it came about.

Others involved in the production included colleagues who provided feedback in various stages of editing and a fellow broadcaster who provided the narration and music suggestions.

Bare's reputation as a newsfilm producer, along with his employment in agricultural communications with University of Nebraska Extension were the basis for his being tapped to produce this film. His boss wanted to tout the forward-thinking nature of the communication technologies spreading throughout Nebraska, which closely mirrored the increased technological advancements of commercial industries and businesses of the time period. An additional societal goal that continued to be an issue for U.S. agricultural producers—that of effective control of insect pests, diseases, and weeds—were reflected in the content of the film, in a manner with which farmers, administrators, and communicators could identify.

Alternative Livestock Production

When asked the question about authorship, Swinker and Hamblen self-identified as the authors. They did, however, note their reliance on a team of collaborators for project direction and successful completion, including hiring Colorado State University videographer Ron Bend, who said:

I think probably some of the bigger projects that I had been involved with prior to this were for the NRCS (Natural Resource Conservation Service). And a lot of those were documentary style, short documentary style, 15-20 minute long, where we would go and interview different NRCS experts around the country and ag producers around the country and talk to them about what are their specific issues that the agency could help them with. What it was they were doing on their operations.

While Bend did not consider himself ‘author’, his involvement in the project was a key to making the vision for the series a reality. Funding for a series of videos on raising alternative livestock in Colorado was obtained by Swinker and Hamblen; *Alternative Livestock Production* was just one film in the series. Their reputation for providing quality educational outreach programs, in formats tailored to the target audiences they served, played a key role in securing funding. In addition, through their Extension outreach and interactions with local, successful and would-be producers, they were able to construct the film narrative that reflected the societal issues of the day—providing an income for smaller acreages in order to keep the land in agricultural production, and thus manage taxes given tax breaks allowed for lands in agriculture uses.

Livestock Mortality Composting

This educational outreach effort included a manual (<http://extension.colostate.edu/docs/pubs/ag/compostmanual.pdf>), a webinar, PowerPoint and the video discussed in this project. The print manual, available as a pdf download, or for purchase (Montana State University), has the author listed as Tommy Bass. There were many in the

Western states who collaborated on the project, both formally and informally. Michael Fisher, then a livestock Extension agent in eastern Colorado, identifies himself as the author/director/producer of the video. When asked specifically about what he learned in those roles, Fisher said:

Don't make a compost video unless you want people for the rest of your career coming and saying 'hey, there's the compost expert, what do you know about that?' (laughs) I said that kind of half-heartedly, but half truthfully. If you're going to do it, go in eyes wide open and talk to some people before you do it. Because it is, it's a big undertaking. I don't know, if I was, if I would do another documentary for work. I've got a half dozen ideas that I would like to do. But I don't know if I would. But like I said, if I won 200 million dollars in the lottery, that's one of the things that I truly think I would do is set up a little production company, have a few people working for me and just kind of, develop some kind of PBS type of productions. Because I enjoy aspects of it. I just need an entourage to do the parts I don't enjoy.

With little training in film production, but a passion for photography and videography, there were elements of the process that Fisher said he learned from previous projects. Prior to this project, he had completed several online videos on livestock production by picking up the camera and heading out into the field, finding somewhere to film, and a topic to cover, as he and a colleague scanned the countryside. This project was much more complicated, as Fisher said:

You need to appreciate the organization...the storyboarding or the scripting..I don't necessarily like that structure but it's a necessity. And if you're going to hit all the points that you want to hit, you know you can drop...a story frame out at some point, and you might have to add a story frame in. But as much as I dislike it, if you're going to do a documentary you need to understand how to do those. And then, the actual editing, that's a monster of a job that I don't think people fully appreciate. By the time you go through all your raw video and your b-roll and figure out which ones you're going to put in.

Despite the fact that Fisher self-identified as the author of the video, it was the reputation of the two subject matter specialists, Jessica Davis and Tommy Bass, which likely led the team to successfully secure funding from the Western SARE grant.

Summary

Production unit employees rely on both schema (information stored in long term memory from prior experiences) and tacit knowledge in visual story creation; that is, the types of commercially successful film typologies and scenarios in general acceptance. The expert model is used in two of the films to exemplify the voice of authority through science.

From film critic Pare Lorentz's leap to producing films of social importance to livestock Extension agent Michael Fisher's forays into video production, there is something significant for these men to be considered a filmmaker. They have crafted an identity that signifies the status of a creative team member, with the knowledge and power to lead a production through various phases. Others involved in other productions, with training solidly anchored in visual storytelling, such as Tom Bare and Ron Bend, know, because of their academic training and subsequent work experience, that they are auteur of a production. Those interviewed who knew their involvement was important had a more difficult time grasping the concept of auteur; the question was posed to them not as auteur, but "Who would you consider to be the author of this body of work?" They instead focused on the collaborative teamwork needed to attain their common educational goals.

RQ3: Common narratives related to discourse on U.S. agriculture.

This analysis examined the findings related to narrative themes and associated societal impacts that are common or conflicting in the five films. The research found that the dominant narratives and discourses present in U.S. society at the time of the production of all of these films are reflected in the approaches to the narratives chosen, the genre chosen for the message and settings in which the messages are presented. The common narratives in all of these films are the adoption and application of the latest technological advances, and how that will lead to economic

prosperity, domination of natural resources, and ultimately the further establishment of the U.S. as a world power.

The Charge of the Tick Brigade

Field representatives of the U.S. government—charged with convincing farmers and ranchers of the need to treat their cattle herds to a chemical dip (arsenic) that would kill ticks (and thus reduce the occurrence of cattle tick fever)—faced resistance. Zwarich noted:

The work that ensued faced major challenges, not least of which stemmed from the difficulty in simply explaining the tick's role in disease transmission—a paradigm-shifting concept—to skeptical laymen farmers who were already inured to the proliferation of unsubstantiated theories about the causes of Texas fever.

Federal, state and university entomologists and animal disease specialists were convinced of this technique's effectiveness. However, the additional cost to producers was not seen by them to be worth the expense. The challenge of convincing farmers and ranchers at the local level often fell to the Extension agents, who were charged with providing education through informal settings.

Zwarich wrote:

Even if agents convinced farmers of the merit of the science behind the program, they still had to overcome the dominant belief that eradication on such a grand scale was impossible or too cost prohibitive for the average farmer.

As an entertaining cartoon that served up a side dish of information about the cattle tick's fertile reproduction cycle and the danger it posed, *The Charge of the Tick Brigade* enjoyed long-lived popularity on the department's distribution circuits. The inclusion of the film in the Secretary of Agriculture's special screenings for the White House in 1921 and the Congress in 1923 indicates the high regard those in the department had for this little cartoon.

Indeed, as noted in the few extant exhibition reports, *Charge* consistently achieved in one reel what many government films of the period never achieved: an emotional connection to its audience...the humor and simplicity of this cartoon's narrative was a recipe for success...the rapidly rising number of viewers for government films and the reported popularity of the "tick cartoon" suggests that audiences were either unaware of or (more

likely) were willing to tolerate such attitudes in exchange for useful information presented in entertaining form.

The Plow that Broke the Plains

The film exceeded the expectations of those who funded it and the director. It not only was screened in movie theatres throughout the U.S., but created a stir within political circles. O'Connor (1988) wrote: "the film had been screened in more than 3,000 of the approximately 14,000 theaters in the United States before it was withdrawn from circulation in the midst of political controversy in 1940" (p. 1201). The film struck a chord with those close to the situation, policy makers, and those who were miles away. Lorentz wrote:

I asked the agricultural experts in the Resettlement Administration to supply me with the basic statistics which are in the narration, starting with the Prologue showing a map of the Great Plains and the amount of acreage and ending with the number of displaced and blown-out farmers on the road at that time...My intent almost a half-century ago was to have the pictures tell their story; to augment that story with music that would not only be an accompaniment but also would evoke emotions related to the lives of the people concerned, and finally to write the fewest possible words, solely for explanation and clarity, and to have them as much as possible in time with the music. (pp. 43-43)

At the Pare Lorentz archives, a study guide was discovered (Figures 19 & 20) which had been created to allow for wider community participation in the phenomena of the film. On return from the archives, the curator was contacted, who provided the scanned document (at no charge) in pdf form, for further examination. The curator, Sarah Imboden, commented that she knew it was an important item to have digitized for their online resources. This evolving relationship with the curator and other archivists was an important side benefit to this research project. A sample page (figure 20) outlines the educational uses for the film. This study guide allowed interested community groups to delve deeper into the issues that motivated the film's producers and

funders. It was one element perhaps instrumental in the success of the Resettlement Administration's goal to move people off of non-productive farmland.



Figure 19.

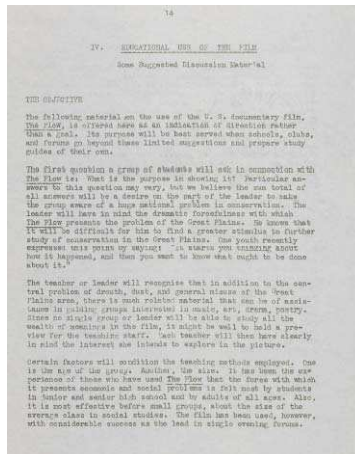


Figure 20.

Figures 19 & 20: Study guide developed for community groups. (Pare Lorentz Archives, FDR Library).

This is KCJ-812

The mid-to-late 1960s were a time of increased usage of communication technology throughout U.S. society. Agricultural community members throughout the nation were, depending on the commodity and/or community, either eager to join the trend, or being persuaded to join in by educators and administrators. The beginning narration of *This is KCJ 812* stated:

Communication and transportation are the backbone of a highly organized, well qualified staff at Nebraska Cooperative Extension Service. The service is only as efficient as the communications and transportation facilities permit. It was as a result of a concern to coordinate the various levels in the Extension service that Nebraska's two-way radio began in 1968.

Ted Hartung (2015) was an administrator for the College of Agriculture at the University of Nebraska at the time *This is KCJ 812* was produced. The film was a direct response to highlight the work being done and approaches being used in Nebraska, to the rest of the U.S. He said:

I think that the response to organizing Extension at that time was to reach out with more expertise in the unique areas of the state...because they are very different as you go across the state in a more dryland situation out in the panhandle, and as you transition then into central Nebraska, southeastern Nebraska and northeastern Nebraska...transmission of information became really very direct with workshops and technology that could be provided through the specialists that were housed...in Lincoln, working with the district specialists.

The time period of this film was also a time of increased visibility for Nebraska farmland.

Clifford M. Hardin, from Nebraska, was the U.S. Secretary of Agriculture, and he brought the perspective of the Nebraska farmer and issues important to his state's residents, to the nation's capital. This film highlighted the relevance of university outreach programs to the farmers of the state, and perhaps served as a model for other states to follow.

Alternative Livestock Production

By the 1990s residents throughout the American West were expressing an emerging environmental consciousness, combined with a concern for sustainable practices that would conserve resources and preserve the land. People were buying small acreages, without a great deal of knowledge on how to care for their property. These all converged to provide the basis for a series of video presentations produced by Colorado State University and Extension in the late 1990s. *Alternative Livestock Production* was the final in this series. Respondents were asked about the strengths of the project, which they believed led to successful funding, Swinker said about the new and aspiring residents:

They wanted that rural lifestyle for their families and bringing their kids up and having their kids have animal experiences, plus they'd like to make a little bit of money with their facilities too...to help these folks kind of find their way...to prevent overgrazing, noxious weeds moving in, water quality issues...probably that justification really helped us get the grant money.

Hamblen noted:

What we were finding, though, that no matter how widespread the topics were that we tried to cover, you couldn't hit all of them. And so then people were thinking that they were getting shorted a little bit, was some of the feedback that some of the agents were giving us. So if we'd of had it to do over we would have probably developed it a little more as an educational packet where there would have been a curriculum, test information would have come back and almost like online type classes would have probably been a better mode, the way I see the end result that came out of the program.

Bend said:

I think for all of the people who were involved in the video, whether they were say, Marcy from the University of Nebraska, or I think of the person who was raising trout. They're obviously experts in that, I mean if your day-to-day job is raising trout, you're much more an expert at raising trout than I ever would be. So, in my mind it's less important the position that they come from, in terms of what degrees might appear behind their name, but the idea that if this video exists to help aspiring ag producers move into this alternative, quote, unquote, alternative world, then who better to tell them what the pitfalls and advantages and concerns might be than someone who is doing it. And so, I guess I was less concerned with assembling a cadre of panel professionals with PhD's behind their names, and I think more of the concern of Ann and Bob was getting people who have real world experience, and could communicate that well to people aspiring to enter this world.

I do remember several people commenting on how if you're in traditional agriculture, corn, soybeans, pigs, you're fortunes are tied into the commodity market and so whether you make money or not is certainly a little bit of that, probably alot of that is your responsibility, but there are the vagaries of the commodity market, corn might be up, corn might be down. And your success as a producer would be subject to whether those markets are up or down. I remember several people in the course of this video talking about how it's a little bit liberating in that once you get your processing chain figured out. Once you figure out some of the vet issues, some of the feed and then obviously how to process the elk or fish, then you are liberated from that commodities market. It's more like it's on you to figure out who your buyer will be for this elk carcass, it's on you to figure out how to get this elk, while it's live to a processing plant. It's on you to figure who as a veterinarian in your community, is qualified to come work on your elk if it gets sick. So I think that was...I don't know if that was tied into any event that was going on in the commodities market, but I do recall several of the folks talking about how this alternative agriculture sphere helped them be liberated from some of these other outside influences.

I remember hearing comments from some people along the lines of you've wanted this country lifestyle, you aspired to get out of the city, okay, now you've got your 5 or 10 or

15 acres out in the hills, or out on the plains. What do you do with it? How do you maybe manage that land in such a way that it could turn a profit or at least pay for itself.

Hamblen said:

Originally one of the concepts was that we would put these at the Extension office and then people that had questions could come and check out the video, because most everybody had video or dvd or something like that and hopefully get the majority of their questions cleared up in their own minds, but then the things that they needed specifically which were not on that videotape presentation would be things that the agent could set up and work with them on...Or you could use portions of it in educational programming and it would serve as a resource or a backup.

Livestock Mortality Composting

The years leading up to the inception, production and distribution of *Livestock Mortality Composting*—a companion video presentation to a printed manual—were times of rising costs for rendering plants, increased concern over food-borne illness and associated livestock concerns, and closer evaluation of environmental criteria related to livestock production. Davis said:

A lot of it actually came from a change in the rendering industry. And it also related to mad cow disease. And so there was, in the past, livestock producers were actually paid by rendering companies when they came to pick up dead animals for rendering and then with the change in food safety issues and in rendering practices, it now became a cost to livestock producers; that they had to pay renderers to pick up the dead animals. So people were more interested in something they could do on their own operations to keep the cost down.

It was a livestock producer in Eastern Colorado, whose inquiries to the local Extension office, on alternatives means for handling dead animals, set the wheels in motion for the team to look at a bigger educational project. As the team evolved it was determined that there was both a need in many western states in the U.S., and there were producers who were already successfully composting their dead livestock on-site. Lupis (2013) wrote:

Concerns about mad cow disease reduced the availability and increased the cost of traditional rendering services while other options, such as burial or incineration are both

cost prohibitive and environmentally risky. Alternatives are needed that protect the environment from contamination and prevent the spread of pathogens from mortalities to living, productive animals. These alternatives must be affordable and ideally would also create jobs in rural America.

The group also determined that it would be important, because of a significant portion of the labor pool who spoke Spanish, to provide translate the materials. However, the visual language in this production is inconsistent with one of its stated missions. The report noted:

From the project's inception, the team recognized the need to target the Spanish-speaking laborers and farm managers who often make many of the day-to-day decisions on the farms, dairies, and ranches in the Rocky Mountain region.

A drawback to this film is that, during the on-camera interviews, we never see a close-up of the interview subject's faces (figure 21), and at times they are wearing sunglasses and/or hats that obscure their faces. The two-shots commonly used in the production are not broken up with any close-ups of faces, for example; in fact the only visual shift is when the shots switch to on-site b-roll (supplementary film). The exception to this is near the end of the film, following an on-camera explanation of the need for proper moisture control, followed by a close-up of hands demonstrating proper moisture content, presented by the previously identified scientist, at the site of a large commercial compost pile, which wraps up the scientific nature of the video.



Figure 21: Frame from *Livestock Mortality Composting*, on-site interview with livestock producer successfully composting “deads”.

The presenters on camera, with the exception of one person, appear to be White; for this production to truly have the acceptance of Spanish-speaking staff, the visual presentation by more diverse experts would seem more appropriate. Nichols noted, “Perspective is what the specific decision made about the selection of sounds and images convey to use” (p. 48). An acknowledged disadvantage of audience acceptance, the film’s producers admitted that the Spanish-language over-dubbing—one voice for many faces—was not an acceptable presentation for Spanish-speaking audience members.

Summary

The ability to give viewers a representation of those ‘in the know’ provides an insider’s perspective framed in a manner that helps them understand how they too can be part of solutions to challenging situations. A deep knowledge of the culture being represented is important. That culture could be the specific culture of rural living, or it could be interpreted as the ethnicity of those in the target audience. When shortcuts, perhaps due to time and resource constraints, or a lack of members of the target audience on a production’s planning committee, can make the

difference between acceptance, or rejection, of a film's message. Participatory community projects have been shown to have more buy-in from residents or members of a community when they are included in the planning and decision-making process, as proven through Rogers' Diffusion of Innovations work in the 1960s through 1980s, and subsequent work by other researchers following in Rogers' footsteps.

DISCUSSION

This research project was unique in its combination of visual rhetoric and auteur theory. Few studies have been done combining these two theories; likewise the combination of historic and contemporary works has been little studied. The research questions are presented once again here, to guide the discussion to follow.

RQ1: Are there persuasion techniques at play in production goals and outcome criteria?

- a. Are there apparent patterns of detail/form/genre: e.g., how are various topics presented, such as the treatment (a dramatic story with precise scripting, actors or characters presented, a historical documentary, comedic approach).
- b. Are there associated variables (such as target audience, intended outcome) related to how treatment methods are used?

RQ2: Based upon my analysis of a list of pre-identified films on agricultural and natural resources topics in the United States, what can I say are the expressed/presented identities of the filmmakers or other team members?

- a. Do expressed/presented identities play a role in promoting overarching societal goals?

RQ3: Based on the above analysis, what appear to be common narratives with the films analyzed?

- a. Are there ways that these common narratives might resonate with dominant narratives and discourses present in U.S. society at the time of their production?

Tales of murder, intrigue, community uprisings, war, economic pitfalls, all were revealed in this study, as a century in American agriculture unfolded. For example, early on in this research it was discovered that cattle producers in northwest Georgia were so opposed to tick-dipping their cattle that subversive tactics led to everything from newspaper articles decrying the use of poison (arsenic) as the method of tick-dipping, to the murder of a federal agent over the issue. In Texas, vandals dynamited the tick dipping vat. These films all provided a platform for discussion on how one might rise to the opportunities available for success, despite the challenges facing them. Americans were asked, through these films, to forge new frontiers, and conquer the biological, environmental, and economic challenges with which they were confronted. The overarching themes of increasing economic and agricultural prosperity, establishing the United States as a world leader in agricultural production, and consequently playing an important role in fulfilling the political ideals of those in power provide the contexts for the role of these productions. Common threads in the aesthetics of the films include:

- creating a story that helps viewers to identify with the topic and on-screen characters (in order to ensure a personal investment in the issue);
- scientific evidence in support of the film's discourse; and
- the inclusion of supplemental materials to guide discussion before, after, or during viewing.

In the introduction to this dissertation it was noted that an important part of this study was the examination of how films addressed social issues germane to agricultural production in the United States, and if the filmmakers used the films to influence policymakers and agricultural producers regarding the benefits of new technology. Spatial and historic dimensions are related visually in three of the films (*Charge of the Tick Brigade*, *The Plow that Broke the Plains*, *This is*

KCJ-812) through maps delineating the areas of concern. The last two films (*Alternative Livestock Production*, *Livestock Mortality Composting*) rely on the text and title to provide the spatial and historic dimensions. Economic stimulation and agriculture's role in a progressive society, and the perspective of the various producers and consumers of visual messages were the driving forces behind all of these films. However, this research has provided just a snapshot of the use of persuasive visual presentations for educational purposes; a dip into a historical timeline at increments that are representational of the communication genres and channels of their respective time periods. Throughout the 100-year period of expansion of U.S. agriculture, it is a call to action to participate—at the individual and community level—in creating economic prosperity. From a call to stop throwing food and money away, to insect (ticks) control, to the desire to save money on the cost of processing dead animals, the persuasive modality has most often been to appeal to the economic sensibilities of members of the agricultural community. The use of credible sources in the films was strategic and resonates with the work of Petty and Cacioppo (1984) when they wrote: "...when the elaboration likelihood was low (low personal relevance), the expert source was beneficial in enhancing persuasion regardless of argument quality."

The statement that, American farmers have been told of their duty to not only "feed the world", but that economic prosperity would be theirs if they followed the steps prescribed, is framed through visual rhetoric. The films create a worldview for the targeted audience on the situations in which they are explicitly involved and how they can contribute to solutions. The use of visual tropes helps the intended audience members identify with the personas presented on screen. The structure of each film follows the structure and effective arrangement noted earlier, as posed by Nichols (2001), to include:

- an opening that catches the audience's attention
- a clarification of what is already agreed as factual and what remains in dispute, or a statement or elaboration of the issue itself,
- a direct argument in support of one's case from a particular viewpoint,
- a refutation that rebuts anticipated objections or opposing arguments, and
- a summation of the case that stirs the audience and predisposes it to a particular course of action (p. 56)

In addition, aesthetic elements have been addressed related to pacing, voice, camera and editing techniques, music and other aural components. Of the five films, none compare to the drama created through the pacing, music, narration and storytelling capabilities of *The Plow That Broke the Plains*. The fact that, at the time of its production, the U.S. government had an office of propaganda speaks to not only Lorentz's (auteur) intention to persuade, but his funder's acceptance of those combined persuasive modalities (visual rhetoric as part of the overall discourse). Some of the themes identified in this project included how:

- cultural materials, such as films that address a local issue, circulate from production to consumption to representation;
- people involved in a production express their professional identity in various ways during the phases of a film's production;
- the viewer constructs their identity through acceptance or rejection of a practice being promoted and;
- a practice might be regulated and adopted (either through social norms or restrictive civic ordinance).

Looking back to the 1923 report from the USDA, each of the films examined here contain elements of four notable groups:

1. Didactic or teaching
2. Publicity
3. Propaganda
4. Semi-entertainment

For example, from the first film's scenes of an animated cow sitting under a shade umbrella, wearing clothes, to the scientific graphics of the proper on-site burial and composting dead livestock, these films provided a wealth of material for visual rhetoric exploration, which

provide for teachable moments when a discussion is allowed to take place after showing the film. Additional aspects—such as perspective of camera angles, close-ups of faces or machinery—added to a project’s objective that the viewer accept the message being communicated. Rejection of the message by the intended audience comes about when the visual and aural elements potentially don’t match the viewer’s perspective. An example of this, as noted earlier, is the Spanish overdubbing that was done in *Livestock Mortality Composting*. Additionally in that film, the interview shot with the interviewee wearing sunglasses makes it difficult for viewer’s to really connect with the speaker.

The films analyzed here were produced and presented as an aid for agricultural producers, policy makers, and agricultural educators to come together to create a shared understanding on what it would take to produce food, fiber, and prosperity for their communities, the nation, and the world. For the agricultural producers, these all create not only a sense of accomplishment, but the hope and/or promise of an accumulation of wealth and status for themselves and the nation. The national status of the ag profession is evidenced by the ability to provide not only for the U.S.’ own residents, but the ability to export large percentages of annual crop yields. This, in turn contributed to an elevated status of the U.S. as the food provider for a global community.

Earlier it was noted that many people lend their perspective and creative ideas to a production. Auteur theory, as expressed in the goals of this research project, was used to not only unravel the various collaborative processes that overlapped in the process of creating the highlighted five motion pictures, but how someone takes ownership of a creative venture. That in turn leads to a greater understanding of how the persuasive techniques are expressed as well as how and where the information will be distributed and the message diffused.

Challenges and Limitations

Watching the films with interview subjects may have provided a different perspective for this research project. All interviewees were given the YouTube links for their respective films prior to the interviews, however not all of them took advantage of this resource. Instead they relied on their memory of the process to inform their answers.

CONCLUSION

Adapting film presentation styles to reach specific audiences with specific expected outcome criteria remains a challenge; it demands up-front determination of clear expectations related to timelines, project objectives and communication of challenges as they arise. It also requires some form of continuous check-in with team members as a production evolves to ensure that criteria benchmarks are carefully considered and addressed. As visual communication technology becomes more readily accessible and the roles once assigned to highly trained people are taken over by others less accustomed to production tasks, more time is required for completion. What a professional crew could accomplish in 10 days could take months, but the end result might provide more personal and community buy-in, increased self-efficacy, and greater subsequent acceptance by the intended audience.

Grassroots efforts and alternative presentation styles provide insight into a project and the greatest successes of these projects have all been when the film is a supplement to other materials. This was noted back in 1923 by the USDA Motion Picture Service report, which stated:

...these films were not designed to be seen in isolation; instead they all were part of a comprehensive educational program. The balance between entertainment and information

in the departments educational films evolved over time, as the program tested different kinds of films on a variety of rural audiences (pp. 36-37).

This research has revealed the same is still the case, 95 years later. As educational materials have evolved in response to new technology, changing target audiences and their learning styles, these core components dominate: continual exploration of the relevance of the issues that might lead to the addition of new materials as a situation warrants, community dialogue, inclusion of supplemental print and web-based materials, and audience analysis and participation.

The ability to tap into the social learning processes, social capital, and cognitive storage are described by Rist et al. (2006) and others as components affecting behavior change.

Alternative Livestock Production (2000) and *Livestock Mortality Composting* (2012) make use of these elements with the presentation of success stories and challenges of people with whom the viewer might easily relate.

The roles of the theories outlined for this research—visual rhetoric and auteur theory—became apparent through the potency of the messages and through the salience of the positioning of the messages. The concepts behind the creation of meaning, the transmission of information, developing cultural understanding of complex topics, and the overarching goal of encouraging adoption of updated practices provided the framework for this study. If the concepts of auteur theory are linked to the properties that make up intellectual capital, as proposed by Davis (2014), when analyzing the meaning behind photographs and other images in accounting annual reports, an understanding of the salience of images in meaning-making for targeted audiences. It is also the credibility of the sender—attributed to auteur theory—that provides the framework for what the viewer will perceive as “truth” in the visual message. Thus it can be expected that these two theories, linked together, provided a unique approach to film analysis, and is an approach that has seldom been considered by scholars.

As noted in the introduction, from its earliest days the USDA motion picture service has promoted and funded the use of film for education purposes. Presenting ideas simply and in plain language, with a story as the backdrop provide for the best communication of ideas. Trial and error, and constant audience evaluation is essential to monitor effectiveness of achieving educational goals. The enduring power of film to capture a point of view and establish expertise is a key answer to the question, “So you want to be a filmmaker?” Pare Lorentz put his ability to analyze, critique, and write about films to the test when he began approaching supporters with the idea for an exposition of the issues facing all of America because of policy and agricultural production practices on the Great Plains. Livestock Extension agent Michael Fisher channeled his passion for photography into videography, which led to his being chosen to spearhead a video production on the issues that livestock producers in his region faced, in the hopes that other producers throughout the region would also be able to learn from the production and supplemental materials.

This research project and process provides a useful framework and theoretical background that is beneficial for researchers, practitioners, and administrators. Researchers might apply the mixed method approach (which includes archival evaluation and assessment) in a solely qualitative study, or in conjunction with quantitative data analysis. The use of semi-structured interviews, combined with historical analysis, presented here, is useful in gathering a fuller understanding of complex issues. Video elicitation (a spin-off of photographic elicitation used by many researchers), which would entail viewing segments of a film with interview subjects, with prompting questions, may aid in recall of material. This could be especially important for productions that have been undertaken much earlier in someone’s career. Practitioners are able to glean not only how effective team building and collaboration contribute

to a production's success, but how to use these points of view to develop clear educational goals, expectations, and objectives. Further, the application of persuasive techniques related to genre and aesthetics studied here shed light on how these can be used to achieve those educational and (if appropriate) behavior change goals. When administrators, funding agencies and production personnel are able to match ideology with production goals, their discussions can be relatively more fruitful in all phases of the project. Administrators can further learn from this project by understanding the importance of their role in supporting the project through its many phases: providing their insight into the ideological goals; supporting the building of teams and the collaborative process; assessing time management issues; and providing the resources to develop and produce ancillary materials, when appropriate, to support the educational objectives.

Opportunities for Future Research

Social Systems: ANT and SES

While investigating auteur theory and its role in relation to identity creation, another line of theoretical inquiry that emerged for a project such as this was Actor Network Theory (ANT). Law (2004) described how ANT is used to consider the interrelationships of people and the things that surround them; all classified as "actors". ANT questions the relationship of people with technological advances; for the purposes of a study such as this, an examination of communication technology. He wrote:

ANT is a disparate family of material-semiotic tools, sensibilities, and methods of analysis that treat everything in the social and natural worlds as a continuously generated effect of the webs of relations within which they are located. It assumes that nothing has reality or form outside the enactment of those relations. Its studies explore and characterize the webs and the practices that carry them (p. 141).

The ability to seek out the links between economic, political, and societal issues, along with the particular collaborators who come together on a project, might involve more than simply noting which person took on which particular role; it could also consider the social context of activities associated with a project. Latour (2005) examined the types of connections there might be, "...between things that are not themselves social." (pp. 3-5). By expanding the analysis of the scope of connections to include such things as changing economic and environmental landscapes leading to the adoption of various technological advances, to collapsing the scope to the potential meaning a person associates with newly acquired land, piece of machinery, livestock breed or new technology, various lines of theoretical inquiry might emerge. Couldrey (2008) wrote about ANT as:

a highly influential account within the sociology of science that seeks to explain social order not through an essentialized notion of "the social" but through the networks of connections among human agents, technologies, and objects. Entities (whether human or nonhuman) within those networks acquire power through the number, extensiveness, and stability of the connections routed through them, and through nothing else. Such connections are contingent and emerge historically (they are not natural) but, if successful, a network acquires the force of "nature". On the face of it, ANT seems perfectly placed to generate a theory of the role(s) of media and communication technologies in contemporary societies: these too have emerged historically, yet over more than a century have acquired the force of nature. Yet this connection has been surprisingly little explored... The fact that a stable link between ANT and media theory has not been established—ironically, ANT is not "networked" with media theory—cannot be explained by ignorance (p. 93).

Closely aligned with ANT is the study of social-ecological systems (SES). Andreies, Janssen and Ostrom (2004) analyzed the "interactions among resources, resource users, public infrastructure providers, and public infrastructures" (p. 18).

Social systems can be thought of as independent systems of organisms... both social and ecological systems contain units that interact interpedently and each may contain interactive subsystems as well (p. 20).

Extrapolating what has been learned in this study to delve more deeply in how social systems make use of the pedagogy of entertainment might include in-depth interviews with agency personnel, those responsible for funding and distribution decisions, and a reception theory approach discussed below.

Risk Communication

An avenue of inquiry revealed (but not pursued) in this research is that of risk communication: how people perceive risks, what consumer perception is of risk in agriculturally related topics, Abrams has written extensively about how product labelling is used to create an illusion, and how consumers accept or reject the message. Analyzing perceptions of all-natural and organic pork products, Abrams, Meyers and Irani (2010) wrote:

Theories of risk perception may help us understand why consumers prefer to buy natural or organic meat to avoid those risks. Risk analysis theory suggest that laypersons evaluate risk qualitatively in rich detail based on perceived control and understanding of the risk, whereas experts tend to evaluate risk empirically, focusing on probability and severity of the risk (p. 4).

Holt and Cartmell (2013) meanwhile, examined how non-fiction films might have been used to promote or debunk the risk that consumers face. Their framework could provide a line of inquiry related to “pedagogy with entertainment” in other non-fiction films on food-focused topics.

Women and minorities in agriculturally-focused fiction and non-fiction

From *Milagro Beanfield Wars* to *Oklahoma!*, minorities and women have had spurious roles reflected in popular films. A literature review and content analysis of recent non-fiction films on agricultural topics may inform a more in-depth study of the changing roles of these two under-represented classes. Questions might include: how have women been historically represented in society—through these two cinematic channels—for their contributions to the

agricultural economy? For example, in the opening scenes of the 1922 USDA non-fiction, educational film, *Mollie of Pine Grove Vat*, we see Mollie Sawyer, clad in an apron, on her porch, churning butter, sewing, petting a puppy and tending children. Women's roles of the time period, as home-tenders, and supporting the decisions of men, are portrayed throughout the film.

A historical/visual rhetoric study similar to the research project presented here, but focused on the roles of women, or racial minorities, could reveal much about not only if their roles have changed, but if these are reflected in visual presentations such as those studied here.

Reception theory

Audience analysis, in addition to analysis of success in achieving behavioral objectives, would provide an additional perspective as to the value of presenting educational topics in a film format. This could be accomplished through an analysis of historic archives, through focus groups, a structured analysis of agency documents, and interviews with personnel responsible of production and distribution of materials.

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APPENDIX 1

INTERVIEW GUIDE

These questions were developed to inform the understanding of the research questions. They are categorized according to the research question(s) they are intended to answer.

RQ1: Are there persuasion techniques at play in production goals and outcome criteria?

- a. Are there apparent patterns of detail/form/genre: e.g., how are various topics presented, such as the treatment (a dramatic story with precise scripting, actors or characters presented, a historical documentary, comedic approach).
- b. Are there associated variables (such as target audience, intended outcome) related to how treatment methods are used?

1. How was script developed?

2. What issues in the agricultural community were high priority, do you think, at the time of this production?

3. How were decisions made as to who would speak on camera, and choices of male versus female narrator?

4. What educational video formats informed the final presentation style?

5. Where was it distributed/who was the intended audience?

RQ2: Based upon my analysis of a list of pre-identified films on agricultural and natural resources topics in the United States, what can I say are the expressed/presented identities of the filmmakers or other team members?

- a. Do expressed/presented identities play a role in promoting overarching societal goals?

6. Please tell me about your background.

7. Who would you consider to be the author of this body of work?

9. What role do you see the others playing, who may not consider themselves to be “author”?

RQ3: Based on the above analysis, what appear to be common narratives with the films analyzed?

- a. Are there ways that these common narratives might resonate with dominant narratives and discourses present in U.S. society at the time of their production?

9. What do you believe were the strengths of this project that led to successful funding?

10. What issues in the agricultural community were high priority, do you think, at the time of this production? (also question 2)

11. What sort of feedback have you received about the project since it was distributed?

12. Where was it distributed/who was the intended audience? (also question 5)

APPENDIX 2

CODE LIST

This list was compiled for use in coding in ATLAS.ti. It is a combination of elements noted in the literature review, and codes that emerged during analysis. Not all of the codes generated from the literature proved to be useful, however. For example, “ideal female”, “ideal male”, “marriage”, and “capitalism” were codes from a previous researcher’s code book for films, which were not applicable here.

- actor network theory
- actors
- affiliated resources
- animals
- assimilation
- audience type
- auteur theory
- author
- background of team member
- behavior objectives
- camera angle
- capitalism
- consequences
- contextual use of film
- destruction
- discourse
- distribution
- economy
- editing technique
- educational objective
- equipment
- experts
- experts as actors
- family
- funding
- genre
- geographic location
- historical context
- ideal female
- ideal male
- identities
- imagery
- individual roles
- interview subjects
- marriage

- montage
- music accompaniment
- music emphasis
- narration
- narratives
- national agricultural production objectives
- pacing
- personal initiative
- persuasion techniques
- presentation style
- private enterprise
- production challenges
- progress
- rationale for film
- regional agricultural production objectives
- right of ownership
- scenario
- script development
- settled husband/father
- site selection
- societal roles
- solutions
- success
- target audience
- team members
- technology
- time frame
- training background
- treatment
- visual representation
- visual rhetoric
- voice
- wealth
- work ethic
- work flow

APPENDIX 3

INTERVIEW TRANSCRIPTS

This is KCJ 812

Tom Bare (University of Nebraska at time of film, now retired)

September 10, 2015

TB: What year, again, did we do that film?

JL: 1969 it was released

TB: Only yesterday....I thought, and I told Jeanette, 'I think that was before we were married', but okay...'69. Only yesterday.

JL: One of the other films I'm looking at was 15 years old and they're like, '15 years ago, that was a long time ago', and I go, 'Wait! I've got one that's 45 years old!'

TB: I've got one that's a lonnnnggg time ago, over 45 years old.

JL: If you could tell me your name, and where we are, and a little bit about your involvement in 'This is KCJ 812'.

TB: Hi, I'm Tom Bare, and we are currently 510 17th Ave. South, Brookings, South Dakota. The reason that we live in Brookings is that originally I was on the faculty of South Dakota State University. However, the time has come that we are about to return to where I grew up in the hills of West Virginia. The film that Joanne in which she is interested was shot in 1969. The director of the Extension Service at that time at the University of Nebraska in Lincoln was Dr. Jacks Adams, and I will always remember that there was one bright morning that Dr. Adams called and said, "You know, we're about to go to a meeting in D.C. with other Extension directors across the country and I'd really like to have a film of our two-way radio system." (of which we had just gotten started). And he said, "In the next week could you put together a short film that I could take to D.C.?" And I said, "Well, I'm sure we could but I need some suggestions." And he said, "Well, just, just promote the film, with your film just promote the two-way radio system." And so, I said, "Well now, is there someone that you want to go, to make certain that they're on the film?" And he said, "No, just choose ever which Extension, or ever which of the specialists that you would like to choose for the film." And so I thought a bit and I chose an Extension entomologist with whom I was working on the Backyard Farmer program and I also chose my old friend Rawley Sneider who was the, our Extension safety specialist at that time. And one of the things that I always remember about the film was that I had about a week to 10 days to get it done at the point, and I think, if I remember correctly it rained for, like four or five days and we had to go outside to shoot the film. And at that time I had an Ariflex 16BL, of course which had sound stripe on it and once, when the rains quit we went out

to shoot, and if I remember correctly it probably only took us a couple of days max to shoot the film. And sometimes I think about that and say, "you know, golly, it was only yesterday" and it was over 45 years ago. Both of the specialists that were in the film at that time are deceased. But they were very outgoing...

JL: The late 60s, let's talk about what was happening there.

TB: In the late 60s, this was prior to the time, the thing that we call computer, and uh, all of us run around with a phone in our hands and most of the young people today of course think that that's right in there with anything you wear, and clothing. But at that point, of course, we didn't have lots of phones, and so in most cases somebody could call an Extension office and the Extension office could then call the specialist and get an answer, or they would ask the specialist to come out in the county, and look to see what the problem might be. But that might take a couple of days, and when it comes to, you know, entomology particularly, you could have an outbreak of some kind that could wipe out half the crop in the couple of days before people go there to find out what the problem was to spray.

JL: How did you make the decisions to, on the sites that you chose and other imagery that you chose to use in this film?

TB: Well, the basic reason that we chose the sites that we chose was because visually to catch people's attention very, very rapidly in the beginning. And many many people, or I should probably say most people knew who Bob Rosell was at that point and so it was great, we had Bob looking in a field; he's looking for an insect problem. And that was the reason. Part of the other reason is that in my mind it was always great to have a film that caught your attention and because we were talking about entomology, we were talking about a disease problem in the field, it was best if we had immediate recognition of what was going on and uh...I had a professor years ago that was a guy that would always say, "You know when you do a film, when you do a news story, one of the things that you should be able to do in essence is, you should almost be able to totally see the story and comprehend what's going on without a spoken word involved. And that always stuck to my mind.

JL: What's your background? Did you go to film school? Did you study photography, film, that sort of thing?

TB: Actually, I shot my first pictures with a Brownie Hawkeye, I think it was a Hawkeye, when I was six years old. And I think that film in it was 620 film. And so I shot pictures through high school, actually I was on the photography staff. Then I went to West Virginia University. The first film that I ever shot was in a journalism class. And it was an old Bell and Howell that you could put 100 feet of film in at the time. And I always laugh and I remember that one of the first times that I went out to shoot a piece of film that the professor wanted, when we came back, there wasn't any film in the camera, whatsoever. So, anyway. that was the beginning of my film work. When it actually came to film, I was pretty well self-taught, and then of course graduate

work was at Michigan State, at Michigan State I did shoot quite a bit of film, I had a daily TV show and there was a gentleman by the name of Dick Arnold that was the radio specialist, and at least one morning every week we flew off somewhere into Michigan. And I would shoot film he would do an interview or so, we would then hop back in the plane and it, and to get back to campus so that I could get my film developed for my television, the part of the television show I had at 12:15 every day. And so we'd get back about 11:30, process the film and edit it very quickly and we'd use it. And so that was one of the ways that I spent shooting a lot of film. And when I was at Michigan State I also worked on several of the films that the College of Agriculture was using.

JL: Who would you consider to be the author of KCJ 812?

TB: (laughs) that's a very basic question. I suppose in essence, I was the author of the film because I was the producer, and I was tended to, as most of you know in those days, I did most of the shooting myself, I think I probably shot 100% of that film, and put it together. The Extension director said, 'Hey, I need this to take to the meeting in DC.' And I said, 'Hey that's okay, let me see what I can put together for you.' And I did and he came over and he took a quick look when I was, had my rough edit done, and that's how it came about.

JL: rough edit...what? And you had to process film and all that...

TB: Actually, on the processing, which was kind of interesting, most of the processing was actually done at the local television station, which was a couple blocks away and at one point, I provided a minute film clip every week, at least one clip, to every television station in South Dakota...oh, excuse me, in Nebraska, plus we had a few that were here on the border and one of the things, at the ACE meeting, and I believe that was the one in Tucson, I did a film and used the news people. I'll just share this with you if it's something you want to use. We did a film and had the news directors of the television stations in Nebraska talk about it and the, two of the stations in Omaha and one in Lincoln said, "Oh, we never even look at the film. About the only thing that we ever do is we'll change the intro a little bit so it really fits us more correctly. Because we just figure that Tom is part of our crew." And it was, you know, and so we would, and actually we would put the film on the bus or you know, and it would go out. The film that went out today was used at, on the six and ten o'clock news that night.

JL: So you consider yourself the author. Besides in Washington D.C., how else was this used?

TB: I'm almost certain that this film was used, in...(let me start over here). This film was used for the national meeting in D.C. County offices also used it with their boards of directors. And so, at one time, it was, you know, I think it was probably shown in every county in Nebraska. And I know that after that it was taken to a couple of other national meetings, where those were...it's been a long time...I don't remember.

JL: What about some of the other roles that people had associated with the film who maybe don't consider themselves to be the author.

TB: That's basically a good question. I think the...you know I can't even remember whether my....see, do you know who Jan Pohle was? She and I were office mates and then actually both of us went overseas within six months of each other, which was kind of interesting. I'm just trying to think...who else....you know, who else really was involved.

JL: You can skip that, and think about that for awhile. I have another question for you. So one of my favorite scenes, when I show people the film is the scene at the end of the story. So you have this great story is what I see, and then at the end of the story, he's driving in his car and he turns the radio on and there's his report. It's such a successful, like, my day is complete kind of shot to it. Can you tell me just a bit about...you knew what your boss wanted and then how you went about putting that story together...

TB: It originally, when Dr. Adams asked, of course what came to mind, simply, was you know, shooting out in the field, because that was the great thing that we could do. We could catch up with the Extension specialist, get them to talk to or stop by some place else on that same trip to find out if there were other problems. A couple of the specialist said along the way, to me, they said, "You know, maybe what would be great is, with that radio, if we could actually do an interview with the local radio station." So, some of them, at the end of the day, when they had found a specific problem, they would call the radio station that was in that county, and they'd quickly make a minute or two minute comments and you couldn't get it out any faster than that. Even though our news department, radio television at Nebraska, we were very busy people, but that was the great way of doing it, you could get an immediate report out, "Hey, you have problems in your corn, you have problems in your soybeans."

JL: How about some of the other shots that you chose, like the radio towers, and that sort of thing to enhance the story.

TB: Well the, as I said earlier, part of the deal, in my mind was always to have a film that visually caught your attention so that you were relatively sure what was going on without even hearing a word. And when you had those radio towers, that was a pretty big deal in those days, to put that radio tower up that would actually transmit the, you know, the comments from one area up on campus, out to the county agent or from the county agent out to the specialist that was going. And so that's why we added a lot of those things, again, because that had a relationship to it all. And so you wanted people to know that you had to have an antenna out there, and you had to have the radio in the car, and those radios...that's another one that I will always kind of laugh about. I remember shooting the radio, at that point, with the big Ari 16 BL, and believe it or not, I had to...to get the radio, I couldn't get the picture because it was so close if I used the camera. And so one of my friends, and I think that was my colleague Rawley Sneider, who was the Extension safety specialist. And I believe, with Rawley, we ended up taking a seat out so we

could actually get a picture of the radio. And that radio, the radios we had in those cars, really, right beside you, but that blasted thing just kind of filled up the car, so you couldn't have anybody sitting in the middle of the seat. That just didn't work.

JL: Who maybe didn't consider themselves the author?

TB: When I think back about the production, even though it was over 45 years ago, it crosses my mind that my office mate was Jan Pohle at that time, she was involved of course with home economics, we had a secretary, her name was Betty Kasden, and Betty spent many hours with both of us although she hadn't had actually any formal training in broadcasting or filmmaking, she became very, a great helper. And uh, when it came to a script, my old friend Dan Lutz, who at that time was in charge of the news operation at Nebraska. Those three people did spend, I'm certain, a lot of time with me as I was finishing up that particular film. The three of them, I'm sure we looked at it a dozen times, and there would be thoughts of, "Well, we need to change this word, or that word." But to be quite honest, I don't remember any criticism or any changes that were made visually. I think the changes probably tended to come, "aw, we need a couple or words changed here, a couple of words changed there." And I think that was probably the most that was probably done. And bless their hearts, they all were very very helpful.

JL: Could you talk at all about what sort of video format informed that presentation style?

TB: Actually the presentation, the film..it was film it was 16 mm. That what was used in those days. We didn't have a smaller video camera of any kind, if we had done that with Nebraska Public Broadcasting it would probably would have ended up on the two inch wide tape in the world. Every now and then, in the early days when we had film and I was using film at Nebraska Public Television we would actually sometimes end up editing it with those huge, huge rolls of tape. But the format, yes it was 16mm.

JL: How about the storytelling style that you decided on...we talked about it a little bit, and that is was important to show somebody in the field...but was there any kind of, is that kind of how you like to do your storytelling, or what informed that style?

TB: That style, I think was...that particular style came about from my early days, shooting a little bit of news film when I was at West Virginia University and at that point, of course, i had a professor who would always say, "You should be able to, in essence, have someone watch a piece of film and almost figure out everything that you're saying". And I think it was verbiage was the term that he used. And so it was always in your mind, 'Let's see how we can visually produce this piece of film so people will understand very quickly.' And visually it strikes your head very quickly, and then in my mind the words follow. And that's the way that I always did it throughout the years that I was working on film. As well as television as well.

JL: One of the other things I like, that tells so much about the time is that the film starts out with bongo music...can you talk any about the supplementary audio components to it, besides words spoken but other things, like the car horn honking, other, those kind of things that you added...

TB: Golly I'd even forgotten about the bongo music, and it was probably bongo music was there because that was the thing at that time, the late 60s, the early 70s. Golly, I'd kind of forgotten that. But one of the things I tended to do, I think, if I remember correctly, I did add a little sound, and I think one of the ones that you just mentioned was the car horn, and for some reason it wasn't quite close enough to make the big beep to catch your attention. And so we probably ended up adding that back in. The music, one of the things that I never was greatest on was choosing music and so I'm certain that one of my friends probably said, 'Why don't you add just a little bit of music here or there.' Thanks a lot, I'd kind of forgotten that one!

JL: This was just part of your job, it wasn't grant funded?

TB: No, I don't, if I remember correctly at all, this was just simply part of my job because the director wanted to take it to a director's meeting and I believe that director's meeting was in D.C. Now on the other hand, my friend Jan Pohle did tell me that when she went to the USDA and she of course was overseas when we were overseas. But when she came back to the US then she was at the USDA and that would have been like ten years, ten, twelve years later, that she actually gave some grants to some of the states to get this same equipment that we had had. I mean we were certainly a leader in the two-way radio system. But even somewhere in the mid to late 80s she had some grants that she gave from the USDA to some of the Extension Services across the country to put in the two-way radio systems.

JL: What were the strengths of this production that led to successful funding? But in this case it was part of your job to produce this film.

TB: Yes, this was part of my job as I said earlier, the Extension director called me up one morning and said, "Gee, you know, we're the innovators now in two-way radios, and I really need to this film to take to D.C." in, maybe it was ten days. And he said, "Do you think you can get it together to go for me?" And I said, "Well, we'll do our best." And I asked a couple of questions and I said, "What do you want me, what do you want me to really emphasize?" And he said, "Well I want you to emphasize that, you know, this is a super thing to do for the Extension service." And that was the backing and I immediately went to work on it. And I said, I think, I think that it rained for five days. I couldn't get out to shoot and so we kind of put two and two together and I visited with, I chose the couple people I wanted to be part of it and we got together and then, golly, it doesn't seem to me that we spent more than a day, day and a half shooting it. I may be wrong.

JL: So you gave it to him then as a roll of film to take to D.C., and then to show on a projector?

TB: Of yes, yes,. And actually, I believe what went to D.C. at that point, probably, let me think just a think just a second. I can't remember whether it was printed or not. Because it would have had to have been. My printing. And this will boggle your mind. Alot of the printing that I actually did, was done in Denver, uh. My mind is kind of blank. I may actually. I'm going to say I had it printed in Kansas City. Because that may have been how it got printed. Because I didn't send him with the original. I wouldn't have sent that.

JL: So there was a copy, how I found it was in the ACE archives, in the Special Collection, at the National Ag Library. So was it an award winner in ACE category, and is that is why it ended up in the archives? I can't remember seeing any of the supplemental, any documentation with it, other than a sheet of paper with the title and your name and the institution.

TB: If I remember correctly, I had the original printed at a photo, at a film lab. If I remember correctly, I had to original printed at a film lab in Kansas City. The first print that came back was a little dark, and so I had to call them back up and say, "Hey, can we do something else?" And they said yes, and I think that that piece of film, actually turned up back in Lincoln, Nebraska like the day before the dean of Extension was leaving. Anyway, that was the first print. The film itself did win an award or so. Again, sorry, I don't remember what those awards were. Most likely, they were ACE awards.

JL: Anything else?

TB: Let me run that one again, because I had some dead space, that you probably don't want. I believe that I sent he original film, after I had edited it, to a film lab in Kansas City, Missouri. They made a copy, fired it back to me as a daily copy, and we took a quick look at it and thought it was a lllittle bit dark in those days, and of course it's not like our equipment today, we can't just automatically lighten things as we can today. And they made a second copy, fired it back to us, and I believe it turned up in Lincoln, Nebraska, like the day before the team was leaving. I think we were getting a little bit concerned about that. That short film did win a couple of awards, and I believe they were ACE awards. It's been fun visiting about this film and trying to remember all the things that happened in those days. The two specialists that are on the program, both of those gentlemen are gone, and the several of the other folks that probably looked in and said, "Hey, this is great, or that needs a little change." They're still with us. Did it hit the things you really wanted?

Ted Hartung, University of Nebraska emeritus

TH: The farm programs there for KOA.

JL: Right.

TH: I didn't know if that name showed up in your review of who were there in the early years in Extension.

JL: Well, you know I've dug through a lot of...so I've been in Colorado since 2008. As we rolled out Smith Lever 100 year anniversary, the Morrill Act, things like that, people start digging into more of our archival materials. We had a library in our office; I'm at the state administration office. We had a library there and we just had to take all that stuff because they're going to make an office out of it, so I've been digging through lots of that. There's a couple of different books, Beyond the Ivory Tower, I don't know if you remember that one...it's pretty much the history of Extension. I thought you were going to talk about Lowell True, he was in Arizona when I started there...did you ever know him?

TH: No, I didn't.

JL: When I first started working on things, he and another Extension agent would do the TV spots for the CBS affiliate, so they kind of adopted me into the mix of doing them too. But I really wanted to do the behind the scenes, things, the production of it.. When I started working on it..they were using lots of slides and data...and I was like, 'this is farming...home landscaping, we should be shooting video...so the communications unit on campus then got a new Betacam and they had the old Ikegami and 3/4" set up, and I'm like, 'I'll take it'...so that's what I was able to shoot on, because the tv station still had the 3/4 " editing bays...so over the years I've gotten people's cast offs but they're still perfectly good, as they new technology. Anyway, now we're down to single lens reflex camera that can also shoot video, which I think is interesting.

TH: laughs...

JL: So if you could tell me your name...what you've done in your life, and actually where we are, here in Nebraska.

TH: I'm Ted Hartung, my given name is Theodore Hartung, living here in Lincoln, Nebraska. I'm retired from the University of Nebraska-Lincoln of emeritus of Food Science and Technology, and of the Institute of Agriculture and Natural Resources Vice Chancellor's office.

JL: Today is September 9, 2015. Tell me a little bit about your career. Where you grew up and things that you worked on throughout your career and then we'll talk about what they were doing in the context of agriculture.

TH: I grew up in, outside of Engelwood, Colorado, in what was labeled as Fort Logan, Colorado, on a poultry farm, and my Dad was developing one of the very early poultry farms there in Colorado. And uh, so I became acquainted with then Colorado A&M as my father would take me to Extension meetings to learn about raising poultry. From that I decided that I would go to Colorado A&M husbandry, and so I was able to live for my board and room, on the poultry research farm there in Fort Collins. So I got acquainted with a lot of the research that was going on in the Experiment Station. And from that, when I graduated, second in the class from the then Colorado State University, I was offered the opportunity to go for a master's degree, which I did to talk that in nutrition, poultry nutrition. And also was given a contract to help teach a group of

Air Force officers for inspection of poultry and eggs, with my experience growing up on the poultry farm. From that, after I got my Master's degree in 1953, I applied for a position of poultry specialist at CSU and was able to get that and so I spent time then in the field travelling. We were in a transition for the poultry industry at that time, going from farm flocks to more commercial flocks; floor raised and so, and also for the turkey industry there in Colorado. And so I was able to work with an ag engineer there in Extension and we developed a program of housing for confinement of turkeys and also confinement of laying hens. So I watched that develop to getting to the point of cage layers were developed and I decided after working in Extension and I had a Master's degree but I needed to have a PhD if I was going to stay in higher education. So I took a sabbatic leave and I went to Purdue University to study food science. Because I had been in the production side but I saw the opportunity of the advances in poultry products. So I got my PhD in 1962; my family journeyed with me to go on sabbatical so the putting husband through a degree was the PhD that I experienced. Our children joined us there; my oldest son and daughter and there and living in one of housing units at Purdue and Lafayette, Indiana. Then I returned to CSU in 1962, and assumed a joint appointment of research and Extension, and continued to do research in turkey products. At that time the market for turkeys was principally holiday market and so I was able to get a grant from the national turkey federation to examine how to bone out turkeys and produce turkey products. That was an interesting project which showed how to end up providing people the opportunity to have drumsticks and turkey breasts as we see now in the market place where turkey parts represents the majority of the tonnage of processed turkeys. In 1965 I was contacted by the staff here at the poultry department at the University of Nebraska if I would consider becoming department head and after reviewing that I decided yes, I would come and so I started my career in April of 1965 here at the University of Nebraska heading the poultry department. From that there was a special committee formed to decide whether or not we would develop a food science department. I headed that committee and later as the recommendation of the committee to establish a department of food science and technology which we did in 1968, and I became a joint head of poultry and food science and ultimately moved to becoming department head of just food science. From that I spent time doing research in the food science department; had the opportunity to work with NASA; we had an irradiation instrument that Senator Curtus of Nebraska obtained and we proposed to irradiate food for space travel and so I had the opportunity to work developing, using bread, irradiating it at a low level so it could be used in the Apollo series. And so Apollo 13 that was a very significant thing that they were unable to hydrate food, and so having food on board of Apollo 13, bread from Nebraska, was a key thing. Anyway, from that, being active and doing other research and then a position of assistant dean came available in resident instruction and so I applied for that and then became assistant dean of the College of Agriculture at that time. The transition here at the University of Nebraska was to develop an Institute of Agriculture and Natural Resources and creating a vice chancellorship; I served on the search committee and established that and then I moved to becoming dean of the College of Agriculture. I still taught the introductory course of food science while being dean and I was

dean of the College of Agriculture for 15 years, and then I was asked if I would join the vice chancellors office as associate vice chancellor and so I spent the next 7 years in that role, playing associate to the vice chancellor. In that position I then retired after 35 years on the University of Nebraska faculty and that's; I'm a retiree now, here in Lincoln, Nebraska.

JL: Where was the poultry research facility, in Colorado, at CSU?

TH: Out on Lake Street, the site of a farmhouse was right across from it.

JL: Lake and ??

TH: I think it was about the 500 block west.

JL: Is that where the stadium is going in now?

TH: I don't know about that; the stadium was on College Avenue when I was there, of course they moved that out there onto the slope.

JL: Right and so now they're putting the stadium back on campus and it's where the Plant Environmental Research Center was...so they're moving that to south of Prospect. So it might be in that same vicinity.

TH: Uh-huh. Would be. Probably.

JL: So, a couple questions; you've seen lots of different changes in agriculture over your career. I'm interested in a couple different things. The whole movement to cage free chickens; after the work that you did to house chickens, to have more production, what are your thoughts on that?

TH: Well, frankly the emphasis of free range does not reduce disease risks for poultry. And so for food safety the concern for what is considered to be the best venue to raise poultry really is a step backwards. And I think studies have been conducted and in fact we've had research here on cage density and looking at stress and being able to establish the space that a caged bird would not exhibit stress. And so it can be done with consideration of a humane approach to having caged layers and that's the movement that I see the industry going because really for food safety and disease prevention, caged production is still a choice which, for consumers, is a better assurance of eggs and poultry being safe (to consume).

JL: If you think about when your father was actively starting his poultry production, do you know where it was he got the information or the education that he needed for that? The difference between formal and non-formal education.

TH: Well my father only completed the third grade and he recognized that he needed to go to a source of unbiased information and he became acquainted with the Extension poultry specialist through a hatchery that was located there in Littleton, Colorado. He began to read up, at the time he was working as a lithographer in a print company in Denver, and that got phased out into

photolithography and he had to decide to learn that technology or go out on his own. And so he bought a 10 acre farm area just south of the Loretta Heights College on Hampton and Federal and began to build, and start part time, poultry. And so he would go to monthly meetings, sponsored by the hatchery and staff from Colorado A&M came to instruct and provide bulletins. And he read those consistently to learn more about the proper methods to raise poultry and led him at one point to become the largest poultry farm in Colorado with 5,000 laying hens. And marketing both retail and wholesale, mixing our own feed, formulated by formulas which Colorado A&M provided. Every step was really being provided through informal education to make him successful. That was obvious to me, that Extension had a tremendous role in making progress in changes in agriculture. So that's why I really found myself moving into Extension personally. There was great reward.

JL: If you think about...I wanted to ask you specifically about this film, *KCJ 812*. Do you know anything about when it produced or about the film itself?

TH: Not really. I knew it existed. And that Tom Bare produced it. But I can't really give you an informed response about it.

JL: My understanding of it; I haven't interviewed Tom yet, but it was to connect all the various parts of Nebraska through technology and satellites and that sort of thing, so that they could have the latest information...extending, another way of extending research from campus to all the parts of the state.

TH: Right, the organization of districts for Extension here in Nebraska really was in its early stages as I was working there in poultry.

JL: If you think of Nebraska in the mid to late 1960s, and what the technology and reaching all those areas, I think that's what the heart of what this film is trying to say.

TH: Well, I think that the response to organizing Extension at that time was to reach out with more expertise in the unique areas of the state. Because they are very different as you go across the state in a more dryland situation out in the panhandle, and as you transition then into central Nebraska, southeastern Nebraska and northeastern Nebraska. So that was the model that has been followed here, to set up five Extension districts and specialists that were there, so that transmission of information became really very direct with workshops and technology that could be provided through the specialists that were housed here in Lincoln, working with the district specialists. It just was a great move of rolling out Extension education that has been updated in terms of some transitions for merging the south central district with the southeast district. And I had the opportunity to work with the ag communications group as an acting head while I was associate vice chancellor, and helping merge the technology that Extension educators were wanting to use as well as the traditional ag communicators, and we merged that into a program that allowed them for the development of AGnet, which allowed us to have high technology communication connections out across the state, including satellite, working with Nebraska

Educational Television and how that was able to create a network of having Internet available, and that's gradually become better to get high speed. That still needs to be done out across the state, although there's been tremendous advance in getting high speed internet to the local farmer and rancher.

JL: I want to ask you specifically kind of about the 'ages of agriculture' that you've seen over the course of your career, and the movement, you know we have this poster from the USDA, and some of the things, society and economy was, has been interested in over the course of your career.

TH: Well certainly the impact of the drought in Nebraska in the late '20s, where land was plowed up, tried to be farmed, led to a realization that Nebraska was going to have to look at how it was to do dryland agriculture. And in fact, that's, as I arrived here in Nebraska in 1965 there was very development work being staged for irrigation center pivots and so looking at Nebraska's cropping system; it was basically relying on ditch irrigation and discovery of how center pivots could be developed using the Nebraska/Ogallala aquifer was being researched and tested. We saw the transition of Nebraska from predominately a dryland agriculture into an irrigated agriculture, as it now is. So the development of more stable crops yields compared to dryland farming was very evident of what I saw in Nebraska. And Extension was playing a tremendous role in helping people to make that transition from being a dryland farmer into irrigated agriculture. That has really emerged into a major component of Nebraska's economy, where we now, I believe, rank number 1 in irrigated agriculture in the U.S. So Extension continues to play a great role in water efficiency. In fact the Institute of Agriculture and Natural Resources here has established several centers for water utilization and conservation. The theme for Extension is really looking at food, fiber, fuel as a whole pattern for emphasis.

JL: You talked about...if you could think about post-World War I and the Dustbowl era and then, so tried to situate for when these films were produced. The 1960s, the late 1960s...the late 1990s, and 2010 and beyond, kind of what that; what people were interested in; I think 1990s was kind of a 'back to the land' mini-farm ranch kinds of thing, post World War I to the Dust Bowl era. And when the idea became broached to farmers that not just feeding the U.S. but feeding the world was one of the goals. Can you think (and talk) about that at all?

TH: Well I think the evidence of productivity through plant breeding, cultural practices, fertilizer and herbicide development all lead to increasing yields for cropping...

JL: Would you say that was post World War II?

TH: Yes, I would say so, yeah. That was emerging before the World War II started, and I think that it, where we had to supply food for troops, that really accelerated the technology research to develop yields that were more favorable to export. And the idea of hybridization really came front there, and plant breeding. And hybridization and livestock and poultry also became part of the transition that allowed for productivity to "seek to feed the world". But it was largely the

devastation of World War II and the need for people to have food in Europe and across the world really triggered a lot of what I saw as Nebraska's response to being an exporter of food and fiber.

JL: What's the local food movement like in Nebraska? In various parts of the country it's more popular than others but what are you seeing in that?

TH: I think that we've seen a lot of communities develop agreements with surrounding farmers for produce as well as some specialized organic production, which people were then able to obtain crops that were locally grown as well as organically produced. So, I think that most of our communities across the state that are about 5,000 or more population have really developed that kind of supply and I would think that the popularity of local grown produce and locally produced meat products is evident in consumers. That is a growing trend but at the same time I think commercial agriculture is still the major economic engine.

JL: I'm thinking about those two mix; you know, feeding the world and exports, and then serving this home grown group, how that mixes.

TH: I think the economy of having to move food across the nation is an issue which the locally produced products is seen as an advantage to trying to reduce that, but the trend for exportation of food is still a prominent strategy. And commercial production is really gearing that way and continuing when you look at the population growth of the world. We're not going to expand much more in terms of acreage availability, and so the issue is going to have to be if we continually be looked to as a reliable source of food for the world, we're going to have to expand our research in the whole area of efficiency and use of our resources.

JL: You mentioned some things that the University (of Nebraska) has gotten involved in as far as water quality and quantity. What are some of the new trends that you've seen the university moving toward?

TH: Certainly the development of instrumentation, of utilization of water is really a remarkable thing; when a crop needs to be irrigated and a trend is really for more and more of the commercial producers to rely on instruments that tell them, or actually call for water to be delivered, and so that is certainly a high point of water utilization. Another point of technology is the development of fertilization based on crop yields of individual land and when you look at the computers that are in a tractor today, it's a marvel! Way exceeding anything that was in the Apollo series satellite, or space program. So the operators really can see and the fertilization rate is based on what the soil testing is of that land, and the cropping yield of that land. That just continues to marvel me as to how the technology is allowing for great savings on fertilizer and water and reducing any pollution risks that we have in commercial agriculture.

JL: And is that paying for the cost of the computer and technology?

TH: Yes, it is. Obviously we'll have our ups and downs. We've gone through the transition of where our crops were a very high valued. Nebraska's developed a considerable biofuel industry and so that continues to grow and I think that that's going to be one of the trends that we'll see for Nebraska, and in agriculture in general.

JL: Would you say that Western Nebraska was in that strip of what was considered the Dust Bowl.

TH: It was central and western.

JL: You mentioned a little about the things that developed because of that; irrigated agriculture and that sort of thing. Do you think at all, I know you weren't living here at that time, but could you think about the history of what that was for that region of the state.

TH: The foreclosures, bank foreclosures of farms, consolidation of land ownership really was a major thing that happened there. So I think that the drought strategy was probably this whole belt. Kansas, Oklahoma, Texas, Nebraska. When we get into central Nebraska it was lesser of a concern than we had in central and west.

JL: The film, *The Plow that Broke the Plains*, they make a great emphasis at the end of it that people moved; and it was funded by the Resettlement Administration, but in Nebraska was that the case or did they tend to settle other parts of Nebraska, or do you know anything about that?

TH: There was some movement of that, but a lot of people were so determined to stay on the land, and so the transition was not as great I don't think. When I see some of the movement of people from Oklahoma and Kansas west. I think Nebraskans seems to be determined to be hardy and to be able to sustain themselves with small gardens and sustaining in the food in the drought and the Depression. So I don't see the movement of Nebraskans as great as what I observed or read of other parts of the U.S.

JL: So, kind of the current state; this last film that I'm looking at is *Livestock Mortality Composting*. What I've learned is that it was in part to teach producers because of disease issues with rendering animals and with rendering plants then charging for carting off animals and so that's kind of the a late 2008, 2009, kind of what was going on there. The film itself was produced in 2012. But can you talk at all about what you've seen happening in agriculture in maybe the last ten years?

TH: As far as that trend; I'm not aware of any significant development of composting of livestock losses. There may be some of that. The rendering industry is very active here in Nebraska particularly for pet food and so the demand is there and I think that's continuing. Probably the thing I see happening is more concentrated efforts of producing beef as efficiently as possible with controlling diseases and ways to be consumer-concerned centered. And so I think that that emphasis of livestock identification, of tracking livestock for disease safety, I

think that's certainly tagging and actually tracking animals as they move through the chain. I think that the cropping technology of minimum till or no till is just going to continue to be adopted. That's certainly what I've seen in the last ten years. There's no clean fields. You drive across the state and crop residue is apparent on it, and planting into the crop residue and minimizing erosion is just; that's the thing to do.

JL: In your career you've seen the changes from when your father went to talks sponsored by the local hatchery to what we're doing today. Can you reflect at all on how things have changed with new technology?

TH: Probably the iPad and getting publication online. But still there is an opportunity and a need for face-to-face communication. So the interaction with technology, to be able to interact. I know that some of the specialists receive communication back and forth from farmers on the Internet and giving them expertise and response. I see Extension still being relied upon as an unbiased source of the latest research.

JL: What's interesting about (the film) KCJ 812; (I'll send you the link to it, I've got them all on YouTube) is that almost instantaneous feedback available in the 1960s. It started with the specialist out in the field, gets a call from the state office that a local farmer had called about such and such, and so he goes out there, and the end of it they're able to put something on the radio station. So they're able to use this communication technology not as quickly as we can today, but I think, what I know so far about that film is that Nebraska was a lead in providing that satellite (two-way radio) technology to local areas.

TH: I think the whole area of television, it was of interest to see our Western senator who promoted the development of Nebraska Educational Television. That really set the stage for being able to communicate with technology, with Extension having the wherewithall to do that. So I think that that triggered, probably some of that film production, that they could see how the opportunity to transmit information 'just in time' almost and of course the county agent no longer is that; he's an Extension educator, no longer really being asked to go out there and take a look at a plant; we've got crop specialists in the private sector that feedback to that information. So it's not as much hands-on, but it's certainly high tech in the centers of knowledge lying here in the land-grant system.

JL: It's interesting so now a farmer could take a picture of something and send with his iPhone or his cell phone, and take a picture so that that distance that someone used to travel is gone, but still they want to be able to send it to somebody.

TH: We have a very successful program called Backyard Farmer that airs each week. And they show samples, and they have people right there talking about it and I think it's maybe about 30 years in its celebration, something like that. And that's really evident of what happens.

JL: Is there anything else about any of these topics that you wanted to talk about (USDA poster)

TH: Covered alot...

JL: That will be it for now then.

Alternative Livestock Production

Nancy Irbeck, Colorado State University

August 14, 3015

NI: How'd you find my film?

JL: So, when I first came here, Bob Hamblen asked me to have it digitized so that we could extract pieces of it for another project that he had. And so that's how I got it in electronic form so that I could load it to...I'm trying to think if I took it back to Ron...and his shop had it digitized...but that was when I first got here (2009?) and I was the Front Range Communications Coordinator. And then, so, I don't know if you've seen the film, "Livestock Mortality Composting" that Jessica Davis and a group did?

NI: No, but I would like to.

JL: I'll send you that link too. Anyway, there are these five film and as i was trying to think up my dissertation topic, of course you want to have something that is going to hold your interest for the whole way, and then, just, the Livestock Mortality Composting, that was done in 2012, and Jessica and a group got a Western SARE grant to do it, and until the very end of it they didn't have a professional videographer associated with it, at all. So it's that 'user generated content' notion and then how they get a project done, not really knowing what they're doing...so that's why I was interested in that. When I was studying for my exams last summer, I was looking into delivery of programs in Extension and that was associated with a couple of my questions; they were on how Extension delivers programming and that sort of thing. Well I found a (journal) article called The Bureaucratic Activist and USDA films and they talked about this Charge of the Tick Brigade in there...and I'm ready about it and I'm like, 'so it was done by the USDA, but it was used by county Extension agents, shown in community centers, when farmers and ranchers were in town'; and I'm like, 'but that was 1919 and that's how we still do Extension programming, isn't that interesting?'. So after I got done with my exams I looked, I just checked to see if it was on YouTube, and it was. And it's kind of hilarious. At least I thought so.

NI: send me the link to that too.

JL: I sent it to my son, and he goes, 'Mom, did you look at this?' He goes, 'The cow has a skirt on.' And she's sitting under a tree, reading a book, and there's like a shade umbrella over there, and then all of a sudden she gets an itch. But then they do a close-up of the book she's reading; so this is 1919. She's reading 'How to be beautiful though married.' And then the tick comes along, I mean it's so much visual semiotics there.

NI: I've got to watch it.

JL: So that's where that kind of got started, and I thought, well, how were these other films developed.

NI: I don't remember why I did mine. I remember doing it. I don't know how it was used even.

JL: So I'm also interviewing Ron Bend about it. And then I'm trying to get in touch with Bob, to see if I can interview him as well.

NI: I don't remember why we did that. I know I was teaching an alternative livestock class and I was promoting...

JL: Hang on, please.

NI: Did I tell you I break things? It goes, AAAAH...

JL: So, if you could tell me your name, and your position with the university.

NI: See I don't know what that is right now.

JL: How about your position at the university at the time this film was produced?

NI: My name is Nancy Irbeck, and currently I'm the director of the Master of Ag program and the Distance Education for the College of Agricultural Sciences. At the time the film was created, I was an associate professor in the department of Animal Sciences.

JL: Can you think about how the script was developed, or how the project came to be?

NI: That was a long time ago. However, I believed at that time, and I still believe that alternative livestock are a very valid component of agriculture throughout the state of Colorado and the U.S., and you have phases in and out, you can talk about the ostriches, which at one time were almost 40-some thousand animals and now down to less than 6,000 in the U.S. But there was a lot of interest among students in learning about these unique ostriches, elk, alligators, alpacas at that time were just new and upcoming, the camelids, like alpacas, llamas. And for me as an educator with a focus on the students and getting information that the students wanted, it seemed appropriate to put something together, and that was before there was really Internet resources and so finding individuals throughout the community who had boar goats and hearing the story how boar goats were brought out of Africa--smuggled out of Africa in the embryo form. And how we raised alligators and the only place in Colorado you can raise alligators is down in Alamosa where there's a geothermal spring. And how can you feed those animals with the waste of the chicken packing plant. And it's just to me so incredibly interesting. When I teach, I teach through stories. And because I was out talking to these producers, I could take these stories back to the students. And they never had to study for the class, because when we teach with stories you use a different part of the brain than in a normal didactic lecture. As I talked to these

producers, I remember one time the emu farmer said "Yeah, I found fox tracks going into the emu pen but they never come out." And so the students never forget that these birds may look like a cuddly little creature but they're incredibly aggressive. So how did it come to be? It's my seek to bring knowledge.

JL: So the next question kind of taps into that. What issues in the agricultural community were high priority at that time?

NI: Okay...and that's a double loaded question for me, because the Department of Animal Sciences, almost always, since I joined the faculty in 1990, focused on food animal production, specifically beef cattle. And I was trained in the beef cattle arena, but through a series of, who can say, coincidences, I was asked to teach a pet nutrition class, I was asked to do a non-ruminant class. And in that niche I found a community within Colorado agriculture that wasn't being served. That had greater interest...not greater interest. That had interest other than beef cattle. And I became rightfully not or rightfully so, a one-woman search party, trying to meet the needs of this segment of agriculture that was non-beef oriented. Never started out that way, but it's just perhaps a search for knowledge. It wasn't really appreciated by the department. And if I may be really, I guess I'm known for calling black black and white white. And maybe I should have left and found another place to go. But I just had this deep need to search all of agriculture. And this is one that I saw that wasn't being met at that time. And maybe still is not.

JL: Do you feel like that's specific to Colorado or is it also the issue that people were seeking that knowledge in the region, or nationally?

NI: The knowledge was being sought nationally, and there was a lot of international. Because through my work with the Denver Zoo and my comparative nutrition. We started a Comparative Nutrition Society in 1996. But there seems to be seekers all over trying to pull this information together and I fell kind of head into the headwaters of that group and have worked with that group even to this day, even though I've been in administration for the last, over 10 years. But, um, still. There. I'm seeing...if we use Colorado as an example, the number of farms have increased, but it's the number of small farms. And people are wanting to go back to their roots, but they are one or two or maybe even more generations removed from the farm, or from, with any animals other than maybe a dog and a cat. And growing up in Iowa in the 50s, I'm one of those rare individuals remaining that...60 years old...but that has a working knowledge of living on the land with animals. And what I have in my head, you can't learn out of a book. You can only, I learned at my father's knee, my mother's knee, to read an animal. To know when something's wrong, to know how to take care of the animal. Because first and foremost those animals provided our livelihood, and we talk animal welfare and everything today, and that's how we lived. And that people that are now moving onto the land, wanting to recreate those roots, you can't find that knowledge. It's not there. Even in the City of Fort Collins, when the city council was petitioned to bring in goats to the city. I went to city council and I petitioned against it. I said, "People don't know how to feed animals, they don't know how to care for animals,

particularly the goat which is an incredibly intelligent. They're Houdini's, you can't build a fence if they want to get out, strong enough to hold them." But then I said, "you'll probably approve this, but if you approve it, I want to teach, they have to go through my training." And you can go on YouTube and you can find that information now where I worked with the City of Fort Collins, and I feel there are others that can learn from that. You can now go online, you can use the Internet, you can use the YouTube, and there's a lot of information there, and seeing it on YouTube is part of it, but it's not the whole thing. And we have to get the...I'm giving you a very long, rambling answer to a short question...

JL: But that's...so that was 15 years ago, do you feel like the same sorts of issues, 15 years ago are still prevalent today, the seeking of knowledge, the trying to go back to the land?

NI: Even more so. We are not, in my educator opinion, we have not met the needs of these. And if calculate the number of voters of the small farmer versus the larger farmers as we've increased the number of farms, their votes are going to carry more. Because usually, the farm is a second, is a hobby. My opinion is that we need to address their needs. And much of it is with alternative livestock.

JL: So how decisions made as to who would speak on camera and the choices of male versus female that ended up in the film, producer-wise and expert-wise?

NI: The only ones that were there that were able to speak. There are very few of us. I wrote the very first pet nutrition book, when I was teaching in the early 90s. We didn't have the Internet. We only had libraries and to talk to people. So there wasn't a decision of male or female, it was who had the knowledge to speak the truth.

JL: Right. So it was producer-wise to have a range of producers that you spoke to and different animals that they were raising?

NI: Those were, that I could take my personal vehicle, and I could go visit them, within an afternoon, or on a weekend. Because it was kind of above and beyond my normal role. I could reach out by phone, and then drive to their house. And then, in turn, I could then take my students to visit.

JL: So what educational video format informed that final presentation style in the video?

NI: I don't understand what you're asking.

JL: So, it's...and maybe this is a better question for Ron Bend in the production end of it...just having those on-site interviews. and some in studio, I think you're in your office or lab or something like that at one point. That presentation style, do you know who was working on that?

NI: That would be a Ron Bend question. All I know is I wanted to get the information out and we put it together.

JL: So who would you consider to be the author of this piece.

NI: Ron Bend and I. It's a long time ago. I'm going to have to go back and look at it to remind myself.

JL: What role do you see others playing who may not consider themselves to be the authors?

NI: Information givers. Experts.

JL: Did you pull in any...was there a committee or just you and Ron who worked on it, or?

NI: Just me. I was the content organizer; Ron did the videos.

JL: So the images and settings you selected, you said that was basically, proximity and availability?

NI: Because I was doing it on my own dollar. I didn't have the dollars to ...I never even asked for university dollars I just did it.

JL: How about the editing process...were you actively engaged with Ron during the process?

NI: I know that I was shown the films as we walked through it, but predominately I agreed with what he did. He did the most of it.

JL: And so then when you were developing the script as well, trying to just come up with what things were important to include in there.

NI: I think most of the script was shot from the hip. I don't remember ever writing anything down.

JL: Anything else you can say about...maybe I'll check with Ron, to a little bit about how it was used...You used it in classrooms?

NI: I used it in classrooms.

JL: I'm pretty sure it was distributed to county offices.

NI: Yes. And I'm trying to remember. I think Bob Hamblen definitely had a role in that, in putting it together and as far as dollars for the video, it was perhaps Extension dollars, I don't even know. I just had the deep need; I served on the Alpaca, the AOBA board for many many years before I stepped down, and just learning the knowledge of these unique other species, and that's why I became a comparative nutritionist.

JL: So about the reception of it, can you tell, you said from your students, can you tell if it had any impact on them, anybody else in the different agriculture communities, how they received it or reacted to it?

NI: My impression. My personal impression. The students were incredibly intrigued and very interested, and very open to learning about it. It was not well received by my peers because in fact I doubt if any of them even watched it. Or if they did, they probably laughed the whole time through. It was not, and still is not, to this day, the focus of the department. My lemming was heading in the opposite direction, I was heading for higher ground.

JL: So, did you when you typically showed it to students, did you show it all at one time, or pieces of it?

NI: In pieces.

JL: And kind of building on the curriculum you had?

NI: Yes, because I was teaching the Alternative Livestock Production class, and I remember I got the approval just days before the class started, and I had 20-some students in it. And I really think the department was surprised because it filled so quickly. They thought they would be able to cancel it. My zoo nutrition had 60-some students per semester for a 2 credit class. But then we went through curriculum changes and all of those classes were dropped. I was, I could not teach them anymore.

JL: Anything else you want to talk about, about the film? I'll send you the link to it on YouTube.

NI: Please send me the link. I had frankly forgotten about it, until you brought it back up. It's been a long time ago. It's something that..I might take the hot link and put it on my website so thank you for that. You probably don't need to hear all the political side of things.

JL: Oh, it's good to hear it.

NI: I'm still the black sheep. i was ostracized from that department and probably still am.

Ron Bend, Colorado State University

JL: If you could tell me your name...this is the 18th of August, 2015. If you could tell me your name and your position and what your role was on this film...

RB: My name is Ron Bend, and I'm a video producer at Colorado State University. On this particular production I was the videographer and video producer.

JL: Do you happen to recall; I know it was several years ago, but how the script was developed?

RB: Um. You know like all good video projects they have kind of an organic process that it goes through. And I think. I worked with Nancy Irbeck, and an Extension agent, Bob Hamblen, and there was a woman (Ann Swinker). So I worked with Ann primarily to see what it was that she wanted out of the video and what those primary talking points needed to be. We went and worked with all of the different folks that you see interviewed on the video. Alot of times I'd

work with Bob, I think, if I remember right, would drive to a lot of these locations and we'd set up the interviews, and talk to say, an ostrich producer or a bison producer about what their particular concerns were. And, from all of that I did a rough paper transcript of everyone's interview content. And I remember sitting around a huge conference table and cutting out, cutting paste around the conference table of all of the comments around each section that I needed to have in the video. And so, from that, I was able to write a narration that would introduce and bridge between all of those topics.

JL: How were the sites chosen, and the supplementary imagery?

RB: I think the sites were chosen by Ann and Bob and in terms of they knew who the different producers were around Northern Colorado. And so, we would just go to those various sites and again, try to address the concerns that each of those types of producer might have. The additional footage, a lot of times I'd just try to capture extra footage while I was out, at those sites. I remember there were a couple of times that I made specific trips into the neighboring areas to get extra footage. I remember the, there was shot of a for sale sign in front of a ranch, or a small ranchette, things like that. So I would just go and, after developing the script, the narration, I knew I would have to have visual proof for these different points of the narration. And so I would just try to find a way to make that happen.

JL: What about decisions that were made as to who would speak on camera, and then the narrator, male or female?

RB: The narrator actually was interesting for this because it was a fellow video producer that I worked with for many years at CSU. It was Joe Schwind. And Joe as you can tell from the video just has that, I'm trying to think of the voice talent that you always hear on the Western-themed commercials...Joe just struck me as having that sort of delivery. And so I asked Joe to lay down the narration track, and he was kind enough to do that. I think it worked out pretty well...he's not a professional narrator, so it maybe didn't have that radio personality voice, or that very polished voice, but I hope you know it came across in a little more sincere way. That his delivery was at least honest and heartfelt.

JL: Why a male instead of a female? Was there any thought about which might be the more authoritative voice, male versus female?

RB: No, there really wasn't. I think the one authority figure that we first see interviewed is Marcy, I think from the University of Nebraska, if I'm not mistaken. We knew her content was overarching and her content was foundational, I guess you'd say, to many of the other issues that were woven throughout the video. And maybe accidentally. I don't think there was a real sense of balancing male versus female. It just so happened that Marcy's voice contrasted nicely with Joe's narration for that opening probably 3-4 minute opening segment.

JL: Were there educational video formats that informed your final presentation style, or even news format or something from your background?

RB: I think probably some of the bigger projects that I had been involved with prior to this were for NRCS. And a lot of those were documentary style, short documentary style, 15-20 minute long, where we would go and interview different NRCS experts around the country and ag producers around the country and talk to them about what are their specific issues that the agency could help them with. What it was they were doing on their operations. So I think that was a background style that I was shooting for. I don't remember watching any particular documentary and thinking that I want to emulate that particular style. It was just more, 'let's go talk to these people and find out what the stories are what the concerns are' and try to make a video that first and foremost, hopefully, informs people who might be wanting to get into this type of production, this kind of alternative livestock production.

JL: I see the expert model. Someone who's had experience, and been successful. Maybe it's a university or agency person as well.

RB: That's true, and I think for all of the people who were involved in the video, whether they were say, Marcy from the University of Nebraska, or I think of the person who was raising trout. They're obviously experts in that, I mean if your day-to-day job is raising trout, you're much more an expert at raising trout than I ever would be. So, in my mind it's less important the position that they come from, in terms of what degrees might appear behind their name, but the idea that if this video exists to help aspiring ag producers move into this alternative, quote, unquote, alternative world, then who better to tell them what the pitfalls and advantages and concerns might be than someone who is doing it. And so, I guess I was less concerned with assembling a cadre of panel professionals with PhD's behind their names, and I think more of the concern of Ann and Bob was getting people who have real world experience, and could communicate that well to people aspiring to enter this world.

JL: Can you think about what was happening in the agricultural community or ag society, and economy at that time that helped to frame the need for this film.

RB: I don't remember specifics, but I do remember several people commenting on how if you're in traditional agriculture, corn, soybeans, pigs, your fortunes are tied into the commodity market and so whether you make money or not is certainly a little bit of that, probably a lot of that is your responsibility, but there are the vagaries of the commodity market, corn might be up, corn might be down. And your success as a producer would be subject to whether those markets are up or down. I remember several people in the course of this video talking about how it's a little bit liberating in that once you get your processing chain figured out. Once you figure out some of the vet issues, some of the feed and then obviously how to process the elk or fish, then you are liberated from that commodities market. It's more like it's on you to figure out who your buyer will be for this elk carcass, it's on you to figure out how to get this elk, while it's live to a

processing plant. It's on you to figure who as a veterinarian in your community, is qualified to come work on your elk if it gets sick. So I think that was...I don't know if that was tied into any event that was going on in the commodities market, but I do recall several of the folks talking about how this alternative agriculture sphere helped them be liberated from some of these other outside influences.

JL: Back to the land movement..more so now, small acreage.

RB: I remember hearing comments from some people along the lines of you've wanted this country lifestyle, you aspired to get out of the city, okay, now you've got your 5 or 10 or 15 acres out in the hills, or out on the plains. What do you do with it? How do you maybe manage that land in such a way that it could turn a profit or at least pay for itself.

JL: Who would you consider to be the author of this piece?

RB: I would think it would be Ann and Bob as the two primary movers behind making this happen. If not author maybe 'executive producers'. I think of Ann and Bob at the time, you know obviously they came up with the need for the project; they secured funding for the project, and then also secured all of the content experts for the project. And whatever I did for writing and stringing all this together, selecting sound bites, was approved by Ann and Bob and so I think in terms of who owned the vision for the project? It was pretty firmly in their court. You know I would certainly be on board as part of the team to collect what they wanted to collect but as a video producer/editor/videographer, I was counting on them to be the ones that point me in the right direction.

JL: Somebody's brand or vision. What role do you see others playing who maybe were not considered to be authors, or authors that were involved.

RB: You know, I feel like, getting back to that sense of an organic genesis to many of these projects....I always feel like the content that you get from the various people that you interview. I think about Nancy Irbeck and some of the content that you get from people like that, help inform you as you go do subsequent interviews, because you get to talking with a Nancy Irbeck, for instance, and she will know not only of the different animals that are under the umbrella of alternative livestock, but she'll know like, for an elk, and if it's a male elk and it's under three years old you need to watch for this. If it's something like a bison and it's over five years old, you'd better watch out for this. And so after talking with someone like a Nancy Irbeck, with her level of content expertise, all of sudden you can go into these others situations and think of other issues to bring up and other pieces of video to get.

JL: Do you recall how this production was funded?

RB: I think Ann and Bob had either a grant or some pool of money that they were working from.

JL: Distribution? Was it in-house channels, Extension office channels?

RB: It was Extension office channels and then later on when we as a unit at the university gained control over the university tv channel, it was on regularly on the university tv, so that went out to Comcast subscribers here in town. Ironically Comcast only reaches people the city limits of Fort Collins and so it would only go to people who might aspire to be an ag producer. This wasn't going out to, you know, rural areas of Larimer County. (The Fort Collins audience) could potentially be the group that would aspire to be in alternative agriculture and they might, they may not think about, how do you deal with processing an elk at the end of its life and you have to go get butchered for meat. How do you do that? They may just kind of see the glamour. So the audience for the video, if it's a city audience, an urban audience, they may just have this preconceived notion in their mind that agriculture is, you know, beautiful sunsets and daisies and fluffy bunnies and just wonderful, idyllic scenes. But maybe the video helped dispel some of those myths, and made people realize that there's a lot of stall cleaning that needs to go and there's being up at four in the morning to help birth some animal, and it's a lot of work, like you said.

JL: What strengths does the project have that you believe led to successful funding?

RB: Probably the strength of the project comes from hearing real producers explain their experiences and concerns and helping them communicate to the audience the real world of ag production. And so it's not a theoretical exercise; this is a collection of ag producers that have years of experience running the race and fighting the fight. And so I think that's the strength, there's a believability, a veracity, when the audience gets to, get to know people who are actually doing this job.

JL: So who was involved, was it just you going out, or any sort of crew?

RB: I usually had a student intern with me. You know back in the, this was back in the days of very heavy Betacam production gear, and so anytime you'd get a willing student to come out and help carry gear, we would jump on it.

JL: Do you know how long it took for the various phases, the field and post-production?

RB: I don't remember exactly but it seems like most of the field work took place over one summer. And then most of the post-production was that fall, that subsequent fall. So I would imagine that, the other reality back in that day, 15 years ago, is our office, between 4 video producers, had two edit stations, and so we had to very carefully synchronize and choreograph our time spent on the edit station. And so for me, that meant

BH: From what I remember, we had a set of agents and specialists at that time, including administration that gave the framework for a program of work, and Ann Swinker and myself were on the small acreage team; we basically toyed with the idea of multiple films and one was The ABCs of Small Acreage, one was Pasture Management and then this one on alternative livestock. The Alternative Livestock one came into play with, at that time there was quite a

discussion by county commissioners and others whether they qualified for tax credits and agricultural status and that type of thing. So some of it was brought about by just normal questions and things that came into the commissioners and our office.

JL: Could you talk a little bit more about that as far as the status, you mean of having agricultural land designated as such; what constituted that, is that what you're talking about?

BH: Basically the existing that Larimer County went by, as long as you developed \$1,000 of gross sales then you could be classified as ag land. Which was quite a tax break for ag land versus residential. And that brought about even quite a few of the folks who were up in the Red Feather Lakes area, that type of thing, where you wouldn't normally think of them as being an agricultural unit other than range; you would have probably thought of it more as a recreational site for people; build a second house, that type of thing.

JL: I'm putting myself on mute, because I'm right here on College Avenue, and I don't want the traffic noise to be distracting to you, so I'm still here when I do that. Could you talk a bit more about other things that were happening within the agricultural community at that time that led to the need for these types of films?

BH: We went through a growth spurt as far as development of land, basically throughout the county. Weld County was even more exaggerated in the growth spurt, in the building and that type of thing. What we typically found was people would have an ideal setting that they wanted to have in the country, not thinking about right-to-farm issues or other issues that might be affecting them on land use zoning issues, qualifying areas or generation of income of these small acreages. More and more 35-acre tracts; you didn't need approval from the state or the county if you divided into 35-acre tracts at that time, and that gave an impetus then for a lot of people breaking off farms or ranches in minimal or marginal land, breaking that off from a true agricultural setting to more of a recreational pastime setting and then when people found out that they could get a tax break then they were interested in moving that land too. And questions came in in that regard. And then we had another situation where land used to be monitored and cared for by one owner, in other words a 160 acre land plot was normally taken care of by one farmer; now you had that broken up into four tracts with people with limited experience and limited equipment and what we were finding is then we were having a tremendous amount of weed control issues, overgrazing issues with livestock and other functional things that came into play with farmers around then that, the county of Larimer anyway put together a Right to Farm, John Clark was the commissioner at that time that pursued that. So most of the reasons for the need.

JL: Could you tell me about the decision to have some video presentations? Why you decided to do that, and were there supplementary materials to go along with it?

BH: If you could rephrase it?

JL: Why you chose to do video presentation of this information...

BH: Originally the thought was people could be either self-taught, check it out and then watch it, that type of thing. Or you could use portions of it in educational programming and it would serve as a resource or a back up. What we were finding, though, that no matter how widespread the topics were that we tried to cover, you couldn't hit all of them. And so then people were thinking that they were getting shorted a little bit, was some of the feedback that some of the agents were giving us. So if we'd of had it to do over we would have probably developed it a little more as an educational packet where there would have been a curriculum, test information would have come back and almost like online type classes would have probably been a better mode, the way I see the end result that came out of the program.

JL: So, could you tell me about how the production was funded, and then what some of the strengths were that led to successful funding? And this is specifically about Alternative Livestock Production.

BH: Ann Swinker and myself, as I talked to you about earlier, were the representatives for the small acreage program plan of work team, and we had to submit proposals for grants, and when I say grant it really wasn't grants that you would typically think about; this was money that had been asked by the counties to pay, that would come to CSU and then the university decided that some of that money could be put over against projects that could be funded by the program work team. We worked with Greg O'Mallia; I'm not sure if Greg is still around...

JL: Yep, he's still around.

BH: Greg was a great resource on how to put together the ins and outs of the program, the editing, getting the file footage that was needed, and that type of thing. Like I said. the alternative livestock one, it was kind of a..everyone was going to get into emus and make a fortune. Or llamas or alpacas, and make a fortune. So you had these questions coming into the local county (extension) offices with very little resources as far as educational programming material.

JL: How were decisions made as to some of the sites that you used for the production? And this is specifically on Alternative Livestock Production.

BH: Several of them were places that we had questions, when we had questions, the homeowners had come into the Extension office, or I had travelled out to their property. So we had a background source of information and people that we were using. Otherwise we had a fairly diverse location in the sense where they had everything from elk farming to like I said, emus, llamas or alpacas combination of get rich quick scheme thing. It was going to change the production techniques.

JL: And how about who was to speak on camera? The same kinds of decisions informed that as well?

BH: Some of that was whether we needed general file information, or whether the specialist was doing the presentation with that information. Nancy Irbeck did quite a bit of information related to the program, and probably shows up as a key author in the presentations more than anybody else, in this particular film, Alternative Livestock Production.

JL: Who would you consider to be the author of Alternative Livestock Production?

BH: Let's see, Ann and myself and Nancy. Then once we got it the three ideas and input put together then we also talked to the agents that were affiliated with the program of work team to see if we were on the same, on the right track, and that gave us the feedback, like I said, to determine we should move forward or go in a different direction. But, I would tend to say it would be those three at the campus level, myself, Ann Swinker and Nancy Irbeck.

JL: And what about, so the role of the others who wouldn't maybe be the, the um, author of the work, would you consider them to be consultants, in what you just talked about, maybe elaborate on the a little bit more?

BH: Yes, and also, they served as resource people to identify if we didn't have a alternative livestock producer, let's say, for elk production (well we did, but let's say we didn't) then we would go out statewide with information, requesting agents, if they had a resource location like that, then we could set something up and use it. Greg actually shot for about a week on the West Slope to get some footage for what he needed as well.

JL: I think Ron Bend had worked on this as well, and I talked to him a little bit about the script was developed for this. Could you talk a little bit more about your perspective on how you developed the script for this?

BH: I've been trying to piece together, where does Ron work?

JL: Ron's at Colorado State also. He works with Greg O'Mallia.

BH: Okay. I was trying to place him when I looked at the information earlier. I couldn't remember...but basically we would duke out the storyboarding type of information, where you put together the file footage, what you want to show, how you want to approach and that type thing, and that would give the framework. Normally it came back to Ann and myself to kind of do the initial screening, and then from there ---Greg- Greg was a tremendous resource. Like I said he seemed to be able to, had the experience in that type of thing to knock it out of the park when we needed resources, editing, to really pull things together.

JL: So the distribution was meant to go to county Extension offices, was that right, and then I think Ron had mentioned that it also aired on the local Comcast cable channel?

BH: Yes, and then we made some of them available to the vocational agricultural programs as well. Primarily it was the Extension office.

JL: Well those are all the questions that I have listed here. Is there anything else about the production that you wanted to talk about, about you know feedback you got about it. Like you mentioned you would do it slightly differently if you were doing it today...any other items that you wanted to talk about?

BH: I think was the main thing. Like I said we were ahead of ourselves, but we were behind ourselves, in the sense that we were developing some of the first information that, if we could have had a little more hindsight, like I said we could have put it into a different format, and like I said gotten more impact date. That was one of the things we were always looking at, was how could we talk about reducing week populations or not overgrazing, water quality issues and that type of thing.

JL: I'm interested in the fact that you did decide to do a video production on this as opposed to putting a slide presentation together or something like that. Was that connected to any research about people liking video or any thoughts about that?

BH: Originally the concept was, it may seem kind of screwy now, but originally one of the concepts was that we would put these at the Extension office and then people that had questions could come and check out the video, because most everybody had video or dvd or something like that and hopefully get the majority of their questions cleaned up in their own minds, but then the things that they needed specifically which were not on that videotape presentation would be things that the agent could set up and work with them on. More targeted area.

JL: So it was set up to be a self-paced learning rather than part of a whole educational program that somebody was doing?

BH: We really didn't have the big educational programs until the one that I was involved with that was part of the Western SARE grant. The DVD of the ABCs of Small Acreage Ownership.

JL: And that was a compilation of a manual or other components of a curriculum?

BH: Basically it was, there were seven states involved. All of us brought in our educational material, we brought in videos as well as part of that information to the table, to be changed and put into a format which was more of a teaching format so Soil Conservation Board people could do it, as well as Extension staff. And they would make that a wider venue for trainings.

JL: What year was that, Bob, or years?

BH: Let me think....it would have been early 2000. I thought the video that I had had the exact date, but it doesn't.

JL: I wonder if I have a copy of that somewhere here? I probably do.

BH: Sue Donaldson with the University of Nevada Extension, was the lead on that program.

JL: Okay....well I will look at these, and if I have any other questions I'll get back to you okay.

BH: That's great.

JL: Thanks for your time, Bob.

Ann Swinker, Pennsylvania State University

AS: We hired him to kind of develop the script, but

JL: Introduction to project; what topics were going on that led to this production; what issues were in Colorado and the region that helped you develop this, get grant funding, and develop the script.

AS: Back in the early 90s, more people were buying small acreages, because they wanted that rural lifestyle for their families and bringing their kids up and having their kids have animal experiences, plus they'd like to make a little bit of money with their facilities too. A little bit of return. Several...we did several videos at that time; a lot of them were like, horse related because there were a lot of horse small acreages at that time. And we noticed that there were a lot of unusual species. I don't know if you got to watch it; like we have emu, alpaca, ostrich, like some people doing wool and um, in addition to the equine. The equine we did a whole living on a small acreage, or equine operation, just on that. But that's kind of where, why it developed. And then the script kind of evolved around operations that were easy to drive to from the university. And people that we knew. And, we would go in and video them and get the (ag) producer to talk about why they're in the business and what it takes to be successful. And we tried to pick operations that were successful. That maybe weren't making a living but at least could pay for the operation and potentially some of them were making a living out of it. That's kind of how the script...and then we would just film a whole day's worth and then edit it down. That kind of...we knew what we wanted to ask, but we had no idea until we interviewed the people how it would go.

JL: So, a little bit about the script, but then how you selected the sites and other visuals that were associated with it.

AS: We did...all the interviews were on those farms with the animals or the operation behind it. We were really lucky, the cameraman that we had was really good at that, and also narrating, and editing, and narrating himself, so I guess you could say it was a low budget because each of us took on multiple roles.

JL: How were decisions made as to who would speak on camera; I think you covered that in those who were successful or active producers...that sort of thing, I think Nancy is in it at one point...were there other educational video presentations that informed that final presentation style?

AS: Actually I think we did three or four videos at that time. I think two or three of them were on that grant and we had some other grant money. And that's kind of the style we used, that team of people worked really well together.

JL: How was this project funded, and what strengths does that project have that you believe led to successful funding?

AS: First we got the funding, then we made them. I think this one, there were two in-house grants that were from the college of ag, kind of seed money, and then one of the others, actually we got money from the (Pennsylvania?Colorado) equine council for one of them, it was kind of creative how we came up with it. I think the Alternative Livestock one we made with, it was like a seed grant that the college of ag put out.

JL: What strengths, when you went for funding, was it the success of the previous ones or what were the strengths that led to them being endorsed, or funded, or supported?

AS: That's hard to say. I think because the small acreage issue was just really starting, and there was a big influx of people who had no agricultural background and that was a real issue to Cooperative Extension at that time. To kind of help these folks kind of find their way. You know to prevent, like, overgrazing, noxious weeds moving in, water quality issues, you know all those things that we're dealing with now, we were kind of seeing that happen with the small acreage folks that really had no agricultural background, that needed a lot of help and had a lot of questions. Probably that justification really helped us get the grant money.

JL: Who would you consider to be the author of this body of work?

AS: Actually, that one, I think, all of us, even including, Ron Bend, the cameraman. Probably Norm Brown was more of the director in coming up with the script on this one. And Ron was very instrumental too. Because Ron knew what works and doesn't work in putting these together.

JL: What role would you say others played who may wouldn't be considered the author of it?

AS: We kind of, we were interviewed in them, so, you know we knew some of the people we went to visit to include in this, so we could open the door to get the crew onto the site to even do the videoing. It was...this particular one was quite a team effort.

JL: Do you know about how long it took for production?

AS: I can't really remember, Norm Brown will probably remember. I think it was like over six months. And I think we waited until the weather was nice and sunny.

JL: Those are the official questions...do you have any thoughts about the production itself, maybe how the, how it was received?

AS: Actually when we were putting it together it just felt like, I couldn't believe we had, you know we sort of had a script of what we wanted, but how it expanded and evolved. That one evolved because the people were telling their story. So maybe what we thought was important on an emu farm wasn't. Fencing was really important and safety to escape getting kicked and poked by the birds, you know, you didn't think of that until the person was being interviewed and you know you were interviewing them and you would ask, 'why's your', like on the ostrich and emu ranch, 'why's your fence off the ground that much', that's so you can drop to the ground and roll out of the fence and they won't follow you because they don't know you can drop down and come out. So we ended up doing a whole segment on that. And we weren't expecting that at all. Until you had the discussion with the people and found out what you found out was really important really wasn't. And I think that's the key thing when you bring these experts in, you've got to listen to them, you can't stick to your script totally.

JL: So you started out wanting to help people living on the land, or wanting to live on the land, and like many things in Extension you learned things that were opposite of the book, or that helped you in future educational efforts?

AS: There was no book to follow on all those alternative animals and what that video we were hoping would do is let people see that before they end up getting in an enterprise that was, that they couldn't do.

JL: How about any feedback on how it was distributed and viewed and maybe how people learned from it?

AS: Actually because of our limited funding I think we only made 100 of them and we distributed them to the county offices and we advertised that each office had one and that you could borrow it. And a lot of people saw it, I couldn't tell you how many people...like, we didn't sell them. We did sell the horse one, and we did make more of those because we had more funding, like I said the horse council helped us out with that, we did sell a lot of those. But I couldn't tell you...and again, every video we made we put in the Extension offices, for like a resource. And at that time videos like that were hard to come by, there wasn't a whole lot of educational videos on small acreage information. And we used it at meetings, played it.

JL: Was that part of the educational program-- to show the video and then have a discussion?

AS: Yes, it was to supplement other meetings. Sometimes you'd play those at lunch or just to kind of get discussion going in between speakers, like a break.

You could get in touch with Norm, he really handled most of how we did this...

(Note: contacted Norm Brown via email; he phoned on September 9, 2015. While discussing the film he noted that he was not involved in this film but was the writer/producer/'gofer' on the other videos in this series)

Livestock Mortality Composting

Jessica Davis, Colorado State University

August 21, 2015.

JD: I'm Jessica Davis, I'm a professor and Extension specialist at Colorado State University and today is August 21, 2015.

JL: Could you tell me, we're going to talk today about the Livestock Mortality Composting video, and I know there was a complementary manual. Could you tell me how the script was developed for the video?

JD: The script was...well, we had a four state group of Extension specialists working together on all the products related to mortality management. We had a meeting to kick off the whole project, and I forget...I think it was in Montana. So we had a face-to-face meeting of the various Extension specialists from different fields, including Animal Science and Soil Science; people with composting backgrounds. And we outlined what we would have. And we were working on the manual at the same time, and so I think we have outlined the manual and then tried to go to video from the manual. So, it was, it was rough. It was precisely developed.

JL: What issues do you think were happening in the agricultural community at that time, statewide, regionally and nationally that led to a need for this project?

JD: A lot of it actually came from a change in the rendering industry. And it also related to mad cow disease. And so there was, in the past, livestock producers were actually paid by rendering companies when they came to pick up dead animals for rendering and then with the change in food safety issues and in rendering practices, it now became a cost to livestock producers, that they had to pay renderers to pick up the dead animals. So people were more interested in something they could do on their own operations to keep the cost down.

JL: And what was the tie in with mad cow disease?

JD: You know honestly I don't know the precise, exactly the science about mad cow disease (laughs) but I know that, so things that used to be rendered for pet food, were now considered dangerous; that the prions that cause mad cow disease, don't die so easily and so they would live on in the waste material and there was concern about the impact it would have.

JL: I'll look up more about that.

JD: Yeah, you might need to talk to someone who knows more about that.

JL: What strengths do you think the project have that you believe led to successful funding and how was the production funded?

JD: It was funded through the USDA Western Sustainable Agriculture Research and Education Program; Western SARE, and it was a, what they call a professional development grant. So I think a few things led to why we were funded. One is, I had a track record with that funding agency on, for both research grants and for previous professional development grants. So I had a track record. Then we also had, this four state team, which I know is important to that funding agency; that they want more than one state, or more than one discipline. We had a pretty good team and I think it was a timely issue that people knew was important. So maybe those three things.

JL: So how did you make decisions as to who you present on camera, and who would speak throughout it?

JD: Most of the people who spoke on camera...well, there were basically two groups; there were producers who were doing the composting on their own farms, because we wanted to show that this wasn't that hard, that producers were actually doing it, and that producers have more credibility with other producers than somebody unknown to them. And then the other group was scientists, you know, people who had credibility in the field of composting, who had experience so we could say this is doctor so-and-so from this university. So we were trying to get at credibility in both areas.

JL: Were there educational video formats that informed your final presentation style? Previous things you'd done, things that the group had seen that they liked, or were effective as you said as you said with the peer-to-peer kind of expert model?

JD: Honestly, I don't recall anything like that. That doesn't mean it didn't happen, but I don't remember us talking about some other video or and saying, oh, let's do it like they did it.

JL: Who would you consider to be the author of this body of work?

JD: (laughs) The author? Well, I think if you had to list author there would be a long list of authors. So, you know Sarah Lupis was a key person in trying to coordinate this group. And I was the PI of the team. But the main the leader of the videography at the beginning was Michael Fisher, who was an Extension agent and did most of the first round of shooting. And then, you of course, clean everything up and shoot missing pieces, and make it work better. So I would say that's sort of the main ones, but I would think, I mean if you were really going to list a bunch of authors, you'd probably list everyone who spoke, or wrote content for it.

JL: The next question is, what role do you see others playing who maybe aren't considered the author. You know, thinking about, if I looked at the credits, there's a long list of credits, but other people who contributed to it, were part of the team, but maybe wouldn't say, 'that's my project', what were some of their roles?

JD: I'm not sure. So I think, honestly, the farmers who were interviewed probably would not say, 'that was my project'. Right, they probably just wanted credit for when they spoke. And they got that. But, Sarah was paid to coordinate and so although she was not the, you know, content expert, without her it would never have happened. Let's see, who else had roles...we've already talked a little bit about Michael, you know, and then John Deering was also part of the team. He's an Extension agent (specialist) with an economics focus, and he wrote the part of the manual about the economics of composting. I don't think he's ever on screen but he was always with Michael I think holding the mic or carrying something around or something, and so I think he probably felt more peripheral, but was still always there when there was something going on. Am I forgetting someone?

JL: Well, you know I think you talked about the team that got together to talk about the components of it, some of whom appear on it, but you know to make sure that the end goal of the project...maybe you could talk about the end goal and then how some of their advice played into that. So the distribution channels were...who was the target audience?

JD: Right, so the distribution channels were most through Extension and through NRCS and so they were. So, some distribution was online, and having the video and manual were online for download and both were translated into Spanish, and so we were purposely trying to target the people who work, especially on dairies, who would be handling dead animals and composting. And, now I'm forgetting the question...who was the target audience?

JL: Yes, and the people who were advisers and how to get that information or what information.

JD: And well, you asked about distribution. So some of it was online, but there was also a workshop angle that we, there were a number of talks of given, and at the talks, sometimes we played the video, we had copies available for distribution, you know we had the manuals and so people could pick them up if they wanted more information.

JL: So the people who, kind of advised throughout the creation process, based on who that target audience was, what information should be included both in the manual and the video, were there some people who maybe you haven't mentioned who were part of that initial team who met in Montana.

JD: I mean I could name all of the people involved, I mean there Extension specialists.

JL: And they're listed on the end of the film..what I'm thinking is ones who maybe didn't appear on camera that were crucial in the development of the production.

JD: I, honestly, I had to look at it and see, 'was everyone named?' because there were some slackers, right, so there were some people who were officially part of the project who didn't do very much, or sometimes didn't even make it to our annual meetings. So I don't remember if we decided to give them credit or not, but you can look it up.

JL: I think in the documentation that Sarah put together for an ACE Critique and Awards, I think all the team members were noted. I at least have that list to look at.

JD: Oh, yeah I forgot that. We got another award, too, from the American Society of Agronomy, that gives an Education Award, Extension Education Awards. I think we were just all-inclusive. Now you're right, I'm thinking about this more, there was also an intern, right, Michael had an intern who he was expecting to edit the video. I don't, she didn't have much experience, and then she ended up becoming an Extension agent herself and so then she didn't have time to do it. So you probably remember, we were in a bind at the end, or when we should have had video finished, it was nowhere near ready, and it was sloppy and had lots of missing sections and things out of order. There was a lot of work that needed to be done. So that was when we came to you and asked you to help us clean this up. We actually reshot certain parts that were missing, or things we thought would help to tie pieces together. It was really, you know. I felt pretty good about how it turned out but, but it could have been better if we had done it differently from the beginning.

JL: So in hindsight would you put together a slightly different team, do you think or your experience on this do you feel confident you could do something like this again?

JD: I think in hindsight, basically what I, when Michael said, 'Oh, I can do that' I thought, 'okay, he can do that', and so I didn't really realize that he was probably stretching his expertise. You know and he wasn't really very professional about how he went about the video shooting. Um. Oh, that reminds me too. Part of the video was shot with him in it, as an interviewer, where he is onscreen which was, I thought, awkward. But, um, yeah. So I would say I mean that in the future we would want to...so here's some background. So a long time ago, I was involved in a video that Ann Swinker. Do you remember her?

JL: Yes, she's one of the people I'm trying to interview for another video, Alternative Livestock Production.

JD: I was on, so she coordinated a series, I think, of small acreage videos. And I was on one of these videos. But at the time, video production was through that curriculum group in the basement at Clark, and it was very expensive, you know, tens of thousands of dollars. So then with the changing technology it seemed that this was within our reach and wouldn't overwhelm our budget. So that Western SARE budget was only \$60,000 and the video was only a portion of that. And so you know we were very limited on budget, and we thought we could do it ourselves. So there must be some intermediate better way of the very, you know, paying the professionals to do almost everything, which we did in the 90s, to doing everything yourself, whatever year that was.

JL: Right.

JD: There must be something in between that would be better.

JL: I'm working on it...

JD: (Laughs)

JL: (littlefield background)

JL: How were the sites chosen, and other supporting imagery that was used in the final production?

JD: So I think that was basically the group of PIs, saying oh, I know this guy who's doing that and we could go video over there, and it's a convenient location. So that you know it was basically through connections that the team had. I don't think we cold-called anyone, I think we knew everyone that were videoing, or somebody on the team knew them. But you know this was enough years ago that I'm forgetting pieces, but there was. So the trigger to this whole thing came, when Dave Colburn called me, do you remember him, he was a county agent, livestock agent in Sterling. He left in the middle of this project and went to NRCS. But anyway he called me, there was a livestock, a cattle feeder in his area interested in composting, and wanted somebody to come on site and visit. So I went out there and spent a few hours with him, and this producer was very interested in the whole thing. And that's another angle as to how we got funded, I think, is because we had several producer letters saying, 'this is important to me' and 'please fund this project'. And so, it really did come from the producers, and honestly, at the end, I'm not sure once it was all over, who's really using it, or if it just sort of died out there in Internet land.

JL: It's on YouTube so. How about some of the other. (more littlefield background) There was some supporting graphics that you had to explain...

JD: That's kind of tricky, because being credible with livestock producers, we had, you know they don't have qualms about this, they need, and so part of being credible is to not be avoiding that, right. So I think we did have some pictures of dead animals, but we also had some cartoons and so the cartoons were partially maybe to make it less gruesome, but also allowed us to control more what was in the images as opposed to what we found at these various locations, so that allowed us to say, instead of just have pictures. In fact, I remember that about one of the sites. The dairyman in New Mexico. He wasn't really composting ideally. And so we didn't, we wanted to use some of his footage, but we didn't want to say, 'this is the proper way to compost' so we used the cartoon images to say, 'do it this way'.

JL: How about the challenges in translating it to Spanish, this is from my perspective as, remember when we got to that point...there's more words in Spanish, how do we take care of that in the film and editing?

JD: Yeah, well that was awkward. And, it wasn't just that we had more words, it was that we had a man's voice for all voices. Right? So even when I was speaking, there was a man's voice in

Spanish dubbed in, and so... Ideally we probably should have had a male and female speaker. And even there were interviews, there was Michael and a grower and the same voice was reading both parts. So, it wasn't super well done. It was adequate. And then the timing thing I actually wouldn't have remembered if you hadn't mentioned it. But I think, yeah, we had to change the video some for the Spanish version so that there was you know so that we wouldn't run out of images while he was still talking, or, you would know more about that than I would, honestly.

JL: You don't know how it's being used. But, it was distributed to who was thought to be the target audience.

JD: Yeah, yeah, it was, and honestly we printed more than what we needed. We had a second printing, and I have like a box in my garage (laughs) of the manuals, I'm not sure if we have extra videos. But anyway, I fell like we did what we said we would do in the grant, but I would love to know if it had the impact that we were hoping to have at the beginning. This is one of the challenges of these kinds of grants too, I think. We have 2 years to do this grant but we don't have another grant say 5 years later or you know to say, 'whatever happened to that', and 'did anyone ever watch this and change their behavior because of it?' That we don't really know.

JL: Anything else you wanted to talk about related to the video?

JD: I don't know. I felt like it turned out okay in the end. That it wasn't embarrassing. It was at an embarrassing stage, you know, when we came to you. Like we couldn't possibly go forward. We couldn't possible release it. And so I'm grateful that you helped us out. That we could. And I think we had a little money leftover that we could give you for some of the work. I think it's even trickier today, now. You know that everybody can shoot video with their phone and put it on YouTube. I don't know, how is it working? Like are you putting CSU logos on videos shot like that? Or are you just saying an individual did that on their own time?

JL: It's a challenge, I've been trying to put some kind of branding on better videos so that it shows our work and there's others that I'd rather not but they show up on our YouTube channel because of who's aggregating that..

Tommy Bass, Montana State University

August 27, 2015

TB: My name is Thomas Bass, I go by Tommy. I am the livestock environment associate specialist for Montana State University Extension. So I deal with environmental issues related to livestock and poultry production, as well as sustainable agriculture and agricultural emergency preparedness. My role in the film in question was an offshoot of being one of the editors and authors of our large carcass mortality composting guide, which in my opinion, was sort of the framework for all the products; the companion PowerPoint, the film and then we had some support tools that fit into that as well, for budgeting out the cost of composting. My role

specifically in the film, I guess, was as a speaker, but then also, I guess because the film was an offshoot of covering the components of our guide, our framework for what we believed was important for an educator or a farmer to understand mortality composting, or to implement mortality composting respectively, you know that was the framework we followed for the film.

JL: So in that light, how was the script specifically developed for the film?

TB: As I understood, of all the co-principal investigators, you know we had different jobs. So, almost everybody was an author of some type in this fairly large special bulletin. And then Michael and Nicholette started out as leads on the film. Like I mentioned myself and Sarah, we were leads on the bulletin, and Sarah had overall managerial responsibilities also. So just in the those two examples. And then we had economists working on the budgeting and such. So, yeah. I viewed the film as Michael and Nicholette's responsibility and then as far as I understood it they were sort of fleshing out the types of shots and scenes they wanted; they were discussing them with the group on our conference calls. I imagine they were working a little closer with Jessica, just because of proximity, and opportunity, as far as guiding how that script was going to be developed or sort of whatever you would call the mapping out of the types of scenes they wanted, whether it be physical images, clips of something being done related to compost management or just interviews. So, yeah I guess, that's how I perceived the script to have been developed, was under the leadership of these other co-pi's and then they were bouncing ideas off of us. And then I guess at some point there was a, looking at, out of all the footage, sort of what was good, what was gonna stick and then putting all that together based on this broader framework, of walking someone through this mortality composting.

JL: So do you know how decisions were made about sites selected to be shown and other visuals associated (you eluded to it a little bit) and then also how decisions were made on who would speak on camera?

TB: So being that this was such a geographically distributed project (laughs) almost literally from the Mexican border to the Canadian border, our New Mexico partner volunteered to get some producers down around his area in large dairies that had utilized this best management practice and were pleased with it. There was producer recruitment from somebody that already had a relationship within the project. Speaking for Montana, I volunteered our Northern Ag Research Center in Haver, Montana, which is about 40 miles south of Canada. And we had been doing demonstrated research on manure and mortality composting there for a couple of years. And the opportunity to film there...it was a little bit serendipitous. It coincided with our Spring field day where we were going to showcase the mortality composting to the ranchers and farmers and stakeholders who came to the Experiment Station field day. So, we were able to film me in the context of giving a public educational talk at the compost site. And of course, you see that we have the compost bins cut open and everything to show the level of degradation in June from our February/March mortalities.

JL: Decisions on who would speak on film?

TB: Yeah, so we had these suggestions, right, like the New Mexico example. Suggested by a project partner to interview this producer and film on his dairy. And everyone said, 'yeah, it sounds great' (laughs). And then on my end, you know, I just volunteered that we would use our site, and since I was already scheduled to give this talk, right, we were in the context of the field day, so, um, I think everyone agreed, 'yep, sounds good'. We knew we wanted Jessica to tie it all together. Um, you know sort of the academic to be interviewed and it's just in an indoor setting, to pull it all together and narrate. So you know it just seemed to me that everything went smooth with that group. There were no, there were no decision problems in that group. Sometimes we got distracted and some of us at different times didn't pay as much attention to the project; it took two and a half years. But generally speaking there was no, there were no issues with the decision-making process. It was very sort of natural and just sort of happened organically.

JL: Can you think about any educational video formats that informed the final presentation style?

TB: Um, you know to me it almost sort of follows like, it's a live Extension bulletin. Where you might have, if you think about an Extension bulletin, it has like the background, the scientific info, sort of the overarching narrative, but then you might have little bubbles or sidebar articles that are case studies or examples or quotes from producers. This is just sort of my opinion, you know I feel like it's sort of a video Extension bulletin, honestly. As far as relating it to other videos, um, I had done, or been interviewed for...it seems, it seems familiar to me, almost like it's just sort of entrenched in Extension culture, that this is sort of how we do videos. You know we'll have some diagrams, some images, some producer testimonials, the scientist talking, um...so, I don't know if that's based in any educational philosophy or theory anywhere. It just sort of seems how these types of videos seem to go. At least you know in the modern era of the last 20 years.

JL: Who would you consider to be the author of this body of work?

TB: So I would consider the author of the video to be a team of Michael, Nicholette and yourself, or your office at the time. Um. As I think about all this information was pulled in in a very academic way, right, from different experts, different resources. We got permission from the Cornell Waste Management Institute to use some of their illustrations, some of their still illustrations. And across all the materials. But then really, though, it's the director/producers that I consider to be the authors if we, if we, you know, if we were going to assign authorship like you would in an academic journal or an Extension bulletin.

JL: You talked about this a little bit, but what role do you see the others playing who maybe you wouldn't consider to be the author?

TB: um...yeah, interviewees, subject matter experts, practitioners, you know there's a variety of ways to describe those stakeholders and guests, myself included, you know even though I had

input into sort of the shape of the whole project and the shape of the bulletin, and the bulletin as I mentioned was sort of the overarching framework for all of our outreach, whether it was the companion PowerPoint, the webinar, or the video, you know it's all; follows that framework. Yeah, I mean, participants, interviewees, you know guest experts, subject matter experts, however you want to describe it. Yeah, that's...

JL: This project was funded by Western SARE, is that right?

TB: That's correct.

JL: What strengths do you think the project had that you believe led to successful funding?

TB: Um...I think...not to discount the other participants; I just happen to know that myself and Jessica had successfully completed previous SARE projects so we were in good standing, so that sort of gets your foot in the door. And then, as far the more, so that's sort of an objective (laughs) benefit. And then you know we had the whole four-state tier of Rocky Mountain land-grants, minus Utah (which would have been a nice addition I guess, but) you know from Montana to New Mexico. But, so, encompassing that ecosystem that was in the title of the materials, you know, semi-arid, high plains, semi-arid cold regions, um. I think that was a benefit. You know, four really strong land grants and then it just seemed like a timely issue and certainly I'd say, since we've closed, you know, the grant, I've continued to pay for reprinting the bulletin here in Montana and I send them out all the time, and not just within my own state. I've sent them out to the Dakotas, Nebraska, that bulletin has sparked a demonstrated research project in Nebraska. Yeah, it's just been really successful. And then I've shown clips of the video here and there, and I point people to it a lot of times when they make a query about livestock mortality composting.

JL: So that was going to be my next question, is kind of what has been the feedback about the project since it's a few years now since it was distributed.

TB: Yeah, so I guess I segued myself, you know, but to summarize that other question, I think that the strengths were, successful previous p.i.'s in good standing with SARE, right, that gets your foot in the door. A quality, multi-institutional, truly regionwide project, so that was more of a subjective sort of benefit, and then a timely issue, that actually had a lot of, that could be applied across all sorts of scales and types of livestock production. So, and then, leading into the success, so it's sort of a segue there, because people obviously were interested in this information because we keep getting requests for it. I used it again just about four months ago when one of the local conservation districts about an hour from Bozeman wanted to have their lunchtime seminar about cattle mortality composting opportunities.

JL: What issues were happening in the agricultural community and society kind of in the West at that time, that led to the need for this project?

TB: Yeah, I think it dovetailed in with an increased awareness of biosecurity and disease prevention and um, disease management. I think that it coincided with, for certain types of farmers and ranchers, urban and neighbor encroachment where they might have had a (laughs) a dead pile on the back forty but there was a house looking over their back forty and so they needed to do something that was actual management not just dragging off dead animals to a back pasture. I think that, um, heightened awareness of attracting predators to your farm or ranch played into interest and producer adoption, whether it be just coyotes and feral dogs down around your area or further north into Wyoming and Montana, wolves and bears, grizzlies in particular. So, all of that was going on. In addition to loss of rendering, I mean that's a reality. This had been going on for much longer than the recession. But I'm sure that didn't help either. Yeah, I think a variety of issues there. The other thing too that was going on at the same time was that people were struggling with what to do with equine mortalities. And I think for myself and a colleague at Oklahoma State were looking into that as, would composting be socially acceptable for the type of horse owner that is more or a pet or a pet and sporting animal as opposed to a working animal.

JL: You said that you thought that the project went really smoothly and decisions were made really easily. If you had to do it over again, are there things that you might do differently, related to this type of project?

TB: You know, we fell behind a couple of times on our sort of our own timeline. I think we requested a six-month extension from SARE, or maybe a 12 month but we ended up using about six months of the extension. And uh, you know I guess we all could have done a better job of staying on task, but in the end it didn't hurt anything and um, we were all very busy doing different stuff with you know county level or state level responsibilities. We made all of our deliverable to a very high quality I think so, um, you know it was better than good, it wasn't perfect, I don't know if I'd change much. You know for what you can ask, I think, of people, I think it went fine. I don't know that I would change anything. I think in some ways we were just really lucky. I mean it was a good team that came together with invitations and suggestions and then we all just clicked pretty well. You know, and I was up here in Montana the whole time so I didn't, I wouldn't know if Jessica was frustrated with collaborators or not, or vice versa.

JL: Have you done other video projects with your Montana videographers? I'm just trying to see how this correlates to some of the other projects you've done...

TB: I have been brought in before as a subject matter expert, you know, interviewee. Our USGS funded water center based on campus here interviewed me on site at a dairy a few years ago to talk about animal manure management, and um, water quality issues, Clean Water Act related issues related to confinement feeding. They for a couple of years had a grant to maintain their own video production group and produce a bunch of videos from what I did to coal bed methane water to municipal wastewater treatment to the septic stuff, on site wastewater. So anyway that was an experience here where I was just brought in as a subject matter expert. and then about

three months ago, I was part of a national video project where US Poultry and Ag Association sort of wrote the outline of what they wanted covered in more like FAQ length videos, 2-5 minute videos. And I was asked to do one about implementing a manure management plan. And so I wrote the script, showed it to this national team and then this national trade association. They had an EPA grant, and EPA environmental education grant to do this. And then since I couldn't travel at the time to the South to be physically filmed by their team, Montana PBS based here on campus filmed me in a conference room and we identified all of the b-roll and still shots that would accompany my interview and then we sent that package to the producer, that was hired back in the Southeast.

JL: Those are all the questions I had, is there anything else you want to say about the project, or other notes about it?

TB: No, just that I really enjoyed it and I continue to use all of the resources. It was really fun to work with one of the premier land grants in the region, you know work with Jessica and with you guys. Even on our family vacation, my wife grew up in Manitou Springs, our family vacation one year we swung through Fort Collins to visit with Jessica and go over some project stuff. It was a worthwhile diversion. I tend to ramble some times, but if I didn't, if you want me to speak briefly to fill in any gaps, feel free to ask me again. But

it's been kind of fun to reflect on it, because I hadn't thought about the production end of it, and it's been four years.

August 11, 2015

Sarah Lupis, Colorado State University

JL: Can you tell me a little bit about the Livestock Mortality Compositng Video; I know it's a companion piece, but how did you come up with the idea for the video, and how was the script developed?

SL: So, I was hired to sort of help coordinate the project to begin with. The proposal that they submitted to Western SARE included the video, it was part of the original idea for the project. The desire to have a video I think stemmed from, I think the desire to reach out to folks who work in dairies and other livestock operations who wouldn't necessarily read a manual, or to have it as a companion piece in a training program so that there could be a video component to some sort of training program for how to do livestock mortality composting when that training program is presented as part of Extension activities, for folks who work on livestock operations.

JL: Was there any particular reason for that, that informed your decision to have the manual and various things combined in a training program?

SL: So, I don't really think I can speak to that, I didn't participate in writing the proposal or developing the project, exactly, I was really just there to coordinate it once it existed. But my

understanding was that the group wanted to reach out to Spanish-speaking and English-speaking members of the community of folks who work in the livestock industry so, on dairies, for example, I think a lot of the employees were Spanish speaking and having a video that was translated into Spanish, and a manual as well that was translated into Spanish meant that they could sort of deliver these things in combination in whatever kinds of training programs that they were doing. And I think having the video also meant that whoever was delivering the training didn't necessarily have to be the topical expert because the training video could sort of serve that purpose, in combination with the manual.

JL: What issues in the agricultural community were high priority, do you think, at the time of this production?

SL: I would say that, the cost of dealing with livestock mortality and also the environmental consequences of dealing with it poorly were the two primary factors that drove the team to apply for and get the Western SARE grant, and to go on with the project. And so, composting a dead animal is much less expensive than having the equipment and the space needed to either bury it or burn it, and burning it is generally not even legal, I don't think. And you know, other forms of disposal can be environmentally hazardous to water or crops that are nearby, plus it stinks, which is not good for the neighbors. And to have an animal shipped, especially a big one, can be really expensive, to have it removed to an incineration facility.

JL: How were decisions made as to who would speak on camera, and the choices between male and female people that were in the video?

SL: My impression is that it was very catch-as-catch-can. There wasn't, there were some initial efforts at developing, say, a storyboard for the video, that didn't really pan out. It seemed like the members of the team hadn't really done this kind of thing before, myself included. So, the initial attempts to storyboard the video didn't really go very well. We got some draft material from members of the team, but it didn't really look like we thought it was supposed to look. So what ended up happening was that people just got video sort of when they could. For example, Tommy (Bass) up in Montana was doing some sort of demo day and someone videotaped that, so we had that video footage. And then of course it wasn't great footage, he was wearing a hat, and it was very windy, the angles weren't very good, and then there was some other sort of, again, more spontaneous footage that was collected. But then once we had the manual together, we were better able to say, like, this is the order that we want things to go in, and so the eventual storyboard of the video just really turned out to be the outline of the manual. And once we had that, we were able to take the sort of, um, existing footage that we had, that wasn't really very well planned, and see how that fit into our storyboard and then we were able to go back and fill in the gaps. And so we did, we did take one trip up to Montana to interview a farmer who raises goats and did compost his goats. And that we were able to ask some, maybe more pointed questions to fill in a particular spot in the video. And then we also took a trip down to New Mexico to do a shoot with a dairy farmer there to fill in some other specific gaps. And then even

once we had those we came back here to the Colorado State University campus where we did some specific, like, expert interviews with Jessica Davis, in a couple of different settings, to fill in the final gaps.

JL: What educational video formats informed that final presentation style?

SL: None that I'm aware of.

JL: In the age of user-generated content, there were decisions to not involve a professional videographer in this, and so how do you feel about that? Did it help people have ownership of the project or would it have been more helpful to have someone kind of guiding that process?

SL: Oh, I think it would have been more helpful to have someone guiding project. The final product was good. No question. The final product was good, but it could have been great, if there had been someone who really knew what they were doing. So it was, I wasn't the one who wrote the proposal or put the team together or anything like that, um, so, I think we had people who, sort of like you said, know how to use a camera but didn't really have any idea how to go through the process of making a film. Um, and so it wasn't a very informed process. And it, you know, for those reasons it probably could have been done more efficiently and you know stuck better to a budget.

JL: I like the idea though that once you had the manual it informed what the video should be.

SL: Yeah, it really did.

JL: That's kind of like a lesson learned for you.

SL: Oh for sure, absolutely. Um, and probably very, in a way, not surprising, given that we were working with, like, Extension researchers whose primary mode of communication is to write, and so once they had written they were able to sort of say, 'take this writing and make it into a video'. Um, rather than, like the other way around.

JL: Who would you consider to be the author of this body of work?

SL: Of this video?

JL: The whole body of work, and the film in particular.

SL: Gosh, I'd really have to say that it belongs to the whole team. I can't. Everyone absolutely made a contribution and so I can't think of anyone individual who should get even most of the credit. The video...and so the team, I don't even remember everyone, I'd have to look at the manual to get everybody's name...do you want me to do that? But I would say that it's really the whole team. Like everyone who authored that manual, authored the video as well; participated on shoots, helped with editing, helped with the whole thing.

JL: So where I'm getting at, for this, who do you think considers this, 'their baby'?

SL: That's a different question. Who considers it to be their own is a different question. And in that case, I would suspect that Michael Fisher considers it to be his own, just as much as Jessica does. But I would also suspect that Tommy in Montana thinks it's his video too. And probably those three, more than anyone else in the project.

JL: It depends on what on audience you're talking to.

SL: I would say in certain circles, especially if she's the one who's showing it, she's probably the author, or if Tommy is the one using it in his Extension and outreach activities, he's probably considered the author. I can tell you Western SARE was never considered the author even though they paid for it, which is kind of unfortunate for them. I don't think Michael shows it anymore so he probably doesn't lay a lot of claim to it anymore either, because I think he's moved beyond that position.

JL: What role do you see the others playing who may not consider themselves the author, the other team members?

SL: I mean from my own perspective, I claim, I lay some claim to it, but not any sort of authorship, just as my role was there as the coordinator, and I feel like that was my role and I did that. I sort of helped to coordinate the whole effort. Just making sure things were happening on time and we were following our timeline and crossing t's and dotting i's and all of that. And then I think for the other folks, you know they lined up interviews which was a big thing. They were interviewed as experts and that was important. We got some really important footage from the Extension agent in New Mexico who did like, the squeeze test demo thing that was really important footage, and also who lined up this interview with the dairy farmer that was really important footage. And, um. you know other folks who helped to gather images that we used, that we borrowed from Cornell, just all sorts of things like that. And then, in fact, there was sort of this intern person who did a lot of the editing of the video, which was also really important, and produced alot of the very first drafts of a full and complete thing. But then the group met all together to watch it and review it and talk about what was needed and how it could be better and all of that, so.

JL: So, I'm interested in the images and the settings you selected, and how those were selected...and you said there wasn't any particular video format that you followed, yet there site interviews, and there were expert face-to-face interviews and that sort of thing. How did you go about deciding that it was this and not that you wanted in the final product?

SL: Well we felt like the, again, our target audience of this video was folks who are, like, are on the ground. Livestock producers and their staff, who needed to, who we thought needed to know, that this is, that composting is an option that existed for them and then how to do it. So trying to overcome sort of two barriers: the knowledge that it exists barrier and then the how to do it

barrier. And so we felt like producer interviews were very important because if, the video sort of served as this mode of peer-to-peer information or education, where if a dairyman can say, 'I use this, this is why I'm using this, and it's really working for me', that that would help to be convincing to other dairyman who saw, or people who had a similar operation. And so we tried to choose a couple of producers who sort of represented different ends of the spectrum. We had this guy who ran a big dairy in New Mexico and then we also had this guy who ran a small farm, small goat operation in Montana. So sort of two different ends of the spectrum in terms of size, but also in terms of climate, because part of the point we were trying to make with the video was that you can compost an animal no matter what. You can do it in the desert and you can do it in the snow. And so both of those folks were sort of able to speak from the big producer perspective and the small producer perspective, and from the cold and the hot. And that was really effective. And we did both of those interviews on site, I think because we wanted to make the point that like, this guy is a dairyman and this guy has a small goat herd, so it would be nice to have goats walking around and that kind of thing. And so I think they were done on site to sort of capture that context and to illustrate those, just to sort of provide some visual illustration that we trying to make a difference between big and small, hot and cold.

JL: The editing process...you said it was let's do a draft and let's look at it, and then script development you said that the manual really helped in that, were there any other challenges in it that maybe you didn't anticipate?

SL: I think the biggest challenge, which I alluded to earlier, was the just the lack, the lack of planning, the lack of a script. Instead of having an initial storyboard, that we went out and got that shot, and then that shot, and that shot, and then that one? It wasn't like that. And that's perhaps what would have been, would have made it, like, great. Is if it had had, more of that forethought. And I think, the development of those, of the two products, the video and the manual, in concurrence was part of the challenge, apparently, I mean because really, once we had the manual pretty well drafted out, it was easy, alot easier to do the video. But before, we had, you know, we had the manual drafted out, then it was alot harder, to kind of come up with that storyboard. And different people were in charge of those things, the person who at the time was in charge of the video was not the person who was in charge of the manual. So asking the person who was in charge of the video to develop the storyboard, like basically resulted in a blank piece of paper. (laughs) Which was not helpful. But then once the manual kind of caught up, it got alot better. But I would say really, the lack of a storyboard, and the lack of clear planning, and a clear idea of, 'we want this shot, and then this one, and then this one', that's really what was a hindrance. And it was a huge learning thing for I think everyone on board. Because I know, you know Jessica and I went on to do other videos together, and after that we always had a storyboard, and we always had a script, and even if we didnt' say the script word for word we got pretty close. So it was a big learning experience I think for us. And I hope for the other folks on the team, I'm just not clear. We didn't do that kind of debriefing as a group.

JL: Anything else?

SL: My title was different.

JL: Your name

SL: My name is Sarah Lupis, I was the coordinator of the project and I worked for the Institute for Livestock and the Environment as their communications specialist.

JL: And was this a grant that the Institute received?

SL: Sort of, yeah, in so far as, our member, Jessica Davis was a member of the Institute for Livestock and the Environment. She received a Western SARE grant, along with the other folks on the team, and it was this multi-state project that involved people from Wyoming, New Mexico, Montana and Colorado.

Michael Fisher, Colorado State University

October 17, 2015

JL: We're talking about the Livestock Mortality Composting Project. If you could tell me a little about what your role was in this project?

MF: David Colburn came to me and he wanted...he was still an Extension agent with us at the time, or county director at the time. And David wanted me to work with him to develop some kind of educational program on composting mortalities in the feedlot. And he and I talked about it for a long time, you know, half dozen times over two or three months and finally I said, 'You know, we just sit and talk about this and we're not doing anything, if we're gonna do something, rather than just wasting our time talking, we need to involve somebody that knows more about it than we do.' And so then David approached Jessica Davis and a couple of other people and it just kind of snowballed from there. And we decided we were going to apply for the grant and we each picked a part we'd be responsible for and the video part was what I chose to be responsible for.

JL: I don't remember him. What county was he in? You said he was county director?

MJ: David was county director in Logan County. He might have left about the time you joined us, Joanne.

JL: I started here in February of 2008.

MF: He was probably here yet when you started but not very long after that. By the time we had gotten started on the project he was working with the USDA. And he was still a part of the project throughout the whole thing, but just a different organization he was with.

JL: And what was his area of expertise? He was the county director but what was his --- you were the livestock Extension agent in that area, and what was his?

MF: He was county director but his main focus was livestock.

JL: So there were two of you in that area before...

MF: Yeah.

JL: Tell me a little about your background, and your interest in video and photography.

MF: About the same time that we did the video I was getting interested in photography just on a personal basis. And I've always enjoyed photography. I used to have a job where I drove all over the United States and I got a nice 35 mm camera then but back then it was film and it cost a lot to buy film and develop the pictures and then I'd get a picture and it would never look like what I was looking at when I took the picture. And I became a little disenchanted with it as a result. About the time we began working on this video I had gotten interested again in photography because we were in the digital age, you know, you just put an sd card in and you could take all the pictures you wanted and look at them on the computer and delete what you didn't like. So I was starting to play around with the photography side and I had a chance meeting with John Fielder. I assume you know who John Fielder is. We had an extremely long discussion and he offered to give me some hints and tips and gave me a book that I could use to read and learn on my own and it just kind of stuck with me and struck me and I very quickly saw positive results in my photography and so I just kind of blossomed from there with it. And when David came and started talking about the compost issue and we got into our larger group and looking at the grant, I thought, well, I could take this interest in photography and transfer it into video and you know make a video production out of this. Another Extension agent, Perry Brewer, and I, we had made some real short educational videos on a variety of subjects, but they didn't have, they weren't high quality, they weren't, we you know we'd go out and shoot something with a cheap video camera, we got...I don't remember if we got it on Amazon, at a garage sale, or what. But it was a pretty limited budget kind of thing we were doing. So the stepping into the compost grant and we were able to get grant dollars to buy some really nice equipment and it gave us the opportunity to take it to the next level.

JL: Do you remember how the script was developed for this project?

MF: Very poorly (laughs). Like I said, I was just learning at the time and we had a, those of us on the grant had a meeting and uh, we'd had a phone call or two but then we decided to have a face to face meeting and we went to Las Cruces, New Mexico, because there was...we had people on the grant from four different states. So we went to Las Cruces and we set down in a meeting for a couple of days and we hammered out the kind of topics we wanted to touch on. John Deering was on the grant and he had agreed to assist me with the video production as long as he didn't have to be on camera. That was his rule. So John and I had some ideas of kind of the scope we wanted producers to talk about and then when we were in that meeting in Las Cruces the group shot out things that they would like to see covered. And one of our partners from New Mexico had already made arrangements for us to go to a dairy and interview a producer there. So

we, after we had this list of things that people wanted to discuss, John and I set down in the hotel and kind of refined it a little bit. And then we went out to the dairy, and we got a tour of the dairy so we could talk to the owner and kind of get his perceptions before we actually interviewed him. And then put him on the air and went through this list of questions with him. He was a Hispanic individual and we knew we were going to do a Spanish version, have it translated. So we asked him if he...he was talking with one of his employees and they had a huge argument in Spanish for 15 minutes, just screaming at each other. So we asked him afterwards if we could repeat the interview and have him answer in Spanish and save on translation and he told us that he didn't speak Spanish. That was Spanglish. He couldn't speak Spanish nobody would understand him (laughs).

JL: I just want to go back a little bit to--so you went from the videos you were doing with Perry on livestock topics in the Golden Plains area, correct?

MF: Correct

JL: ...to full-fledged video project. Did you look to any resources like you had with the John Fielder book, or just used, like you said extrapolated the photographic over to video, or were there any things that you did to learn more about long form video?

MF: I just jumped into it both feet first, which was a mistake. You know, we did that first video session and when we had our second face to face meeting with the group it was in Bozeman, Montana, and they had lined up for us to meet another producer there in Bozeman. When we met with that producer and videotaped him some of the people in our grant group expressed a little concern. They wanted the video to be more 'Ken Burns like' they kept saying. And suggested storyboarding. And I had not to that point heard of storyboarding; gives you an example of how far in over my head I probably was.

JL: But you learned about it then?

MF: I learned about it then. And we brought Nicholette Ahrens on as an intern; that was before she was an Extension agent. Brought her in as an intern to work with it. And she worked on some of the storyboarding and then the editing and pieced the different pieces together. I would say I was the producer. And a bad producer.

JL: Then who would you consider to be the author of this body of work?

MF: I think when we wrote it up, we put everybody that was on the grant committee and used me as the lead author.

JL: And then what role would you say the others had, who maybe wouldn't be considered the author?

MF: Such as John and Nicholette?

JL: And also people that were on the committee that you were talking about too.

MF: We included everybody on the committee on the list when we put it together. Some of them didn't...some of them didn't do anything with the video. As a matter of fact, there was a person on the committee that pretty much didn't do anything except get a little bit of money. But you know, in academia you put everybody who was originally a part of it into your write-ups when you write up.

JL: So, others that were maybe technical advisors and John Deering...

MF: John helped with the filming and organization, getting to places. Because you know we flew to Texas and drove to New Mexico and drove to Montana so John helped with some of the logistics on that and the filming like I said, and some of the review of the questions. Nicholette helped with filming as well as doing editing and kind of piecing together stuff. As you know, you wound up with some of the video and re-edited some of it. And I think didn't you film Jessica Davis to get some of the researcher perspectives in there as well?

JL: Right. We did that on campus.

MF: Yep. I was just thinking you guys did that on campus. We did Robert when we were down in New Mexico and filmed him talking about it when we were down there, I think the second time we went to New Mexico.

JL: You mentioned funding. How was this production funded?

MF: It was a Western SARE. I don't remember the exact number. It was like \$98,000 or something like that, to create a manual, a video, a PowerPoint production and to teach some programs. So we put all of it together and then afterwards we went out and, I don't even remember how many trainings we did face to face, but I know Jessica and John and I probably did five or six here in Colorado, with people from NRCS, Extension, Conservation Districts, uh...we spoke at the National Waste Conference....and then in the other states, New Mexico, Montana and Wyoming they did programs as well. And then we did a national webinar for eXtension and Western SARE. The funding came from Western SARE for it.

JL: What do you think were the issues in the agricultural community at the time, you mentioned that David that came to you with some concerns, that led to the funding of this?

MF: So, farmers and ranchers are trying to be more environmentally sensitive these days to be more sustainable. If you have a large feedlot, say 50,000 head feedlot? It doesn't matter whether you're cattle operation out on grass or if you're in a feedlot or whatever, there's kind of a base assumption that you're going to have about a one/one and a half percent death loss every year. Well if you have 50,000 head of cattle, that number adds up really fast. And you typically call a rendering company, and a rendering company will come bring a truck will come to your feedlot and pick up your dead livestock. But you have to pay for it. And that's getting to be a very

expensive cost. So, the idea was, this feedlot that approached David, they wanted to know how they could lower those costs of getting rid of dead animals, because they had had an outbreak on the feedlot where they lost a huge number of livestock. Way above that one and half percent. And it was very expensive for them. And they thought that if they could compost not only would they save the money from not having to haul away animals that have died, but they could also use that compost material as a fertilizer product on their farming operation and save some money buying fertilizer as well.

JL: What strengths do you think the project had you believe that led to successful funding?

MF: There's a lot of interesting composting in the last ten years. From the aspect of small acreage owners want to compost their garden waste, or their kitchen waste or something like that. So compost at the time was really becoming kind of a buzzword. And here we were looking at it from a mortality aspect. There had been some research done in the eastern part of the United States, and some (informational) materials that were produced in the eastern part of the United States, to discuss composting, but there wasn't materials at the time in the western part of the United States. Now in a lot of situations in agriculture you can take stuff from the east and use it in the west. But with composting, when you're talking about composting something big, like a 1500 pound steers or a 2,000 pound horse, you've got to consider the weather as a factor. We don't have the humidity that they have in the east, so how do you change that composting recipe to make an animal break down. It's not as...you know if you compost in Georgia in 95% humidity and 112 degree heat that's going to be a big difference than composting in, you know, Billings, Montana where 65 or 70 degrees is a hot day and they have 14% humidity. So I think that the funders probably looked at that--this is my assumption--they looked at and considering that compost was you know a real buzz word thing with the sustainable movement and took those two features to say, 'hey, this is something that fits and need and that fits our interest area'. That's my assumption.

JL: How were decisions made as to who would speak on camera?

MF: Like I said earlier, John said that he'd help as long as he didn't have to speak. When we got out in that first film opportunity, Robert--I can't remember Robert's last name, is it Robert Mathis?

JL: I'd have to look back at the paperwork.

MF: Robert, he had lined up our producer to speak for us. And this producer, he had been composting for several years. He's one of the kind of a pioneers of composting in the West. So he had done several field days and was very familiar with talking about it. So Robert had chosen him and then just by default I was the one that interviewed him on tape...most of which we cut out, but because John didn't want to be on camera and it was just the three of us out there. And then Robert didn't necessarily want to be on camera either but I really wanted his scientific background to discuss some of it, so it was pretty much my decision to get Robert on their and I

got it kind of rubber stamped with the rest of the grant committee. After we had put more material together, we decided that we needed, we had a lot of video on the producers and why they wanted to compost but we needed more of the how part of it. I think it was when we were in the Billings meeting in Montana that we convinced, Jessica and I believe Tommy Bass got on there as well, to do some video for us.

JL: Can you think of any educational video formats that informed your final presentation style? Anything that you had previously seen or done that as you were putting the project together...

MF: Not in particular. I assume that you know you see stuff and you latch on to a little piece here and there, and you may not even realize you had...like I said when I jumped into this deal it was both feet first into something I really didn't fully understand. And it was a real learning experience for me to do it. But as far as using someone else's techniques to adapt into what we did, I couldn't really say that I did that. I'm sure that there are things that we did that, that, reflect some of that, but to just logically say that I want to do this like so-and-so did, I don't think that I could answer that.

JL: Well I guess I was thinking about how you constructed the expert as the producer whose been doing it for a while and then the scientific experts and then having you interview some people so that sort, that's what I'm talking about in the presentation style. Was it a committee decision to, like you mentioned in Billings that oh, we have producer experts, now we need this other end of it...

MF: The committee, like I said, the committee had come up with some questions that they wanted to ask, and then John and I had come up with questions that we wanted to ask. And with the producers, before we actually started videotaping I spent a few moments with them and kind of talked, I actually gave them a list of the main questions we were going to have so they had time to think about it. And we talked about, you know if you get stuttering, you have trouble saying something, that's okay, we'll just take a few seconds break and we'll re-do it and we can just splice that out. And I think that, particularly when we were in New Mexico, I think that made the producer alot more comfortable, when he knew that we could cut pieces out of it. When we got to the scientists, it was partially, like I said, I wanted Robert to do it, and kind of pushed him into it some. And then when, I asked Tommy if he'd do it, and then the whole group was there when I asked Tommy if he would and he jumped all over it. And they filmed that in Montana. They had another crew do that part. And then with Jessica, I think that was decided on a telephone call that we needed Jessica in there. Because we had asked her at one point and she didn't really want to and then she later said she would and I think you videod her doing that.

JL: Well we actually videotaped her in the studio, which she didn't like at all, and so then we had to find a site that was more representative of her work. So how about any of the supplemental imagery that was used, how were decisions made on what should be included there?

MF: We had a discussion about what pieces we wanted; what frames we wanted. We did that as the group, as the whole grant group. And then we'd had that main discussion it was kind of Tommy and Jessica and Nicholette and I had a couple of sidebar phone calls where we talked about it and then Tommy and Jessica developed those, kind of like where we stuck the PowerPoint slides in...

JL: Right, and also other visuals that were captured on site that you used as b-roll?

MF: Some of the b-roll...a lot of the b-roll was John Deering. John, he really kind of enjoyed the filming and we just kind of gave him the camera while we were working on other stuff...he shot, probably had two hours of b-roll kind of stuff that he shot where we used a couple of minutes of it. He, uh, and John was also learning how to use the camera. John was just, John working with it trying to learn how to use the camera because we had gotten the camera a few weeks before we started. We probably only had it in the office two or three weeks before we started filming.

JL: You mentioned the difference between these short little videos you did with Perry, on I'm guessing livestock topics, so how you came up with ideas for those and went out and got those, were they issues that had come up through office calls you got or producers ...extrapolating that to putting this project together, what you had from your previous experience and the kinds of information that people wanted that you could portray visually. Could you talk a little bit more about that transition?

MF: So the short videos...I went to Perry because Perry was sort of our computer guru there in the Golden Plains, and I had just started with CSU Extension. So I went to Perry and I said, "I really think that we, that we're missing some of these folks. You know, we're looking at old, traditional rubber meets the road kind of programming. But a lot of the younger people, they want to just go to the computer and find something. And I think we should be YouTubing some videos." And Perry agreed with me and he and I kind of, he found this cheap video camera, we paid like fifty bucks, sixty bucks, something like that. And the first one or two, we were just playing around with it to see what we could do. And I didn't have a script or anything on the first couple. We just walked out in, and called a guy and asked if we could walk out into his cornfield where he had cows grazing on corn stalks after it had been combined, and shot from the hip. We looked around the field, and said, 'oh, we could talk about this', and I, off the top of my, just mind, I did a little two or three minute video. And that's how the first couple of them were done and they were fun to do, and people enjoyed watching them because there were a few outtakes that didn't get taken out. But after that I would, sometimes I would just think, 'here's something I would like to talk about', sometimes I would have a producer come to me and say, 'we want to know more about this, would you do one of your videos on it?' and sometimes, like you said, it was, 'I've had five calls on this in the last two weeks, maybe we'll touch on this topic'. And we tried to do oh three or four at a time. Perry would come up or I'd go down to him and we'd find a farmer or rancher who would let us on, and I'd write out a little one page script, so that I'd try to kind of get it into my head so that I knew I was hitting the facts that I wanted to hit. And you

could watch those over time, about the year or year and a half that we did them. And just see the improvement each time that we would do a set. They'd look a little better, a little nicer. And I was really enjoying that. That was something I really liked doing. I had producers that were responsive to it, they enjoyed watching those when we got them up online. I had farms and ranches from other states contact me and they'd...some of these ranches, if they had a bull sale, they'll have an appreciation dinner with it, and they'll have a little educational program as well and I had ranches that would call me and say, 'Could we use your three minute video on this during our dinner?' And I'm like, 'Sure!' And so it was rewarding to have that feedback. So when the video opportunity came up for...or when the grant opportunity came up and we decided we were going to apply for it...I wanted better equipment for the Yuma County Extension office. So I suggested that we do the video. And I showed Jessica what we were doing with the YouTube stuff and we made an agreement that we could, if we got the grant, we'd write in this camera equipment and just put it in inventory in Yuma County so that we could utilize it to make some nicer YouTube videos. So that was kind of my real reason for being a part of the grant. It was a little selfish trying to help Yuma County out, and get us some nice equipment.

So, I took that leap from we're making these YouTube videos and they're getting nicer and nicer, we can make a documentary really nice and be able to make even nicer YouTube videos later. And that was a pretty big jump that I probably should have not made at that point. I should have learned a little bit more than I had. I was kind of rambling...did I answer your question?

JL: Yes. Sometimes opportunity knocks and you have to jump for it...so what you were doing as far developing scripts kind of, you said, and topics that were important...I guess part of my question was what could you extrapolate from that learning experience to what you were doing on this bigger project?

MF: I think probably one of the...yes, the YouTube videos taught me that I needed to have the scripts. And I carried that over into the bigger project just with having a list of questions when I interviewed people. However we probably did not have it scripted as well as we should have. And like I said earlier, I was unfamiliar with storyboarding and storyboarding is a difficult concept for me personally. I see the value in it but I have difficulty sitting down and envisioning in my head and putting on paper what I want to have happen. Because when you actually get to filming it may not, it may be difficult to follow your individual cartoons you've drawn. So...I have a little trouble making that transition even now. And I've got sidelined again, that's really not what you asked.

JL: No, I think it is. I think because, this is just my point of view on it. Because you and Perry were able to drive around and say, 'This is a good site, and let's cover this topic', being really organic about it, to go back to a more organized, detailed, 'this is the vision I have for it' would be a switch. Right, because you had more or less grown up in the process of this other way of doing it, which you were successful at.

MF: Yeah, we were just winging it.

JL: So that brings me, I think this is my last question if you were able to do it over again, are there things you would do differently and what would they be?

MF: If I was able to do the documentary over again? I don't think I'd do it.

JL: (Laughs)

MF: You laugh, but I'm serious...

JL: So that would be the difference, you would say, 'no, I probably shouldn't do that'?

MF: It's really difficult to answer that. You know, if I was to win 200 million dollars in the lottery this week, I would probably own a small production company making video productions. Because I enjoyed doing it. I, like you say, I kind of like the organic aspect of it and I struggled with the organization of it. And I'm sure that makes no sense to you, the way I've said that, it, having to meet others visions and goals without much input from them was stressful. Does that make any sense?

JL: Yep.

MF: You know like I said earlier, there was a guy from the University of Wyoming that was on this committee, and like I said, he showed up at the two meetings that we traveled to and he got some travel dollars and he never did another thing. He didn't type a word for our manual or help with the video or anything. And we sat in that meeting in Billings where he was complaining that the video was not 'Ken Burns enough' and to sit there and be told, 'I want it to be more Ken Burns' well, what does that mean? 'Just make it more dramatic, more Ken Burns'. And you've known me long enough, Joanne, to know that I get frustrated when people want me to do something, but can't tell me what it is. And so with my INTJ personality profile, that was difficult for me.

JL: I think some of the techniques of you, know actually making people, like somebody else sit down and articulate what their vision is...and storyboarding is maybe that way, another way of, like, 'okay, you say you want this, now sit and draw it out for me'. So it's not necessarily you the producer of this doing that, but having that brainstorming session with someone. What is it that you're looking for. Because saying 'Ken Burns' he assumes everyone knows what that is, and does it meet the goal...I guess I do have another question...Do you feel like the educational goals for this program were met with the video, if you go back to what you originally set out to do?

MF: I do. And actually the video turned out to be more than what I expected it would. You know, that video is in every Extension office, and every NRCS office across four states, as well as it's been distributed to other states through Western SARE and we've gotten feedback that people appreciated it, people appreciate that it gets the information across without being too

Ivory Tower-like. The average producer can sit down and watch it and be able to understand what's being said. And we've heard from NRCS people and Extension agents both, from multiple states, that they appreciate it because it covers a topic nobody's every covered for them. And I from time to time get requests from people wanting me to do something on composting for them, and I have to tell them, 'you know, I'm not the compost expert, I was just part of the team, here are your compost experts to call.' So I've been impressed of the response we got from the video, and I do think not only do I think it met the educational needs that I had in mind, I think it surpassed them. Other people on the grant might not feel that way, they might have had higher expectations than I did.

JL: What was the time frame that you and Perry were doing those YouTube videos? Was that like 2007-2009? I can't exactly remember.

MF: Yeah, it would be like 2007-2009.

JL: Anything else you could say about the team that worked on this? I know you said some people kind of dropped out, but sending drafts out for people...I mean I was happy that I could jump in when I did to meet the deadlines, when you were maybe...I think Nicholette, didn't she, hadn't she left at that point?

MF: About the time that you jumped on Nicholette was getting off just a month or two after that. The Colorado team was team was really good. And the Montana team was really good at giving feedback and being involved. The Wyoming team was pretty much just there for name. And Robert in New Mexico, he was, Robert was very helpful. Robert was just the only person from New Mexico and he had a lot of balls in the air at that time and was a little slow in responding and I think that was just a matter of he was trying to do five people's jobs.

JL: If somebody came to you today and said they wanted to do a video on such-and-such a project, what would tell them.

MF: That's difficult to answer. Because I've suggested to other people. Just a couple of months ago I suggested that they do what they were wanting to do in video. I've got a video camera and a green screen and a light box sitting in the corner of my office now because a couple of my employees want to learn how to do it. I think it's a really good media in our low-touch educational society, where everybody goes to the internet. I think it's a really good media to use for short educational pieces. And I think, in my opinion, it's pretty easy to do a short educational piece. And I think people are fairly forgiving of it if you're doing something on YouTube. I mean kids can't spell today and they text and email and YouTube all the time, and so, they're fairly forgiving. And so if you just, anybody can put together a YouTube vdeo and be able to provide some educational information and somebody can learn from it. But if you're wanting to get into the documentary side of it, I think you need to really have a good idea of what you're getting into.

JL: I appreciate how much you've learned. And I totally agree with you about people just wanting to find information on the internet. Could you restate that again, if somebody said they wanted to do a thirty minute documentary, what they should be doing?

MF: To do a thirty minute documentary; you've been doing the short YouTube videos and you want to jump into a thirty minute documentary, you need to take a little time, and I'm not talking 15 minutes, I'm talking take a few weeks and really think about what's your...what is your end goal. And how are you going to get there? And then find somebody to sit down and talk to about it, who knows, who has an idea of what that experience is going to be. For example, I have an idea for Pueblo county right now that I've been toying around with and a couple of weeks ago I went to our community information manager. She used to be a television producer. And I laid out to her what I think could be beneficial to Pueblo County from a, a television standpoint. And you know, find that resource and visit with them about their part of the world. Because if you just decided, you pick the topic, say you want people to understand how water in Las Vegas came from the top of a mountain at Rocky Mountain National Park, it's a lot more difficult than just saying that if you're going to do it a documentary, so you have to understand what the equipment you're going to need is...you've got to understand a shooting schedule. That was something that I did not appreciate when I jumped into this, is you know, if you want three minutes of tape, you may be shooting for four or five hours to get the three minutes that you want. You have to understand a budget. If you're doing something this big and you're traveling, you know, we wrote, we thought we wrote quite a bit of money into this grant for this piece but once we started flying to Texas and driving to New Mexico and driving to Montana and you know you've got three people on your film crew, you know that adds up pretty fast in travel expenses. So you need to appreciate the business aspect of it. You need to appreciate the organization, you know back to the storyboarding or the scripting. And like I said I don't necessarily like that structure but it's a necessity. And if you're going to hit all the points that you want to hit, you know you can drop a storyboard out, or a storyframe out at some point, and you might have to add a storyframe in. But as much as I dislike it, if you're going to do a documentary you need to understand how to do those. And then, the actual editing, that's a monster of a job that I don't think people fully appreciate. By the time you go through all your raw video and your b-roll and figure out which ones you're going to put in. And then from an educational video standpoint, one of the real problems we had, we got the video put together, or one of the early drafts of the video put together and you sit there and you listen to it and it sounds so monotone, and then we had to figure out, well, how do you put a soundtrack on it. How do you get some kind of music in the background that's not too irritating and annoying but it takes away some of that dead space and without infringing on somebody's rights to their music. That was one of the really hard parts was when we got down to trying to figure out how to put a little sound in the background. And I, you've done enough production, Joanne, I hope you understand what I'm talking about. But if you were the average Joe Extension Agent or Jane Extension agent, and said, 'I want to make a documentary' and you started talking to them about that, they'd just glaze over.

JL: As I would if you started talking to me about livestock production.

MF: (Laughs) So, it was a very interesting experience. But it had a lot more stress than I thought it would.

JL: Yeah....so this, the video was the combination of, combined with some other assets that were included. Is that a typical format, do you think, of providing all these different ways of learning, or ways of presenting. Is that typical for Extension?

MF: I don't think that the package of outcomes that we put together, I don't think that....The package of things that we put together, I don't think that you would normally find in one grant together like that. You know somebody, if a group was going to do that normally I think that probably they would start it out with like the manual and then would have said, 'well let's get another grant and make a PowerPoint, and let's get another grant and make a video'. Whereas we wanted to look at how could we get one huge grant and one time and just knock this whole deal out over a couple of years.

JL: And so you did.

MF: We did. There were days I didn't think we were going to get it done, but we did it. But we had a good sized group on that grant committee and there were some really talented people in that group, and we just subjugated it out, you know, 'you're in charge of making sure the manual gets done, you're the editor for it' and 'you're the producer for the video' 'you're the developer for the PowerPoint presentations' and 'whoever you need, pull them in', but 'you're in charge of this aspect'. So it worked out well, and it took us, all the pieces took us longer than we expected. We got a year extension from SARE. Showed them where we were at they agreed to give us another year to finish up. So that was, that was very beneficial. None of the pieces would have been as high of quality as they were if we'd had to turn it in when we were supposed to.

JL: And that time frame, do you think that was a combination of people's schedules and more work than you envisioned, or what do you think that was from?

MF: I think probably both. Most of us were Extension people, and you know how the life of an Extension person is. You just get overwhelmed. We started this I think 2009, right after the budget crisis hit. So every one of our universities was losing people and we were all doing multiple jobs. And it was a bigger project than we expected. I don't...I can't remember off the top of my head the manual was...but it's almost twice as big as what we originally set out to build. The PowerPoint is twice as long as we originally thought it would be, and the video we kind of locked in a time frame we wanted to hit and it was really hard to compress everything we wanted in the video into that time frame. So I think it was both. I think we were all busy and I think it was a bigger project than any of us thought it would be.

JL: Yep.

MF: All pieces of it.

JL: Is there anything else you wanted to say about this project, or other reflections you have.

MF: Don't make a compost video unless you want people for the rest of your career coming and saying 'hey, there's the compost expert, what do you know about that?' (laughs) I said that kind of half-heartedly, but half truthfully. If you're going to do it, go in eyes wide open and talk to some people before you do it. Because it is, it's a big undertaking. I don't know, if I was, if I would do another documentary for work. I've got a half dozen ideas that I would like to do. But I don't know if I would. But like I said, if I won 200 million dollars in the lottery, that's one of the things that I truly think I would do is set up a little production company, have a few people working for me and just kind of, develop some kind of PBS type of productions. Because I enjoy aspects of it. I just need an entourage to do the parts I don't enjoy.

JL: Right, well. I sure appreciate your time.