Farmer photovoice: visual values and the impact on conservation practices

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Farmer photovoice: visual values and the impact on conservation practices

by

Stephanie Nichole D’Adamo

A thesis submitted to the graduate faculty
in partial fulfillment of the requirements for the degree of

MASTER OF SCIENCE

Co-majors: Sociology; Sustainable Agriculture

Program of Study Committee:
Cornelia Flora, Major Professor
Nana Osei-Kofi
Mary Emery
Rick Cruse

Iowa State University

Ames, Iowa

2010

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DEDICATION

for Mom, Dad, and Phil
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Many thanks to Cornelia Flora for her helpful insight and calm encouragement in the face of my occasional panics, and to Nana Osei-Kofi for her gracious feedback and well-placed questions.

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To my parents and Phil, I can only offer my deepest gratitude and affection for continuing to believe in me and convincing me to do the same.

(Nikki) Stephanie N. D'Adamo
ABSTRACT

This research was designed as an exploration of photovoice and autodriven photo elicitation as a methodology for engaging farmers and understanding the meaning they see in the landscape. I used grounded theory in an art-based, appreciative inquiry approach to examine how farmers view their land, and the way in which those values shape the farming practices that impact shared natural resources. Though it would be inappropriate to generalize my findings, the methodology was effective, especially as a tool for making implicit knowledge explicit to both the researcher and the participant. The picture participants painted, with their photographs and words, was a complex portrait, filled with conflicting values, rich history, and complicated relationships with the land. Though not all-inclusive, three key themes emerged from the process: issues of agency, concepts of productivity, and the interwoven connection of people, time, and land. Photovoice and autodriven photo elicitation can be a useful alternative for engaging farmers and policy makers around issues of conservation and land use, and can be utilized as a tool for action and change.
CHAPTER 1: INTRODUCTION

This research was designed as an exploration of photovoice and autodriven photo elicitation as a methodology for engaging farmers and understanding the meaning they see in the landscape. I used grounded theory in an art-based, appreciative inquiry approach to examine how farmers view their land, and the way in which those values shape the farming practices that impact shared natural resources. Though it would be inappropriate to generalize my findings, the methodology was effective, especially as a tool for making implicit knowledge explicit to both the researcher and the participant. Photovoice and autodriven photo elicitation can be a useful alternative for engaging farmers and policy makers around issues of conservation and land use, and can be utilized as a tool for action and change.

Though not always viewed as “art,” photography has been a tool for sociological inquiry since its invention—mainly for the purpose of social activism (Becker, 1974, 1998). Its relationship with sociology is much more ambiguous, earning little respect from social scientist as a scientific tool (1998). Traditionally, photographs have been used to document the human condition; Walker Evan’s photographs of Appalachia made the invisible visible for America, problematizing rural poverty and highlighting the material conditions of Appalachians. Though the emergence of visual sociology has its roots in documentary photography and visual ethnography for the purpose of “realism,” Douglas Harper argues that “visual sociology has one foot in old traditions, and the
other in the experimental thinking currently found in most of the social sciences and humanities” (1998, pp. 24-25). While photography in social science research has historically been a tool for documentation and generally reflects the lens and perspective of the researcher, the potential exists to use photography as a lens into the world of the research participant. Photography is an opportunity for participatory research.

Traces of this idea—research participant as photographer—can be found throughout the visual sociology literature. Sometimes it is subtle, like a teaching tool for students (Lifchez, 1979), but in recent years, participant photography has become a way to gain access to children’s lives and overcome the language and cultural gaps between researchers and participants (Clark-Ibáñez, 2007; Samuels, 2007). Based on Paulo Freire’s work in critical pedagogy (1970, 1973), researcher-activists in the public health and medical anthropology fields developed a process called “photovoice,” in which cameras are used to give voice to the marginalized (Wang, Burris, & Xiang, 1996; Wang, Morrel-Samuels, Hutchinson, Bell, & Pestronk, 2004). Putting the camera in the hand of young people, the poor, and the stigmatized is a democratizing tool for addressing social issues, and is an especially effective way to engage the public and policy makers (De Lange, Mitchell, & Stuart, 2007). When addressing issues of justice and privilege, researchers need to be cognizant of power dynamics in their own research. Giving participants agency over their images is one way to rethink the researcher-subject relationship.
For this project, participant farmers took pictures of what was most valuable or important to them about their farm, and then shared their photos in a semi-structure autodriven photo elicitation interview. As a tool for shaping conservation policy, photovoice and autodriven photo elicitation offers a methodology that enables participants to reframe the issue using their own worldview, with their own cultural concepts and language. This could be especially useful to policymakers attempting to create policy that protects shared natural resources, while also recognizing the cultural sovereignty of farmers and landowners. By allowing farmers to use their own voice, policy makers have the opportunity to reshape policy to meet conservation goals, while working within the farmer's cultural framework.
CHAPTER 2: IOWA AGRICULTURE AND US CONSERVATION POLICY: A BRIEF PRIMER

**Iowa Agriculture**

Driving through Iowa, the landscape tells part of the story: 86 percent of Iowa land is dedicated to agricultural production. The majority of agricultural land is in crop production (22.7 million acres) and approximately 95 percent of those acres are in corn and soybeans (USDA, 2009). In 2002, Agricultural products and processing made up 8 percent of the Iowa’s Gross State Product. The state is the number one producer of hogs in the U.S., most of which are raised in confined animal feeding operations (CAFO’s) (Iowa State University Extension, n.d.; USDA, 2009).

Statewide, the number of acres in agricultural production has not changed since the early 1900’s. However, the number of farms and the number of farmers has decreased dramatically—in 1950 there were approximately 200,000 farms in Iowa, in 2009 there were 92,600 (USDA, 2009). In keeping with US trends, the agriculture sector is consolidating, farms are getting larger, and farmers are dwindling.

The majority of farmers in Iowa are participating in a complex, market-driven system held in place by a vast physical infrastructure, corporate interests, government policy, and cultural pressure. Though corn and soybean prices are high, farmers are operating under constantly decreasing profit margins, reinforcing the idea that farmers need to either “get big, or get out.” In the 2008-9 Iowa Farm and Rural Life Poll, 72 percent of farmers surveyed
...agreed that increasing specialization in commodities has led to the loss of farms, 68 percent agreed that they sometimes feel like they have little control over the profitability of their farms, 55 percent agreed that overreliance on corn and soybeans contributes to financial risk for row crop farmers, and 50 percent agreed that farmers have to continually increase acreage in order to make a living farming corn and soybeans. (Arbuckle, Lasley, Korschning, & Kast, 2010)

In the same poll, almost half of farmers felt that the loss of diversified farming operations had not been good for Iowa farmers, and over half felt that the move towards increased specialization had not been good for their communities. Interestingly, 70 percent of participants said that they would plant the same crops and raise the same livestock, even without the support of government payments (Arbuckle, et al., 2010).

**US Conservation Policy**

In the United States, conservation policy on “working lands” has ultimately been the responsibility of agricultural policy, as reflected in the Farm Bill and USDA implementation policy. Conservation practices are “voluntary” and recent legislation provided cost share programs (i.e. Environmental Quality Incentives Program, or EQIP), payment for conservation practices (i.e. Conservation Stewardship Program, or CSP), payment for “reserve” land (i.e. Conservation Reserve Program, or CRP, Wetland Reserve Program, or WRP, and Grassland Reserve Program, or GRP), and conservation easement programs. The programs have evolved over the last two decades, and are largely based on an incentives approach to conservation. To some extent, farmers are paid to provide “ecosystem services,” in the form of “green payments.”
Though the 2008 Farm Bill is generally considered to be the most progressive in terms of conservation programs, the effectiveness of incentives programs is still a source of debate. Conservation programs have traditionally been limited by budget constraints, while commodity subsidies are protected budget items (Boody & DeVore, 2006). Other critics of the current policy argue that incentives should be based on outcomes, not practices (Keeney & Boody, 2005).

Land ownership issues complicate matters in Iowa, where 51 percent of cropland is rented (Arbuckle, 2010; Carolan, 2005; Duffy, 2010). Studies indicate that farmers are less likely to implement long-term conservation practices on rental land due to the upfront cost of implementation, the potential loss of profits, and the lack of return on investment (Carolan, 2005; Duffy, 2010). The commodity structure of risk abatement and the security of commodity payments also factor into conservation practices on rental land. Carolan’s (2005) research suggests that landowners are less likely to rent to tenants who do not qualify for commodity payments, as those farmers are seen as higher risks without the security of subsidies to potentially backup rent payments. Conservation policy, as a whole, falls short of its goals because it fails to address the larger systems-level issues contribute to the degradation of the public’s natural resources (Boody & DeVore, 2006; Carolan, 2005).
CHAPTER 3: LITERATURE REVIEW OF PHOTOVOICE AND AUTODRIVEN PHOTO ELICITATION

Historical Uses of Photography in the Social Sciences

Photography has been a tool for sociological and anthropological inquiry since its invention. In sociology, its early usage had a clear social agenda; photographs were used to show the “wrongs” in society—poverty, poor working conditions, urban slums (Becker, 1974, 1998, 2004; Stasz, 1979). Though its social activist heritage is often attributed to photographers like Walker Evans and the work of the Farm Security Administration (FSA) photographers who documented the suffering of the Great Depression, Stasz’s survey of the American Journal of Sociology demonstrate much earlier roots; between 1896 and 1916, she found 31 articles that “used 244 photographs as illustrations and evidence in their discussions” (1979). These photos were often staged, manipulated, and juxtaposed to support (and sometimes exaggerate) the author’s argument.

Around 1905, Stasz found a gap where there was a remarkable absence of photographs in the journal. The American Journal of Sociology brought on a new editor, and the journal’s policies shifted to reflect the growing movement to have the young field of sociology recognized as a “pure science” (1979). This moved the focus away from “activism” and its underlying reform agenda, towards an empirically-based “science.” Photography was virtually eliminated from the journal, reflecting a lack of respect for photographs as a scientific tool (Becker, 1998) and the change in demographics among
contributors to the journal (Stasz, 1979). However, Stasz also points out that during this time, cameras were still in their infancy, and the technology was expensive and not commonplace. The public, and researchers, had not learned to “see” through a camera’s lens, which made it a complicated tool for social inquiry (1979).

Photography as a tool became almost non-existent in sociology until the 1970's (Collier, 1957; Stasz, 1979; Ziller, 1990), but it was being used as a tool in anthropology. While its early use in sociology had been for the purpose of illuminating social ills, anthropologists were employing photography as a means of validating and authenticating anthropological methods and findings (Becker, 2004; Collier, 1957). Bateson and Mead began to move away from this mindset in their Balinese study, utilizing photographs as another source of data and not just a tool for illustration (1942).

Visual sociology re-emerged in the 1970's, as a handful of researchers using visual techniques began to network and the discipline opened up beyond the positivist framework (Harper, 2002; Stasz, 1979).

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1 Stasz notes that in the first decade of the American Journal of Sociology, only half of the contributors to the journal were affiliated with the Academy. After the editorial shift, people with academic affiliations composed over two thirds of the contributors. Similarly, Stasz points out that while female contributors made up only 12% of the overall contributors, they composed half of the visual sociologists, leading her to speculate that “Perhaps an association between females and photography contaminated the editors’ view of the technique, causing it to be devalued or seen as frivolous” (1979).
Interacting with Photographs: Photo Elicitation

In 1956, John Collier experimented with three uses of photography in anthropological research: as a means of recording physical space and establishing visual coding values, as a “cultural map” to focus and stimulate interviews about a community, and as “personal photos” of participants’ lives used to facilitate participant interviews (1957). Collier took all of the photos, and did comparative interviews (with photo stimuli and without photo stimuli) to explore the way that participants interacted with the photographs. In this seminal work, Collier found that photographs had the power to engage participants in ways that were potentially more meaningful than traditional interviewing techniques. “Photographs can trigger responses that might lie submerged in verbal interviewing” (p. 854). The photographs also served as a means of focusing the participant and making them feel more at ease. Perhaps most importantly, the graphic imagery had a pronounced effect on the participant, with the “ability to prod latent memory, to stimulate and release emotional statements about the informant’s life” (p. 858). Though he did not coin the term at the time, Collier laid the groundwork for a new method of using photographs in social research: photo elicitation.

In a comprehensive overview of photo elicitation research and literature, Harper (2002) notes that, despite the recognized importance of the study, and the rise of visual sociology in the 1970’s, “only a small number of published studies have relied on photo
elicitation” (p. 15). In a survey of *Visual Anthropology* and the *Visual Anthropology Review*, Harper found almost no examples of photo elicitation. Most of the studies that have used photo elicitation methodology have come out of visual sociology, perhaps because the methodology fits well into postmodern concerns within the discipline. The methodology can be “regarded as a postmodern dialogue based on the authority of the subject and not the researcher” (1998, 2002).

Photo elicitation techniques allowed social science research to use photographs as more than just a survey tool, and instead gave researchers a way to interpret meaning in images. As such, it has found marginal, but important purchase in the fields of education, organizational studies, psychology (Harper, 2002), public health (Wang, Cash, & Powers, 2000; Wang, et al., 2004) and consumer/advertising research (Heisley & Levy, 1991).

**Rethinking the Subject-Researcher Relationship: Giving over Control of the Camera and the Rise of Photovoice and Autodriven Photo-Elicitation**

Despite Harper's claims that the photo elicitation methodology gives authority to the subject, researchers retain significant power in the process because the researcher is still the photographer, or at least chooses the images to be discussed. This raises two major issues: the ethics of power encompassed in visual images and the methodological stumbling block of choosing images that are not evocative to the

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2 Harper does go on to cite a few anthropological studies that use photographs in the interview process, but are not presented as a photo elicitation study. Nor is the methodology noted or delineated as anything beyond a standard interview.
participants (Harper, 2002). In this section, I will discuss how the literature has dealt with both of these issues in visual-based research.

This issue and ethics of power dynamics in photography, representation, and “viewing” have been written about extensively in the fields of art, photography, and cultural anthropology (Berger, 1972; Leavy, 2009; Sontag, 1977). However, in the field of social research where photography is being used as a research tool, considerations for power dynamics in image production has been a recent phenomenon, and is still a fringe concept. In a collection of photography taken by sociologists, Cheatwood and Lindquist (Cheatwood & Lindquist, 1976) acknowledge that “the subjects of the photographs in this exhibition seem uniformly to be old, poor, demimonde, and underworld, or out of this world characters” (p.9). They are presented with little or no context, and though Cheatwood and Lindquist do not delve into the ethical considerations presented by such images, the fact that the images were captured by educated people of privilege is problematic, and do not appear to empower their subjects, the research participants.

In the late 1990’s, researchers in the public health sector and in medical anthropology began to give cameras to research participants in a conscious act of participant action research (Wang, et al., 1996; Wang, et al., 2004). While participant photography had been used in other contexts—as a teaching tool (Lifchez, 1979) and as a way to examine

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3 Even Harper, in his concern for securing authority for the subject seems unaware or unwilling to engage in questions of power related to image production.
images of the self (Ziller, 1990)—the public health work was intentional in that it sought to give voice to marginalized populations in a way that could engage participants and policy makers as an instrument of social change (Barnes & Kelly, 2007; De Lange, et al., 2007; Du Toit & Gordon, 2007; Galvaan, 2007; Larkin et al., 2007; Olivier, Wood, & de Lange, 2007; Pithouse & Mitchell, 2007; Walsh, 2007; Wang, et al., 1996; Wang, et al., 2004). Influenced by the Paulo Freire’s work on critical pedagogy (Freire, 1970, 1973), Wang and Burris developed a process they termed “photovoice.” The first photovoice project was with women living in rural China. The women were trained to use cameras and then used the images they created to discuss concerns about health and living conditions in their community (Wang, et al., 1996; Wang, et al., 2004).

Handing the camera over to participants who traditionally lack a “voice” in the public domain (i.e. young people, the poor) is a democratizing tool for addressing social issues in places where language and access might be barriers (De Lange, et al., 2007). Giving participants agency over their images is one way to rethink the researcher-subject relationship.

Related to the issue of power in the researcher-subject/participant relationship is the second concern discussed with regard to the photo elicitation process: how images are chosen and whether or not participants will find them evocative. Harper ran into this problem in a 2001 study, where the photos he chose were visually similar to stereotypes found in magazines. Participants were unable to reflect on the common,
day-to-day experience because the images did not "break the frame" of their normal experience (Harper, 2001, 2002).

In a study of young Buddhist monks in a Sri Lankan monastery, Samuels conducted verbal interviews in 2001 and then returned in 2003 for follow up interviews (2004, 2007). In the follow up study, he provided the boys with cameras and used their photographs of daily life to discuss the monks every day lives in a process called autodriven photo elicitation. Samuels was able to break through the frame of mundane by allowing the boys to create the images. He then compared the process to the results obtained from his earlier interviews and found that the autodriven photo elicitation process tended to “evolve much more affectively charged responses” (2004).

Although the researchers’ photographs certainly have the potential to elicit reactions and responses from the research participants, using the participants’ photographs in the interview process gives primacy to their world and provides a greater opportunity for them to disclose their own sense of meaning to the researcher. (Samuels, 2004)

In his overview of photo elicitation research, Harper (2002) does acknowledge that the process can involve photos taken by participants, but he does not distinguish inquiry driven by participant images from inquiry driven by the researcher's images. In this regard, autodriven photo elicitation is distinct in its ability to more fully address power in the researcher-participant relationship and create a bridge between the research’s world and participant’s world. Autodriven photo elicitation has become a way to gain access to the thoughts and worldviews of marginalized populations, including children. The process of allowing the participants to share their own photos and shape
interviews around their images is a means of overcoming the language and cultural gaps between researchers and participants (Clark, 1999; Clark-Ibáñez, 2007; Samuels, 2004, 2007).

The line between photovoice and autodriven photo elicitation methodologies are not entirely clear, and are not discussed in the literature. Both processes are inductive and emphasize the participant’s voice. Photovoice tends to have more applied connotations, with a focus on social change. Autodriven photo elicitation, however, is more generally associated with the academy, and its first priority is not necessarily change, though the implications and possibilities are there.
CHAPTER 4: METHODOLOGY

The Process: Photovoice and Autodriven Photo Elicitation

This research utilized an arts-based, participatory approach designed to engage participants and explore the meaning in the land. A combination of photography and in-depth interviews augment validity and allowed for a complex analysis of meaning. While in-depth interviews is a conventional and accepted sociological methodology, the added element of participant photography as an arts-based research method “takes form in the hyphen between art and social science research” (Finley, 2008, p. 72). As a research method, arts-based research has the ability to transcend traditional researcher/research object relationships and offer an emancipatory approach to social science research, by giving voice and expression to the research participants. It is especially useful when exploring cultural dynamics and the possibility for social change: “…arts-based researchers must focus on the inherent promise that artful representations have the capacity to provoke both reflective dialogue and meaningful action, and, thereby, to change the world” (2008 p.75).

This research began as a quest to find out what farmers value about the place they farm, facilitating a process that would allow participants to examine their own relationship to the land and express those concepts through photographs and in-depth interviews. Similar research was conducted with farmers in Australia (Beilin, 2001), and Harper has used aerial photographs to talk about changes in agriculture with farmers in New York (2001). Photography is a useful tool because it does not require much artistic
expertise, the technology is readily available, and with digital photography, beyond the initial investment in a camera and software, the material cost is relatively low and easily reproducible. Participant photography also helps mitigate the issue of cultural access for the researcher (Visual Sociology Study Group of the British Sociological Association, n.d.); as a white, middle-class, female graduate student, there are limits to the level at which I can personally access farmers in Iowa. By allowing the farmer-participants to photograph and craft their own images, I had the opportunity to view the world through their lens, allowing for multiple languages of expression. The participant photographs also provided stimuli for in-depth interviews in a process called autodriven photo elicitation (Clark, 1999; Clark-Ibáñez, 2007).

After successfully completing the IRB process (see Appendix 3), farmers were first contacted by phone, and then sent a letter of introduction (Appendix 1), including an informed consent form (Appendix 2). Initially, I asked participants to take pictures of what was most important or valuable to them about their land. They were asked to do this during a 1-2 week window. Though all but one participant had access to a digital camera, I requested that each farmer take 24-27 pictures (a traditional “roll”) and then narrow it down to the ten photos that were the most meaningful to them. In the end, some of the participants had a hard time choosing, so we ended up looking at 10-14 photos for each interview. Emphasis was placed on content, not photographic “aesthetic.” However, every farmer asked if they could use some of the pictures they already had, because they felt like there were images that were significant to them that
could not be created/reproduced during the time period (due to the season, or events related to the farm). Because my intention was to listen to the farmer’s “voice,” I felt that this concession to my methodology was necessary in order to hear the farmers’ narratives. As such, I did not specify how many pictures needed to come from the present or the past, but only asked that some be taken during the prescribed time period, and that all of the photographs relate to the question asked. Six farmers agreed to the initial inquiry, but one backed out due to time constraints. Of the remaining 5, three took pictures entirely in response to my request, and two used a combination of current and older photographs. I will discuss the benefits and drawbacks to each approach in the conclusions section of the paper.

Once the participants compiled their 10-14 photographs, I met with them individually for 1-2 hour in-depth interviews using autodriven photo elicitation. This process utilizes the images taken by the participant (in this case, the farmers’ photographs) as a prompt in a semi-structured interview format. Autodriven photo elicitation has been especially useful as a way to allow participants to establish the linguistic level of the interview, and gives them a visual focus for accessing their own language (Clark, 1999; Clark-Ibáñez, 2007). Because the photographs are intentional creations and are being analyzed for meaning, this type of interview will provide additional context for the photographs. It also transforms the photography research from a documentary style, with its tendency towards objectification of research participants, into an arts-based, active participant research effort. In cultivating farmers’ “photovoces,” the research
process can become a vehicle for cultivating expression, awareness, and action (Larkin, et al., 2007).

All of the interviews were digitally recorded and transcribed. Participants were asked a series of standard questions regarding the number of acres farmed, the number of acres rented or owned, the type of operation (crops, livestock, other land uses, etc.), how long they had farmed, and how they got into farming. Prior to the interview, the photos were printed off (either by myself or the participant, based on their preference). During the autodriven photo elicitation process, I found that having a tangible picture was very important, allowing the participant to look at the picture and point to things in the photo. It also helped to make the process more casual, like a friendly conversation at the kitchen table, and not a formal interview—allowing the participants to open up in ways that may have been difficult in a more formal setting. Prior to discussing the photos, I went through the photographs and numbered the back of each one. The participant chose the order of the photographs, and said the number aloud before we talked about it, allowing me to go back and match the photo to the interview as a reference. With each photograph, I asked the participant to tell me a word or phrase.

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4 In the transcription process, I made the decision to try to capture the dialect of the speaker, pauses, and hesitations. However, when including quotes in the discussion portion of the paper, I found that the “most faithful” transcription was somewhat distracting. I attempted to find a balance between what my ear heard and what is expected of written dialogue. I hope that I stayed true to the voices I heard, while trying to harness their unique texture onto a flat page.

5 In Collier’s initial photo elicitation experiment, he noted that the use of photographs focused the participant, made the participant more relaxed, and extended the length of the interview. It also elicited deeper, more emotive responses. (1957)
that came to mind when they looked at the photo. The participant then gave a description of the photo, and discussed why they took the picture and what it meant. Sometimes the meaning emerged naturally, but other times I asked a few probing questions to clarify what we were looking at, and what it meant to the farmer. After the interviews were transcribed, the transcripts were sent to the participants, and they were able to look them over to see if there were any discrepancies. None of the participants made changes to their transcripts.

The transcripts were then coded for themes using Nvivo. The themes, coding, and photographs were discussed with a colleague and feedback was incorporated into my analysis. The images, observations, and transcripts from interviews, were all used as data to develop a comprehensive understanding of what farmers value about their land. Prior to public presentation, I will share the analysis with participants in order to ensure transparency and allow feedback.

<table>
<thead>
<tr>
<th>Steps in Research Process</th>
<th>Data</th>
<th>Method of Analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Farmer’s Photographs</td>
<td>Photographs</td>
<td>Thematic qualitative analysis of visual themes, informed by and informing other data</td>
</tr>
<tr>
<td>2. In-depth Interviews (autodriven photo elicitation)</td>
<td>Transcripts and observation notes</td>
<td>Qualitative coding using Nvivo (open, axial, and selective). Informed by and informing photographs.</td>
</tr>
</tbody>
</table>
Sampling Strategy and Considerations for Validity

This study used a purposive snowball sample. Due to lack of funding and realistic time expectations, the issue of entry and access was a limiting factor, and so the sample was also one of convenience. Initially, farmers were selected for this study based on their participation in a previous focus group in which they provided feedback on a proposed NRCS conservation measurement tool. The intention was to use the transcripts from the focus group as another source of data, contributing to a richer understanding of how the participants viewed farming practices related to conservation. However, due to constraints from the original data, and the realization that the focus group data would not be significantly relevant to this study, I chose to use a snowball sampling strategy, beginning with one of the participants from the focus group, contacted through Practical Farmers of Iowa (PFI). That person then named seven fulltime farmers that he thought would be willing to work with me. From three people I talked to on the original list, I received three more names, based on the same criteria. All of the participants were white men, between the ages of 44 and 65, whose primary occupation was farming. Only the initial contact was an active member of PFI, and they all lived and farmed in Greene County, Iowa, near Jefferson, the county seat.

The nature of the research raises questions as to whether or not my findings can be generalized to the larger population. However, to a large extent, this research was intended to be exploratory and identify emerging themes using a grounded theory approach. Because I have no controls by which to compare my findings, it could be
argued that I am using a single case research design. While this design can be limiting, and inappropriate for testing a pre-determined hypothesis, I would argue that the data I have collected in my “single case” does serve the four principle functions of a case study: to “inform, intrigue, inspire, and incite” (Kazdin, 2011, p. 6). The interviews and photographs are emotive and complex, and I did not manipulate the information to prove any theories. However, I do believe that the results of my research have implications for conservation and farm policy, which I will discuss in my conclusion.

Content analysis (for specific visuals or objects) was used to a limited extent, but the emphasis was on thematic interpretation, based on the data from the in-depth interviews. Analyzing the images within the context of the interviews allowed for triangulation and, in a reciprocal process, informed the meaning of data from the interviews (Wagner, 1979a). In addition, many of the photographs are printed within my findings, increasing transparency and the reliability of my research.
CHAPTER 5: RESULTS

Content Analysis of Photographs

Although all participants were asked to take photographs for the project, two farmers requested to use some photos that they had already taken, citing time restraints and the desire to capture what was happening during other seasons. Since this research was exploratory, I agreed that they could use some photographs taken from before, but I stipulated that the photos had to be recent, and that the majority should have been taken specifically for this project. The biggest difference between the participant photographs that were taken specifically for this project and the photographs that were chosen from an existing pool was that the latter contained more pictures of the farmers themselves. The participants who took photos explicitly for the project did not include themselves in any of the shots.

Four of the farmers used digital cameras and one used a high definition disposable camera (27 exposures) that I provided. Each farmer was asked to select between ten and 12 photos to discuss. The two participants who used a combination of recent and new photos narrowed their selection down to 14; the other participants discussed 10, 11, and 12 photos, respectively. Between the five farmers, there were a total of 60 photographs. (Table 1)
Table 1: Content Breakdown of Farmer Photos

<table>
<thead>
<tr>
<th>Landscape6 (29)</th>
<th>People (14)</th>
<th>Equipment (16)</th>
<th>Animals or Habitat (8)</th>
</tr>
</thead>
<tbody>
<tr>
<td>• 9 buildings/structures (3 homes)</td>
<td>• 7 of farmers—the same two</td>
<td>• 11 tractors</td>
<td>• 4 livestock</td>
</tr>
<tr>
<td>• 9 corn and/or soybeans exclusively</td>
<td>• 4 of children</td>
<td>• 2 combines</td>
<td>• 1 dog</td>
</tr>
<tr>
<td>• 6 mixed crop/conservation</td>
<td>• 2 of wife—same wife</td>
<td>• 1 airplane</td>
<td>• 1 owl</td>
</tr>
<tr>
<td>• 5 buffer/conservation areas</td>
<td>• 1 friend</td>
<td>• 1 fork lift</td>
<td>• 1 beaver dam</td>
</tr>
<tr>
<td>• 3 water: 2 streams and 1 gravel pit</td>
<td>• 1 people in the distance</td>
<td>• 1 cultivator</td>
<td>• 1 bird’s nest</td>
</tr>
<tr>
<td>• 3 with windmills</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• 1 new building site</td>
<td></td>
<td></td>
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</tbody>
</table>

A strict content analysis of the photographs would be interesting, but its usefulness is limited because it lacks the context provided by the interviews. For example, the photos featuring equipment held many different meanings for the participants: some pieces were emphasized for their function (Figure 1), others were contextualized by their history (Figures 2 and 3), and some were examples of the farmer's agency or business skills. (Figure 4)

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6 I have deemed a landscape photo as any photo where the emphasis is on the context of the surrounding land, and not just the person, building or object that may be featured.
Table 2. Breakdown of photo descriptors, as chosen by participants.

<table>
<thead>
<tr>
<th>Farming practices</th>
<th>Nature</th>
<th>Descriptors indicating values</th>
<th>Business/work ethic</th>
<th>People/animals</th>
<th>Connections to past/future</th>
</tr>
</thead>
<tbody>
<tr>
<td>fall tillage</td>
<td>beaver pond</td>
<td>beauty</td>
<td>luck/hard work</td>
<td>my everything</td>
<td>future</td>
</tr>
<tr>
<td>spring tillage</td>
<td>sky</td>
<td>vast</td>
<td>hard work</td>
<td>my life</td>
<td>past</td>
</tr>
<tr>
<td>applying nitrogen</td>
<td>pond</td>
<td>complete</td>
<td>frugal</td>
<td>proud of homestead</td>
<td>future</td>
</tr>
<tr>
<td>fertilizer</td>
<td>birds</td>
<td>perfect</td>
<td>frugal</td>
<td>family</td>
<td>future</td>
</tr>
<tr>
<td>cover crop</td>
<td>butterflies</td>
<td>speechless</td>
<td>innovation</td>
<td>friend</td>
<td>the ghost</td>
</tr>
<tr>
<td>no-till</td>
<td>habitat</td>
<td>progress</td>
<td>old technology</td>
<td>the dog</td>
<td>refuge/home</td>
</tr>
<tr>
<td>no-till</td>
<td>clean water</td>
<td>essential</td>
<td>accomplishments</td>
<td>the cattle</td>
<td>childhood</td>
</tr>
<tr>
<td>works compost</td>
<td></td>
<td>heaven</td>
<td>I hope to do better</td>
<td></td>
<td>optimism</td>
</tr>
<tr>
<td></td>
<td></td>
<td>necessity</td>
<td>proactive</td>
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<td>interesting</td>
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<td>power</td>
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<td></td>
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<td>unsustainable</td>
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<td></td>
<td></td>
<td>agriculture</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>promising/hopeful</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Recreation</td>
<td>Winter</td>
<td>Agricultural products</td>
<td>Sources of pleasure/enjoyment</td>
<td></td>
<td></td>
</tr>
<tr>
<td>recreation</td>
<td>preparing for the blizzard</td>
<td>food</td>
<td>panoramic view</td>
<td></td>
<td></td>
</tr>
<tr>
<td>canoeing</td>
<td>rough winter</td>
<td>energy</td>
<td>panoramic view</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>orchard</td>
<td>NPR (National Public Radio)</td>
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</tbody>
</table>
It’s a picture of my skid loader, with tines on it. If there’s any vehicle in my line of machinery, this is the vehicle that gets used every day. It has to start every day. And it can run from one hour to fifteen hours. So, it’s something I have to have with my setup. [...] but it’s an essential piece of my machinery as long as I got livestock. (Farmer 3)

...it says Farmall on the side. So, it was made by International Harvester and my dad owned that tractor. Drove it a lot when he was younger...and I still have it. And then here’s a Super C...a 1939 Super C tractor that my
Uncle Otto, on my mom’s side of the family, owned [...] I came back here and worked for him for a year and a half before I actually started farming. And so...there’s some kind of continuity there I guess...the two sides of the families being farmers, and then both my dad and my uncle...helped me learn about farming and stuff. (Farmer 1)

Figure 4. Case IH tractor. (Farmer 5)

And this is just kind of another example of how we achieve it, it’s not a flashy tractor, it could have some collectable value, [...] but it’s really kind of an example of what our operation is. It’s getting the job done in maybe a different way than a lot of people would do things. I think most of my neighbors would say, “pick up the phone and call the tile guy to get this done”. And that’s one way to do it, and that’s the way most people do it, but we are able to do it ourselves, and save some money, and then we know how that tile was put in and where it is. (Farmer 5)

Farmers were asked to take pictures of what they found most important or most beautiful on their farm. The instructions were kept as broad as possible to minimize the researchers bias. How they chose to interpret the question was an important part of understanding what farmers valued about their farm and their land.
Three of the five participants shared pictures of their children, though, as I will discuss later, children were a significant point of discussion in all five interviews. There were almost as many pictures of buildings as there were landscape images of conservation practices, and photos of farm equipment outnumbered pictures of people. However, when asked to identify their favorite picture, three of the farmers chose the pictures of their family, and one farmer chose a landscape that held memories of his children. So a content analysis of the images will only take us so far without the context provided by the auto driven photo elicitation interviews.

During the interviews, participants were also asked to give a word or phrase to each photograph. Some were abstract (Figure 5), and some were very literal (Figure 6):
While the photos, taken alone, paint a very utilitarian, mechanized perspective of farming, the phrases used to describe the images are much more varied and complex. For the participants, the images we discussed were heavy with multiple meanings and values that were not necessarily visible to the outsider’s eye. Looking at the photos often evoked powerful memories and emotions for the participant, connections that would have been lost without the reciprocal power of the images and interviews to contextualize and enrich the information being shared.
Farmer 2: First thing that came to my mind was “complete.” I don’t know why but it’s...we see a soybean field, a cornfield, we see wind energy, we see waterways, we see no-till...I guess just all the things that you worked for. You know...for years. It’s a ....for the average person to look at it and they go oh, that’s a field, I guess I see many more things than a field.

Researcher: Right. Can you expand on that a little?

Farmer 2: Like conservation practices of your waterways, and the field has been drilled for no-till... of course you couldn’t tell that in the corn because it’s still 30 inch rows, and then you see...the wind turbine back there, which is neat, I think. You just see...I just see ...after knowing, doing the work, you just see many different things in it.

The picture participants painted, with their photographs and words, was a complex portrait, filled with conflicting values, rich history, and complicated relationships with the land. Though not all-inclusive, three key themes emerged from the process: issues
of agency, concepts of productivity, and the interwoven connection of people, time, and land.

**Agency, Land Ownership, and Being Caught in the System**

The issue of agency was a major theme in the farmer photographs and interviews. They placed value on their ability to control aspects of their operation by expressing pride in their equipment and the practices that had put into place on their farm.

*This is the biggest tractor I’ve ever owned.* (Farmer 4)

*Well, I look at, especially the energy side of it, as being a wild card, (having gone through what we did two or three years ago with energy prices skyrocketing) [it] was really an eye opener, and if I am going to do something, I can spend a little extra money now and control things for the rest of my professional life.* (Farmer 5)

*I’m an independent …I believe…hopefully that you can make more money by doing more things yourself. That’s the philosophy I always grew up with....and by people who I respected and who were successful. And I just believe in owning my own stock...so ...* (Farmer 3)

*And it’s just kind of worked out, where I realized that I really enjoy being my own boss, or I realized that I really didn’t enjoy being told what to do by somebody else...I’m able to kind of .... I’ve always been the one that does things my own way, and farming is no different. I’m able to, for the most part, do things kind of how I think they should be done, and it’s been a good deal.* (Farmer 5)

Four of the five participants pointedly shared images of their “firsts”: one first conservation practice, two first tractors, and two first buildings. These “firsts” were examples the farmers’ agency, where he was able to demonstrate his accomplishments in the way that he actively shaped the landscape or the farming operation.
That’s the first hoop building I put up… and the grain bin and the silo. I put those all up…my expense […] That was one of the first things I built, and those kind of things… you never know where the future’s going. I guess it’s a picture of my accomplishments. (Farmer 3)

Farmer 3 (Figure 8) was the only participant that did not own any of the land he farmed. For him, these buildings were especially significant because they represented something that he had control over, that he could improve, despite not owning the land (Figure 9). There was a sense of agency related to owning the land, and a lack of agency related to not owning the land, as expressed here:

...though the magazines are going to tell you all this stuff about, “you should tile every 50 feet” and do this and that. Well, yeah, if you own the land, but you’re kind of at the landlord’s whims, you know. Yeah, I know it needs tile, I know what needs that and this, but [if] your landlord don’t want do it, there’s not much you can do about it. (Farmer 3)
Figure 9 Farmer 3's homestead, owned by his parents.

Well...might not be the prettiest farmstead but I...I'm proud the way it's laid out. I know changes that need to be made, but I...for not owning the farmstead and ...and having to do with what's you have, I thought I've done pretty good. (Farmer 3)

In contrast, Farmer 2, who owned land and had all of the land he owned in conservation, shared his “first” conservation effort (Figure 10):
I’m speechless. Which is hard for me. [...] This was my first conservation practice...stream buffers [...] they’re the most established, they’re the longest on the farm, of all the practices. And so, and this is what it all started out for me, was right here. Along the stream bank. (Farmer 2)

In Iowa, 20 percent of Iowa’s farmers farm 48 percent of the available farmland. All of those farmers rent between 50 percent and 99 percent of the land they farm (Duffy, 2010). Land ownership has major implications for conservation efforts: while farmers will use the same short-term conservation practices\(^7\), regardless of whether they rent or own, they are not as likely to instigate long-term conservation practices on rental land, unless they can gain some assurance that they will be financially compensated (Duffy, 2010). This finding was supported by the farmer interviews and photos.

\(^7\) Short-term conservation practices would include tillage, grassed waterways, riparian buffer strips, etc. Long-term conservation practices would include terraces.
In essence, agency and ownership shaped the way participants allowed the future to impact current land use decisions. While rented land left farmers feeling uncertain and unwilling to commit to long-term conservation efforts, ownership led farmers to phrase their decisions in terms of future generations:

And I look at these as investments in the future, too. At some point my kids may or may not farm, and they may or may not choose to keep this ground, or maybe my grandkids or great grandkids...but if I build that building right, that is going to have value clear into the future. (Farmer 5)

...leave [the land] as-is for children, grandchildren, future generations. Probably there'll come a point...I hope not, but maybe conservation practices won't ... when we're trying to feed the world and however many billions will be in the world. They would rather see it cropped. But then...maybe some of it would be [cropped], the better producing ground might. They might convince me of that if I'm still here. But there's always places that should not be cropped. And for family...and friends to come back and enjoy it. There will always be water and there'll always be buffer strips and riparian buffer and so, they won't get it all. (Farmer 2)

However, countering the notion of agency was the idea that farmers were subject to “the system.” While some participants identified the “system” as government policy, all discussed their decision-making in terms of the need to secure profits, given the commodity market system. The commodity corn and soybean system includes infrastructure:

what I'd like to do, to be more efficient, is raise all wheat next year. Well, I don't think I'm going to be able to do that because I need a drill...and I need other things...and that wouldn't really generate any profit. Actually it'd probably reduce profit...it could reduce profit. And so unless I can find some low cost way to...you know if I could find a really low interest loan...like maybe a seven year, no-interest loan or something, I would buy a drill, but I
don’t want to pay for a drill out of this year’s profits and that’s what I’d have to do. (Farmer 4)

Farmer 1 discussed his desire to farm in a different system, but felt powerless to change:

...you had to have all the corn and soybeans you could produce...just to make ends meet. And you didn’t think about taking any risks, borrowing more money to do something completely different...you know, ideally, I wish I was doing something where...something that was organic and something that was sustainable...and involved more people. [...]But I mean now what, just me...what am I supposed to do? I can't...figure out what I can do by myself. It's really hard. So...so, I got all these choices, you know. Except that I can't do them all. I can't do them by myself [...]whatever it is, it has to pencil. You know, you have to pencil it out so it makes sense economically. You can’t afford to lose money. And you can’t afford to have young people get involved and then...you know, lose money or go broke or not have an income.

To varying degrees, all farmers indicated that they were aware of their role in the system. For some, it was a source of frustration—particularly because they felt powerless to change it and because they felt the non-farming population did not understand their situation:

I get upset that people think we are one) village idiots, and two) that we don’t care. And they just don’t know that sometimes we are limited by...our landlord and limited by money. (Farmer 3)

Others accepted their role as a necessity. Farmer 4 expressed his affinity for large farm equipment and his farming practices, while acknowledging that they were ecologically problematic. The photo that triggered this conversation was labeled “unsustainable agriculture,” and featured the farmer standing on a large combine.
...where we’re at today...is that we’re recognizing that we’re not sustainable raising corn and soybeans. We recognize that we have to do that to be profitable and we have to play by the rules that we have. And so, I’m playing by the rules, as far as I see them, and trying to be profitable. We give up some profit for conservation, but we can’t give up very much.

[...]Conflicted? Well, I know...I know that I’m playing by the rules. I know that if I didn’t farm this land...somebody else would. And they wouldn’t care as much as I do. Ok, so they might not be a lot more sustainable than I am, or I might not be more sustain[able]...but, I’m more sustainable cause I’m thinking about what I’m doing. I’m more careful with tillage, I’m more with what I plant, and more careful with pesticides. So...I don’t like...I don’t like the rules we have, but I know I have to play by them. I think it’s...I think its probably my financial background. I analyze so many things in terms of bottom line. It’s just natural for me to do that. And it’s because of that that I know I have to do this. And I guess I’m ok with that. (Farmer 4)

Likewise, conservation practices were also framed in terms of profit:
All of these things I guess that I have told you about, I wouldn’t be doing if there wasn’t an economic incentive to it or an economic reason. I mean, not necessarily a government payment, but you know the no-till, it’s got to work and it’s got to be a good practice to make it. (Farmer 5)

Interestingly, the concept of food was mentioned by four of the five farmers; however, only one participant directly connected “food” to the corn and soybean system, and in that instance, it was a reference to future global food needs and the “feed the world” paradigm. When asked about the future of his farm, Farmer 3 imagined commercial vegetable production as a means for his farm to survive, but said that he didn’t have the money or “authority” (land ownership or permission from his landlord) to do anything different.

Two farmers spoke of food in relation to their small-scale livestock production. Farmer 4 used a picture of his cattle to discuss his thoughts on future possibilities for perennial grass crops used to raise grassfed beef (Figure 12).
He began by describing how this picture came to be and how he enjoyed interacting with the animals before discussing the “practical” aspects of his decision to raise cattle:

But the reason we have cattle is that we’re trying to find a more sustainable way to produce food. And we’re trying to produce grassfed beef. [...] because we aren’t pasturing much of our land, we don’t have a lot of room. I don’t want to pasture all the land...I want to leave some of it for a refuge. But, if we could find a profitable way to raise grassfed beef, we would seed down acres that are in corn and soybeans to some type of forage. (Farmer 4)

For Farmer 4, raising “food” was outside of the system—it was potentially an alternative to the system, but it required more time and an entirely different set of processes than the corn and soybean model. He did not see it as anything more than a side project, unless there was a way for one of his sons to take it on.
The fourth participant to discuss food did so in the context of his apple orchard and his pasture-raised chickens (Figure 13).

![Figure 13. Farmer 1's photo of pasture-raised chickens, labeled "food."](image)

Farmer 1: Well...food...that's the word. And then...oh, I don't know [...]for one thing it was a tradition when I was a kid, we had chicken all the time, but it was a delicacy. It wasn't something you had every day, cause it was hard work to butcher them, and I found that out, too. [...]and the people say, “Oh those chickens, they taste so much better than the ones you get in the grocery store.” Yeah, they’re not mushy, tasteless...you know...chicken meat...

Researcher: So, how do you feel when [about] that?

Farmer 1: Oh, yeah, I feel pretty good. I think it's a really good deal and I hope...you know...I plan on being geared to do that every year. I can give them away...I don't sell them, but I just give friends chickens and then I can have chicken around to eat and cook for people and it's quite a...like it was when I was a kid. It was a delicacy.
He also described his apple orchard as the thing he was most proud of on the farm—like the chickens, he stressed that he did not sell the apples, but instead gave them away. As other participants indicated, producing food had meaning and significance to the farmers, but it was seen as something outside of their economic and agricultural system, as an ideal or a side project. While farmers placed value on their own agency, they also reflected the idea that they were confined by a system, made necessary by the corn-soybean infrastructure and the understood pathways to profits.

**Productivity, Beauty, and Wasteland**

Wrapped up in the pursuit of profits were concepts of productivity, made manifest in the way farmers identified themselves and the way they valued land. In Burton’s (2004) study of British farmers and their concept of a “good farmer,” he found that all of the farmers interviewed “based their self-conceptions primarily around production-based roles” (p. 200). While this concept was expressed more comfortably by some farmers than others, to some extent, all five farmers expressed pride in either their cropland, crop yields, livestock gains, or ability to stay in business.
This is a photo of me holding three ears of corn, which comes from the last field that I bought. Again it was a lot less than current market value. I paid $4100 an acre for it, when everything else was going for $6000 or $6500. The ears are filled out to the end. It was, again, a challenging year. They are 16 around, roughly 40 kernels long, so that equates to right under 200 bushels an acre. I think no-till and chicken manure are to thank for that, and also some tiling. We already started tiling that field. We need to do a lot more work. That’s kind of an exciting photo, thinking of the potential that’s out there. (Farmer 5)

In this photo (Figure 14), Farmer 5 represents his measure of a successful farmer: the full corn crop predicts strong yields, brought about by his farming practices and his ability to improve the “value” of the land.
In this photo (Figure 15), Farmer 2 kept the description very short and to the point: “that’s what I see there, perfect soybeans. Just weed free, very little tillage to get the plant going, and just….a good crop.” Here the landscape itself tells the story of the successful farmer: a healthy crop, control of weeds, and good tillage practices. Like the corn picture, the expressed aesthetics of the farmer are tied to production practices and the way land is valued.

In terms of the corn and soybean system, valuable ground was seen as “crop” ground—the land best suited to grow crops. Farmer 5 described a field as “wasted” when he believed his soybean crop had been ruined. Farmers participating in the Conservation Reserve Program (CRP) had a tendency to talk about land that should be cropped, and land that was less suitable for crops and thus, available for set aside conservation
programs. Farmer 2, who had most of his own farm in conservation easements, said that there are “always places that should not be cropped.”

> *my goal for this farm, because...it doesn’t have a great corn suitability rating, was to ...if I could average it with what crops we had raised in the last 30 years here, to somewhat meet what we could get with government payments...that was my goal.*

However, even when discussing conservation practices, the production aesthetic is still present: “I especially like this picture because it’s those native grasses and native short grasses, but it looks almost like wheat” (Farmer 2). Farmer 3, discussing a drainage issue on rental land said, “If I put a waterway there...where it goes across our row crops on down here it...it would take out a lot of land out of production,” which was expressed as an undesirable outcome. This production-oriented view of the land is taken for granted, but is to be expected in a production-based economic system.

Despite the emphasis on corn and soybeans, four of the five of the farmers interviewed discussed some aspect of diversity. Two participants described diversified farming operations that included conservation and crop grounds (Figures 5 and 7).

> *this is an aerial photo of my farm....and I really like it because I'm farming the best ground that's suitable for row crops. There's about 57 acres, and then there's an equal amount of acres...there's a little more that's either in pasture land or it's in wildlife habitat. And it's just...it sort of represents what I think agriculture should look like.* (Farmer 4)

These four farmers associated ecological diversity with a positive aesthetic. Despite the impetus for monocultures in the corn-soybean system, these participants indicated that the diversity created by wildlife strips, riparian buffers, CRP and other set-aside
conservation efforts were sources of visual pleasure, using words like “beauty” and “interesting” in their descriptions.

Well this is one of the...one of the...one of the benefits of having wildlife habitat, is that your dog can hunt. You can go out on a walk with your dog and you can...she can run and look for things and enjoy it. It wouldn’t be much fun to walk across a soybean field and...it’s just another part of enjoying the farm. She’s standing amongst one of our prairie plantings. It’s got a number of our native species in the planting, and...it’s one of the really good parts of living in Iowa...living on a farm. She is standing on a really steep snowdrift, too. I chose that because it’s just one of the things I like. (Farmer 4)
Plus it's kind of nice to drive by it and see all of the butterflies floating through it, and all the flowers. It's not just corn and beans, and monoculture and whatever else everybody is throwing at the farmers this time.

[...] So we've got a nice stand that people can look at and, as I say, not accuse us of being monocultural, or farming fencerow to fencerow, squeezing every dime out of the land. So it's a little bit of a political thing. (Farmer 5)
...and down here you’ve got…I guess they call them bulrushes, I don’t know…it’s a sedge, the stems are like half or ¾ of an inch across…pretty big. And then of course, there’s cattails there too. And then around it, I’ve got prairie…grass and forbs, too. So, its kind of a neat getaway, or whatever. (Farmer 1)
Yeah, well cause I think it shows if you provide some diversity, even if it’s not a natural diversity, that at least the landscape won’t be quite as bleak. So, it’s a good thing that there’s some animals get to live here and appreciate it. And make our lives more enjoyable. (Farmer 1)

In addition, all five farmers talked about the way that conservation practices contribute to the maintenance and enhancement of natural resources. Five mentioned the creation of wildlife habitat, and four associating habitat with increased biodiversity. Four discussed conservation practices in terms of erosion control and water quality, with two showing pictures of water bodies: one entitled “clean water” and the other “canoeing,” acknowledging that his agricultural practices affect river quality. Overall, farmers expressed agency and pride in their efforts to protect natural resources and create habitat.

**People, Past, Present and Future**

Beyond economic, productionist, and stewardship ties to their land, participants expressed an emotive bond, seeing connections to the past and future, family history, children, and their neighbors. The photovoice methodology was an especially powerful tool for engaging farmers at this level, and the pictures served as a vehicle for exploring the participants understanding of the land as a *place* with a temporal quality.

Two farmers talked specifically about the prairie, and what the land looked like prior to US settlement (Figures 18 and 20).

*And then, of course, its nothing like it would have looked like when the...before white people, you know, plowed everything up. But, it gives you some sense of that, you know. And I've enjoyed going to real prairie, you know. There are a few remnants that are left. I enjoy learning about what*
plants were here and how they coexisted and changed with the seasons or changed through the decades or centuries, even. (Farmer 1)

..because this is a photo of a prairie planting on my farm, on a beautiful, probably August day with the clouds and blue sky, and all kinds of sunflowers and native grasses growing. You walk into that and you realize, you know, much of Iowa was like this. And you’re kind of visiting a ghost, because very very little of Iowa is like this...very...very little...less than one percent of Iowa still has native plants on it. And so, it’s fun to walk into the middle of that and get down low and pretend like you’re surrounded by miles and miles of it. To think about how that would be, and how that changed in such a blink of time. Cause this was here probably, 150 years ago...for sure 200 [years ago]. (Farmer 4)

The idea that the land has a temporal quality was also reflected in the way that the photographs evoked memories of family, or embodied a sense of family history.

So, there was a farmstead up here, years and years ago, and I still remember my dad cutting down some walnut trees that were up here, and I
Farmer 2, referring to a photo of a riparian buffer zone along a creek (Figure 10), talked about the memories he associated with the place, beyond its agricultural and ecological significance:

... there's probably a lot of memories of the kids being on that creek and the time we took in putting in the riparian buffer, the preparation for the riparian buffer, and just that when I look at the picture, I can also see the cow herd that I used to have out there with small calves. So...it's lots of times I went down there and stood and counted numbers to make sure everybody was still there. So...

That photo was chosen as his favorite. When asked to explain, he linked the land to his family, to the future and to the past:

when I look at that picture, I see where my sons grew up, I see where we had cattle, I see new things, new conservation practices, I guess between memories and what I hope will eventually be.

All of the participants discussed their families, and especially their children, although not all of them expected (or desired) for them to farm their land. Only three farmers actually shared pictures of their children—the two who used a combination of new and old photos and one participant who took photos specifically for this project. As demonstrated in the previous passage, however, family, and especially children, gave meaning to some of the landscape pictures, and the interviews were riddled with stories about the participant’s children. When asked to choose their favorite photos, all five participants chose a photo that either featured their children or was connected to their children (Figures 21, 22, 23, 24, and 10).
And I thought they were important...they're an important part of the farm because they're part of the family. So I wanted to include them in any story I have about the farm. (Farmer 4)
...it's some sort of continuity. I don't know that they'll ever take very much interest in the farming, but...you never know. And this...my oldest one who went to college...when he went to college he said to me that when he got out of college he wanted me to teach him something about ag...about farming. And I go...Ohh, that's crazy...I coulda been teaching you that for the last...18 years. But anyway, that was kinda fun. Maybe promising or hopeful, I don't know.[...] I just think...this was a really fun day for me to see 'em work together and to work on something on the farm and wear overalls. (chuckle) So, it was kind of a joke for all of us that day. We all had a good time. (Farmer 1)

Figure 23 Farmer 3’s photograph of his wife and children, chosen as his favorite image. Labeled “my everything, my life.”

Oh, family's what makes...made the farm. You know...that's the backbone of the farm. I married late [...] And...I got along. At that time, I did everything myself, and I was missing something in life and I'm glad I was able to marry and have children. (pause) I think they're an essential part of life. (Farmer 3)
And I look at this; you know, again, I guess this is kind of future because I've been telling everyone, “that's going to send my three kids to college.” And there is really no reason to think that it won't. (Farmer 5)

The way that family gave meaning to the land varied from participant to participant, depending on the farmer's concept of legacy and whether or not he felt secure about the future of his land and farming opportunities. Four participants framed their children as the future of their family, but also representative of future generations, shaping the way farmers understand their decisions.

Yeah, they...I guess they represent the whole possibility of something, I'm not sure what. [...]the world's so much different now than when I was a kid. And the world was different when I was a kid than when my folks were kids. [...] And so, you know, we've given them a world that's totally out of control, that doesn't make any sense [...] I just hope that they, you know, take the kind of values and the kind of understanding that I have [about] how the system works to make their life meaningful. Maybe, hopefully, avoid a huge
disaster, but I don’t have a whole lot of hope in that either, I guess...the way things are going. (Farmer 1)

Well they represent future life, in a lot of ways. And I've come to think more and more about life as a generic term. Life includes all things...even there’s life in the soil. And do we want to have future generations? And...so...I guess that’s part of what they represent. They represent me. They represent their mother.... And they represent things that they've learned...the paths they've taken in their lives. And they represent joy and love and... (Farmer 4)

For all five participants, there was a sense of responsibility, that the way they built building or managed the land would have consequences for future generations. For two farmers, that sense of legacy was intricately connected to the farming infrastructure they created or improved upon. For three of the participants, the sense of legacy was tied more explicitly to their land’s natural heritage.

Figure 25 Farmer 1’s photograph of a bird’s nest in a restored wetland on his farm. Labeled “birds.”
Some kind of a bird’s nest, and I don’t know what it is. But…it’s something that...you know...cool thing. And I guess I’ve noticed...you know, through the years [...] This is my 34th crop, so I’ve seen things change. I’ve seen species virtually disappear...like the Dickcissel bird. It used to be out in my bean field every year. Course back then too, we walked up and down the rows, chopping weeds out of the beans. So we were there to even see them. There were weeds they used to perch on and even put their nests in. And, now...you know, with Roundup ready crops...hell, there’s no weeds. And so I think there’s been a change in the number of kinds of butterflies and birds that have changed. So if this little wetland... you know, ...provides any help to [keep] some species going, that’s a great thing. (Farmer 1)

Through their photographs and interviews, the participant farmers expressed a complicated relationship with the land that encompassed connection to the past, a sense of the future, and a place integrally tied to concepts of family. They were cognizant of their legacy, though the expression of legacy varied from individual to individual. Participants’ understanding of conservation practices and their impact on the environment complicated categorical labels that would box them into roles as “conventional” or “alternative” farmers (Beus & Dunlap, 1990). The meaning participants gave to photographic representations of their land and farm reflect complexity, especially as they negotiate space within the confines of the commodity corn and soybean system.
CHAPTER 6: CONCLUSIONS AND IMPLICATIONS

Reflections on the Methodology

This research was designed as an exploration of photovoice and autodriven photo elicitation as a methodology for engaging farmers and understanding the way they interacted with the land, the way they saw their farm, and the implication for farm practices and conservation. The autodriven photo elicitation process worked very well, providing rich, complex data (Collier, 1957) that prevented the objectification of the participants and contextualized them within the larger agro-food system.

From my observations, the participants seemed to enjoy the process and the opportunity to reflect on their land and their relationship with it. I felt that the process worked especially well with the participants who had less experience verbalizing their story and thoughts on these issues and were less practiced at “presenting” themselves. Participants who had a story to tell and had practice telling their story tended to look at the photographs in terms of the already framed story, instead of an inductive process. When looking at a photograph, I would occasionally need to ask them why they thought the picture was important, or why they chose to show it to me.

The interviews and photographs were fairly emotive, and I struggled with how to convey that in my data. How do you measure a despondent sigh, or an animated response, or a look of longing? They are as real as a paragraph of dialogue, but difficult to code into Nvivo. The richness of the responses is a strength of this process, but it
also made analysis more difficult. I feel a responsibility to the participants who worked with me, to share their perspectives as honestly and respectfully as I can. In the end, I hope that I was able to do justice to the participants and the insights they shared.

**Modifications and Opportunities for Future Work**

Overall, the process worked very well. A larger sample would have increased the power of the themes, and may have highlighted other aspects that were periphery with this sample. My sample was fairly homogenous in race, gender, and age—a sample that included more diversity would have enhanced the data and broadened the implications. Other changes to the research design could include a second group of farmers who are operating outside of the corn-soybean system as a means of comparison.

The assignment posed to participants was deliberately open ended, but there may be an advantage to a more directed project, with specific questions that the participants could respond to with photographs. Requiring all participants to use photographs taken specifically for the project may have increased the validity of my research, but a more directed project would not have enhanced my ability to understand the meanings of the landscapes and how those meanings shaped the way participants farmed the land.

This process lends itself to many possible opportunities for future work. I think that it would be especially interesting and useful to use a photovoice approach to explore these issues with the children of farmers, to examine the way they perceive the land
and their future in relation to the farm. Likewise, using this process to ask similar questions of farmers from other parts of the country could be insightful, and would allow for a comparative analysis potentially unhampered by regional language or a lack of common terminology.

Final Thoughts
I began this research with the idea that photovoice and autodriven photo elicitation could be useful tools for analyzing farmers’ perceptions of their land, and possible implications for conservation policy. I found the process to be revealing and rewarding, as participants engaged their photographs and “[broke] the frame[s]” of their everyday lives. Implicit knowledge became explicit to both the participant and me (the researcher). I come away from this process with a greater appreciation for the farmers who worked with me, and the complexities they face operating in this agro-food system that we have created. It was a privilege to work with the farmers in this study, and I thoroughly enjoyed getting to see the land through their eyes.

Academics and activists concerned with the protection of natural resources have spent too much time focusing on a contrived dichotomy of “sustainable” versus “conventional” agriculture (Beus & Dunlap, 1990). This may be a useful labeling system in philosophical debate, but in reality, farmers have a much more complicated relationship to agriculture—forcing them under one label or another has limited our opportunities for engaging the real questions pressing on our future and stunting our ability to work for systems change. A more practical, less divisive discourse is called
for. The photovoice and autodriven photo elicitation process denies researchers the temptation of simplifying issues and stereotyping stakeholders. Presenting the perspectives and understandings of people on the ground through photographs and voice, as I have attempted to do here, can be a powerful tool for engaging complex truths in productive, meaningful ways.
WORK CITED


APPENDIX 1: LETTER OF INTRODUCTION

My name is Nikki D’Adamo, and I am graduate student at Iowa State University. I recently spoke with you on the phone regarding my thesis research, and I wanted to send you more information on the study, as well as an official invitation to participate. This research seeks to find out what you value about your land, and the ways in which that impacts your farming practice. Dr. Cornelia Flora gave your name to me because you are a farmer in Greene County, and she thought you would be a good fit for this research.

Please take a minute to read over this information, and decide whether or not you can participate in the study. Feel free to contact me (804-986-9213 or sndadamo@iastate.edu) if you have any questions or concerns.

This research involves a process called photovoice—if you participate, you will take pictures of what you are most proud of on you land. Then you and I will sit down and discuss the images. These sessions will be audio taped so I can check for the accuracy of my notes. If you do not have a camera, I will provide one for you.

The whole process should not take up too much of your time. You will have about 1-2 weeks to take pictures, on your own schedule, and then we can schedule a time for your interview (about 2 hours). After all of the interviews have been conducted, I will analyze the photographs and transcripts, and will give you an opportunity to look over the findings and offer feedback.

The information you provide will help me better understand how values shape land practices, and will hopefully shed light on ways in which we can address natural resource issues in a way that respects your values and culture.

I have attached a consent form, for your review. Please ask any questions you might have prior to signing the consent form—I can be contacted at 804-986-9213 or sndadamo@iastate.edu if you need additional information. Additional copies of the informed consent document are available.

Thank you for considering participating in this study. If you choose to participate, please sign the consent form and return it to:

Nikki D’Adamo  
317 East Hall  
Iowa State University  
Ames, Iowa 50011

I have attached a stamped envelope, for your convenience.

Thank you,

Nikki D’Adamo  
Iowa State University  
Sociology and GPSA
APPENDIX 2: INFORMED CONSENT FORM

Please keep this consent form for your records!

INFORMED CONSENT DOCUMENT

Title of Study: Farmer Photovoice: Visual Values and the Impact on Conservation Practices
Investigator: (Nikki) Stephanie N. D’Adamo

This is a research study. Please take your time in deciding if you would like to participate. Please feel free to ask questions at any time.

Introduction
This research seeks to find out what you value about your land, and the ways in which that impacts your farming practice. This project involves a process called photovoice—if you participate, you will take pictures of what you are most proud of on you land. Then you and I will sit down and discuss the images. These sessions will be audio taped so I can check for the accuracy of my notes. If you do not have a camera, I will provide one for you.

Description of Procedures
The whole process should not take up too much of your time. You will have about 1-2 weeks to take pictures, on your own schedule, and then we can schedule a time for your interview (about 2 hours). Please take at least 27 pictures— you will be asked to select the 10 that are the most meaningful to you. I will then print those photos for our conversation, after which, you are welcome to keep the prints. After all of the interviews have been conducted, I will analyze the photographs and transcripts, and will give you an opportunity to look over the findings and offer feedback.

The information you provide will help me better understand how values shape land practices, and will hopefully shed light on ways in which we can address natural resource issues in a way that respects your values and culture.

During our interview, I will be audio taping the conversation and taking field notes. At any time, you can request that the recorders be turned off. You also have the right not to answer any questions you choose. The recordings and transcripts will be kept in a locked file cabinet, and your identity (if you choose not to be identified by name) will not be disclosed. The data will be used as my thesis research, and may be used in published articles and presentations.

Some of you took part in a study we conducted in 2008 called “Farmer Feedback to NRCS Soil and Water Evaluation Tool.” We would like your permission to use the video recordings, transcripts, surveys, and aggregated data from that study to validate, support, or supplement the analysis of the interviews and photographs in this study.

Confidentiality
Because of the small number of participants (6), identity might be discerned; therefore, only limited confidentiality can be guaranteed. However, your privacy will be protected to the maximum extent allowable by law. The following steps will be taken to maximize confidentiality:
1. Only staff associated with the project will have access to the data.
2. Electronic data will be stored in a password-protected server, and hard copies of data (print photographs, transcripts) will be stored in a locked cabinet.
3. You will have an opportunity to review findings and provide feedback before the information is shared with the public.
4. Photographs with human subjects will not be shared publicly without the expressed consent of the subject.
5. In addition, photographs containing elements that might identify you specifically will not be shared publicly.
6. Audio recordings will be kept in a locked cabinet.

Risks and Participant Rights
I do not expect the questions we ask to make you uncomfortable or expose you to physical, psychological, or emotional risks. However, if you perceive such risks to be present, I will work with you to address your concerns to ensure that such risk is minimized or eliminated. Please know that participation in this project is voluntary and that you may choose at any time not to participate. This withdrawal would not incur any penalty or loss of benefits to you.

Costs and Compensation
You should not have any costs from participating in this study. You will not be compensated for participating in this study.

Benefits
If you decide to participate in this study there may be no direct benefit to you. It is hoped that the information gained in this study will benefit society by providing new perspectives on conservation practices.

Questions
You are encouraged to ask questions at any time during this study. If you have any questions about the rights of research subjects or research-related injury, please contact the IRB Administrator, (515) 294-4566, IRB@iastate.edu, or Director, Office for Responsible Research, (515) 294-3115, 1138 Pearson Hall, Ames, IA 50011.

If you have questions about the project or the process of collecting information, please contact me, Nikki D’Adamo (804) 986 9213 (or email sndadam@iastate.edu) or Dr. Cornelia Flora, supervising faculty, at 515-294-1329 (cflora@iastate.edu). I very much appreciate your help and welcome any additional suggestions you might have

PARTICIPANT SIGNATURE
Your signature indicates that you voluntarily agree to participate in this study, that the study has been explained to you, that you have been given the time to read the document, and that your questions have been satisfactorily answered. You will receive a copy of the written informed consent prior to your participation in the study.

Participant’s Name (printed) ________________________________

(Participant’s Signature) ____________________________ (Date)
APPENDIX 3: IRB APPROVAL

IOWA STATE UNIVERSITY
OF SCIENCE AND TECHNOLOGY

Date: 6/14/2010
To: Stephanie N D’Adamo 317 East Hall
CC: Dr. Cornelia Flora 317 East Hall

From: Office for Responsible Research
Title: Farmer Photovoice: Visual Values and the Impact on Conservation Practices
IRB Num: 10-173
Approval Date: 6/14/2010 Continuing Review Date: 6/13/2011
Submission Type: New Review Type: Expedited

The project referenced above has received approval from the Institutional Review Board (IRB) at Iowa State University. Please refer to the IRB ID number shown above in all correspondence regarding this study.

Your study has been approved according to the dates shown above. To ensure compliance with federal regulations (45 CFR 46 & 21 CFR 56), please be sure to:

- Use only the approved study materials in your research, including the recruitment materials and informed consent documents that have the IRB approval stamp.
- Obtain IRB approval prior to implementing any changes to the study by submitting the “Continuing Review and/or Modification” form.
- Immediately inform the IRB of (1) all serious and/or unexpected adverse experiences involving risks to subjects or others; and (2) any other unanticipated problems involving risks to subjects or others.
- Stop all research activity if IRB approval lapses, unless continuation is necessary to prevent harm to research participants. Research activity can resume once IRB approval is reestablished.
- Complete a new continuing review form at least three to four weeks prior to the date for continuing review as noted above to provide sufficient time for the IRB to review and approve continuation of the study. We will send a courtesy reminder as this date approaches.

Research investigators are expected to comply with the principles of the Belmont Report, and state and federal regulations regarding the involvement of humans in research. These documents are located on the Office for Responsible Research website http://www.compliance.iastate.edu/irb/forms/ or available by calling (515) 294-4566.

Upon completion of the project, please submit a Project Closure Form to the Office for Responsible Research, 1138 Pearson Hall, to officially close the project.
Appendix 4: Interview Wordle