Spring 5-12-2017

Humanature Relations in Oman: Connections, Disconnections and Globalization

Maryam A. Alhinai
University Of New Mexico

Maryam A. Alhinai
Candidate

Communication & Journalism
Department

This dissertation is approved, and it is acceptable in quality and form for publication:

Approved by the Dissertation Committee:

Dr. Tema Milstein, Chairperson

Dr. Mary Jane Collier

Dr. Ilia Rodriguez

Dr. John Carr

Humanature Relations in Oman: Connections, Disconnections, and Globalization

By

MARYAM A. ALHINAI

M.A., Teaching English To Speakers Of Other Languages, The Monterey Institute of International Studies, 2004
B.A., English Education, Sultan Qaboos University, 2000

DISSERTATION

Submitted in Partial Fulfillment of the
Requirements for the Degree of

Doctor of Philosophy
Communication

The University of New Mexico
Albuquerque, New Mexico

May, 2017

Dedication

I dedicate this study to my great mother, Ghaniya bint Adi Alhinai, whose constant prayers have given birth to this project; and to the spirit of my father, Ali bin Zaher Alhinai, who will always and forever be loved and remembered. Dad, your commitment and dedication to the people of your community have been an inspiration for me. To both of you, thank you for instilling in me a long-life passion for learning, which has made me who I am today.

Acknowledgement

This study would not have been possible without the individuals who participated in my study. I owe them a huge debt of gratitude. Thank you all for making the time for my study in your busy lives. Thank you to the villagers for sharing your great stories with me, and for providing me with feedback and support. Thank you also for making every effort to help me succeed by going the extra mile to help me better understand ecocultural relations in Oman. Thank you for all your prayers. Thank you for checking on me from time to time to ensure that I am doing well in my research. Thank you for your passion for my research subject. I appreciate your dedication to assist me in a variety of ways.

My sincere gratitude goes to my advisor Dr. Tema Milstein. Thank you for your intellectual stimulation, guidance, wisdom and friendship. Your capacity for keeping track of details and shaping my ideas made this project a reality. Thank you for germinating in me the love for ecocultural communication from the very beginning of my PhD program. You epitomize a great advisor, teacher, scholar and friend. It is a pleasure and honor to have worked with you. You have made my PhD journey a wonderful memorable experience.

I would also like to extend my utmost gratitude to Dr. Mary Jane Collier for her professional guidance. Mary Jane you have been a great mentor to work with as a dissertation committee member. You inspired my persistence! Especially to continue with the community engagement chapter. Thank you for all the time and energy you have so generously invested in me during my dissertation work.

My very special thanks go to Dr. Ilia Rodriguez for her insights and constant support. Thank you, Ilia, for your assistance in this endeavor, and for your guidance in my times of need. I am fortunate to have you in my committee.

I am deeply indebted to Dr. John Carr for being in my committee and your constructive comments. Thank you, John, for your insightful feedback and your interest in my study area. It has been a great pleasure to work with you.

My heartfelt appreciation goes to numerous family members and friends in Oman and in the USA. My gratitude goes to my family in Oman. Thank you for your faith in me, particularly for those times when I felt I could not see the light at the end of the tunnel. Without their prayers and encouragement, my journey would have been more challenging. In innumerable ways, you have helped me. I have an accumulated debt of gratitude that I owe my "family" in Albuquerque, New Mexico, Khalid Kassem and Jalilah Ismail who have supported me. You have been a source of support throughout my five years in the USA.

I also gratefully acknowledge Sultan Qaboos University for its sponsorship and support.

And I must include a special recognition to the love of my life, Mohsin bin Zahran Alhinai, who have illuminated my research with his insightful comments, support and continuous encouragement.

Thank you all for making my dream come true.

Humanature Relations in Oman: Connections, Disconnections, and Globalization

By

MARYAM A. ALHINAI

B.A., English Education, Sultan Qaboos University, 2000
M.A., Teaching English To Speakers Of Other Languages, The Monterey Institute of International Studies, 2004
Ph.D., Communication, The University of New Mexico, 2017

ABSTRACT

In this dissertation, I explore agricultural practices as a window into ecocultural communication. Using agricultural practices of villagers in Village G, Oman, as a case study, I explore the ways in which villagers and government officials conceptualize humanature relations and the forces that enhance and/or impede these relations. My specific goals for this study were: (1) to build an interpretive understanding of ecocultural orientations of villagers and officials in Oman and how they conceptualize their humanature relations; (2) to critically examine ideologies and uncover structural forces that enable/constrain humanature relations; and (3) to co-create community engagement work that honors the ecocultural wisdom of farmers, promotes economic viability, and enhances ecocultural sustainability. Accordingly, I ask a set of three questions: RQ 1: What grassroots core ecocultural premises do Omani villagers communicate?, RQ 2: What core ecocultural premises do official government documents and officials discourse communicate in Oman?, and RQ 3: How does analysis of core components of critical community engagement inform researcher-villager-governmental collaborations to design sustainable practices? To answer these questions, I collected data through focus groups, individual interviews, participant observation and official government documents. Using Cultural Discourse

Analysis (Carbaugh, 2007) and Community Engagement Framework (Collier, 2014) I identify three ecocultural premises in grassroots discourse: (1) *Relations-in-place*, (2) *kinship-in-place* and (3) *nurturance-in-place*, and four ecocultural premises in governmental discourse: (1) Modern agriculture is more effective than traditional agriculture, (2) Imported food and modern technology feed a growing population, (3) Technologized farming attracts youth, (4) Modern agriculture and profit-motivated practices achieve sustainability but traditional farming is not sustainable**.** I offer a date palm metaphor as an organizing principle that depicts humanature relations and the contextual factors that enhance and/or hinder these relations. Because date palms have shown resilience over harsh ecological conditions when water was scarce in Oman and heat was high, in this project, I use the date palm as a metaphor that exhibits an alternative discourse to globalized neoliberal ideological discourses.

Table of Contents

Table of Figures

Table of Tables

Chapter 1: Introduction

As a crucial consequence of modernization, various "local happenings are shaped by events many miles away" (Giddens, 1990, p. 64). Global neoliberalism and its emphasis on economic productivity, individual effort and meritocracy, deregulation, and privatization (Harvey, 2011) have supported ecological modernization discourses (Mol, 2003). The concept of ecological modernization, coined by political scientists Joseph Huber and Martin Janicke in the 1980s, is "essentially a discourse to ensure economic growth and to co-opt industrialism's environmental critics in the form of a managerial rhetoric" (Brulle, 2010, p. 88)**.** This neoliberal ecological modernization approach is based on the idea that "environmental degradation can be addressed through foresight, planning and economic regulation; in particular, new technologies can be developed and utilized to enhance economic growth while simultaneously curtailing waste" (Schlosberg & Rinfret, 2008, p. 254). This discourse perpetuates the idea that through the development of new technologies one can reduce environmental impact and at the same time create innovative and competitive products. This naturalized narrative of ecological modernization has globalized; and Oman is but one current and in-process example of this globalization. The result is mass scale ecological destruction and loss of longstanding cultural practices as "most indigenous cultures are being forced into programs of modernization that tend to regard the acquisition of material goods as the central purpose of life" (Dei, Hall & Rosenberg, 2000, p. 9).

In ecological modernization, globalized neoliberal economic policies impact environmental policies and, hence, spread injustice, inequality, and environmental degradation (Brennan, 2006). Economic interests drive neoliberalism, as is evident through the expansion and extension of free-market economies and resource extraction into other countries (Brennan, 2006)

and the increasing levels of environmental injustice under the forces of globalization and capitalism (Carmin & Agyman, 2011). According to Singer (2010), dominant Western environmental discourses perpetuate neoliberal ideologies that are the cause of environmental catastrophes. These neoliberal ideologies spread both extractivism, which is "humans right to extract ever more without facing consequences" (Klein, 2014, p. 25), and anthropocentrism, which is human domination over all forms of life (Marafiote & Plec, 2006). These human-centered approaches inform practices that produce ecological devastation by objectifying and despiritualizing the natural world. As Valladolid and Appfel-Marglin (2001) postulate, these approaches cause ecological destruction by "separating the mind from the heart and the good from the true" (Valladolid & Appfel-Marglin, 2001). This "despiritualization" of "nature", in part a result of the introduction of science and technology (Valladolid & Appfel-Marglin, 2001), is driven by neoliberal policies that encourage privatization of natural resources, deregulation of markets, and corporate control (Collier, 2014). Within globalized capitalism, policy makers are encouraged to reward economic growth over social interests (Wilkins & Mody, 2001). This profit-driven materiality further reinforces a human-nature dualism, which is a predicament that poses serious obstacles to sustainability generally and to eco-centric environmental cultures specifically by excluding extrahumans from the community of decision-making (Peterson, Peterson & Peterson, 2007).

In the Arab World, globalization has resulted in economic and social devastation. According to a study on development by the Arab NGO Network (2012)**,** globalization and neoliberalism are tools that have created inequality in the Arab world. Although Arab countries achieved economic development in the last three decades due to adopting neoliberal economic policies, these policies also created more inequality, poverty and unemployment in the region

(Arab NGO Network, 2012). Taken as a standard vehicle for "development", neoliberalism has become a tool for enhancing existing coercive undemocratic practices in the Arab world. The study suggests that recent developments in the Arab world and citizens' resistance of social injustice and inequality should be taken into consideration to review, reform, question, and reconsider Arab countries' socioeconomic development plans and neoliberal policies.

As an Arab country, Oman is guided by a holistic worldview shared by many indigenous cultures, which is based on "seeing the individual as part of nature; respecting and reviving the wisdom of elders; giving consideration to the living, the dead, future generations, and embracing spiritual values, traditions, practices reflecting connections to a higher order, to the culture, and to the Earth" (Sefa Dei, Hall & Rosenberg, 2000, p .6). In Oman, globalization discourses influence economic development discourses. These discourses shape and produce the social realities of villagers in rural areas who practice farming as a way of life. Globalization processes incrementally have replaced local traditions with neoliberal production practices. In Oman, an introduced free trade economy threatens local farmers as they are forced to comply with neoliberal agricultural policies. Like other Arab state governments in the global neoliberal system, the Omani government promotes scientific technological innovations and advancement. For instance, farmers are encouraged through various means, including government support, to cultivate dates using machine-assisted pollination and in certain shapes and sizes that increase their competitiveness in the world market for the mere purpose of achieving higher profitability. This new practice of growing bigger dates to replace the native smaller but sweeter dates traditionally grown in Oman, and using scientific technology to do so has resulted in loss not only of flavor but also of culture.

I pose the date palm tree as a material symbol of the changes afoot in Oman. Before moving onto to the following introductory sections of this chapter, I briefly dwell on this Omani example of a new imported technology used to pollinate dates, which helps contextualize and demonstrate the problem at the heart of this study. Date palm cultivation in Oman is deeply rooted in traditional wisdom and pollination is an annual humanature ecocultural[1] tradition. Although it is a complex labor-intensive process, people have been manually pollinating date palms since ancient times. The technique consists of placing an entire male flower, or *shamrookh (pl. shamareekh)* in Omani Arabic, in the crown of the female date palm and leaving the pollination to wind, bees, and other insects. This process requires people (in Oman, this is done by men) climb to the top of the date palm and trim the leaves to tie several male flowers that hold pollen to the crown. The pollination process varies depending on the type of date tree, its quality, and climatic condition, and humidity of the region (Nizwa.net, 2000).

The pollination season has for countless generations been a joyful time, during which community members celebrate the wellness of their crops and their community by sharing their male flowers with their neighbors to pollinate their date palms. Men, women, and children work together to make the pollination process successful. Women take a role at the beginning of the pollination season by drying and storing the male flowers, preserving pollen in dry shaded rooms and using wooden boxes to store pollen and protect it from insects and humidity. As soon as the pollen is ready, the men's role is to climb the date palm tree and tie a number of *shamareekh* (See Figure 1) to the female part of the tree. Children usually help out by having tools available and sometimes climbing up taller trees men cannot scale. The end of the pollination process has

[1] I use compound terms such as "ecoculture" , "humanature", and phrases such as "with/in/as 'nature'" to reflexively integrate humans, culture, and "nature" in writing as they are real in life (Milstein, 2012; Milstein, Anguiano, Sandoval, Chen, & Dickinson, 2011; Milstein & Dickinson, 2012)

especially been a happy experience for children, as they have traditionally liked to use the leftover of the part of the palm tree in which the *shamareekh* are grown to make a toy that makes a ringing sound called *Qarqou'ah*.

Figure 1. Shamareekh.

Yet, as of very recently, spray technology is replacing the traditional practice of date palm pollination in some parts of Oman. On February 15, 2014, the Ministry of Agriculture in Oman initiated a new technique for pollinating date palms. In this technique, which government officials say "increases productivity and profits for date palm growers" (Oman Daily Newspaper, 2015), a machine, its parts are made in Japan, assembled in China and imported from the United Arab Emirates, is used to spray liquid pollen into date palms. In the past few years, the Ministry of Agriculture has trained farmers across the country to use this technology. News articles from the country's government-controlled media have reported farmers' approval of this technological

achievement. At the same time that news discourses represent positive attitudes toward this innovation, officials also encourage everyone to start using the technology in order to achieve globally marketable product quality and to save time and effort.

Clearly, government discourses lead Omani people to believe that science and technology lead to efficiency and yield good produce with less hard work. That said, mechanical pollination is one example of modernization having a marked effect on Omani society, cultural values, and community ties as it replaces a core seasonal pollinating practice. I argue that mechanization of ecocultural practices has negative effects on the society as "relying on mechanical instruments to bring a crop forth is eroding the family" (Brascoup, 1999, p. 158) and community, as well as interrupting longstanding sustainable ecocultural relations. According to Cajete (1999), "a 'crisis of sustainability' has evolved as a result of the global application of the Western development paradigm of 'progress' through unfettered capitalism with little regard for social, cultural, and ecological consequences. This paradigm – and its focus on material economic indicators as the sole measure of development – perpetuates a distorted vision of what is in fact a multidimensional relational process" (p. 266). The spray pollination approach can contribute to the crisis of ecocultural sustainability as its application benefits the competitive global market more than the local people. Transformations in ecocultural practices in Oman, including date palm trees pollination, are largely motivated by a need for economic growth and profitability, which Oman has been aiming for as a result of its integration into a globalized market economy. However, I argue that with moving in that direction, one which privileges and reproduces neoliberal ideological discourses, "We forget that the price for never-ending economic growth and material prosperity has been spiritual and social impoverishment, psychological insecurity,

and the loss of cultural vitality" (Norberg-Hodge, 2016, p. 181) and I also add ecological devastation.

Date palm trees are affected by neoliberal ideological discourses in Oman. Because date palms have shown resilience over harsh ecological conditions when water was scarce in Oman and heat was high, in this project, I employ the date palm as a metaphor that exhibits an alternative discourse to globalized neoliberal ideological discourses. Applying this metaphor, I illustrate how participants conceptualize their humanature relations by describing such qualities of date palms as nurturance, giving, loyalty, responsibility, diversity, kinship, resilience and spirituality. I use the biological, cultural, and spiritual features of date palms as a metaphoric framework to illustrate humanature relations as expressed and experienced by Village G participants until very recently without significant disruption. As Omani people are culturally, spiritually and socially attached to date palms, I use the date palm metaphor to inspire hope.

In this introductory chapter, I present different aspects of the research project. First, I describe the problem statement. Then, I explain my interpretive, critical and praxis-based research goals. I then present my three research questions. Next, I describe significance of this study. After that, I overview the Omani context and describe traditional ecological knowledge (TEK) in Oman. I end with a preview of the dissertation's following chapters.

Problem Statement

According to Milstein and Dickinson (2012) environmental devastation arises from our "overwhelmingly off-balance ecocultural relations" (p. 510). Hence, culture plays a significant role in understanding humanature[1] relations. I am interested in traditional ecological knowledge (TEK) because the "future of indigenous knowledges will not simply determine whether the

diverse cultures of the world evolve in freedom or are colonized; it will also determine whether humanity and diverse species survive" (Dei, Hall & Rosenberg, 2000, p. ix). I illustrate ways Omani people until very recent times have maintained holistic and in balance humanature relations. However, "progress" in the form of urbanization and industrialization is replacing harmonious traditional ecocultural practices with capitalist profit-maximizing practices. I argue that neoliberalism and globalization have contributed to the deterioration of Omani traditional ecocultural practices through marginalizing TEK and interrupting humanature relations; thus, creating a separation and community fragmentation. In this project, I define ecocultural practices as practices that relate humans to land, water, animals, plants, and all forms of life, such as Omani specific practices of date pollination (*Tan'beet*) and dates harvesting (*Al Qaidh*).

The interrelated result of this ecocultural problem is that land is giving less and human communities are fragmented. To illustrate, natural resource depletion and loss of land fertility, which is a result of excessive use of chemical fertilizers, have created socio-economic hardships for villagers. Farmers who can still grow food are struggling to sell it because of subsidized imported food. As one Omani government official noted in a regional newspaper "it would be a violation of the World Trade Organization to ban food from coming here" (Alkhaleej Newspaper, 2010). Also, with the spread of chemical fertilizers, farmers have observed more insect infestations affecting their fruit trees, especially palm trees and limes, because the insects have developed immunities to the pesticides. Villagers who once grew fruit trees are no longer able to grow them or note changes in quality and quantity. Moreover, mechanization of agricultural practices has changed family roles and decreased family commitment to farming, and fewer and fewer Omanis are involved in farming. Poor farming conditions and lack of economic opportunities in villages have led villagers to migrate to cities looking for better lives.

This migration has led to the abandonment of many farms and to the hiring of foreign labor to attend to farms. In order to illustrate how land is giving less and why human communities are fragmented, in this study I examine ways Omani people were and are communicating about and with the more than human world. Also, I examine government discourses to uncover ways they interrupt traditional and sustainable humanature relations.

According to Peterson (1997), in modernity discourses, success is driven and determined by economic growth. Therefore, ecocultural considerations such as sustainable human development and biodiversity conservation receive little to no attention. This discourse is very evident in Oman as the government strongly focuses on economic gains. All the government officials I met with for this study conveyed this reality. They said that the Omani government strives to secure economic growth, which is an essential measure of the success of any project. In fact, two of these officials stated that it is through economic growth that we can effectively deal with both ecological and cultural problems.

All government officials stated that traditional agricultural practices are economically inefficient. They argued Oman needs economic activities that improve people's lives and this cannot be achieved without using scientific technology. One official stated, "Everything we do has to be linked to economic growth." Another official noted the national economy is important and that policy makers have to see an economic value in every idea proposed. This official rhetorically asked, "Why would the government want to preserve traditions unless there is economic value involved?" Moreover, government officials said the socio-economic situation in Oman necessitates using scientific technology and innovation in agriculture – as youth make up the biggest segment of the Omani population, the government asserts it needs to find ways to direct them to the agriculture sector, which is not currently lucrative economically. One official

stated, “Today, young people won’t climb a date palm to pollinate and harvest dates. We want the youth to go back to the date palm farms instead of hiring foreign labor. If we don’t use technology, youth won’t farm” (B). This official asserts technologies such as mechanical pollination will increase the youth’s interest in date palms. Another official (Sh) said, “technology is important for sustainability. We need technology to achieve sustainability.” All officials communicated that youth need employment in order to live a decent life, get married, and support their families, that the agriculture sector currently does not provide opportunities for them, and that, technologizing this sector may help change the situation.

In contrast, I argue that scientific technological advancement alone cannot and should not be the unquestioned or only tool to achieve economic growth. Policy makers must always ask: What are we gaining or losing by introducing new technology? However, currently, Omani government officials discourse produces two contested ideologies: 1) scientific technology and innovation is good and is the way to develop the Omani economy and 2) indigenous ecological knowledge is primitive, backward, and will leave us behind. In order to understand how these conflicting ideologies shape the reality of the Omani farmers, my study also centrally engages an interpretive case study with the traditionally farming people of an agrarian rural village located in the interior part of Oman. After interpreting both governmental discourse and village discourse, I offer a community-based engagement work, which is intended to create a space for Omani villagers and government officials to interact and for villagers to efficaciously voice their needs and concerns. Throughout this dissertation, I refer to my research site as Village G.

Research Goals

In this study, I use Village G as a case study to make sense of ways in which TEK and ecocultural orientations achieve sustainable living. My study has several goals. First, I seek to build an interpretative understanding of ecocultural orientations of community members in Village G and how the community members conceptualize their humanature relations. I explore the villagers' cultural meaning systems that are related to their farming practices. Gaining understanding of how community members interact with land, water, animals and trees provides useful information about what discourses sustain/do not sustain humanature relations. Therefore, my second goal is to examine ideologies as they manifest in the village discourse, in government discourse, and in policy discourse, in order to uncover power structures and ideologies that enable/constrain sustainable humanature relations. Chapple (2008) sums up the underlying premise of my study: "In order for humans to remain viable, they must go beyond themselves and return to an appreciation of the magnificence of the earth. All encounters with "nature" can be seen as sacred and hence instructive, from the stark beauty of the Earth, to the realization of the harm done by human greed and exploitation. In a negative sense, the beauty of the world has been sacrificed not as a gateway toward the transcendent, but solely for the pursuit of market-driven values" (p. 232).

My study is also intended to serve as praxis-based research that directly responds to Cox's (2007) call that environmental communication scholars "have a responsibility through our work …to enhance the ability of a society to respond appropriately to environmental signals relevant to the well-being of both human civilization and natural biological systems" (p. 16). According to Endres, Sprain, and Peterson (2008), it is imperative for environmental communication work to engage in praxis-based research that seeks solutions and makes

improvements. In order to promote environmental justice, environmental communication should produce praxis-based research (Chen, Milstein, Anguiano, Sandoval & Knudsen, 2012). Moreover, this praxis-based approach should promote a community-based view of environmental communication in which humans and extrahumans mutually create reality and participate in decision-making (deMaria & Collier, 2014). In this community-based view, humans and extrahumans are interdependent citizens in land communities where they have the ethical responsibility of promoting their communities' sustainability (Peterson, *et al.*, 2007). I use the TEK framework to build this community-based view and to challenge the materiality of Western dominant discourses. By exploring ecocultural traditions related to agricultural practices in Village G, I create a space for alternative voices that can contribute to ecocultural sustainability. Hence, one contribution of this study is the integration of the TEK framework to environmental communication scholarship as one way to overcome the Western human-nature binary in our research and lives.

My study is designed to have practical outcomes and to generate sustainable alternative discourses to environmental crises. I argue that environmental communication scholarship would benefit from a focus on TEK to address the role of culture in environmental issues, as there are an insufficient number of studies that focus on the role of cultures, and especially non-Western cultures, in understanding humanature relations. Through this study, I intend to contribute to the role of culture in environmental communication scholarship in an attempt to undo the fetishized and common sense dominant Western human-nature binary. By exploring villagers' ecocultural orientations and by investigating their traditional agricultural practices, I create a space for sharing alternative sustainability narratives by listening to grassroots voices. In addition, as a result of this project, I hope to contribute to environmental and agricultural policy development

by uncovering how neoliberal polices of “the World Bank, International Monetary Fund and World Trade Organization, to name a few, create a crisis of knowledge by commodification of knowledge across space and time” (Sefa Dei, Hall & Rosenberg, 2000, p. 9).

Ultimately, my research project provides practical and conceptual tools for responding to environmental crises and cultural deterioration in Oman and beyond. While I argue that changes in farming traditions contribute to environmental degradation and cultural erosion, I simultaneously postulate that honoring traditional local values can, “change the nature of globalization itself by finding ways to transmute its impacts so that the negative human and environmental costs are reduced” (Brennan, 2006, p. 138). I argue that understanding the process of globalization can create useful knowledge that may be used to leverage its negative effects. In the following section I present my three research questions.

Research Questions

My proposed study seeks to answer three questions by focusing on one village in Oman as a case study, and on government discourses as manifested by government officials interviews and official government documents. Village G is primarily a farming area. Every household in this village has at least two date palms and up to five date palms on average. Many people also like to keep goats and raise chickens in their yards. Regardless of their economic conditions, Omanis in Village G practice farming. As these villagers are originally farmers, their agricultural practices are valuable to my study because they have innate humanature relations.

Different villagers in Village G have different experiences with farming. Some of them work on their own farms using their wisdom and the limited resources available to them, while others are more resourceful and educate their children to help them farm. These children usually

go to school in the morning and help their families in the afternoon. They often are the ones who introduce new technologies to their families. These villagers have access to different resources and therefore have different farming experiences. Thus, my first question is: **What grassroots core ecocultural premises do Omani villagers communicate?**

Visiting my hometown Village G time after time, I have noticed how farms are left behind and I have experienced fewer and fewer yields from my family's farm. As I argue that the harmonious humanature relations in Village G are deteriorating because of various structural forces, I seek to answer a second question: **What core ecocultural premises do official government documents and officials discourses communicate in Oman?** This question will be answered by examining not only village discourse, but also policy discourse and government officials discourse.

As it is my goal to ultimately design a community engagement model that promotes sustainable agricultural practices and honors community-driven practices, I pose a third research question: **How does an analysis of the core components of critical community engagement inform researcher-villager-governmental collaborations to design sustainable practices?** This question will be answered by conducting a critical textual analysis of governmental discourses and grassroots discourses.

Significance of Study

This study benefits several areas. First, by understanding the needs and the lived experiences of the villagers, my project offers place-based approaches to community engagement and agricultural sustainability. Second, by critiquing neoliberalism and globalization, my project contributes to raising awareness about politics, economy, and cultures, and thus could be a

significant endeavor in promoting ecocultural justice in a region where this is seldom done. Moreover, this study offers alternative research methodologies by exploring traditional ecological ways of knowing and being as practiced by Omani villagers. Furthermore, the study aims to build efficacy for community members in Village G through reflection and interaction, which could help them to better articulate their struggles, and perhaps work around them. Likewise, the project hopes to revive communal relationships by creating a safe and supportive space for community members to voice their concerns and share their life experiences. In addition, this research is useful to environmental education curricula designers in Oman.

According to Cajete (1999), "modern education conditions a person to be oriented to consumerism, competition, rationalism, detachment, individualism, and narcissism. Education supports the 'consciousness' that has led to the ecological crisis and dilemma we face today. Solving the ecological crisis through contemporary educational structures would be next to impossible" (p. 62). My project offers a place-based community-generated education model that contributes to solving the ecological and cultural crises that are perpetuated by contemporary globalized educational structures. By focusing on reconnecting with "nature", honoring sustainable ecocultural relations, building community ties, and encouraging communities to resist destructive ideological discourses, my project provides a model for teaching place-based, community-generated education.

My study is significant for various reasons. This study of ecocultural communication is the first of its kind in Oman. Because of its unique geographic location and sociopolitical context, Oman serves as a needed case study for how globalization processes are impacting sustainability of humanature relations in developing countries in general, and Middle Eastern countries in particular. In Oman, recent rapid changes in agricultural policies and

practices, coupled with an integration into the global free market economy require a necessary moment of intervention and change. My study intervenes at this critical juncture by creating a space where multiple stakeholders can communicate about the ways in which Oman can integrate into the global economy taking into account multiple desires, needs, restrictions, and cultural practices. One significant way in which it does so, is that it is conducted in a place where religion and ecospirituality are an enhancement, not an impediment, to sustainable and regenerative ecocultural relations. This study creates a space for government officials, community members, and other stakeholders to share their needs and views in order to make informed decisions regarding incorporating technology, innovation and entrepreneurship while at the same time promoting regenerative ecocultural practices.

Omani Context

Oman is a middle- income monarchy located in the south- east of the Arabian Peninsula with an area of 309,500 sq.km. The population is approximately 4.4 million of whom 55.8% are Omanis and 44.2% are expatriates from around the world who come to Oman for work and trade as a result of opening the Omani market to global markets. Of the whole Omani population, males make up 50.7% and females make up 49.3%. Oman's major products and exports are crude oil, liquefied natural gas, cement, steel, chemicals, optical fiber and copper, all of which have been developed since the 1980s to diversify the economy (Ministry of Agriculture and Fisheries, 2016).

Oman is divided into eleven governorates, which are divided into 61 states called Wilayats. The Interior Governorate, where my research site is located, consists of eight Wilayats. Ten percent of the Omani population lives in this governorate, which makes it the third most populated area after the capital city, Muscat. According to the 2014 census, in the Interior

Governorate, there are 322,361 Omanis and 94,482 expatriates; the latter are mainly from South-East Asia and Africa working as teachers, doctors, farmers and housekeepers. About 5% of the entire expatriate population in Oman resides in this governorate.

According to 2014 statistics, the agricultural sectors in Oman contribute less than 2% of the gross domestic product. The sector employs 5.2% of the population. Other sectors, such as industry and services, contribute more than agriculture to the GDP (67.34% and 31.39% respectively) and employ more people (36.9% in industry sector and 57.9 % in services sector). In fact, prior to the discovery of oil in the 1960s, the agricultural sector was central in the Omani economy since it constituted the major exports. Specifically, Omanis exported dates, limes, mangos and bananas. While Oman is rapidly implementing agricultural technological advancement, traditional agriculture is still widely practiced.

Since the 1970s, Oman has been witnessing steady growth in the political and socio-economic fields. “Development” plans are designed to promote economic growth, create employment, encourage investment and accelerate the gradual privatization of several state-owned enterprises. According to the national census of 2014, the labor force constitutes about 65% of the total population. Expatriates constitute almost half this labor force. Omani women account for 24.7% of the total Omani employed labor force in both the public and private sectors. A high unemployment rate, estimated at 15% demonstrates that the employment challenge for the local population is immense since it is usually cheaper to hire expatriates from South-East Asia. This steady growth since the 1970s has also had a profound effect on the rural community.

The discovery of oil in Oman in the late 1960s has been transforming Omani society from a rural community, based on subsistence economy into a modern society, fully motivated towards modernization (Al-Marshudi, 2007). As a result of globalization, Oman is responding to

the needs of a changing world. “Development” policies in Oman are launched in the context of the desire for fast economic growth in relation to the transition of Oman toward a global market economy. The government in Oman realizes the importance of developing human resources in order to make the country globally competitive. Therefore, the government is highly committed to developing technology, innovation and entrepreneurship sectors.

My study is exploring very recent changes related to agricultural practices. I would like to clarify that we stand at a critical moment in Oman in which a mechanistic worldview rooted in neoliberal economic models of development is starting to override our cultural values and traditions. These neoliberal models are grounded in an anthropocentric worldview that places priority of human reasons, material goals and technological progress. As such, they center capitalist processes of privileging profit and economic growth. These processes require mechanization and technologization of agricultural practices, which ultimately requires exploitation of humanature. As these models are recently being adopted, we stand at an important juncture where we need to reconsider our humanature relations and reexamine our sustainability policies.

Recent transformations in Oman are reflected in Village G, the site of my research. This village is recently experiencing a shift from interdependent ecocultural relations that are rooted in spiritual and cultural values to capitalist industrial relations guided by neoliberal globalization under world Trade Organization (WTO) that Oman became a member of in 2000. I would like to emphasize that these changes are very recent and many ways of being in the village are still retained but are in the process of vanishing. In this research, I am exploring Village G as a site for which I am doing an intervention at a crucial moment in time.

Traditional Ecological Knowledge (TEK) in Oman

In my study, I define traditional ecological knowledge (TEK) in Oman as local knowledge systems that are culturally specific, are shaped by Omani people's worldviews, and are the foundation of their social, cultural, spiritual and natural well-being (Shizha, 2010). Also, TEK refers to the information, wisdom and techniques that Omani people have developed over time to allow them to live in harmony with their natural environment (Al-Marshudi, 2007). Although indigenous knowledge is often associated with traditional communities—thus creating a political gap between modern and traditional societies (Businge & Keim, 2009)—in Oman, indigenous knowledge refers to local traditional knowledge and is owned by all Omanis, as there are no non-indigenous Omanis. TEK is so highly valued that the government has undertaken a huge effort to document traditional knowledge by creating an encyclopedia of all types of Omani indigenous knowledge. Another governmental effort linked to TEK is the preservation of a variety of native plants through the opening of the Oman Botanical Gardens in 2012. The garden project focuses on the Omani culture and traditional knowledge and illustrates the linkages between Omani culture and sustainability (Tucker, Kneebone & Richardson, 2009). Additionally, on December 6, 2013, the Board of Directors of the Public Authority for Radio and Television in Oman approved the launch of a TV channel and a radio station concerned with the cultural heritage of Oman. This was done in order to maintain and consolidate the cultural identity of Omani people (Alwatan Newspaper, 2013).

TEK is embedded in the daily experiences of Omani people. TEK in Oman includes astronomy, navigation, sailing, engineering, health systems, agricultural production, food processing, fishing practices, herding and architecture practices (Al-Marshudi, 2001). TEK shapes Omani people's values and their behaviors. For example, the traditional irrigation system

in Oman called the *Aflaj* system (See Figure 2), which is over a thousand years old, requires that Omani people understand the physical and management structure of the *Aflaj*. This understanding is governed by well-established social rules, which allow Omani people to take care of administration and maintenance of this water system through generating an *Aflaj* management committee (Al-Marshudi, 2001). This committee consists of three people: (1) a head (called *wakil* in Arabic) who is responsible for distribution of water and water rental; (2) a treasurer (called *qabidh* in Arabic) who holds money from water rentals and organizes water sale auctions; (3) a foreman (called *arif*) who is responsible for keeping the physical structure and maintenance of the *Aflaj*. This irrigation system constructs the social and cultural reality of Omani people. In addition to using this water for irrigation, Omani villagers traditionally built mosques where there was a stream of water, as they needed water to make ablution before they pray. Village men traditionally prefer to use water from *falaj* to wash for prayer instead of using tap water. The *falaj* is a community gathering space where men meet to talk and enact community. This ecocultural meaning of water is unique to *Aflaj* systems.

Figure 2. Falaj.

Chapter Conclusion

In this chapter, I introduced my research project describing the problem statement, research goals, research questions, significance of study, the Omani context and TEK in Oman. In Chapter Two, I review the literature and explain my methodological framework. In the literature review chapter, I start by explaining my theoretical foundation. Then, I describe environmental ideologies that shape Omanis' understanding of humanature relations, explain extant literature on place-based communication, discuss the processes of globalization, capitalism and neoliberalism as macro structures their impact on humanature relations. In Chapter Three, I describe the methodology I used. First, I begin by explaining the meta-theoretical assumptions that guide my research. Next, I contextualize the Resolana method of data collection and analysis used within this study. I then discuss the research site and my relationship to it, the participants and the sampling process. Then, I discuss specifics of data sources and collection. Finally, I describe the process of analysis utilizing Carbaugh's (2007) Cultural Discourse Analysis (CuDA) and Collier's (2014) community engagement framework as guiding scaffolds for my analysis. In Chapter Four, I explore grassroots ecocultural premises as communicated in Village G. In Chapter Five, I investigate governmental ecocultural premises as communicated in officials and government documents discourses. In Chapter Six, using my understanding of humanature relations as negotiated in the grassroots and officials discourses, I apply community engagement framework to create a space for collaborations between participants and researcher to design sustainable practices. Finally, in Chapter Seven, I summarize the research project and synthesize key research insights using the date palm metaphor as a guiding principle.

Chapter 2: Literature Review

This research study explores humanature relations as conceptualized by Village G participants and Omani government officials, and examines the contextual forces that enhance and/or impede sustainable ecocultural practices and relations.

Theoretical Foundations

In this study, several theoretical threads guide my discussion and analysis. I seek to take a praxis-based approach in blending theories from environmental communication and critical intercultural communication to create an overarching framework for understanding humanature relations and the ideological discourses that connect and/or disconnect these relationships. In what follows, I extrapolate relevant theories and concepts, namely environmental ideologies, place-based communication, traditional ecological knowledge, sustainable development, and globalization, capitalism and neoliberalism, in order to explore how community members in Village G, the site of my research, enact their humanature relations, and examine what and how norms, policies and forces are practiced in order to uncover how they enable and or constrain community members' ecological practices.

Environmental Ideologies

As defined by Corbett (2006), an environmental ideology refers to a "way of thinking about the natural world that a person uses to justify actions towards it" (p. 26). Different environmental ideologies (Milstein, 2009; Marafiot & Plec, 2006) reveal different ways of communicating about the natural world and impact humanature relations. These ideologies are negotiated in environmental discourses as dialectical tensions such as those offered by Milstein (2009) namely; mastery/harmony, othering/connection and exploitation/ idealism. The first

ideology is mastery vs. harmony dialectic. Mastery, which according to Milstein (2009), prevails in Western communication about “nature”, refers to how “nature” is dominated and controlled by people as a result of “societal progress” (p. 27). Harmony, on the other hand, depicts connection and describes how “nature” is viewed in equal relationship with people. The second ideology is othering vs. connection. The ideology of othering frames “nature” “as subordinated other to humanity” (p. 27) while connection shows interconnectedness between humans and “nature.” It is the Othering ideology that functions to “justify exploitive views and practices” (p. 27). The third dialectic tension is exploitation vs. idealism. According to Milstein (2009) exploitation is profiting from “nature” through appropriation and commodification, while idealism refers to “the desire to preserve and respect “nature,” as well as to reverse destructive human impact on “nature” (p. 28). While Milstein (2009) presents environmental ideologies as dialectical, Corbett (2206) offers a spectrum that varies from anthropocentric to eco-centric.

Corbett (2006) discusses a spectrum of contemporary environmental ideologies, starting with anthropocentrism at one end of the spectrum and ending with eco-centrism at the other end, with different levels of these two in the middle, as described below. Anthropocentric and eco-centric ideologies are umbrella terms that encompass various ideologies on the particular ends of the spectrum.

Anthropocentrism (Marafiote & Plec, 2006) is a human-centered ideology, which postulates “humans are superior to and dominate the rest of creation” (Corbett, 2006, p. 27). In this ideology, humans view the natural world as a resource that serves their needs. Conversely, eco-centrism articulates interdependent relations among humans and all living and non-living elements of the non-human world. In this web of life, all entities of the ecological systems such

as “animals, fish, birds, insects, water, air, soil, rocks, trees, plants and so on are intrinsically valuable and important” (Corbett, 2006, p. 27).

Closer to the anthropocentric side of the spectrum, there are three types of environmental ideologies that guide ways of relating to the natural world: unrestrained instrumentalism, conservationism and preservationism (Corbett, 2006). The first, unrestrained instrumentalism, expresses that the natural world and its resources exist exclusively for humans’ unrestrained use (Corbett, 2006). This ideology calls for ultimate human dominance over the non-human world. The second is conservationism, which still focuses on humans’ use and desires and says that non-human entities “have only utilitarian value and are valuable only in their use-potential as resources for human” (Corbett, 2006, p. 33). However, this ideology recognizes wise use of natural resources and emphasizes the need for restraint. The third, preservationism, calls for preserving natural resources for reasons beyond their instrumental utilitarian value for humans to include scientific, ecological, aesthetic, and sacred religious value (Corbett, 2006). Preservationism emphasizes a separation of humans from “nature” in order to protect the nonhuman world.

At the other end of the environmental ideologies spectrum are two types of eco-centric ideologies: ethics/values-driven ideologies and transformative ideologies (Corbett, 2006). Value-driven ideologies recognize that human and non-human forms are members of a biotic community where ethics and morals ensure that non-human entities are valued for their own inherent worth regardless of their benefits to humans (Corbett, 2006). Values and ethics guide the interaction between humans and “nature” to create a harmonious relationship. Moreover, value-driven ideologies recognize that all biological life such as animals, plants, trees, flowers,

water, air, soil, minerals and all elements of ecosystems can sustain themselves and their activities without the help of humans (Corbett, 2006).

Transformative ideologies, another set of eco-centric ideologies in Corbett's (2006) spectrum, postulate that instrumentalism, conservationism and preservationsm are the causes of ecological devastation. A necessary alternative is transformative ideologies such as deep ecology and Eastern religious traditions that emphasize eco-centric relationships. Deep ecology emphasizes bio-centric equality, which means, "all life on earth possesses equal intrinsic value, value that exists independently of human needs and desires" (Corbett, 2006, p. 43). Deep ecology responds to the root causes of environmental crisis.

Eastern religious ideologies, as a type of transformative ideologies, emphasize the sacredness of the earth and the interrelatedness of all human and non-human forms of life. This ideology maintains a "belief in a living planet" and that "the entire world is alive--not just plants and animals but rocks, air, water, land, minerals--and humans hold a reciprocal and equal (not superior) relationship with all of it" (Corbett, 2006, p. 49). Omani traditions and ecocultural relations fit in this spectrum of ideologies.

Applying Hall's (1997) conception of discourse as a system of representation, it is important to understand that our knowledge and representations of the natural world are not reflections of the reality "out there." Environmental ideologies encode a particular model of reality, which creates a discourse and a system of representation that produce social knowledge about "nature." In fact, the ways we understand and represent human-nature relationships are historically and culturally specific and contingent (Phillips & Jorgensen, 2004).

Place-based Communication

Environmental communication expands definitions of culture to include not only human-human relationships but also human-nature relationships. According to Carbaugh and Cerulli (2013) environmental communication is a place-based form of communication. This means that people's assumptions and meaning systems regarding "nature" are shaped by ecological knowledge of place that is socially constructed. Places reveal harmonious relationships between humans and "nature" (Carbaugh, 1996).

According to Corbett (2006) "Our sense of place – in addition to childhood experiences and historical and cultural contexts – influences how we perceive, experience, and value the natural world and ultimately, influences all our entire belief systems" (p. 25). The land for local community members defines who they are as a collective group and allows them to live as community members with a collective identity that is interwoven to the land (Swentzell, 1997). Basso (1996) posits that places connect people to their roots, nurturing in them a sense of belonging and inclusion. These places "provide points from which to look out on life, to grasp one's position in the order of things, to contemplate events from somewhere in particular" (Basso, 1996, p. 109). A participant in Basso's study reflects,

> Wisdom sits in places. It's like water that never dries up. You need to drink water to stay alive, don't you? Well, you also need to drink form places. You must remember everything about them. You must learn their names. You must remember what happened at them long ago. You must think about it and keep thinking about it. Then your mind will become smoother and smoother. Then you will see danger before it happens. You will walk a long way and live a long time. You will be wise. People will respect you (Basso, 1996, p. 127).

Clearly places do not only "provide materials for sustenance but at the same time many beliefs have been linked to their use" (Carbaugh, 1996, p. 49). Therefore, "nature" and cultural meaning

systems are interwoven within human symbolic practices (Carbaugh, 1996). In fact, “cultural meaning systems are part of and consequential for natural processes just as natural processes (broadly) give shape and form to all cultural systems” (p. 40). This place-centered understanding of human life is what harmonizes communication among people and their interaction with their environment. Channeled by this principle, people acknowledge that “all entities of nature—plants, animals, stones trees, mountains, rivers, lakes, and a host of other living entities—embody relationships that must be admired” (Cajete, 1999, p. 178).

Different from dominant Western environmental discourses that create a binary between humans and “nature,” “nature” is inseparable from social relations in Hispanic New Mexican communities (Milstein, Anguano, Sandoval, Chen & Dickinson, 2011). According to Basso (1996), “relationships to places are lived most often in the company of other people” (p. 109). Human-nature relationships are manifested by Hispanic New Mexican discourses about land, water and “nature.” Such discourses go beyond an individualistic construct of self to a more collectivistic concept of *relations-in-place* (Milstein, et, al., 2011). These harmonious relationships hold true for indigenous people who believe that “humans are at an equal standing with the rest of the natural world; they are kindred relations” (Salmón, 2000, p. 1331). Indeed, as Basso (1996) describes, “places and their meanings are continually woven into the fabric of social life” (p. 110). It is these harmonious relationships between humans and extrahumans that enrich and protect the ecosystem (Salmón, 2000). These understandings of humans’ interaction with/in/as “nature” inform my proposed study as I argue that Omani people’s cultural meaning systems are grounded in a collectivistic concept of *relations-in-place*.

In addition to their role in elucidating harmonious ecocultural relations, indigenous and non-Western cultures play a role in explaining humanature relations by challenging the

homogenization of “nature” and by destabilizing subject/object division (Milstein, 2011; Sowards, 2007). Dominant Western environmental discourses homogenize all species through the use of mass nouns to identify them (Stibbe, 2012). However, through the use of strategic actions such as pointing and naming (Milstein, 2011) and storytelling and personification (Sowards, 2007), “nature” identification challenges the massification and abstraction of “nature.” To illustrate, naming and identifying animals can give them individuality and uniqueness. Thus, the animals move from population status to individual standing (Milstein, 2011). Moreover, “nature” identification destabilizes the Western dominant subject/object binary.

This binary positions humans as subject and “nature” as object. “Nature” identification can allow humans and extrahumans subjectivity and agency (Milstein, 2011). For example, personification of orangutans reveals subjectivity of the animal by describing how a female Orangutan giving birth to a baby and becoming a mother for orphaned orangutan babies (Sowards, 2007). Also, agency of animals is described in the context of whales identifying whales, and not just humans identifying whales (Milstein, 2011). Another way in which this binary is broken down is through the recognition in environmental communication that spirituality has a cultural value that enhances human-nature relations (Magallanes-Blanco, 2014; Schutten & Rogers, 2011; Tipa, 2009).

One example of how spirituality is understood in relation to the environment is through indigenous people’s conceptualization of “nature” as a living being, a mother that has emotions (Magallanes-Blanco, 2014). This spiritual view of “nature” promotes environmental ethics such as care for “nature”, respect and reciprocity (Tipa, 2009). For example, Maori indigenous communities show strong connection to “nature” through their cultural and spiritual beliefs related to streams, rivers, and food generation techniques from fresh water (Tipa, 2009). For

these communities, spirit and matter are interconnected. This manifestation of culture is understood through Salmón's (2000) conceptualization of ecocultural relations that

> with the awareness that one's breath is shared by all surrounding life, that one's emergence into this world was possibly caused by some of the life-forms around one's environment and that one is responsible for its mutual survival, it becomes apparent that it is related to you; that it shares a kinship with you and with all humans, as does a family or tribe (p. 1332).

These ecocultural relations are rooted in places. These places have cultural meanings, as I describe below.

Places are not pure geography (Basso, 1996). As Escobar (2000) describes, a place "refers to the particular site or location where people's lives and experiences are actually lived, becoming essential for thinking about identity, development, social movements, and the like" (p. 165)**.** When a land is lost, cultural practices are lost with it (Homero-Villa, 2000). This loss negatively affects the integrity of people's cultural identities "which contribute to a psychologically and materially sustaining sense of 'home location'" (Homero-Villa, 2000, p.5). Salmón (2000) argues that "history, identity, language, land base, and beliefs connect, secure, and regulate the human-nature relationship" and at the same time, ultimately, "manifest the health of the human as well as the natural world" (Salmón, 2000, p. 1331). Indeed, through lived relationships with "nature", places acquire their meanings (Basso, 1996). As such, places reveal history, inspire who we are, and indeed "places, we realize, are as much a part of us as we are part of them" (Basso, 1996, p. xiv). In my study, the place of *Lemqueel* reveals ecocultural meaning systems that people in Village G have developed organically through their interaction with/in "nature". This place shapes the villagers- who they are, how they feel, what they do, what they believe and why they believe so.

Traditional Ecological Knowledge

Traditional ecological knowledge (TEK) is a body of culturally transmitted knowledge and beliefs about the relationships between humans and "nature" (Berkes, 2008). It manifests all four aspects of being: mind, body, emotion, and spirit (Cajete, 1994). TEK is built on practical experiences and empirical observations within a historical context, and is guided by spiritual beliefs. It is encoded in ritual and the cultural practices of everyday life. TEK is primarily communicated and implemented through cultural stories, traditions, customs, interpersonal teaching, and practice (Houde, 2007). This ecocultural knowledge has been developed over long intimate contact to homeland, where people are materially and spiritually integrated with their land (Kimmerer, 2000). TEK is value-laden and includes ethics of respect and obligation between humans and "nature"; thus, it constitutes a knowledge-practice-belief complex (Berkes, 1999). As such, TEK offers an ecocultural framework for understanding human-nature relationships that is particularly useful to this study.

TEK differs from Western science in that it extensively depends on local social mechanisms (Berkes, Colding, & Folke, 2000). These mechanisms "may be thought of as a hierarchy that proceeds from local ecological knowledge to social institutions, to mechanisms for cultural internalization, and to world views" (p. 1256). Institutions as a category in the TEK framework are essential, as it refers to using "rules that are locally crafted and socially enforced by the users themselves" (p. 1258). Through place-based approaches, humans attend to "nature" in their construction of social rules that shape their interrelationship with "nature". This ecological social process of rule construction creates communal interrelationships between communities of humans and extrahumans.

Social mechanisms in the TEK framework include attention to cultural values and worldviews (Berkes, 2012). These involve basic beliefs related to religion, spirituality and ethics (Berkes, Colding, & Folke, 2000). Also, cultural values such as respect for humans and "nature", sharing and reciprocity, characterize traditional ecological knowledge and practices (Berkes, Colding, & Folke, 2000). Spiritual and ethical values are interwoven into this knowledge, thus creating a system of sustainable living (McGregor, 2004). In the TEK framework, meanings and values are rooted in the land, which are directly related to a sense-of place (Berkes, 2012). Ecological knowledge is sustained through these cultural values. Also, as previously mentioned, institutions sustain ecological knowledge, for they facilitate the implementation of ecological knowledge (Berkes, Colding, & Folke, 2000). For example, religious institutions reinforce community rituals and traditions.

TEK framework is grounded in a holistic worldview in which humans are part of a network of living beings (Berkes, 2012). TEK framework views people, their knowledge and the land "as a single, integrated whole" (McGregor, 2004, p. 79). This holistic worldview is guided by spirituality and religious beliefs. Bateson and Bateson (1987) as cited in Berkes (2012) posit, "the unity of nature (i.e. the re-integration of humans and culture into the ecosystem) might only be comprehended through the kind of metaphors used in religion, or through the sacred" (p. 122). In this worldview, everything in the environment has a life and spirit (Berkes, 2012).

TEK framework provides a process for how to enact a holistic human-nature relationship. TEK is not only a body of knowledge. Knowledge is not static content that is fully formed and is transmitted from one generation to the next (Berkes, 2012). Rather, it is significant to highlight that TEK is a dynamic process based on concrete experiences and that it is action-oriented (Berkes, 2012). The process does not only include acquiring and transmitting knowledge from

generation to generation, but also includes a process of interacting with “nature” through social rules creation, internalization, implementation and adaptation (Berkes, 2012). Knowledge is a process of how people perceive, understand and interpret their environment. In essence, TEK is not only “knowledge of how to live;” instead, it is “the actual living of that life.” In short, TEK “is a ‘way of life’” (McGregor, 2004, p. 79).

Applications of the TEK framework reveal its distinctive principles. For example, as an adaptive dynamic process, TEK framework is used “as reservoir of information, practices and institutions to be drawn upon when a community confronts novel changes” (Fernandez-Gimenez & Fillat Estaque, 2012, p. 296). Although pastoralism as a tradition is fading in some herding communities in Spain due to social, economic and cultural changes, exploring two Pyrenean communities in Spain shows that pastoralists’ ecological knowledge is important to adapt to changing environmental conditions. This ecological knowledge was integrated into formal management plans. Indeed, TEK inherently enhances ecological and cultural restorative practices.

Another example reveals that TEK framework is based on a principle of co-being and interconnectedness. “Earthviews” (Mustonen & Lehtinen, 2013, p.42), which are spiritual and ethical insights, inform the everyday skills of Arctic indigenous communities living in the Eurasian North. Although “modern industrial achievements have largely dissociated most of us from the routines of listening to nature” (p. 49), earthviewing continues to be shared in a cyclical manner through communal mechanisms that stem from intimate connection to land and place. Co-being in this earthview is “grounded in the idea of respect for difference” (p.42). As an integral principle in the TEK framework, practicing “a respect for differences in human/nonhuman co-being helps us notice the particular riches in each individual community”

(p. 43), be it human or nonhuman community. This profound principle is the essence of human-”nature” interconnectedness.

Several studies in current environmental communication scholarship thatfocus on culture employ aspects of the TEK framework, directly or not. For example, the Weyekin principle (Salvador & Clarke, 2011) involves “learning ways of being or coming to know the natural material world and oneself” through “mimicry”, “resonance”, “rigorous observation” and “embodied listening,” (p. 251) which allow for material engagement with “nature”. These Weyekin processes, which are guided by spirituality, are practiced “to gain special knowledge or ways of living in nature through relationships established by repeated observations over time” (p. 251). Salvador and Clarke (2011) employ aspects of the TEK framework by calling for the use of embodied experience to listen to “nature” in order to construct knowledge and engage with/in “nature”. This call is in line with crucial features of TEK such as being concrete, spiritual, practical, a living being and place-based. In the TEK framework, local knowledge of animals, plants, soils, mountains, rivers and “nature” is constructed and reconstructed through experience, observation and being in place interacting with these living beings (Berkes, 2012). Moreover, the TEK framework relies on spirituality as a valuable tool in the ecological knowledge process.

Environmental communication scholarship discusses spirituality as a cultural value for American Indian nations. To illustrate, Endres (2012) explores the role of values for just and equitable participation in environmental decision making in the context of Yucca Mountain. Endres (2012) argues, “Yucca Mountain and the surrounding land is a unique sacred place steeped in culture, history, spirituality, sense of place, and struggles for sovereignty” (p. 333). Like TEK framework, land for these people is not only the physical geography, but land is also spiritual (McGregor, 2004). Yucca Mountain is viewed as scared land for the American Indians.

However, the U.S. government values it as a resource for a functional material purpose as a nuclear waste zone. Two conflicting worldviews: one is spiritual and the other is material instrumental. This conflict is the reason behind many environmental problems. Relatedly, in my study I argue that land is deeply rooted in the lives of Omani people. Villagers' attachment to their lands stems from a spiritual belief that dictates loving one's homeland indicates a strong belief in Allah. This material and spiritual conflict that Endres (2012) describes is similar to the conflict I found between some villagers and officials worldviews.

Putting TEK in a more direct conversation with environmental communication scholarship is essential. Three reasons justify my rationale for why environmental communication needs TEK framework. First, TEK framework as an action-oriented process creates communal relationships between "nature" and society (Berkes, 2012). Therefore, TEK is inherently community-based. This framework is built around social rules that are created by engaging with/in "nature". In this framework, "nature" is a living being. This spiritual worldview is essential for challenging materialism and creating a holistic interconnectedness between humans and "nature". Second, TEK framework as a dynamic process promotes respect for difference between humans and extrahumans (Berkes, 2012), and sustains interconnectedness. Sustainability in the TEK framework is the responsibility of all creations (McGregor, 2004). In the TEK framework, sustainability means to take responsibility and stay spiritually connected to all creations all the time (McGregor, 2004). In this regard, TEK framework gives humans and extrahumans agency and subjectivity. According to Peterson, Peterson and Peterson (2007) environmental communication practitioners have the responsibility to amplify and translate the voices of nonspeaking humans and extrahumans. Thus, I offer TEK to fulfill this responsibility as it creates room for all creations to take action. Third, TEK framework has practical

implications. As TEK lends itself to including humans and extrahumans in a community-based view, environmental policy developers and decision makers, by employing TEK, can create inclusive and just ecocultural practices. Including humans and extrahumans can enrich the society so that it can recognize environmental signals (Peterson et al., 2007). Therefore, environmental communication can become a system of practices that promotes an inclusive community.

According to the World Wildlife Fund (2000), TEK is being lost under the influence of modernization and ongoing globalization processes. Globalization, in its neoliberal sense, is defined as a series of cultural, economic, and political changes, which are perceived as growing interdependence and interaction between people and organizations throughout the globe (Reynolds & Griffith, 2002). Globalization allows greed to exploit the world's economy for maximum profit with minimum effort. Reynolds and Griffith (2002) suggest that capitalist ideology puts pressure on policy makers to regard TEK as backward and counter-progressive. In order to produce the largest profit, local people's ecological practices are delegitimized (Reynolds & Griffith, 2002). Indeed, globalization "with its cognitive and linguistic imperialism is the modern force that is taking our heritage, knowledge and creativity" (Battiste & Henderson, 2000, p. 11). In Oman, integration into the world economy, as a result of globalization, has a significant impact on ecocultural knowledge and traditional agricultural practices.

Sustainable Development

In this study, I will use sustainability and sustainable development interchangeably. According to Wessels (2006), a paradigm shift in conceptualizing sustainability entails expanding the meaning of sustainability to include (in addition to economic, environmental and

social aspects) a fourth pillar that focuses on community values and cultural heritage. These four pillars of sustainability are interrelated. Cultural sustainability involves efforts to preserve the tangible and intangible cultural elements of society. In essence, cultural sustainability calls for preserving cultural identities and a sense of place.

The most widely used definition of sustainability was established by the Bruntland Report, which defines sustainable development as “development that meets the needs of the present without compromising the ability of future generations to meet their own needs” (WCED, 1987, p. 43). This popular definition is widely critiqued. For example, Luke (2005) questions, “whose needs in the present, and whether or not they are needs or desires, and how development is understood to prevail where and for whom, are questions that are left hanging, if not entirely begged” (p. 229).

The United Nations Sustainable Development Agenda 21 begins with the following statement that has shaped, produced and reproduced dominant sustainability discourses:

> Humanity stands at a defining moment in history. We are confronted with a perpetuation of disparities between and within nations, a worsening of poverty, hunger, ill health and illiteracy, and the continuing deterioration of the ecosystems on which we depend for our well-being. However, integration of environment and development concerns and greater attention to them will lead to the fulfillment of basic needs, improved living standards for all, better protected and managed ecosystems and a safer, more prosperous future. No nation can achieve this on its own; but together we can-in a global partnership for sustainable development (United Nations Sustainable Development, 1992, para. 1.1)

Dominant sustainability and sustainable development discourses operate within a capitalistic logic. They view “nature” in capitalistic terms that define “nature” as a resource and a commercial product; a view that “stripped nature of its autonomy and ascribed a utilitarian and economic value to nature” (Pal & Jenkins, 2014, p. 396). As Luke (2005) clearly defines,

"sustainable development is a social movement for greater commodification" (p. 233). In fact, dominant sustainable development discourses focus on "sustainability of corporate growth and profit without actually addressing some of the most prominent social concerns of the world: hunger, growing class inequities, and unequal distribution of resources" (Pal & Jenkins, 2014, p. 400). Cajete (1999) dramatically paints the picture of the status quo by postulating

> modern governments, business, mass media, institutions, and organizations are still driven in greatest measure by this mechanistic paradigm with its emphasis on profit, economic development, standardization, command, and control. Many of these entities continue to operate from a perspective in which other living things, natural resources, land, and even indigenous people matter only in proportion to their material worth and their political clout (p. 212).

Evidently, dominant sustainability discourses are controlled by multinational corporations that are sustaining the status quo by continuing to treat "nature" as a resource to be manipulated for the sake of profit (Bullis & Ie, 2007). These exploitive corporations create conditions in which they make money by spreading neoliberal values that unsustain humanature relations.

According to Pal & Jenkins (2014) corporation discourses reveal that sustainability is achieved through Western scientific inquiry and technology. They explain "by adopting such a reductionist understanding of nature, the corporations not only define SD [sustainable development] in terms of certain global problems but also overlooked the specificities of local culture and the complexities of their ecological processes" (Pal & Jenkins, 2014, p. 399), and that "the emphasis on science and technology marginalizes any non-Western form of knowledge" (Pal & Jenkins, 2014, p. 402). Thus, achieving sustainable agriculture "depends in part on a greater understanding of how different agricultural systems affect the environment, how humans perceive the environment and environmental feedback in response to their agricultural systems, and how these perceptions affect values, knowledge, and behavior"

(Cleveland, 1998, p. 325). Certainly, neoliberal frameworks do not share this understanding since they merely focus on resource-intensive material consumption as evident in Western industrial-capitalist discourses.

That said alternative discourses of sustainability are necessary. As Dawson (2006) contends, "a sustainable, peaceful, equitable future is perhaps our only chance of human survival beyond the 21st century. We face devastation unless we can learn to live lightly, within our planetary means, and choose co-operation over conflict" (p. 10). Also, Pal and Jenkins (2014) suggest understanding sustainability in terms of stability. They posit, "the key to achieving stability is living within nature's limits, balancing with nature's ecological processes, and treating nature's economy as primary and the market economy as secondary" (p. 401). Sustainability should be understood as "the need to ensure a better quality of life for all, now and into the future, in a just and equitable manner, whilst living within the limits of supporting ecosystems" (Agyeman, Bullard & Evans, 2003, p. 5). To achieve sustainability, Pal and Jenkins (2014) recommend "the researchers and practitioners define praxis through engagement with local groups, who have traditionally been subjected to top-down visions of sustainable development. These local forms of knowledge have the potential to provide insights into an idea of ecological consciousness and a relationship with "nature" that redefines sustainability in terms of social justice and equity" (p. 403).

From a critical communication perspective, sustainability refers to "ultimately rejecting neoliberalism and resisting domination of outside agencies or current government entities, and moving out of subordinate dependent spaces in which 'outsiders' are providing humanitarian aid, or 'development' advice" (Collier, 2014, p. 239). Also, sustainability demands bearing in mind that environmental values of Western industrial societies do not resonate with traditions and

philosophies of the East (Harris, 2004). This definition sheds light on a crucial meaning of sustainability that I base my study on.

In this meaning of sustainability, ecocultural knowledge is foundational to the survival and resilience of local people because this knowledge sustains all four aspects of their being: mind, body, emotion, and spirit (Cajete, 1994). Hence, loss of local ecological knowledge must not be a by-product of so-called sustainable development projects. As Berkes and Adhikari (2006) explain, “economic development based on local resources can take place without eroding local ecological knowledge, and can in fact strengthen it if economic development takes place through activities that keep people on the land and in their culture” (p. 261). This reconciliation between economic development and traditional ecological knowledge precisely articulate my argument that reviving TEK can achieve economic growth. Unfortunately, the government discourse in Oman maintains one model of economic development that detaches traditional agricultural practices from economic gains. Therefore, I regard understanding the government’s perceptions of economic growth extremely critical for my study.

In this dissertation, I use the word “development” reflexively to show its contested meanings. I primarily adopt Escobsr’s (1995) critical conceptualization of “development.” As a “loaded word”, development emphasizes an economic worldview in which growth and modernization are key concepts (Esteva, 2010). Under a neoliberal logic, economic growth is the marker of development. This logic promotes that profitability and economic efficiency result in better development. This neoliberal understanding of development carries meanings of “a favorable change from inferior to superior, from worse to better” (p. 6) and from “traditional men and women to economic men” (p.20). These meanings of development are prevalent in the Omani government discourse I analyzed. However, consistent with Esteva (2010), I argue “the

time has come to unveil the secret of development and see it in all its conceptual starkness" (p. 1). Throughout this dissertation, I use "development", as Escobar (1995) proposes to speak of it

> "as a historically singular experience, the creation of a domain of thought and action, by analyzing the characteristics and interrelations of the three axes that define it: the forms of knowledge that refer to it and through which it comes into being and is elaborate into objects, concepts, theories, and the like; the system of power that regulates its practice; and the forms of subjectivity fostered by this discourse, those through which people come to recognize themselves as developed or underdeveloped" (p. 10).

Macro Structural Forces: Globalization, Capitalism, and Neoliberalism

In this section, I critically depict how globalization, capitalism and neoliberalism construct macro structural forces that damage ecocultural relations. Globalization is a political process and, therefore, defining it is not an easy task. According to Scholte (2008) "globalisation is about contests between different interests and competing values" (p. 1498). The complexity of this task stems from the fact that in defining globalization, it has become crucial to know "who gets to define globalisation, and who benefits (and loses) from the resultant definition" (Scholte, 2008, p. 1498). Also, in defining globalization, "space matters" which is "a core feature – as both cause and effect – of social life" (Scholte, 2008, p. 1479). This indicates that "the geographical context shapes the ways that people formulate knowledge, relate to nature, under- take production, experience time, organize governance, construct identities and form collectivities" (Scholte, 2008, p. 1479). Therefore, any transformation to a spatial structure creates a social change to the whole society.

However an individual defines globalization, it is crucial to note that "a sharp and revealing definition promotes insightful, interesting and empowering knowledge, an understanding that helps us to shape our destiny in positive directions" (Scholte, 2008, p. 1471).

In this regard, for the purpose of my study, I choose Sorrells's (2010) definition which defines globalization as

> the complex web of economic, political, and technological forces that have brought people, cultures and cultural products, and markets, as well as beliefs, practices and ideologies into increasingly greater proximity to and con/disjunction with one another within inequitable relations of power (p. 171).

In my study, I will examine how structural forces such as economics, politics and technology interact with the Omani villagers' ecocultural practices and their deeply rooted agricultural traditions. I will also unmask power relations that enhance and/or hinder the villagers' sustainable agricultural practices.

Globalization forces have various damaging ecocultural impacts. One of these destructive influences is noted by Merkel (2007) revealing that

> globalization affects communities through changes to the land and the plants and animals it supports, the demographic profiles of the people increasingly through migration, their lifestyles, the persistence of their language and philosophy to living on the land, and their values (p. 362).

Moreover, since globalization processes involve exercising social power "between age groups, between civilizations, between classes, between genders, between races, between people holding different sexual orientations" (Scholte, 2008, p. 1498) these unequal power relations works to erode social fabric. In fact, as Crate (2008) posits, "globalization works to diminish the level of social cohesion within a community" (p. 125). According to Montiel, Atencio and Mares (2009) "fueled by an ideology that justifies industrial capitalism and advanced by free-trade agreements among nation, the globalization of the economy has widened the gap between the haves and have-nots" (p. 25). Furthermore, processes of globalization destroy "pre-existent cultures and local self-determination" (Scholte, 2008, p. 1477). In addition to that, in globalization discourses

"an asymmetry exists between the global and the local, in which the global becomes associated with capital, space and history, agency and the capacity to transform and change, while the local becomes associated with place, labor and stagnation. Theses discourses take for granted a power structure in which the global always dominates over the local. This amounts, in essence, to an erasure of place" (Escobar, 2000, p. 167).

As a hegemonic discourse that advances Western modernity (capitalism, industrialism, rationalism, urbanism, etc.) across all humanity (Scholte, 2008), globalization has created a culture of consumers by which "consumership" has replaced "citizenship" (Montiel, Atencio & Mares, 2009, p. 26). This culture directly impacts "nature", which is perceived as a resource. Moreover, communities are developing a materialistic orientation to the land (Merkel, 2007). According to Cajete (1999) "materialism and an 'objective' sense of physical reality predominate the mindset of the modern people. For many, this orientation has actually become a 'theology of money', treated as sacred and strived for religiously" (p. 273). This materialistic mindset has created an illusive binary between humans and "nature". In fact, "with the process of industrialization and globalization, the humans have severed much of their vital connection to other beings and the environment" (Crate, 2008, p. 125). In addition to these devastating impacts of globalization, local economies are rigorously negatively influenced.

According to Dawson (2006) "the process of economic globalization has severely undercut the viability of local economies. Corporate subsidies and unfair trade arrangements have created a global economy in which huge volumes of produce are shipped hither and thither across the world. This delivers profits to the corporations that control production and distribution, while undermining communities, local economies and ecosystems alike" (p. 45). Not only that, a more devastating impact of globalization includes globalizing ecological risks;

thus, requiring global collective action (Merkel, 2007). I argue that the globalization of a materialistic mindset is a big concern in Oman because this profit-oriented mindset principally benefits a global market economy and devalues the local economy. The globalization of this capitalist mindset creates inequality among Omani people. Although preserving traditions is a goal for Oman, the government discourses support farmers who use modern scientific technologies in agriculture. These farmers find a better market, as their crops are more competitive for exporting. However, those small farmers who use traditional agricultural practices struggle to sell their crops as the government subsidizes imported food. In this way, the government is sending an implicit message to small farmers: either join us and use scientific technology or stay behind.

Capitalism

In a free-market economy, people and "nature" are devalued, manipulated and commodified "as a result of colonial, patriarchal, corporate, exploitative, and often ecologically destructive development models" (Sefa Dei, Hall & Rosenberg, 2000, p. 8). According to Harvey (2006), "the escalating depletion of the global environmental commons (land, air, water) and proliferating habitat degradations that preclude anything but capital intensive modes of agricultural production have likewise resulted from the wholesale commodification of nature in all its forms" (p. 46). Western capitalism operates under the following assumptions: "(1) activity is expansionary and growth is accepted as both inevitable and good; (2) growth is sustained through the exploitation of living labor in production; (3) class struggle is endemic but not threatening; (4) technological change (or "progress") is inevitable and accepted as a good in itself" (Harvey, 2006, p. 96). Accordingly, societies that sway away from these capitalist ideologies are regarded as uncivilized and backward. As Harvey describes, "'backwardness' (the

term is highly significant) arises out of unwillingness or an inability to ‘catch up’ with the dynamics of a western-centered capitalism, usually portrayed as the highpoint of modernity or even of civilization” (Harvey, 2006, p. 72). Hence, capitalism, which accompanies industrialization “has displaced or distorted many traditional values and their corresponding institutions” (Montiel, Atencio & Mares, 2009, p. 30).

As a result of intensive commodification of “nature”, “natural capitalism” as a discourse has recently emerged, as Lovins and Lovins (2001) state, to offer “not only increased profits, but also the solution to most of the environmental dilemmas today. It slows depletion of resources and the discharge of pollution. As a result, it creates profits from not having to pay for either” (p.101). Unfortunately, the government discourse in Oman perpetuates neoliberal economic ideologies through favoring scientific technological advances over traditional values and ecocultural practices in order not to be “left behind” or be called “backward.” This government discourse, I argue, has contributed to the deterioration of ecocultural relations in Village G through encouraging mechanization of agricultural practices and through applying a Western capitalist economic development model that measures economic success solely by profit; thus, disregarding local values, cultural traditions, and social well-being of villagers. I propose that there should be a balance between ecocultural traditions and economy in Oman.

I consider it vital to include community voices in any project the government undertakes. Therefore, my study provides an in-depth community-based needs-assessment. To understand community needs it is important to explain structures and ideologies that impact these needs such as neoliberalism.

Neoliberalism

An understanding of neoliberal theories is crucial in order to explain the ideologies that enhance/impede ecocultural relationships. According to Harvey (2006), "the dramatic consolidation of neo-liberalism as a new economic orthodoxy regulating public policy in the advanced capitalist world occurred in the United States and Britain in 1979" (p. 15). Neoliberalism is defined as

> a class project that coalesced in the crisis of the 1970s. Masked by a lot of rhetoric about individual freedom, liberty, personal responsibility and the virtues of privatization, the free market and free trade, it legitimized draconian policies designed to restore and consolidate capitalist class power. This project has been successful, judging by the incredible centralization of wealth and power observable in all those countries that took the neoliberal road. And there is no evidence that it is dead (Harvey, 2010, p. 10).

As Harvey (2006) postulates, the ultimate goal of the neo-liberal state is "to create a 'good business climate' and therefore to optimize conditions for capital accumulation no matter what the consequences for employment or social well-being" (p. 25). Neoliberalism feeds capitalism, since it is "assiduous in seeking the privatization of assets as a means to open up fresh fields for capital accumulation" (Harvey, 2006, p. 25). Also, neoliberalism claims that through business interests, it will achieve the goals of fostering growth and innovation, "and that this is the only way to eradicate poverty and to deliver, in the long run, higher living standards to the mass of population" (Harvey, 2006, p. 25)

Neoliberalism as a "market doctrine" (Garland & Harper, 2012, p. 514) dictates how economics drive politics. Whether it is called neoliberalism or capitalism, the ideology of neoliberal approaches "intends to replace those old hearth values with new corporate ones, creating an essential global bourgeoisie that it normalizes through a double speak, selling commercialization and free market choices as democracy" (Rai, 2005). In this manner, "neo-

liberalism exerts control over popular consciousness and everyday life" (Jim McGuigan, 2004 as cited in Rai).

Ironically, neoliberalism alleges that "the neoliberal approach to consumption combines a deep respect for the consumer's ability to act in her own best interest and an emphasis on the efficiency gains of unregulated consumer market: a commitment to liberty and the general welfare" (Schor, p. 255). Because profit is the essence of all human relations in neoliberalism, and self-interest overrides social and collective interests, big corporations dictate what matters in life and thus create a culture of consumerism, in which human values are measured by the acquisition of material things. To facilitate consumption, even if people don't have the money to buy, banks are available to give loans and so people live in credit their whole life.

Schor (2015) argues for a new politics of consumption and calls for a consumer movement and independent consumers' organizations that "pressure companies, influence the political agendas, provide objective product information, and articulate a vision of an appealing and humane consumer sphere" (p. 257). He posits that people's relationship to consumption should change and a discourse of needs should be revived in order to distinguish needs from desires. Currently, the larger social context shapes what is considered adequate, necessary, or luxurious and in fact "most of us are deeply tied to our particular class and other group identities, and our spending patterns help reproduce them" (p. 255). Therefore, as Schor (2015) precisely puts it, addressing this issue "risks complaints about being intrusive, patronizing or elitist" (p. 255). Hence, this is where resistance is needed to challenge the status quo.

Not surprisingly, as "hostile to (and in some instances overtly repressive of) all forms of social solidarity" (Harvey, 2006, p. 25) and "profoundly anti-democratic" (Harvey, 2006, p. 27)

system, “the neo-liberal capitalist model continues to fail us: it delivers divided societies, environmental destruction and a legacy of climate change and the toxic by-products of industrialization” (Dawson, 2006, p. 10). As Harvey (2006) declares, “in the event of a conflict between the integrity of the financial system and the well-being of a population, the neo-liberal state will choose the former” (p. 27). Essentially, neoliberal ideologies foster individualism and emphasize “the importance of personal and individual freedom, liberty and responsibility, particularly in the market place. Social success or failure is therefore interpreted in terms of personal entrepreneurial virtues or failings rather than attributable to any systemic properties” (Harvey, 2006, p. 27). It is precisely these characteristics of neoliberalism, namely individualism, freedom and competitiveness that cause ecocultural catastrophe. Evidently, neoliberal ideologies are materialized in the Omani government discourse through focusing more on financial gains, which is accomplished by promoting entrepreneurship and technological innovations, than ecocultural practices. In my study, in order to combat the negative impacts of macro structural forces on humanature relations, I propose that officials in Oman need an original local definition of sustainability that is culturally integrative, economically viable, ecologically sound, politically feasible and socio-culturally just.

Chapter Conclusion

In summary, in this chapter, I presented the theoretical concepts that guide my study; namely, environmental ideologies, place-based communication, traditional ecological knowledge, sustainable development, globalization, capitalism and neoliberalism, in order to interpretively and critically explain how community members in Village G enact their humanature relations, and in order to examine what/how norms, policies and forces are practiced for the sake of uncovering how they enable and/or constrain community members’ ecocultural

practices. In the following chapter, I explain my data generation and data analyses methodologies that I used in this research.

Chapter 3: Methodology

My explanation of the theoretical frameworks in the previous chapter provides a rationale for this study's research questions, which again are:

1. What grassroots core ecocultural premises do Omani villagers communicate?
2. What core ecocultural premises do official government documents and officials discourse communicate in Oman?
3. How does analysis of core components of critical community engagement inform researcher-villager-governmental collaborations to design sustainable practices?

Through addressing these questions I seek to shed light on how Omani people understand their humanature relations and how neoliberal globalization forces interrupt this ecocultural relationship. The ultimate goal of this study is to create a community engagement work that enhances ecocultural sustainability and honors community-driven practices.

This chapter is structured as follows. First, I explain the metatheoretical assumptions that guide my research. Next, I contextualize the Resolana method of data collection and analysis used in this study. I then discuss the research site and my relationship to it, as well as the participants and sampling process. Then, I discuss specifics of data sources and collection. Finally, I describe the process of analysis utilizing Carbaugh's (2007) Cultural Discourse Analysis and Collier's (2014) community engagement framework as guiding structures as well as critical textual analysis.

Metatheoretical Assumptions

This research project is situated within a critical/interpretive paradigm. I use Collier's (2014) integration of the two broad paradigms since my critical and interpretive orientations "are informing each other and are interdependent" (p. 7). In my study, I put these two paradigms into a cohesive conversation in order to impact social change. While the interpretive approach I use is focused on "understanding the world as it is, and describing the subjective, creative communication of individuals" (Martin & Nakayama, 1999, p. 5), the critical approach "involves an ethically heightened and politically reflective study of the relationships between power, knowledge, and discourse that are produced in contexts of historical and cultural struggle" (Lindlof & Taylor, 2002, p. 47).

This interpretive approach is useful to my study as it helps me understand how knowledge is socially constructed, and how people build meaning by interacting with each other. Moreover, this approach helps me understand how people interpret their relationship with "nature" and how their interpretation promotes sustainable living. A critical approach is useful for my study, as it helps me understand how power structures and ideologies shape knowledge construction. These ideologies are manifested in interaction and government policies. Also, this approach is useful for uncovering how globalization ideologies are impacting government policies and, in turn, how these policies are marginalizing traditional ecocultural practices by introducing new farming methods and new ways of relating to "nature", which interfere with the Omani people's values. Using these two paradigms I seek to understand humanature relations in order to impact social change.

The philosophical assumptions I bring to the goals of my study are in line with a critical/interpretive approach to understanding how culture and intercultural relationships influence ecocultural practices of villagers in Village G and what ideological discourses enhance/impede these practices. Ontologically, I recognize the existence of multiple realities. Also, I assume that realities are constantly constituted and re-constituted by community members through interaction with each other and with the universe (Guba & Lincoln, 2005). Moreover, I acknowledge that the villagers' views and perspectives matter in my community engagement work. Epistemologically, I assume that knowledge is socially constructed and is created through interaction between villagers and "nature".

At the same time, my critical goals allow me to recognize that contextual factors such as ideologies, macro structures and institutional discourses shape realities. These contextual factors influence human-human interaction and human-nature relationship. Also, I assume that ideologies impact everyday discourses (Halualani & Nakayama, 2010). In my study, I will explore how community members in Village G enact their relationship with "nature", and examine what/how norms, policies and forces are in practice in order to uncover how they enable and/or constrain community members' ecological practices.

According to Collier (2014), interpretive, critical and practical approaches are interrelated and are necessary for intervention and enhancement of just equitable inclusive community work. Therefore, in my study I combine a critical and interpretive perspective. This combination allows me to understand the relationship between ecocultural practices and power structures. Also, the combination is useful for helping me understand how traditional ecological knowledge works to sustain the community, sustain the culture and sustain ecology. Moreover, this combination helps

me reveal what ideological discourses are implicated by villager's discourse, and government discourse.

Resolana Method of Data Collection

Indigenous methodologies offer alternative ways of knowing. One concrete illustration of alternative methodologies is the Resolana framework. Resolana is constructed around sharing knowledge and learning from each other. It is a process through which the knowledge and wisdom of land-based people "is uncovered, validated, and used to create new insights and knowledge" (Montiel, Atencio & Mares, 2009, p. xii). Resolana "discloses the buried knowledge of an older, agrarian culture" and through dialogue "surfaces a collective wisdom that points the way to a life of health, wholeness, well-being, and contentment" (Montiel, Atencio & Mares, 2009, p. 5).

Resolana is a place and a process of dialogue and reflection. It is the "third place, where people gather to visit and that they use as a place for dialogue and reflection" (*ibid*, p. xii). Montiel, Atencio and Mares (2009) describe Resolana as place where

> men have gathered across the years to pass the time of day, exchange good and bad news, gossip, share jokes, and also talk about everyday life, about birth and about death, they have told stories and shared memories of the past and have pondered the future (p. 14).

In open conservations, local people talk about their everyday life experience, needs, aspirations and worries, reflecting on community issues. Thus, Resolana creates dialogue that is necessary for understanding community needs and should be translated into policies.

Historical roots and cultural background are central to the Resolana framework. As reflexive and reflective learning process, it is based on the following assumptions: "(1) life stories are history and sources of knowledge; (2) imagination, vision and other psychic

productions are foundations for knowledge; (3) traditional cultures have indigenous knowledge by which they interpret themselves to themselves; (4) stories consist of themes that are universal, while remaining specific to time and place; (5) themes are essential to democratizing knowledge, allowing for dialogue within as well as across cultures, by crossing cultural boundaries and linking cultures through the universal thematic bridge" (Montiel, Atencio & Mares, 2009, p. 46). As such, Resolana provides an opportunity for community building through sharing lived experiences and reviving community knowledge (Milstein, et al., 2011). Moreover, Resolana, as Montiel, Atencio and Mares (2009) demonstrate, is a solution to globalization's effect on traditional knowledge. As community values, such as reciprocity, harmony with "nature" and sharing are declining, Resolana showcases the power of dialogues in community building. Everyday community dialogue is crucial for community capacity building to confront globalization challenges that disconnect community ties. According to the authors "La Resolana is a pathway to knowledge that derives from a dialectical relation between thought and action in the everyday lives of people" (*ibid* p. 34).

I use the Resolana framework as a method for data generation in my study as my research site shares many features with this framework. For example, both my research site (*Lemquee*l) and Resolana create a community space for sharing meaningful dialogue that reveals ecocultural orientations and meaning systems. As Resolana allows for exploring subjugated shared knowledge (Milstein, et. al., 2011), my research site also creates a space to investigate a community's views on traditional agricultural practices and how these practices are competing with government discourses. Both Resolana and *Lemque*el function as ecocultural spaces in which "nature" and culture are strongly connected. This function is crucial to my study as I argue that loss of "nature" and loss of culture are intertwined (Homero-Villa, 2000).

Research Site

I chose Village G as a site for my research because it is my home origin where my family has lived for at least four generations. My family has held leadership position in this village for as long as they lived. My physical connection to Village G was stronger when my father was alive, as my whole family used to spend the summers with him in the village. In addition, as a farming village in a largely rural country made up of villages, Village G is representative of experiences happening throughout the country with farming communities in the face of introduced neoliberal market-based policies.

Village G is a small rural area of approximately 7,000 people. It is located 130 miles north west of the capital city Muscat. This village is an agricultural area where people practice farming, herding, goat keeping, bee keeping, and chicken raising. Water abundance and land fertility have kept the village sustained. Village G is famous for various fruits and vegetables such as different types of dates, oranges, cherries, figs, mangoes, tomatoes, beans, alfalfa, etc. The village has services such as schools, a health center, mosques, a cultural museum, a rural women development center, a child and mother center, a community meeting place for villagers to meet on different occasions. Also there is a youth center that organizes various activities such as sports, health campaigns, environmental protection campaigns, and recreational activities.

According to Lindlof and Taylor (2011) choosing a site is especially important when a researcher wants to study the interaction between people and "nature." Also, environmental communication scholars such as Milstein (2011) and Carbaugh (1996) argue for the importance of case studies in understanding humanature relations and creating illustrative comparative studies (Endres, 2012; Magallanes-Blanco, 2014; Milstein, 2011; Salvador & Clarke, 2011;

Schutten & Rogers, 2011; Sowards, 2007; Tipa, 2009). Therefore, I chose my site carefully. For the senior male participants, I specify a particular space in Village G called "*Lemquee*l", as these participants are more familiar with this place than the senior females (who do not traditionally gather there) or the youths (who are too young to have memories in the place). Similar to the notion of Resolana in the Hispanic New Mexican tradition, which is a community space made by the sun's glare on a building or plaza where villagers gather to talk and share stories during the day, *Lemqueel* is a community space in which villagers meet during the day to talk and share their lived experience. It is usually under a big tree near a stream of water and refers to a place and time in which villagers gather to take breaks and nap after hard work in their farms. Traditionally, male farmers age forty and above gather in this place. I intend to study *Limqueel* as a place because I believe that this place reveals multifaceted ecocultural relations. As Basso (1996) depicts, "places possess a marked capacity for triggering acts of self-reflection, inspiring thoughts about who one presently is, or memories of who one used to be, or musings on who one might become" (p. 107). Limqueel is a practice of the past when farming was the main source of income for villagers in Village G. In the early eighties, this practice disappeared for several reasons: farmers are getting older and cannot keep up with the hard work in the farms; with the discovery of oil, many jobs were created and villagers preferred to migrate to the cities to look for better opportunities; many farmers wanted their children to continue their education instead of helping them out on their farms. As an ecocultural space, various functions are tied to *Lemqueel.*

The *Lemqueel* space serves three functions. First, it is a place for sharing knowledge. Villagers get together to talk about their achievements and experiences in their farms. Second, this is a place for decision-making, planning and solving problems. Community members discuss

water issues and plan water distribution among them for the next coming days. Third, it is a community building space. Villagers help each other in performing jobs and sharing the produce they harvest. I chose this place because I wanted my participants to recall how they used this space in the past, how they use it now, and what changes have occurred in the use of the space and why. Various ecocultural transformations, which I discuss in my analysis chapters, have occurred to the site, which contributed to community fragmentation and loss of farming lands.

After 1970, when His majesty Sultan Qaboos ruled Oman, many people moved to the cities and left their farms looking for more economically rewarding job opportunities. With more people leaving the village, and with others who didn't rely on farming as a source of income, this space of *Lemqueel* is not as active as it used to be. *Lemqueel* has not only changed in terms of its social, cultural, spiritual, and ecological role and significance for the villagers, but even the physical structure has changed. Instead of the space that was created by the shadow of huge tree next to a stream of water for the villagers to sit under, it has now shifted to a built environment where cement makes the sitting area and a small road for cars to move through. These ecocultural changes guide my intervention as my ultimate goal is to use this place as a space to build community engagement work that honors villagers' ecocultural values and practices.

Sampling Participants

Table 1. Research Participants

	Seniors	Youth in Village	Youth in city	Officials
Male	T	SH	Hd	B
	H	SM		Sh
	R	Bd	Mhd	F
	M	ES		
Female	S	MR	Hn	
	MZ	Mh		
	Bh	Fh	Ala	
	J	Mz		

In this research, there are three groups of participants: people who live in Village G, people who moved out of Village G, and government officials (See Table 1). In total, 23 people participated in this project: 8 senior villagers age 60 and older (4 males, 4 females) and 8 youth villagers age 25-40 (4 males, 4 females) who currently live in Village G; and youth who have moved out of Village G (2 males, 2 females). All of these participants are people from Village G who have practiced farming for living or as a tradition. In my research, I call all these participants "grassroots participants." The rest of participants are 3 high-level officials from the Ministry of Agriculture and Fisheries (MAF). My choice of participants is supported by my belief that "local communities are not simply the source of raw data for academic theorizing elsewhere. Local peoples must be seen as key players in the construction of knowledge about their societies" (Sefa Dei, Hall & Rosenberg, 2000, p. 16).

Male and female focus group sessions were conducted separately as it is a cultural norm in Village G. I met with the senior males group in *Lemqueel* and met with the youth males in my family house. I met with the senior females group in my family house but the youth female groups I had to meet with them in one female participant's house, as they needed to be close to

their children. Although research suggests that the best number of participants for focus group methods is between six to twelve (Lindlof & Taylor, 2011), I kept the number to four participants in each group as I realized that a smaller number is more manageable for me and for my participants. While all my focus group sessions took place in Village G, my individual interviews with the youth males and females took place in Muscat, at Sultan Qaboos University.

In order to recruit my grassroots participants, I used snowballing (Lindlof & Taylor, 2011), locating one or two participants and asking them to refer me to more people who fit the study's criteria. This method is especially useful when the researcher is interested in specific characteristics in the participants. I used this method because I am interested in participants who have practiced farming and are familiar with current and past agricultural practices. In the context of Village G, males and females usually take different, but complementary, roles in farming. Men usually work in preparing the land, fertilizing, irrigating and harvesting crops. Women weed, cut grasses to feed the animals, raise chickens, milk cows, and harvest small crops such as garlic and onions.

Data Sources

I pursued various ways of data generation. In this section, I describe my five sources of data: (1) official government documents including government policies; (2) villager focus group conversations including senior and youth males and females met with in sex-segregated groupings; (3) interviews with government officials; (4) individual interviews with male and female youth who moved out of the village; and (5) participant observation.

Official Government Documents

The first source of data I used is official government documents. I had access to these documents through two government officials working in the Ministry of Agriculture and Fisheries. I used Omani government environmental and agricultural policies and rural development policies in order to uncover power structures and ideological discourses that marginalize traditional ecological knowledge and thus impact Omani people's humanature relations. I also looked for discourses that foster harmony, interdependence and connection. I chose official government documents in order to discover contextual factors and ideological structures that impact humanature relations. These documents include agriculture policies, yearly agriculture and fisheries reports, agricultural sector five-year plans (2016-2020), sustainable agricultural development strategy 2040, Sustainable Development of the Agricultural Sector Forum held in 2007 and 2009, foreign capital investment law, treaties with the Food and Agriculture Organization (FAO), World Trade Organization agreements with the Omani government, food security system in the Sultanate, Statement of the Ministry of Agriculture to the Shura Council 2015, the Oman Food Investment Holding Company mission and vision statement, Omani Farmers Association mission statement, Vision 2020 for Omani economy, and investment policies in the agricultural sector. All of these documents contributed to my understanding of the issues at hand. However, I haven't used all of them directly nor quoted them directly in the dissertation text. Instead, I made use of them by analyzing them for understanding the big picture of farming in Oman and the macro structures that impact the status quo.

Focus Groups

The second method of data generation is focus groups. Several reasons justify why I chose this method of data generation. First, focus groups are well suited for historical and cultural information (Cresswell, 2013). Because I am interested in Village G participants' cultural knowledge regarding "nature" and in their current and past farming practices, I find this method useful to my goals. Second, focus groups are best used with exploratory studies that are not previously well researched and are newly emerging. I find this feature of focus groups relevant to my study, as my proposed study is one of the first studies in Oman that focuses on humanature relations and examines how power structures influence this relationship from an ecocultural communication perspective. Third, focus groups are useful for understanding collaborative processes of meaning construction (Lindlof & Taylor, 2011). In this method, participants build meaning by drawing upon their shared experiences (Lindlof & Taylor, 2011). This process reveals vernacular language such as songs, jokes, slang and performances. I find these data sources to be useful to my research as they reveal core ecocultural relations. Also, in this regard, research participants may feel more comfortable talking about issues if they see that other members in the group are feeling and experiencing similar things. Focus groups then can lead to a kind of "'chaining' or 'cascading' effect—talk links to, or tumbles out of, the topics and expressions preceding it" (Lindlof & Taylor, 2002, p. 182). Fourth, focus groups are useful for understanding group dynamics (Brinkmann, 2013). This method is well suited for my study as I am interested in how participants relate to each other, how they conceptualize a phenomenon, how they experience change together and how their humanature relations are changing or not. At the same time, the interactional dynamic that focus groups promote produces memories, positions and ideologies (Kamberelis & Dimitriadis, 2011), which are essential for my research.

Also, focus group interviews are useful for creating interaction between participants that reveals their shared stories, beliefs, opinions and lived experiences. Shared stories are especially important for understanding morality and spirituality (Lindlof & Taylor, 2011), which I find useful in my study in order to understand the participants' ecocultural values. Fifth, focus groups promote collective action (Kamberelis & Dimitriadis, 2011). For collective action we need collective identities, and focus groups promote collective identities (Kamberelis & Dimitriadis, 2011). In fact, the goal of focus group is to create a unified group of people, which facilitates collective action (Krueger & Casey, 2000). This function of focus group is especially useful for impacting social change.

I conducted three sessions of focus groups with senior males and three sessions with senior females. Each session lasted for 100 minutes as, according to Lindlof and Taylor (2011), the suitable length is between 30 minutes to two hours. For the senior males group, I conducted the focus group sessions during the morning time—the same time when the male villagers used to gather in Lemqueel for a break or a nap. For the senior females group, I met with them during their morning coffee time in my family house. Since my family left Village G a long time ago, my house is not a traditional meeting place for the women any more. While it used to be, nowadays, women would rotate in hosting the other women for morning coffee. During each session, I facilitated discussions with the participants by asking a set of questions and opened the floor for them to share their stories, experiences and memories.

In addition to the senior focus group sessions, I conducted another set of focus group sessions with male and female youth living in Village G. I met with four female youth as a focus group for two sessions in one participant's home. Also, I met with four male youth for two

sessions in my family house. Each session lasted for 90 minutes. In all focus group sessions, I facilitated discussions by posing my interview questions and together discussing answers.

For senior and youth males groups, I organized the sessions so that there were two weeks between each session and the next. This organization worked well for the participants instead of meeting weekly, as it was hard to get them all to meet since some of them have work commitments. For the senior and youth females living in Village G, conducting weekly focus group sessions was easier as they are all housewives.

Individual Interviews

The third method for data generation is individual qualitative interviews with three government officials. These interviewees represented high-level government officials working in the Ministry of Agriculture and Fisheries and Oman Food Investment Holding Company. By participating in Sustainable Agriculture Rural Development Strategies (SARDS) 2040 workshops that were organized by the Ministry of Agriculture and Fisheries in cooperation with Food and Agriculture Organization of the Unites Nations (FAO), I was able to identify the most influential officials in Agricultural policy development. I approached one of them and introduced my research project to him. Learning about my research focus, he referred me to some names of officials that he thought would be most relevant to my research area.

The fourth source of data is individual interviews with four youth who moved out of Village G. These were two males and two females. Interviewees were recruited through purposive sampling. In this method, the researcher chose individuals based on their knowledge, experience and relevance to the project.

Although all seven interviewees are fluent in English, I conducted only two interviews in English with two officials. One official preferred to speak in English, while the other official, who could not meet in person, replied to my interview questions in English.

I used qualitative interviews as they are best used for eliciting participants' views, opinions and how they understand their life world (Lindlof & Taylor, 2011). I used semi-structured interviews, as they are useful for following up with what participants render important to them. Moreover, I used reflexive interviews, which according to Denzin (2001) are "not an information gathering tool per se" (p. 24), but they also "transform information into shared experience" (p. 24). Denzin (2001) describes reflexive interviewing as "a way of writing the world, a way of bringing the world into play," and as "an active text, a site where meaning is created and performed. When performed, the interview text creates the world, giving the world its situated meaningfulness" (p. 25). I have created an interview guide that I pilot-tested before I used it with the participants (see Appendix A). I audio-recorded all the interviews after taking permission, and took field notes. In addition to all these formal methods of data generation, I also spent more than 20 hours as participant observer.

Participant Observer

Participant observation (Emerson, Fretz & Shaw, 2011; Lindlof & Taylor, 2011) was the fifth method I used for data generation. My role as a participant observer began with my first trip to Village G on August 2015 when I engaged in informal observations and conversation with youth and senior females individually and in groups, in a variety of settings, including morning coffee gatherings, date pollination season (*Tanbeet*), wheat harvesting season (*Tas'eef*), date harvesting season (*Qaidh*), land preparation season and goat herding.

According to Goffman (1989), participant observation as a naturalistic inquiry method involves

> subjecting yourself, your own body and your own personality, and your own social situation, to the set of contingencies that play upon a set of individuals, so that you can physically and ecologically penetrate their circle of response to their social situation (p. 125).

In order to gain some understanding about the meanings and experiences of the village participants, and to have a comprehensive picture of the phenomenon of inquiry, I took part in some ecocultural activities such as *Tanbeet, Tas'eef* and composting. I have actively participated in some of the daily life activities of the senior and youth females such as morning coffee.

Participant observation was significant to my research project for various reasons. First, it was a way for me to learn about the village participants' agricultural ecocultural practices. Although I knew some of them by name, I have not had the chance to experience such practices as *Tanbeet, Tas'eef* and goat herding. This method allowed me to gain some insight about the participants' lived experiences and the complexity of their social lives. Second, this method enriched my competence in vernacular agriculture-specific language. I was able to learn some language and idioms related specifically to farming and animal rearing. Had I not undertaken this role prior to my focus group sessions, I would have faced some challenges in understanding the villagers' ecocultural practices. Third, I was able to establish relationships with the village participants prior to conducting focus group sessions. Fourth, being a participant observer helped me not only in data generation, but also in data interpretation. I was able to make meaningful sense of their various emotional expressions. As a participant observer, I was able to listen to their stories and experience their artifacts in their natural settings. This role allowed me first-

hand experience to develop an understanding of their humanature relations and of their interpretations of these relations.

Positionality

I realize that my research is influenced by my positionality as both a traveler and a local, that is, a researcher and a member of Village G, whose family is part of this village and has a leadership position. As a researcher who is pursuing a Ph.D. degree away from my home of Oman in the U.S., I consider myself a traveler who seeks to understand the lived realities of the villagers. When I enter my research site I would like to think of myself as one

> Who walks along with the local inhabitants, asking questions, and encouraging them to tell their own stories of their lived world. The potentialities of meaning in the original stories are differentiated and unfolded through the traveler's interpretations of the narratives he or she brings back to home audiences. The journey may not only lead to new knowledge: the traveler might change as well (Kvale & Brinkmann, 2009, p. 48).

However as a member of a family who holds a high socio-economic status in the village, I am a local. My positionality as a member of a farming family who spent every summer season in the village up until 2000, when my father passed away, allows me, not an insider location, but someone who understands some meanings related to date palm harvesting, as that was the only farming practice I had witnessed. I participated in dates assortment and drying, since it took place in the summer. All in all, my positionality contributed to building a common space, in which villagers' participants felt comfortable to interact and share their concerns with me.

Data Analysis

I used cultural discourse analysis (Carbaugh, 2007) and community engagement framework (Collier, 2014) to perform a critical/ interpretive analysis of the focus group interview conversations, individual interviews and official government documents. These analytical

frameworks helped me understand how people interpret their humanature relations and what ideologies impact these interpretations in order to create social change. In my analysis, I connected my themes to globalization and neoliberal ideological discourses, and sustainable development discourses. In the following sections I describe Carbaugh's (2007) framework, Collier's (2014) framework, and how I applied both.

Cultural Discourse Analysis Framework

I chose cultural discourse analysis (CuDA) because it offers a rich and systematic way of describing and interpreting communication practices in a culturally meaningful manner. According to Carbaugh (2007) "as people communicate with each other, they are saying things literally about the specific subject being discussed, but they are also saying things culturally, about who they are, how they are related, what they are doing together, how they feel about what is going in, and about the nature of things" (p. 174).

The CuDA framework explores how communication is conducted, conceived and evaluated in a certain place among people focusing on concepts of identity, relationships, emotions, actions, and dwelling (Carbaugh, 2007). The framework examines deep meanings that are active in communication practices and explores how "culture is an integral part, and a product of discourse systems" (p. 169) and how these cultural meanings are part of a practical way of living.

Carbaugh's (2007) framework is designed to explore three types of intellectual problems, functional accomplishments, cultural structures, and cultural sequencing. Specifically, CuDA looks at how these problems are linked to each other, and to issues of identity, action, emotion, relationships, and dwelling in "nature". First, in the functional accomplishment, a research looks

at, “what is getting done when people communicate” (p.169). Second, in examining cultural structures, CuDA looks at how the cultural “ingredients, elements, and features” (p.169) impact the communication practice. In other words, how the “communication practice [is] put together” (p. 169). Lastly, CuDA looks at cultural sequencing, or, the ways in which culture dictates the sequence of talk events or speech acts and what this might say about cultural practices/structures themselves (p. 170). To address these three types of research problems, the framework engages a researcher in five cyclical modes of inquiry: theoretical, descriptive, interpretive, comparative, and critical. In my analysis, I focus particularly on the interpretive mode with its five discursive hubs of meaning: identity, relationship, action, emotion and dwelling, as I am more interested in interpreting the significance of ecocultural practices to the participants.

Interpretive mode. Carbaugh (2007) encourages researchers to ask, “what is the significance and importance of that phenomenon to participants?” (p. 172), and what are the active meanings embedded in a communication practice? In this mode, it is crucial to remember that a communication practice is described and interpreted from the view of participants. Before evaluating the communicative practice, I established a deep understanding of the phenomenon from the perspective of those engaged in it. To build this understanding, I examined the participants’ values, beliefs, norms, and cultural premises. According to Carbaugh (2007), cultural premises “capture and explicate taken-for-granted knowledge which usually does not need to be stated by participants since it is believed to be part of common sense” (p. 178). Using this mode of the CuDA framework, I explored ecocultural meanings rooted in the villagers’ farming practices.

Community Engagement Work Framework

I chose Collier's (2014) community engagement framework because it offers a praxis-based approach to community engagement. Importantly, through purposefully choosing to use community "engagement" as opposed to community "development," Collier (2014), opposes the lens that "development" brings, i.e. that "implies a finite end" (p. 240). Instead, using "engagement" offers new theoretical considerations to current development discourses. I use Collier's (2014) framework as a way to understand contextual structures and how they enhance/impede humanature relations in Village G. Also, this framework encourages us to "call out dominant ideologies that are unjust, inequitable and exclusive and co-create relations that are just, equitable and inclusive" (Collier, 2014, p. 12). This community engagement framework consists of eight components which are 1) community and work; 2) reflexivity; 3) context; 4) space/place; 5) negotiation of cultural identities; 6) relation and relationships; 7) outcomes; and 8) recommendations. According to Collier (2014), it is important to note that the eight components of the framework are interrelated. Although I relied on all components in my analysis, four of these components—context, reflexivity, negotiation of cultural identities, and relations and relationships—particularly informed my research. In this section, I describe the eight components of the framework, show their theoretical significance and explain how I applied them in my context.

Community and work. A community is a socially constituted phenomenon (Ford and Yep, 2003). According to Collier (2014), communities are constituted and re-constituted in communicative practices that create a shared local space. I apply this component by building a community of traditional ecological knowledge holders and practitioners. Also, my project analyzes the assets of the community and how they want to use these assets. This analysis

encourages the villagers to re-gain the value of their traditional agricultural practices that have been removed through a free market economy that liberated trade and introduced imported food.

Reflexivity. Reflexivity is defined as the process in which researchers acknowledge their biases and taken-for-granted assumptions and recognize how they might influence community work (Broom & Collier, 2012). Reflexivity means working with various perspectives and views other than just yours. Also, Collier (2006) calls for dialogic reflexivity, which means talking with research participants about your own biases as a researcher. It involves the ways a researcher is being in dialogue about possible biases or how the researcher is being positioned by and is positioning the participants. In this regard, reflexivity goes beyond listing one's positions to also address how these positions frame, constrain and/or enhance research and praxis (Collier, 2014).

Studying reflexivity is important for three reasons. First, reflexivity helps researchers reveal ideological blinders and privileged positions. Second, reflexivity drives community work to be relevant/irrelevant and reproduce/resist status quo. Third, reflexivity is important in order to recognize power structures.

In my community engagement work, I apply reflexivity by engaging in conversations with silent and dominant voices. I acknowledge that my position as a female, Ph.D. student who lived in this community a long time ago affects community work. Also, I recognize that my socioeconomic status positions me as privileged as I am a member of a highly-respected family in the village community. Also, these positions facilitate engaging with influential government officials and facilitate access to the community. I recognize that as an insider who is familiar with community problems, I should listen to their lived experiences and not assume that I know their sufferings. Finally, I might run the risk that some members will not speak, as they think I

can speak for them because I am more privileged. I addressed this issue in the field by establishing rapport with the participants and explaining that their contributions and reflections are valuable to their community.

Context. Context includes political, economic, historic, social, and judicial structures. Also, context includes institutional, governmental and organizational discourses. Moreover, in my community work, ideologies are an important part of context because ideologies drive policies and policies affect the living conditions of community members. According to Sorrells (2010), there are three levels of context analysis, which are macro, meso and micro. Macro refers to histories and political discourses; meso includes local NGO and for profit/not for profit organization and living conditions; micro refers to interaction (Broom & Collier, 2012).

Context is important for several reasons. Engaging in these three levels of analysis challenges inequity and injustice. Also, I agree with Collier (2005) that understanding contextual factors is essential for understanding agency and positions of speaking and acting. In this sense, agency reveals structures and ideologies.

In my community engagement work, I apply context to uncover ideologies. One of the important ideologies that affect my work is globalization. It is important to study globalization because it perpetuates inequity (Sorrells, 2010). In Village G, technological advances that are spread by globalization are impacting humanature relations and human-human interaction.

Place/Space. According to Collier (2014) place/space is represented through non-fragmented reliance on human interaction with “nature”—physically, spiritually, mentally, economically and politically. It is important to note that places today are employed, rearticulated and used by processes of globalization and nationalism in new ways (Shome, 2003). Through

these processes, place refers to relations between institutions and status hierarchies. In this regard, therefore, place is not a frame; rather place is a multi-level context of action.

Studying space/place is important for several reasons. I agree with deMaria and Collier (2014) that connection to land is necessary to reveal spiritual, survival, social practices that unite people with a cultural path. Also, places reveal intercultural differences. So, places become spaces of enacting connections, engaging traditions performing rituals and become a site of cultural advocacy.

In my community work, place speaks for itself. *Lemqueel* does not look or act as it used to. Relations that this space used to nurture are not there anymore. Men do not gather in this place anymore. Globalization has given the space a new meaning, a meaning of disconnection. Community members are no longer gathering under the tree to discuss land issues or water distribution. Foreign labor has taken over the space as will be described in the analyses chapters.

Identity negotiation. Individuals are positioned into social and cultural categories based on gender, sex, race, ethnicity, profession, education, ability and political location. According to Collier (2009) cultural identity negotiation is a communicative process in which parties engage in developing, reinforcing and challenging their individual and group positions in relation to each other and to the context. I find Collier's (2005) processes and properties of identity to be relevant to my work. These processes are avowal (i.e. self views), ascriptions (i.e. other's views) and salience (the most important identity).

Studying identity negotiation is important in community engagement work for various reasons. Contradictory avowals and ascriptions reveal levels of agency (Chen & Collier, 2012). Therefore, understanding intersectionality is important to understand agency. Moreover,

contradictory avowals and ascription uncover competing ideologies. Furthermore, identity positions impact relationship development and maintenance, understanding context, and can complicate community work (Collier, 2014)

In my community work, I apply this component by attending to intersectionality. I explore how community members view themselves, how others view them and how these views contradict. Also, I create a space for community members to discuss stereotypical representations, how these representations affect them and why. Together we uncover ideologies by attending to contradicting positions.

Relationships and relations. Power and difference are two defining features of this component. Focusing on culture and cultural difference matter. Power in this case refers to negotiating access to needs (Collier, 2014). In my project, it is important to note that understanding relationships is dependent on understanding globalization because globalization relies on various overlapping structures and relations from local to national to global (Shome & Hedge, 2002). Also, globalization discourses create narratives of differences, which dramatically influence relationships (Shome & Hedge, 2002). These narratives of difference create spheres of inclusion/exclusion and empowerment/disempowerment.

In my project, I explore power and difference to examine how they affect levels of agency and privilege. I uncover societal norms and explain how they enhance the community members' enactment of ecological practices. I also examine the lived experiences of the villagers to explore how dominant views are influencing human-human and humanature interactions.

Recommendations. According to Collier (2014), inclusive participation in planning and decision-making is essential to build just, equitable, and inclusive work in the future. In chapter

six, based on my interpretations, I offer my recommendations. Community views are essential as they provide alternative discourses for how to sustain ecology and cultures. I recommend as suggested by some villagers and government officials to adopt a community-farming model such as cooperative farming. This model provides economically viable practices and at the same time value villagers' ecocultural traditions. Using the theoretical concepts of Collier's (2014) framework, I conducted micro and macro critical and interpretive analyses of collected and generated data. In the following section, I describe my data analysis process.

Data Analysis Process

In analyzing the focus group and individual interviews, I firstly transcribed all audio recordings verbatim. Then, I coded the data and looked for themes and patterns. Because my data was all in Arabic, except for two interviews with two officials who preferred using English, I translated the interview texts into English. I read the interview scripts as a discourse in order to look for meaning systems related to ecocultural practices, ideologies, and structural forces. As all focus group interviews and individual interviews were conducted in Arabic (except for two officials interviews), I had to translate the interviews after transcribing them. In an attempt to stay as sensitive to participants' meanings as possible while translating the interviews texts from Arabic into English, I consulted with two cultural experts; a male and female youth living in Village G. I chose a male and a female because some of the expressions used by village participants are gender-specific. I discussed and checked my translations with the two cultural experts over phone calls to ensure that I was getting at the participants' meanings as closely as possible. As idiomatic expressions were the hardest to translate, I made sure that I adequately explained the context of the interview conversations to the cultural experts in order to reach a consensus. It is worth mentioning that I could not include the participants' Arabic language

accounts in footnotes because of how Arabic script goes from right to left, which potentially interferes with the format of the dissertation text. Therefore, I paid special attention to the precision of translation.

With a critical thrust that is informed by ecocultural premises (Milstein et al., 2011), I applied the five discursive hubs of cultural discourse analysis; identity, relationship, action, emotion and dwelling, to analyze my data. I used the interpretive mode to look for (1) meanings about being, personhood and identity by asking: Who I am and who we are; (2) meanings about relating and relationships by asking: How we are connected; (3) meanings about acting, action and practice by asking: What people consider themselves to be doing; (4) meanings about emotions and affect by asking: What feelings are appropriate, to what degree, on what occasions; and (5) meanings about dwelling and place by asking: What the participants' sense of their place is (Carbaugh, 2007). This framework helped me understand how people interpret their humanature relations. Simultaneously, I used community engagement framework (Collier, 2014) in order to critically examine contextual factors and ideologies in the villagers discourse that impact these interpretations in order to create social change.

Furthermore, I examined government discourses by analyzing government officials interviews and official government documents in order to understand humanature relations as articulated by government discourses, and to uncover structural forces that impact these relations. I connected my themes to globalization, neoliberalism ideologies and development discourses. Therefore, context and ideologies were important to consider in my analysis. My analysis of the official government documents was guided by two broad questions: What are the assumptions that are implicit in these articulations, and how do these articulations communicate structural forces such as capitalist and neoliberal ideologies? These broad questions provided a

background for how I approached analyzing all my data. I looked for linguistic references and forms of talk that revealed discursive practices, negotiation of identity positions and relationships, cultural group positioning, levels of agency, power relations, and interdiscursive ideologies.

To answer my research questions, I used Carbaugh's (2007) cultural discourse analysis framework (CuDA) and Collier's (2014) community engagement framework. On a more micro level, Carbaugh's framework was useful in analyzing cultural features of communicative practices by interpretively examining key symbols, cultural premises and propositions, semantic dimensions and norms. This framework was also valuable in providing metacultural analysis about identities, actions, feelings, relations, and living in place (Carbaugh 2007). On a micro, meso and macro level, Collier's framework was helpful in offering a critical/interpretive orientation, coupled with an intercultural lens. With an eye toward praxis, this framework focuses on "enhancing the potential for just, equitable and inclusive community engagement in the future" (Collier, 2014, p. 27). This framework was also valuable in examining ideologies, power structures, levels of agency, privilege, interculturalities, and the researcher's positionality and reflexivity.

Using CuDA, I incorporated date palm metaphor as an organizing principle for data analysis and interpretation. I use this metaphor to honor the village participants who always used the date palm as a reference point to conceptualize their humanature relations. It was through their attachment to date palms that I was able to re-structure my interview questions to get to their core meaning systems.

Textual analysis

For the community engagement analysis chapter, in order to explore views of humanature relations and how these views impact ecocultural sustainability, I applied Collier's (2014) community engagement framework. I deductively applied four constructs of the framework, which are informed by my critical goals to (1) build an understanding of contextual structures such as histories of the country, institutional policies, globalization, neoliberalism, religious values; and (2) to examine the impacts of these structures on agricultural practices and ecocultural sustainability. I used textual analysis informed by the four critical constructs that come from the community engagement framework: context, reflexivity, cultural identities and positioning, and relationships. I coded for phrases, statements and meanings that were related to these four constructs. For example, I coded the following statement: "The government is not supporting us" as an example of the construct of cultural identities and positioning. Applying the four theoretical constructs of the community engagement framework, I looked at the forms and functions of grassroots discourses and governmental discourses in order to build an understanding of these discourses as they account for the resulting agricultural practices and relationships between people and between people and the land.

Chapter Conclusion

In this chapter, I described my metatheoretical assumptions that guided my research. After describing the Resolana method of data collection and analysis used in this study I presented the research site and my relationship to it. Then, I described the participants and sampling process. Next, I discussed specifics of data sources and collection. Finally, I described the process of analysis utilizing Carbaugh's (2007) Cultural Discourse Analysis and Collier's

(2014) community engagement framework as guiding structures as well as critical textual analysis. In Chapters Four, Five, and Six, I present my data analyses.

Chapter 4: Grassroots Discourse

In this chapter, I attempt to answer research question RQ 1: What grassroots core ecocultural premises do Omani villagers communicate? This chapter is organized as follows. I begin by describing the context of Omani agriculture and providing an overview of the study site of Village G – including a description of the community and its ecocultural practices. Next, I explore humanature relations using date palm metaphors as a structural organizing tool. Then, I identify three ecocultural premises that emerged from the data and tie in with the community of Village G and its relationship to its traditional agricultural practices. These ecocultural premises are: *relations-in-place*, *kinship-in-place*, and *nurturance-in-place*.

The Context of Agriculture in Oman

Historically, Oman was called Mizon, which means the land of rain-filled clouds. Abundance of water made Oman a fertile agricultural land. Hence, agriculture has been the oldest profession in Oman. Ancient Omanis dug wells and built *Falaj* systems for irrigation. Today, Oman has 2.2 million hectares of agricultural land, which makes it the biggest agricultural landmass within state boundaries in the Gulf region. Statistics show that in 2000 date palm trees used to make more than half of the cultivated land (i.e. 52% of agricultural land). However, this percentage dropped to 33% in 2013 (Ministry of Agriculture and Fisheries, 2014) and recently to 29% in 2015 (Ministry of Agriculture and Fisheries, 2015). Availability of ground water contributes to good farming conditions. Agricultural lands in Oman consume 88% of the ground water. The rest is used for home consumption and industry. This big percentage of ground water usage for agriculture contributes to water shortage, which impacts sustainability of agriculture in Oman.

Several factors are influencing the status of agricultural land in Oman. First, land used for agriculture is shrinking because the government is redistributing government-owned agricultural land as residential and industrial property. Also, a new structure of government that focuses on industries, manufacturing and information technologies, has produced more jobs in the capital Muscat and many people have moved out of the villages to find jobs in the city. Since most of the younger generations have jobs in the cities, many farms in the villages are not being maintained as agricultural property. Because many farms are not attended to and are kept out of their heritage value, emotional value, and family pride, farming lands are drying. To illustrate, many villagers who move to cities keep their farms as their property because, for them, land is intrinsically valuable. They are emotionally connected to their land as it represents ancestral connection and carries a family name. As MR, one female youth living in Village G put it, "land carries my family name as I consider her my mother, my father, my grandmother and my grandfather. I can't live without her." Many villagers refuse to sell their land but at the same time they are not available to farm it. Therefore, these abandoned farming lands become dry. In addition, most farm-owners in the villages have left their farms and have hired unskilled low-wage foreign workers, mainly from south east Asia, to tend to their farms, who are blamed for problems like poor agricultural crop yield and excessive use of chemical fertilizers. Also, some people who have stayed in the villages have continued farming in different ways. These people have replaced the traditional cultivation methods, which are inherently biodiverse as they essentially require rotations and associations of various plants and animals, in favor of cultivating cash-based monoculture crops.

These changes have influenced the relationships among people and between people and the land. To a certain degree, traditional agricultural discourse is retained in some villages, and

community relations are still maintained through ecocultural practices such as exchanging seeds and date palms seedlings with neighbors and relatives. Some people share their produce, especially dates, as gifts with their relatives. All in all, compared to other sectors that have recently gained more focus in the Ninth Five-Year Development Plan (2016-2020) such as fisheries, tourism, mining, manufacturing and transportation, agriculture is receiving less attention from the government and this situation is affecting how people relate to their land.

The Context of Agriculture in Village G

Village G used to be one of the primary agricultural villages in Oman. Because of abundance of water in the form of several *falajs* that irrigate the whole village, Village G was famous for various types of dates, mangos, limes, pomegranates, bananas, corns and animal fodder such as alfalfa. Village G is the study site for this research. Because I relate to this place, it is where my family originates, it has extra significance to me. In this section, I describe subsistence agriculture in Village G and how villagers traditionally had maintained a more harmonious relationship with the land. Then, I describe the social and cultural value of land and water. Finally, I explore how this conceptualization has been influenced by a capitalist ideology that villagers in part have identified in the form of imported food.

Subsistence agriculture in Village G

Village G is as old as history. Archeology of the village shows buildings, *falajs*, towers, and forts that date back to more than eight hundred years. For generations, villagers in Village G lived off farming. Abundance of water and fertile land made farming a way of life for the villagers. Long-standing, over 70 years old date palms found throughout the village show how villagers depended on farming for their livelihood.

Villagers in Village G have small plots of land, as property is divided by inheritance through the generations into smaller and smaller plots. In these small plots, villagers grew crops for their consumption such as date palms, lemon, mangoes, bananas, pomegranates, corn, and various kinds of animal fodder such as alfalfa. They grow food mainly to feed their families and satisfy their needs. Many farmers rely on the tradition of exchanging goods with their neighbors and/or trading goods at local markets. Also, it is worth mentioning that many villagers in Village G are not practicing farming as a source of income. Instead, they grow food mainly for their own consumption. These villagers have a stable income form the government as a form of social security. Others who do not qualify for receiving an income from the government have children who support them. A livelihood economy describes well the economy of the village as subsistence agriculture constituted Village G. Essentially, farming is a way of life for villagers. To them, land is more than the material space that provides their sustenance; it is also cultural, spiritual, and communal.

Social and cultural values of land and water

In Village G, land and water have social and cultural value. Land is important to kinship ties as land ownership is passed on from generation to generation. Men and women inherit land from their predecessors. In fact, women are equal with men in land ownership. According to Royal decree 125/2008, the right of owning or renting government and agricultural land is granted to all qualified Omani citizens equally. For example, women can own land by inheriting some from their ancestors within the state laws, by receiving land grants from the government, if they apply, or by buying land.

For the sake of continuing their family's name, which is culturally attached to the land as lands are named after the family, many villagers who left their villages to live in the cities hire foreign labor to farm the land. Culturally, selling one's family's land is not encouraged. In this regard, family members can collectively own a property. The same is true for *Fala*j water shares, which is a community-based shared irrigation system used in Village G, which has common roots in the acequia systems of New Mexico. As an asset, *Falaj* shares can be collectively owned and inherited by men and women.

Conversations with villagers reveal that they hold a harmonious and reciprocal relationship with their land that combines a sense of attachment to place with economic self-sufficiency. Villagers in Village G grow food in their small plots because they believe, as participant H stated: "We honor the land by farming it…if you do away with farming, by eating imported food, you ruin the land." For these people, farming the land shows respect to the land, and is a way of honoring it and protecting it from imported food that ruins it. Moreover, village participants show responsibility to land as it is not only their source of livelihood but land also carries their traditions, their experiences, their ecocultural knowledge and their social relations. To them, it is a way of being, of knowing, and of becoming. Their intricate relationship with the land is captured in their strong belief in this idiom, as recited by MZ: "Grow your own food, do not buy your food", which is translated from the Arabic saying: *'A'ziraa'h izra'ha wa la t'ishteeriha.'* According to this study's participants, they grow food because they want to be self-sufficient and, most importantly, because they want to eat healthy food. They all expressed their disfavor of imported food. In the past, when imported food was not an option, people had to farm their land in order to be able to live. Participants noted that, back then, land was the only

resource. To live, they had to farm it. As one senior male participant (T) reported, “In the older days, making a living was tough. If you didn’t grow your own food, you won’t live.”

Capitalist ideologies impacting humanature relations in Village G

As exhibited, grassroots discourse reveals that participants’ farming practices are culturally meaningful routines through which they make sense of their lived realities. However, the situation is changing and the materialistic culture of the capitalist world is starting to invade Omani society, even in the villages. As R pointed out, “In the present, people run after money.” In this statement, this senior male participant compares how life has changed inside and outside of the village. According to him, unlike the past when people lived a simpler life and farming met their needs, now people are looking for more opportunities, they have more needs, and they “run after money” to meet these needs. That said, the participants value their land, which is evident in their enactment of the idiom they narrated: “Land is more valuable than money. Land will last while money will vanish” (MZ). This understanding is consistent within their localized cultural logic. As evident, participants are negotiating a dialectic tension between material needs and cultural values of land. This tension provides an understanding of the cultural dynamics that impact humanature relations.

According to participants, land is a sustainable resource that offers food and sustenance. Unlike money that can quickly disappear because of mishandling, land is always available. All study participants said that land provides stability and security. This stability is expressed by an senior male participant (M) who said, “My pocket does not always have money in it. But with the land I can live.” This participant reinforces a cultural connection with land. He stated that the

land coheres more value than money because the land can always sustain his living while money does not ensure sustainability.

Community and Ecocultural Practices in Village G

Throughout their time, people in Village G have been self-sufficient and autonomous, sustaining their families through farming and animal raising. In the past, wealth was held in the form of date palm gardens and water wells. Villagers, especially seniors, continue to use traditional knowledge of astronomy to guide them in farming. They use the sun during the day and the stars at night to irrigate their farms. As one senior male participant (H) explained,

> We go by the stars. Farming goes by the Frankish months not the Arabic months because we look at the stars and the sun but not the moon. So, in August, we grow corn and barley. In October, we grow onions, garlic, carrots, pepper, cabbage, and all the green vegetables.

H expressed that the stars and the sun helped the villagers identify the seasons for growing different crops, which helped them sustain a farming culture. This participant shows how through their ecocultural knowledge and practices, people in Village G emplace community and co-existence with/in/as “nature”.

Ecocultural relations in Village G are based mainly on two major plants: date palms and wheat. Generally speaking, Omani people value date palms. Date palms were their main source of living. In fact, people lived off of date palms almost entirely. For example, in addition to being able to eat dates, fresh or dried, throughout the year, date palm leaves were used to make ropes that helped people pull water out of wells. Also, homes were made of date palm trunks.

Cleaning tools, cookware, and furniture were made of date palm leaves (See Figure 3). Omani people lit fire for cooking using the leaves and branches.

Figure 3. Uses of date palm parts.

In addition to date palms, villagers in Village G value growing wheat and alfalfa. According to senior participants, wheat is believed to make a complete healthy meal when eaten with dates. Until recently, because villagers value raising their own animals, it has been

important for them to grow alfalfa as fodder. As part of biodiversity, alfalfa is usually grown under date palms, because alfalfa needs shade and can also benefit from the water used to irrigate date palms.

Seasonal ecocultural practices: *Al Qaidh* and *Tas'eef*

There are two main seasonal ecocultural practices associated with farming dates and wheat. The season for date harvesting is called *Al Qaidh* and the season for wheat harvesting is called *Tas'eef.* These two seasons are especially festive because they signify the harvesting of the two crops that used to be the main sources of living for Omanis: dates and wheat. Omanis value the season of dates from the moment they pollinate the palms until the time when they dry the dates for later consumption.

Al Qaidh. In Village G, men and women play different but complementary roles in farming. Men are responsible for pollinating the date palms, cleaning them by cutting dry leaves, and harvesting the dates when they ripen. Women do the sorting after harvesting. They sort out the good dates from the dried ones (See Figure 4). Very dried dates, which become too hard for human consumption, are used as food for their animals. Traditionally, during date harvesting season, all villagers, men, women, children gather in date palm gardens to help each other. Villagers are usually committed to the cultural practice of *Al Qaidh.* They plan their activities and vacations around this season. For example, since they need to be in the village working hard until the end of the season, villagers cannot travel or plan any weddings during this time as they are too busy. This commitment to *Al Qaidh* is described by MR, a female youth living in the village, and S, an senior female, who said,

MR: We have to stay here [in Village G] as we can't leave our dates behind and travel. We have been waiting for *Al Qaidh* for a long time. We want to reap the fruit of our effort. We want to prepare our own dried dates for later [use].

S: My son wanted to take me to *Salalah* [the southern part of Oman which has a beautiful monsoon season] but I refused. I told him that as long as *Al Qaidh* is still on I wouldn't leave here [Village G]…It is a busy time. Even weddings are postponed until Al *Qaidh* is out. You either have weddings before or after *Al Qaidh.*

Figure 4. Dates sorting and drying during *Al Qaidh*.

Associated with the date harvesting season were two communal ecocultural practices: *Raqat* and A'*tabseel*. *Raqat* means picking up dates from underneath the date palms after they fall from the palms. Date palm gardens, which are called *Mal* in Arabic (literally meaning money) are opened for the public to do *Raqat*. Traditionally, children and women mainly practiced this ecocultural activity. It was usually done during the very early morning before it got hot, as this practice would fall during summertime, when the temperature could rise to more than100° F. The dates picked up in this practice are mainly used for animals. As youth living in

the city described the practice, many children would feel happy to participant in *Raqat.* According to Hd, who narrated his story during his childhood,

> Hd: My brothers and I would get up early in the morning and go to the *Mal* to pick up as much dates as we could. We would play and run contests with other children of who would collect the most dates.

For many, this ecocultural practice has stopped recently. Nowadays, *Raqat* is practiced by foreign workers.

A'tabseel is another ecocultural practice associated with the date harvesting season that has vanished from Village G for economic reasons mainly not having a market abroad. In this practice, community members would gather in a town square to prepare a special type of dates called *Almabsali*. Men, women, and children would get together and work hard to prepare the dates. During this time, to entertain themselves, they would sing songs and repeat chants. After cooking the dates in huge pots, the villagers would dry dates in a special place and then they would export them. *Almabsali* dates used to be very much needed abroad. It was one of the important Omani exports. However, it is not the case any more in Village G, as described by two participants:

> R: *Almabsali* dates [a type of date palm] were so economically rewarding. Now it has no value in the market…People run after the material gain in everything.
>
> T: It is not demanded abroad as it used to be. Every generation has its own style.

According to village participants, the change that occurred to *A'tabseel*, as an ecocultural practice, was driven by two factors. The first is related to transnational trade. Global markets, specifically in India as youth participants described, are no longer demanding this type of dates. The second reason is related to local changes in the village. While T, an senior male, justified the disappearance of the practice to changes in generational tastes and "styles" among villagers, Hd,

a youth male living out of Village G, described the change to this "folklore carnival" as related to lack of collective work needed due, in part, to migration of youth from villages and the small number of senior available in the village, who don't see an "economic return from it."

> Hd: In the past, *Al'tabseel* was a phenomenon like a folklore carnival that continued for a limited period during which all community members participated in harvesting, sorting, cooking and drying *Almabsali.* Now the number of people who can help out is decreasing. Now, many youth are not in the village. Only older people are available in the village and they can't do it alone. They need a big number of people to participate, as it requires collective work. Also, those who are in the village are not motivated to practice *A'tabseel* because they pay high price for labors to help them but there is no economic return from it.

Consequently, ecocultural values associated with this practice such as support and cooperation are affected. Women, men, and kids no longer gather together to help each other during this season. The practice disappeared, mainly, because there is no economic value to it. This reveals that, in this context, sustainability of ecocultural practices can be determined by whether the practice is monetarily rewarding or not.

Tas'eef. The second biggest season in Village G that is currently declining is wheat harvesting, *Tas'eef.* Villagers value this season because wheat is an important ingredient in many of their dishes. It is both a time of hard work and a festive time for many men, women, and children who get together and help each other. Although *Tas'eef* is still practiced by some villagers, this activity is not as communal as it used to be. Since mid eighties, *Ta'seef* as an ecocultural practice that cultivated community ties has changed. Those who practice now *Tas'eef* rent harvesting machines and have foreign workers do the job for them. In the past, the owners of the fields would host villagers for a month to complete the job of harvesting and grinding the wheat. The owners would provide food and shelter for the helping villagers and when the job was done, the owners would give sacks of grain to these villagers in compensation for their hard

work. Again, in this season, villagers used to work hard together as a community, sing, and tell stories to pass time and entertain themselves. According to male youth living in Village G, using harvesting machines in *Tas'eef* has positive and negative effects. They stated:

> ES: Technology has separated people and at the same time helped them be efficient.
>
> Bd: Speed is good but community ties are gone.
>
> SM: People would lose connection but they gain materially [by using harvesting machines]

Changing Ecocultural Relations

Villagers in Village G value relationships, solidarity, community ties, neighbors, and family support as resources. They honor their relationships with the community members. To illustrate, during *Ramadan*, the holy month of fasting for Muslims, villagers share food with their neighbors to break their fast with. As Omanis mainly break their fast (which is called *Iftar*) with dates and milk, sharing milk is considered a kind gesture especially during *Ramadan*. This practice of sharing food during *Ramadan* is described by Ala:

> *Ramadan* is especially an active time to show social relations. As a cultural practice, if you have a cow, you share the milk with your neighbors, because you want *Ajr* [reward from Allah]. Villagers already know that this household and that household have cows and so they know where to go to get their milk. The cow owner actually gives the milk away as a gift. She would invite her neighbors to send their children to take milk everyday. Cow owners decide among themselves which houses they will distribute their milk to. So, you see all the neighborhood kids running with their jugs before the sunset prayer to fetch the milk.

As Ala said, villagers consider interacting with their relatives and neighbors as part of enacting their religious values. Cow owners, who are usually women, through their act of sharing milk, are establishing social, spiritual, and ecological relations with their neighbors, the cows, and

among themselves. By "decid[ing] among themselves which houses they will distribute their milk to," these women villagers are making sure that every house gets milk for their *Iftar*.

However, quality of life in Village G is changing. Participants explained that with the loss of farming practices, there is a loss of community ties. They all expressed that "cooperation among people is all gone now." Now farming is not a way of life for all villagers in Village G. According to a senior male participant, M, "Everybody has foreign workers. Now very few people practice farming." One senior male, T, added: "More than ten years now we have stopped practicing farming." Another participant, H, stated, "It was around 2000 when I remember people were not doing farming as they used to. We started hiring foreign laborers."

It was in 2000 that Oman became a member in the World Trade Organization (WTO). Membership in the WTO has had significant implications for farming and farmers. For one thing, since then, the government has brought in more imported food, which competes with the locally grown food. Another implication of WTO membership is that the government started reducing agricultural subsidies such as seeds, tillers, wheat harvesting machines, and even extension services. According to one male youth living in Village G, extension services have decreased in quality and quantity. He stated:

> SH: I remember we would have more support from the Ministry of Agriculture. There was something called "Listening Committee," in which specialists from the ministry come to Village G to listen to us and take our farming concerns to the ministry. They provided us with seeds, farming tools, and they just listened to us. This was encouraging and we felt supported and wanted to continue farming. Now, …[shrugging his shoulder]

Furthermore, senior participants described that none of their children work in farming. They revealed that children do not practice farming because of the availability of government

jobs, government salaries, and the coinciding new lifestyle in the form of adopting city life and new technologies. They also noted that the younger generation is not interested in farming because, as T said, “There is no big return from farming now.” That said, although seniors expressed disappointment at how youth are not involved in farming anymore, they all agreed that these youth are still connected to date palms. The seniors are optimistic about the future of date palms, as shown in the following interaction:

> H: Thank God even youth now are not giving up date palms.
>
> T: Any Omani youth will never forgo date palms. Even if they don’t do the work that date palms require, they will definitely plant at least two date palms when they buy a residential piece of land.
>
> H: This attachment to date palms is pleasing, I assure you, and puts you at peace. Omani people cannot live without dates. And they will never give dates up.
>
> R: Even if we have progressed and developed, we can never live without date palms.

I would like to point out that these are sentiments from people who are not activists for agriculture. Rather, they are villagers who are attentive to these relationships. In other words, these villagers manifest a self-awareness of the shift in farming traditions, and they have a reflective and shared understanding of the good things that remain – in this case, the relationship with date palms and all the practices and meanings that are wrapped up symbolically in this relationship. With this optimism and enthusiasm of the senior participants, I turn to the next section that describes how I use date palms symbolism to depict humanature relations (Milstein et al., 2011) through exploring three ecocultural premises: *relations-in-place*, *kinship-in-place*, and *nurturance-in-place*. In this research, I use humanature as a compound term in the same way as Milstein et al. (2011) used it: “to reflexively engage ecology and culture, nature and human, in integral conversation in research as they are in life” (p. 488).

In this project, I identified three core ecocultural premises circulating in participants' meanings: *relations-in-place, kinship-in-place,* and *nurturance-in-place*. Through these themes, participants revealed a strong connectedness with land, water, animals and plants. In the following, I describe how participants use *relations-in-place*, *kinship-in-place*, and *nurturance-in-place* as discursive practices to construct their humanature relations. I conclude this section with a description of how ecospirituality surfaces throughout the grassroots data as guided by a sense of *Umma, which* fosters an ethical standing and promotes humanature relations. At the end of the chapter, I offer my conclusion and how I answered RQ 1.

Date Palm Metaphors

Throughout time, Omani people have held date palms (See Figure 5) in high esteem. Traditionally, date palms are another asset derived from the land, and date palms play a role as a status symbol in the village. A person in the village is classified as rich or poor depending on the number and types of date palms s/he owns. Omanis have recognized them as their loyal friend who stands by them in good and bad times (Alharthy, 2010). During difficult times, date palms sheltered Omani people and their animals, clothed them, and created jobs for them. Through their abundance and diversity of use, date palms have provided Omanis with sustenance for generations.

Figure 5. Dates palms.

I use the metaphor of date palms because I dearly identify with this tree as it moves my mind and my heart and gives me faith to navigate my journey in building an understanding of how villagers in Village G interact with “nature”. Spending my summers in my family’s farm in Village G has nurtured this tapestry with date palms in me. I have seen our date palms grow with me but never thought that one day I would not be able to enjoy all the varieties of dates that my father grew. The farm was my father’s primary passion. He used to closely supervise which varieties of dates were grown and how many of each he would want in the farm. After his passing, my family and I moved to the city for economic opportunities. Now, because of the responsibilities involved with a more established life in the city, we rarely visit Village G.

Moreover, I choose date palms as a metaphor as it conjures qualities of nurturance, giving, loyalty, responsibility, diversity, kinship, resilience and spirituality, which are all manifested in the themes I interpreted from my study participants' conceptualization of humanature relations. In this section, I use the biological, cultural, and spiritual features of date palms as a metaphoric framework to explain humanature relations as expressed and experienced by village participants until very recently without significant disruption. I use this framework to explore humanature relations by describing how a date palm symbolizes the identified ecocultural premises of *relations-in-place*, *kinship-in-place* and *nurturance-in-place*. I offer this metaphor as the impetus that brings about ecocultural change.

Biological features of date palms

Biological features of date palms offer humans abundant wealth through their multifunctional parts from top to bottom. They are bountiful trees that not only provide fruit, but also all their parts can be utilized effectively. In Oman, their pinnate leaves are used in making baskets, mats, chairs, fans, and date containers. Since these leaves do not fall down, they provide shade. The date leaf spines are used for making roofs, fences, floors, and furniture. Palm fiber, which grows at the top of the trunk, is used for cleaning purposes and making ropes. Moreover, palm pollen has been considered as a natural remedy for various illnesses. The trunk, the main thick stem, is used in construction and firewood.

By tapping into the various biological functions and features of date palms, Omani people gained wisdom in how to navigate their harsh living conditions, such as when there was scarcity of food and making a living was not easy. The date palm was their teacher. From this faithful companion, they learned several crafts.

As I am interested in exploring the recent changes of ecocultural practices in Village G and factors that affect humanature relations, I present the biological features of date palms as symbolic of sustainable humanature relations. The tower-high trunk represents intergenerational connection and shows resilience. The vibrant interwoven leaves along the spine remind us of the unity we share with "nature". Because there are over eight hundred types of date palms that all have various names, tastes, and colors, date palms are associated with diversity. All these functions and features of date palms create interdependence between humans, and between humans and all living beings. A sense of *relations-in-place* is manifested in all various stages of growing a date palm, from *Tanbeet* season when date palms are pollinated to *Qaidh* season when dates are harvested. The ecocultural premise of *relations-in-place* is manifested through sharing *Shamareekh* (i.e. date palm pollinators) among neighbors who don't have them during *Tan'beet* season. Moreover, exchanging dates during *AlQaidh*, as a gift to relatives and neighbors, is essential to bond and strengthen social relations.

Cultural features of date palms

Culturally, I use the date palm metaphor to show how date palms symbolize kin relations. Kinship symbolism of date palms originates from understanding that female date palms produce offspring. These offspring, which are called *Faseela* in Arabic (See Figure 6), ensure the continuity of this date palm type. One date palm can be a mother to five to ten *Fassela* on average. Hence, mothering comes as part of kinship in explaining humanature relations. Moreover, in Oman it is common knowledge that people call Adam (as in Adam and Eve) "our father." Omanis believe that dates palms are created from the same matter that Adam is created from. From here comes calling date palms an aunt.

Figure 6. Faseela is the offspring of a date palm.

Date palms symbolize the second ecoultural premise of *kinship-in-place*, in several ways. In Oman, a date palm is perceived as a mother. “She” is a mother to not only humans, but to all forms of life. Also, a date palm is understood as an aunt. Many grassroots’ participants expressed respect for “her” as a family member. In addition, culturally, dates are viewed as grandchildren of the earth. With their various colors and types, they represent diverse grandchildren. Lastly, to some men, as participants shared, a date palm is a wife and a life partner with whom they share their secrets.

In addition to being culturally symbolic of the family, a date palm is an icon of resilience. Observing the surrounding environment of date palms reveals their unique features. Regardless of how harsh the conditions around us may have been, a date palm teaches us that we can give our best in hard times. This harsh environment signifies the forces that affect human relations with “nature”. In essence, date palms symbolize the ability to survive in challenging weather and to regenerate. Regeneration means that we need all forms of life to celebrate holism and oneness with “nature”. Vitality and expansion are characteristics of date palms that inspire us to grow, evolve, and stay alive and at the same time keep our roots to deeply ground us so we can grow taller and taller like the date palm’s towering trunk.

Date palm symbolism is integral to the third ecocultural premise of *nurturance-in-place*. Date palms have been a teacher to Omani people that have taught them various crafts that sustained then during hard times. Date palms have also defined social roles for the villagers. This aspect of date palm as nurturer is evident in how traditionally men are responsible for *Tanbeet* and harvesting dates, while women are responsible for sorting and drying dates.

Spiritual features of date palms

I use the date palm metaphor to explore the spiritual aspects of humanature relations as date palms cohere a spiritual value. In many traditions and faiths, date palms are holy plants. For village participants, spirituality of date palms is infused by the teachings of the Hadith “Plant a date palm before the Final Hour comes.” Villagers are spiritually attached to date palms. They cry and feel sad when a date palm dies. Spirituality in this sense promotes considerations for future generations. I use this symbolic spiritual feature of date palms to explain humanature

relations in Village G and how spirituality is rooted in the three ecocultural premises identified: *relations-in-place, kinship-in-place* and *nurturance-in-place* that are explained below.

Relations-in-Place

Relations-in-place (Milstein et al., 2011) is an established theory that demonstrates how land-based cultures may understand "nature" as "an immersive space that provides the grounding, experiences, and material for social relations" (p. 487), in contrast to Western culture which views "nature" as a separate entity. Humanature relations are grounded in social relations (Milstein et al., 2011). In this research study, I explain how relations-in place manifests in a traditional culture in the Middle East. In the case study, participants embraced an interdependent view of "nature". This interdependence is summed up in their belief that "If you are generous to earth, earth will be generous to you" (S). Drawing on *relations-in-place* theorization, in this section, I trace how people in Village G interact with land, water, animals and plants, and how these people conceptualize "nature" as a space to enact community.

Study participants view "nature" as a space to relate to the more-than-human beings. Their ecocultural practices reflect their interconnectedness with land, animals, water, and date palms. Relations-in-place in my research project are manifested in the emplaced social relations related to how people share food, use the *falaj* system, and save seeds in Village G. The participants' meaning systems are consistent with the study of a traditional New Mexican Hispanic core premise of a sense of *relations-in-place* (Milstein al el., 2011), which reveals how these people's meaning systems of food and *acequias* (waterways) are rooted in their place and their social relations. In what follows, I describe *relations-in-place*, as an ecocultural premise manifested in participants' narratives about how food sharing, water using and seed saving all

build community relations. In addition, I present participant-identified problems, namely, a sense of loss that interrupts humanature relations in Village G.

Food sharing builds community

Participants' narratives revealed that food sharing is one way of building community. Women in Village G get together for morning coffee at around 10:00 a.m. In this gathering, women often share their homegrown produce with their neighbors. They share the food in two ways. In one way, they bring cooked food that they eat together. In another way, they share food by bringing it in raw form for others to incorporate in their family's food. Most of the time, such produce includes dates, black-eyed beans, check beans, sweet potatoes, crookneck squash, and Omani bread. Homegrown food is actually central to these morning coffee gatherings. Women like to share the produce from their land, as it is a sign of hospitality specific to culture. This way, food maintains a sense of *relations-in-place*.

Moreover, participants revealed that farms produce and reproduce social, cultural, and ecological relationships. One female youth participant (Ala) who moved from the village to work in the city described: "The farm unites us. Our stories, conversations, and laughter all happen in the farm." Another female youth participant (Hn) echoed this function of the farm by saying: "It is in the farm that we meet our neighbors, relatives, have coffee, and all the children play." According to these participants, the farm sustains community relations, as it provides a space for them to connect and socialize. Here, a sense of *relations-in-place* highlights that people are not separate from land, animals, water, and farm food. They eat from the farm, take their breaks in the farm, socialize in the farm, and share their memories in the farm. The farm "unites" them socially, ecologically, and culturally. As *relations-in-place* research indicates, stories, laughter,

coffee, and children playing in “nature” are a formula for melding the ecological with the cultural.

Furthermore, in this context, maintaining bonds with neighbors and relatives is a cultural value. Farms and animal farms become the space to embody this value. Food sharing as a way of building community establishes relationships not only between people and their neighbors, but also between neighbors and their animals. To illustrate, during the holy month of *Ramadan,* when neighbors who have cows share their cow’s milk with the neighborhood, they sometimes have to add some water to the milk to share it with more neighbors. By doing so, the neighbors notice a difference in the taste of milk, and so when they meet they ask the cow owner to check on her cow’s health, as one female youth (Ala) described: “I hope your cow is feeling well. Is she well? We noticed that the milk we got from you tasted different today.”

By checking on the health of the cow, neighbors show their care not about the milk quality but about the cow as a living being. This reveals how participants value the cow for its intrinsic value. Gleaned from this utterance is an enactment of social, cultural, and ecological relationships between humans and animals. Interdependence between humans and animals, through milk sharing in this case, strengthens neighborhood ties and creates community between humans and the more than human world.

Water Builds Community

Participants’ cultural views of water are rooted in *relations-in-place*. The *Falaj* system in Village G cultivates relations-in place. It supports life in place and connects people together. Participants expressed how, through *falajs*, they enact community not only with human beings but also with animals and birds. This view is demonstrated by participant Mz’s comment:

> *Falajs* are very [spiritually] rewarding. Birds drink from them. Animals drink from them and even people. Those who travel long distances stop by the *falaj* to drink. They also pray by making ablution from the falaj. In addition, women would line up in cues to shower and wash their clothes and dishes.

In this account, cultural practices are tied with spiritual, social, and ecological practices. Participants described that *falajs* are spiritually "rewarding" because they give life to travelers, to animals, and to birds. *Falajs* become a space to relate to all forms of life. This orientation towards water flows from an understanding that the *falaj* is a spiritual and material space that manifests humans' spiritual and material connection with water.

Moreover, water builds community in Village G through a practice of communal sharing of water. In this cooperative framework, villagers decide among themselves how to distribute water and who gets what share of water for how long in order to irrigate their farms. This water governance system cultivates *relations-in-place* as villagers cooperate and share their water turn. For instance, if one villager is done with watering his farm and he still has his time share of the water, he directs the water to the neighboring farm to irrigate it.

Participants also revealed that *falajs* are not only a source of drinking water, they are also a space to socialize while meeting to do daily chores. For example, women used to gather at the falajs to take showers, wash their dishes and clothes, and give baths to their children. That said, in the current time, as water is available inside homes, women do not use the *Falaj* for showering or washing.

Until now, villagers' attachment to falajs reflects on their well-being. They feel happy when the water level goes up and it saddens them when the level goes down. In fact, when senior villagers greet each other they ask 'how are you' to mean 'how is the falaj water level.' This

human-water relationship is rooted in villagers' belief that "*Falaj* is the vein of life. If the vein is cut, life stops" (R).

Seeds Build Community

As exhibited, maintaining and strengthening relationships with neighbors is vital for participants. Native seeds provide the resource to shape this strong connection. Seed saving was repeatedly brought up by participants as one way to relate to and bond with neighbors. One of the reasons participants believe that it is necessary to save seeds is to be able to share them with their neighbors.

> MR: I grow the best pumpkins. When I see how sweet and delicious my pumpkins are, I make sure I save seeds for my neighbors so that they try them next year.
>
> T: Some people save *Alshamareekh* [date palm male part used for *Tanbeet*] in dry places…you save them so that when your neighbors ask you for some you can share with them.

Seed saving for these participants has a communal effect. Explicit in this practice is the value and significance that participants adhered to seeds as a way of relating. Pumpkins and dates are among the most common food that villagers give as gifts to neighbors and relatives. Therefore, saving these seeds has a social value. As shown in these participants' accounts, community building is rooted in this ecocultural practice of seed saving. This practice of seeds exchange is deteriorating as few people now are practicing farming in the village.

Sense of Loss

A sense of loss related to food, land, native seeds and community market (i.e. the *Souq*) was exhibited in village participants' narratives. This participant-identified problem interrupts *relations-in-place*. Participants explained that community relations are changing now. Male,

female, senior, youth, and those living in the village or outside the village, all participants expressed that they are not as connected to their relatives and neighbors as they used to be. For example, some participants described how wheat harvesting practices have changed with the introduction of mechanization. They talked about how they used to gather during wheat harvesting seasons and enjoy working together.

> S: We would feel happy to get together and help each other. We would tell stories and laugh. Thank God. Yes. You feel happy to see people. You wouldn't want to stay at home [doing nothing].
>
> SH: Humor connected people. That humor has helped them [work together]. It has created relationships and connected them together. Now we have lost this, truly.

Participants exhibited how a sense of humor in practicing agricultural activities actually created community relations. Their ecocultural practices revealed how land was a source of happiness and enjoyment. They described that in the past, when villagers gathered to do wheat harvesting, they laughed and told jokes and enjoyed working together. Although the traditional way of doing the work was labor-intensive, participants, especially the seniors, described that: "We liked it [wheat harvesting]. We didn't feel tired. We were comfortable" (MZ). This illustrates how a sense of humor and joy is positioned in *relations-in-place*. Similar to how humorous stories, that featured storytelling in the New Mexican Hispanic cultures, created *relations-in-place*, a sense of humor in place created communal relationships among participants, and between participants and their place. As they described it, the loss of this sense is related to a sense of *relations-in place*; as *relations-in-place* research implies, this sense of loss creates a disconnect from "nature" and culture.

Furthermore, male and female senior and youth participants who live in Village G complained that land now is not as healthy as it used to be. They said that pesticides, herbicides

and chemical fertilizers are changing the quality of the land. They described how they used to harvest a type of wild plant that grows in plains called *Almahteedy*, which they described as being very useful for both animals and plants. They listed the benefits of this plant:

> Mh: We use it as a bedding for our animals.
>
> Fh: It has a nice smell…The very strong smell kills pests.
>
> MR: It works very well to absorb the wetness in the pen.
>
> MZ: People put the plant under the trees as fertilizer.

Now, they can't use many plants that helped them with pest control. They justified the reasons for not finding these plants:

> R: Now there is less rain.
>
> Bh: Lands that these plants grew on are gone. Now these lands are all buildings or are privately owned.
>
> T: The government now is not allowing cutting trees from the plains. You get a fine if you do.

According to male youth participants, these lands, that the participants are referring to, used to be public lands and now they are private property. That is why people cannot access them to harvest *Almehteedy.* They also added that, similar to what T, a senior male, said, these plants could not be harvested because the Ministry of Environment and Climate Affairs passed an order to protect wild plants from over-harvesting. Although all participants know that they cannot harvest *Almehteedy* now as a result of the ban, female youth participants living in Village G expressed that because farming is now mostly done by foreign workers, who are not skilled in Omani farming practices, and as the seniors are aging, the use of *Almehteedy* as ecological pest control is not common knowledge anymore.

Participants also lamented the loss of some varieties of local seeds. MR and MH said, "We had only pure Omani seeds. This is all gone." When asked to further explain what happened to the local seeds, one senior male (R) said, "Now people eat the imported food. Ready made food. I call them fast food. They want the easy things…Farming requires patience and time. We are sick now because of this imported food." According to R, because many people find it easier to buy imported food, which he called "fast food," they are not interested in growing their food locally as "farming requires patience and time." Therefore, these people lose their seeds by not growing them anymore. Another senior male participant (T) explained, "People left farming. When the government renaissance began, jobs were created, and people worked for the government. Now people buy imported seeds."

Imported seeds are gradually replacing local varieties. New policies that opened the Omani market to the global market economy and to free trade as a result of signing membership with the WTO have made it easier for imported seeds to compete with the local seeds. In many cases, imported seeds are the only option for farmers because the markets don't sell local seeds. Such imported seeds come from countries such as USA, Holland, Chile, India, Thailand, and Jordan. Participants noted that their land is being less productive as a result of using imported seeds. They complained: "There is not a lot of yield now. We cannot eat and save at the same time because the farm does not produce plenty [food] like before" (Bh).

They also complained that seeds now are cheated as some sellers mix good seeds with lower quality seeds:

> Fh: We don't save our seeds anymore. We can't. There is not enough [growing] to save seeds and also eat from it.
>
> Mh: Before we used to save our seeds.

> MR: No one does now.
>
> Fh: There is not enough produced now.
>
> MR: My father-in-law used to harvest a lot of grains and sometimes he gets so much that he can even sell it. Not anymore. Now we buy our seeds. We buy it for 50 Rials or 70 Rials. And these seeds, when you plant them, you get weeds. And sometimes they grow [the seeds] and sometimes the yield is little...Now seeds you buy are cheated.

Not only seeds are "cheated" now, but also participants communicated their fear of losing the native seeds:

> ES: Farming now is different from the past. We are losing a big thing. Not taking care of our native crops. We used to have various types of native crops. We left them. People now are going towards cash crops. We abandoned our traditional varieties.

As ES, a male youth living in Village G, pointed out, in many cases, native crops are replaced with cash crops in Village G. Consistent with research on food policies and globalization (Shiva, 2004), it seems that local farmers in Village G grow more cash crops in place of native crops because cash crops are more in demand and are, as ES explained, "not too risky to grow." In the context of changes in local agricultural policies that have reduced subsidies in some agricultural practices as a result of integrating into a globalized free market economy, farmers in Village G aspire to improve their livelihood in order to cover the costs of growing their own food, and so they decide to grow what gives them a greater economic return.

Another unsustainable practice that participants regret losing is the *Souq; a* local community growers and producers market (See Figure 7). The *Souq* of Village G is gone. By the early 1980s, the *Souq* was only a structure with merely no social or economic activities going on. Participants described that in the old *Souq* they used to buy goats, dates, animal fodder, and local

butter and ghee. Participants justified the closure of the *Souq*, as H said: “Life has changed. Now we have small shops everywhere in Village G.” People in Village G now have to drive all the way to [a nearby village] to buy their fruits and vegetables. In addition to it being a place to sell and buy produce, the *Souq* in Village G was a space to enact community. The discontinuous practice of the *Souq* is one factor of a fragmented community. According to T, a senior male participant, “People are fragmented now. They are not living in one place like before.”

Figure 7. Village G old *Souq*.

In general, I observed that participants are gradually integrating into the wider mainstream globalized culture. By that I mean that participants do not express aversion to

Western ideas of progress nor do they show unjustifiable attachment to the past. To illustrate, senior participants stated several times that generations are changing. As one senior female (S) put it, "Youth will not practice farming like we did. This is a generation that is different from our generation and the next generations will be even more different." However, as all the seniors stated, date palms will continue to live next to every Omani's house whether in the village or the city.

In sum, I have shown in this section how participants internalize a core ecocultural premise of *relations-in-place*. This premise revolves around the participants' conceptualization of farm and home-grown food as spaces to connect and socialize; around water as central to not only human social relations but also to the more-than-human world such as animals, birds, and insects; around native seeds that provide the means to shape a strong connection with relatives and neighbors; and around a sense of loss that created disconnection in humanature relations. By emphasizing how water builds community not only with humans but also with the more-than-human world, my findings build on how the *relations-in place* framework (Milstein et al., 2011) is theorized.

Besides these similar aspects and additions that I have provided to *relations-in-place* theorization, I observed a profound way of relating to "nature" through kinship. In the *relations-in-place* research, kinship is not articulated as part of *relations-in-place*. Extending Milstein et al.'s (2011) ideas about the ecocultural premise of *relations-in-place*, I present a core cultural premise of *kinship-in-place* in the following section.

Kinship-in-Place

In this research, participants describe ecology from a kinship lens. They talk about "nature" and about themselves as kin. Kinship is manifested through participants' view of land, animals, date palms and dates as their relatives. They refer to them as mother, children, aunt, wife, and grandchild. Participants' physical, social, and spiritual well-being is enhanced through their interaction with their land, animals, and date palms as relatives. Because ties of kinship are honored, this orientation to "nature" shows how, for these people, maintaining strong bonds with "nature" is essential. This kinship understanding of "nature" conjures subjectivity of "nature." With the realization that "nature" is a relative; that a date palm is a mother, a wife, and an aunt; that a goat is a son; that land is a mother; and that one's nurturing of animals and date palms is like raising one's children, it becomes apparent that "nature" is a related subject. As relatives, humanature undertakes various reciprocal roles to live in harmony. In what follows, I describe *kinship-in-place* as an ecocultural premise by examining grassroots narratives that reveal kinship with land, kinship with date palms and kinship with animals.

Kinship with Land

Many participants expressed a view that the land was their mother. They narrated how she has nurtured them, their children, and, before that, their ancestors. In the following exchange, two senior female participants illustrate this kin relationship:

MZ: This land is our mother. She has brought us up.

S: Yes she brought us up and she brought up our children, our parents, and grandparents. Participants viewed land as a mother to future generations. Land is an eternal mother that is giving, loving, and caring for all living beings in the web of life.

Senior male participants revealed a deep connection to the land they own, which they depicted as a mother-child relationship. The following excerpt shows how one senior male (T) expressed his feeling of sadness and deep loss when he hypothetically imagined losing his land: "If I lose my land, I will be very upset. Very bad feeling. I will be very sad. Like a child who loses his mother. Of course, because I am attached to it." This participant described himself as a child who feels sad and cries if he is detached from his mother. This motherly kinship does not know age nor gender. Whether a person is a child or an elderly, a male or a female, disconnection from land is painful.

Kinship with Date Palms

Date palms are especially salient in the participants' lives. They value date palms as a relative and a family member. One senior male participant (R) replied when asked why date palms are important to him:

> Prophet Mohammed taught us: 'Be generous to your aunt the date palm.' A date palm is a life partner to an Omani. Can a man live without a woman?! Likewise, a date palm is like a woman, 100%. A man's secrets are with his wife. Similarly, a date palm's secrets are with the Omani men.

In this account, R describes a spiritual connection to date palms, when he mentioned that relating to the date palms as an "aunt" is the Prophet's teaching. He values it as an aunt of the father's side. This view renders respect to date palms. He also describes date palms as a "wife," which actually implies a more intimate relationship. By calling it "a life partner," he further adds a unique quality of trust and commitment that ensure sustainability and endurance.

Furthermore, participants constructed a motherly kinship with date palms. This kinship is articulated by S, an senior female, who said: "A date palm is our mother." Following from this

relationship, Omani people call dates “grandchild of the earth.” As these participants view date palms as a mother, dates become her children, as she is the daughter of the Earth. So, dates are the children of the date palm who is the daughter of the Earth. In this kinship relationship, it is culturally understood that the earth is the mother of the date palm and water is the father. This way, kinship signifies relations between generations. In this intergenerational conceptualization of “nature”, kinship reveals that “nature” is regenerative. From one generation to the next, date palms continue to be loving, giving, and caring.

In addition, participants view date palms as not only mothering them, their ancestors, and their children, but also mothering their animals. MZ stated, “They [date palms] have fed us and fed our children, our parents, and our grandparents. Date palms have made our stomach full. Not only me and my children, date palms have fed my animals too.” This account exemplifies the ability of date palms to take care of and look after humans and animals alike. This motherly relationship provides a basis for reciprocity between humans and the more-than-human world. Indeed, a traditional kinship orientation appears to promote harmonious relations among all forms of life.

Moreover, as their kin, participants expressed a deep sense of attachment and belonging to date palms. They deeply grieve the loss of date palms as the death of their kin. In the following exchange, two senior males expressed this sense of attachment to date palms:

> H: I heard of a prophet saying that it is not permissible to cry when a human being dies, but crying when a date palm dies is permissible
>
> T: Of course. Because you have raised her up like you raise up your young kid.

In this interaction, the participants reveal not only an emotional connection to date palms but also a spiritual and parenting one. As their kin, participants recognize that maintaining the bond of kinship with date palms is a religious call. Spirituality here enhances humanature relations.

Kinship with Animals

Developing kinship with animals, participants talk to their animals, share feelings with them, and give them names. Participants had a special connection with goats, as they are the animals most often raised by participants. One way participants show connection to animals is by giving them human names. Participants revealed that giving human names to animals establishes a bond between the goats and them. This practice of naming gives the goats individuality and uniqueness. Naming animals also affords them subjectivity. For example, in the following excerpts two female youth participants explained that naming animals is a practice in their family. When baby goats are born, a male goat received a boy's name and a newly born baby female goat received a girl's name.

> Mh: My uncle names his goats. He calls the male goat Obied. He names the goats so that when he calls them they walk towards him. He feeds the animals with his hands all by himself. Even if he has only one stick [of Alfalfa] he would go to feed them one by one.
>
> MR: When a baby goat is born, I give her a name. We just had a new baby goat. I named her Lulu. I take care of baby goats. When she starts to grow up and you call her by her name, she understands and comes to you. If you bottle-feed her, she will come running after you.

Mh and MR, two female youth living in Village G, exhibited how participants communicate, via name and response, with animals and how they live in a nurturing relationship with them. They consider them as part of their family. Specifically, most of the participants expressed that they view goats like their children. They take care of them and look after them when they are sick. MR: "A goat is like your son. You take care of her like you take care of your

son. If the goat gets sick, you worry about her and think about her all the time." Another female youth considered her goat as her third child that she needs to take care of:

> Mh: I have three kids including my baby goat [laughter]. I take care of her like my kids. When a baby goat is born, I make sure that she can nurse from her mother. If she can't, I help her — sometimes even by milking the mother goat and bottle-feeding the baby. I do it three times a day.

As can be gleaned from the above account, viewing goats as one's own children instills a feeling of responsibility. Hence, kinship relationship between humans and animals leads to moral actions. The above accounts illuminate a profound aspect of kinship relation that guides morality and ethical humanature relations. You do for animals as you do for your children. This kin relation blurs many differences between humans and animals, and extends animals as part of a family.

This moral action is guided by a spiritual understanding of "nature". Participants use the concept of *Aman*a to express how deeply connected they are to their animals. *Amana* is a Quranic conceptualization of the world, which can be translated to mean "a trust." In this concept, humans have moral responsibility towards Allah's creations. The following interaction between two senior females describes this connection:

> MZ: If you have a child, aren't you going to feed him/her? So are these animals. They are like your children. You have to give them food and water. We are accountable to them.
>
> S: They [animals] are *Amana.*
>
> MZ: Yes *Amana*. Just like your brothers and children are *Amana*.

Honoring this *Amana* is a spiritual practice. It shoulders people's responsibility towards animal, plants, land, water, and other human beings. It also obliges them to be kind and respectful to all living beings. It is a contract between people and all forms of life around them. In their daily interactions with/in "nature", participants manifest this sense of Amana through conceptualizing land, animals, and plants as kin.

In summary, as evident in the participants' conceptualization of "nature" as mother, aunt, wife, child, and grandchild, a kinship approach to "nature" works to undo the human-nature binaries reproduced in dominant environmental Western discourses. Moreover, a kinship lens to humanature relations promotes not only wholeness and social cohesion but also succession and inheritance of social relations that evolve over time from generation to generation. Therefore, a kinship orientation to understanding humanature relations illuminates regeneration, sustainability, and resilience as this approach reveals a way that is present and forward. In this way of approaching ecology from a kinship lens, this research site offers kinship as a traditional living alternative discourse. The next premise I present builds on this conceptualization of humanature relations by showing how aspects of the natural world nurture humanity physically, emotionally, culturally, and spiritually.

Nurturance-in-Place: *Al-Arth Rabatna; Alfalaj Ra'ba Umma*

In my research project, participants, especially senior males and females, talk about the Earth and *falajs* as living beings. 'Raba' is a phrase commonly used in Oman and frequently spoken by village participants. According to seniors, *'Al-Arth Rabatna'* literally translates to: the Earth has brought us up and nurtured us. "Us" refers to all forms of life: be it humans, land, animals, birds, plants, trees, or date palms. In this conceptualization, the Earth is a she. These

seniors also refer to the *falaj* as a nurturer. *'Alfalaj ra'ba umma'* translates to: the f*alaj* has brought up and raised a nation/community of living beings. *Umma* here includes humans and the more-than-human worlds. In this second conceptualization, f*alaj* is a he. The closest translation to Rabatna and Ra'ba (which are used for female and male persons) is nurturance, but it also brings in wider meanings of educating, ruling, raising up, defining social roles. One meaning of nurturance in English, according to *Merriam-Webster* (2011), is emotional and physical nourishment and care given to someone. In this research context, nurturance can also be extended to be cultural and spiritual nourishment.

Participants recognize that "nature" is not an object; she is not voiceless; and she is not separate. This way, animals, plants, land, and water appear alongside humans in the context of Village G. In this site, agency and subjectivity of "nature" have appeared as a discursive practice that demonstrates humanature relations. Water, land, date palms, and animals all have agency and subjectivity. Eco-spiritual nurturance, as a core ecocultural premise, promotes that "nature" desires the well-being of all, and it offers care and concern for all beings. Through acts of kindness embedded in responsibility, "nature" nurtures all living beings in the web of life.

In this worldview, participants understand their being in a cosmology of kingdoms in which all forms of life are interrelated. In this view, the heart, mind, spirit, and body are not separated. Thus, this cosmology, which is spiritual, explains how the universe is organized and what humanity's place is in it. Each kingdom in this cosmology has its own characteristics, functions, and roles. "Nature", as kingdom, invokes conceptualizing animals, plants, land, and water as kings. I use nurturance as the closest translation to how participants conceptualize "nature" in this perspective. Nurturance can be defined as emotional, physical, spiritual, and cultural nourishment and care given to someone. Nurturance through "nature" includes

perceiving elements of the natural world as providing structure and actively supporting all living beings. In this research site, “nature” as a subject involves teaching, naming, defining roles, ruling, talking and communicating, raising and bringing up, having responsibility, and being loyal.

Water is King

Participants cohere a deep sense of power to “nature”. This is manifested in their view of water as king. Four senior female participants ascribed a unique quality to water. They talked proudly of *Falaj Village G* (The name of Falaj in the village). One participant described it as the king who takes care of his people, as shown in the following excerpt:

“*Falaj Village G* is a king. Yes a king. Has he ever done anything wrong? Of course he is a king. Allah has brought him to us” (S).

This kingship view of water carries meanings of power and responsibility. Responsibility here is not of human beings toward water. Instead, it is water’s responsibility towards all living beings including humans. This beingness of water is expressed by another senior female participant who agreed that definitely this *falaj* took care of its nation throughout the years. She (MZ) said, “Yes for sure. *Falaj Village G* has nurtured its nation. People wash for ablution to pray, animals drink from it, and birds drink from it.”

As a ruling king, water exercises the power of responsibility. Power, in this regard, is embedded in kindness and care. As a king, water takes care of its kingdom. This is exemplified in the water’s responsibility to nurture not only human beings but also animals and birds. In this sense of kingdom, participants recognize that water is bountiful and that it is accountable for their survival and the survival of all forms of life. Moreover, water, as a responsible ruler, does not only provide physical nourishment (to animals and birds), but it also offers spiritual nurturing

to humans. To pray, people need the water to wash several parts of their bodies. Without clean water they can't pray. This means that water holds a spiritual responsibility. Likewise, people have a spiritual responsibility of keeping water clean. This mutual responsibility creates spiritual interdependence between people and water. As a result of this spiritual interdependence, water shoulders a responsibility to keep the planet healthy for generations to come.

Indeed, in this kingship perspective of nurturance, participants internalize a holistic view of "nature" combined with power that carries responsibility. This responsibility that "nature" affords echoes Peterson's (2007) assertion that humans and extrahumans are interdependent citizens in land communities where they have the ethical responsibility of promoting their communities' sustainability. The power of responsibility that "nature" bears creates trust among all forms of life. This feeling of trust is communicated in the participants' understanding of "nature" as loyal.

Land Never Betrays

Participants believe that the earth is loyal to human kind. It constantly gives and supports human beings. This virtue of "nature" is captured in an utterance from Ala, a female youth who lives outside Village G: "Land will never betray you." This participant's account of humanature relations reveals the loyalty of "nature". She typifies how "nature" is characterized by the human quality of honesty and that it has the agency to be faithful to humans. Hence, "nature" has morals. This conceptualization of "nature" as loyal builds a trust relationship. As trustworthy, "nature" gives freedom from fear of suffering, which usually results from scarcity. This freedom from suffering ensures that people live with/in "nature" in a state of peace and hence secures freedom from conflict with and hostility to "nature". In this manner, loyalty and trust become

mutual between humans and “nature”. In many cases, destruction of “nature” occurs as a result of absence of this mutual trust relationship. Therefore, this orientation to “nature” as loyal may promote a sustainable living.

Furthermore, in this sense of loyalty, participants experience the earth as a living being that shares feelings of love and compassion with humans. A senior male participant (H) expressed this agency of the earth by saying, “The Earth holds deep love for human beings.” The literal translation of the Arabic utterance is: “The earth is drawn towards the side of human beings because she holds deep love for humans.” The vernacular utterance actually reveals that as human beings go through any difficult circumstances or bad times, the Earth will stand by their side, because she loves human beings. This utterance conveys a unique sense of attachment that is initiated by the earth (instead of the usual view of humans loving their land), hence giving it agency. Certainly, “nature” communicates love, as it never betrays people and it never let them down through thick and thin. In the following section, I illustrate how “nature” communicates other feelings as well.

“Nature” Communicates

Participants share the premise that “nature” is not voiceless. A senior female described how her animals would communicate with her using silence. She understood that their silence meant they were upset with her. The following excerpt shows this communication:

> MZ: Everyday, after *Alfajr* prayer (sunrise) and *Almaghrib* prayer (sunset) I have to check on my animals that they have food and water. One day I was out of the house, I came back after sunset. I went to see the animals and they didn’t talk to me. They didn’t want to talk to me because they didn’t have enough food. We [the animals] didn’t have dinner yet [she talks in behalf of the animals], and I told them: may Allah have mercy on you.

In this interesting interaction between the participant and the animals, the animals speak to her. She constructs animals as not only having the agency to communicate using silence, but also to express their feelings of upset. This mutual understanding requires a strong relationship between the participant and her animals.

Moreover, “nature” communicates sad feelings. A female youth participant described that she had witnessed how her neighbor’s farm died after the owner had passed away. She (Hn) revealed: “It happens several times that when a farmer passes away, his farmland dies. Trees feel sad and die—even if someone else takes care of them. I have seen our neighbor’s farmland die after his death.” Again, “nature” is a living being that has feelings and communicates them in various ways. In this account, land and plants communicate feelings of sadness by dying. With these communicated feelings, “nature” actually speaks louder than words. Nature’s subjectivity is translated not only through its feelings but also through its actions. Nature’s actions can take several forms. In the following section, I describe how “nature” takes action by nurturing.

“Nature” Nurtures

Participants describe “nature” as a nurturer that provides their sustenance. They particularly refer to date palms as a source of their nourishment and that of their grandparents and children as well. One senior female (S) described this generational nourishment by saying, “Date palms have raised us up and raised up our grandparents and our children.” Moreover, as a nurturer, the land provides for the more-than-human beings, as described by J: “She[land] takes care of our livelihood and raised up our animals and plants.” In this holistic view, participants internalize “nature” as not only taking care of their well-being but also the well-being of animals

and plants. As shown by participants, embracing this interconnectedness value fosters a caring attitude towards all forms of life.

"Nature" as a nurturer goes beyond physical nourishment to include educational nurturing, with the more than human world represented as a teacher by participants. This perspective cultivates ecocultural knowledge and wisdom. Participants described how land has taught them when and how to farm. As one participant (R) expressed, "We learn from nature. We are familiar with the land and we know it." "Nature" teaches when the *shamareekh* (i.e. male flowers) are ready for *Tanbeet* (i.e. traditional date palms pollination) season, how to prepare the land for *Ta'seef* (i.e. traditional wheat harvesting) season, and where to best save native seeds.

Participants reflect a way of being in the world that is rooted in land and embedded in place. They know the world in relationship to "nature". "Nature" as a teacher teaches survival knowledge that has sustained the villagers throughout time. For instance, participants described their farming practices in relation to astronomy. Especially senior male participants revealed that until now they depended on astronomy to decide what crop to grow and when.

Moreover, four male and female youth participants believed that farms teach one to stay clean all the time. They explained that for farms to grow well, they need to be weeded all the time. Also, they explained that date palms need to be trimmed so that no rodents live on them. These participants expressed that farms are teachers of morals. As one female youth (Ala) put it: "A farm teaches us morals such as cleanliness. We need to keep farms clean. A farmer is a clean person. This reflects in the farmer's behavior at home and everywhere." Indeed, this female participant's comment illustrates, as I mentioned earlier, that "nature" has morals. "Nature" is clean and it teaches "cleanliness." It is this cleanliness moral value of "nature" that promotes

sustainability of farms. Contrary to other views that depict “nature” as a lifeless object, nature’s subjectivity in this context fosters an understanding of “nature” as a nurturer that teaches skills, knowledge, and morals. In the following section, I highlight how “nature” enacts nurturance by defining social roles.

“Nature” Defines Social Roles

“Nature” as a nurturer defines social roles in the land. Because “nature” is bio-culturally diverse, participants state the land defines various cultural roles for people. Participants communicated that women do certain farming chores and men carry out others. Female participants described how women are partners with men in performing agricultural activities. While men take over labor-intensive tasks such as plowing the land, irrigating, pollinating the date palms, and harvesting, women do comparatively easier and less labor-intensive activities such as weeding, feeding animals, milking cows, picking dates from the ground, and sorting out the harvested dates. In the following exchange, four senior female participants described their roles and men’s roles on the farm:

> MZ: Weeding is for women. Men don’t weed. Women cut the grasses for animals. We used to carry them on our heads.
>
> Bh: Some men would weed if the farm is inside [covered with a fence], but when it is on the open, men don’t weed. They don’t weed.
>
> S: Oh yeah men don’t weed.
>
> Bh: It’s not a taboo but they just feel shy [laughter].
>
> MZ: No it’s not a taboo.
>
> Bh: No.
>
> J: If they have a woman [wife], she will do it for them. But if they don’t they will have to weed.

> MZ: It is we [women] who don't accept it for them.
>
> J: Yeah we don't feel comfortable for men to do the weeding.
>
> S: Just like we [women] don't want for them to milk cows. This is not their job. They don't know how to do it. [laughter]
>
> MZ: We don't feel content letting men weed. We don't accept it for them.

Senior female participants recognized weeding as an easy chore. According to them, most of the time the differences in roles are determined by the physical effort involved. Not always, though. Mhd, a male youth participant who lives in the city, illustrates the different types of roles:

> Everybody in a farming family knows about farming. However, each person has a different role. The younger the person, the simpler the chores s/he does. *Raqaat* is done by younger kids…My mom tells my sisters: "Go feed the chickens." She doesn't ask the boys to do that. Males do not feed the chickens. Feeding chickens is done by females. It is not a manly thing to do.

In this account, it is not physical effort that decides the ecocultural practice. Culturally speaking, chickens are associated with female roles. Feeding them, cleaning their place, and taking care of them are mainly done by females. Defining these social roles with the land is an aspect of nurturance that organizes people's lives and maintains a gendered social order. As exhibited by participants' interactions with the land, animals, water, and date palms, *nurturance-in-place* enhances ecocultural relations and promotes the well-being of all.

Nurturance-in-place, like *relations-in-place* and *kinship-in-place*, is rooted in spirituality. A sense of *Umma*, as a spiritual meaning system, informs how participants view all forms of life as one community. This spiritual understanding of humanature relations promotes sustainable well-being as asserted by McGregor (2004) who argues that spiritual and ethical values create a system of sustainable living.

A Sense of *Umma*: "Communities/Nations Like You"

Spirituality suffuses participants' narratives. As a worldview, spirituality conveys a sense of ethical duties towards "nature". It also offers the values that guide the participants' interaction with "nature". *Relations-in-place*, *kinship-in-place*, and *nurturance-in-place*, as ecocultural premises, all have spiritual grounding. In this research project, participants talk about how human beings and all Allah's creations are one community. Land, water, animals, and plants are all living interdependently with human beings. In fact this concept of *Umma* (a nation) is a Quranic concept. In the Quran, Allah says, "And there is no creature on [or within] the earth or bird that flies with its wings except [that they are] communities/nations like you" (Quran, 6:38). This cultural value of *Umma* defines how participants interact with all forms of life. According to participants, date palms are valuable in their life because not only people benefit from them but also an *Umma* of animals, birds, and ants. The following excerpts reveal how participants view all living beings as one nation:

> T: Date palms provide your livelihood and other creations' livelihood. *Umma* is living on them. You are living on date palms and all other creations of Allah such as animals, birds, even bats, they come from the mountains and eat from dates.
>
> H: Date palms are blessed trees. Not only one species eat from them [but also] birds, animals, cows, goats, and camels.
>
> MZ: *Falaj Village G* has nurtured its nation. People wash for ablution to pray, animals drink from it, birds drink from it.

A sense of *Umma* inspires a relational component of connectedness and instills a sense of ecological equality between humans and all living beings. Participants' narratives revealed that humans and more-than-humans are equally responsible in maintaining "nature"'s wholeness. Hence, a sense of *Umma* fosters an ethical standing and promotes humanature relations.

In general, farming is a way of being, relating, knowing, becoming, and relating for these participants. Beyond their deeply seated place-based traditions and practices that made performing the art of happiness and satisfaction possible for them, participants' ecocultural belief systems are associated with Islam as a religion. As all Omani people are *Muslims*, Islam, as the official religion, provides a framework for how participants lead their lives. Faith and spirituality emerge as central aspects of participants' construction of "nature". This interplay of faith and ecocultural practices brings forth a strong sense of identity.

Throughout the interviews, spirituality surfaced as a discursive practice. Participants are spiritually connected to "nature." One male senior participant's (R's) words describe this, "Just like the spirituality you feel when you worship Allah, similarly, doing our farming practices has spirituality." Spirituality for the participants is inspired by the Quran and prophet Mohammad's teachings. These teachings guide their being, knowing, acting, and doing. For instance, some participants, to show why farming is important to them, respond by saying, "If the Final Hour comes while you have a palm-cutting in your hands and it is possible to plant it before the Hour comes, you should plant it." Moreover, participants demonstrate their spirituality through their faith and trust in Allah as this senior female (S) expressed,

> Even if you are under a stone, Allah will provide for your needs. No one ever died of hunger. As much as the hard time that we went through, no one of us died of hunger. Allah takes care of us. Something has to be provided.

A spiritual worldview guides how these participants interact with "nature." Through this spiritual lens, participants conceptualize "nature" as a network of living beings that co-exist in harmony. It is this conceptualization, I argue, that enhances sustainability. According to McGregor (2004), sustainability means to take responsibility and stay spiritually connected to all creations all the

time. As argued in the TEK framework, sustainability is the responsibility of all creations (McGregor, 2004).

I would like to point out that compared to *relations-in-place*, in which participants identified a sense of loss, in the premises of *kinship-in-place* and , participants did not communicate a sense of loss. On the on hand, apparently, in the premise of *relations-in-place*, participants describe a loss, which has occurred by forces beyond their control. Loss of land fertility, loss of native seeds and loss of *Souq* all happened because of a process of globalization in the form of imported food and chemical fertilizers and pest control. On the other hand, a sense of loss is not communicated in the premise of *kinship-in-place* and because spirituality, which inspires unity with all creations (a sense of *Umma*) and co-responsibility (a sense of *Amana*), is rooted in their belief system that they enact in their everyday life. *Kinship-in-place* and *nurturance-in-place* are enactments of faith and trust in Allah. 'Animals are *Amana*' motivates villagers to have a moral responsibility for them. 'Alfalaj nurtured his nation' inspires villagers to have a union with water. Moreover, kinship is a very strong tie in this village context. Therefore, villagers do not covey a sense of loss in the premise of *kinship-in-place*.

Chapter Conclusion

To sum up, in an attempt to answer RQ1, What grassroots core ecocultural premises do Omani villagers communicate?, my findings extend understandings of humanature relations and contribute to environmental communication scholarship by introducing *kinship-in-place* and *nurturance-in-place* as core ecocultural premises that describe humanature relations in Village G. Moreover, my research project builds on *relations-in-place* theorization (Milstein et al., 2011), which centers social relations as being rooted in the natural world, by emphasizing

interdependence between the worlds of humans and more-than-humans, which essentially strengthens neighborhood ties and builds community with all forms of life.

As exhibited in this analysis chapter, ecospirituality surfaces throughout the grassroots data. Ecospirituality, as an expression of how people in Oman apply and enact Islam in their daily lives, grounds *kinship-in-place* and *relations-in-place* by emphasizing the interdependency and interconnectedness between humans and all forms of life. The concept of ecospirituality in my research site advances the idea of spirituality to be grounded in reciprocal ecocultural practices. In this way, ecospirituality undoes the binary between materialism and spirituality, similar to Oman's belief in the concept of *Umma*. In this case, spirituality is not separate from worldly needs. As spirituality permeates the entire life of village participants, their ecocultural practices reward them materially and spiritually. For instance, they believe that taking care of animals is a good deed for which a person receives reward from Allah. Motivated by this spiritual belief, participants take good care of animals they raise, and according to Mh, a female youth living in Village G, they have psychological attachment to animals that they even worry about them during difficult time.

> Mh: Whenever there is draught, my uncle would think first about the animals and how he would feed them. He would also get worried that the farm might die. What should I do for the animals? He starts thinking. You receive reward from Allah when you feed animals. My uncle would feed the animals before feeding himself. He prepares their food before he eats.

This reciprocal ecocultural relation between villagers and animals blurs the boundaries between the spiritual and material. Spirituality is not separate from worldly needs. Rather, spirituality guides how these needs are achieved. For example, as an *Amana*, which is a spiritual belief, animals are valued for their inherent value but and at the same time they have an instrumental

value. Unlike other cultures that view animals as sacred and so are not used as a source of food, in this village context, animals are used for food.

After analyzing grassroots participants' discourse and demonstrating how their understanding of humanature relations reveals core Omani villager ecocultural premises of *relations-in-place*, *kinship-in-place*, and *nurturance-in-place*, in the next chapter I provide my analysis of the officials discourse and official government documents discourse to explore their ecocultural premises.

Chapter 5: Government Documents and Officials Discourse

In this chapter, I attempt to answer RQ 2: What core ecocultural premises do official government documents and officials discourse communicate in Oman? I analyzed official government documents and interviews with three high-level officials from Oman's Ministry of Agriculture and Fisheries (MAF). The government documents included agriculture policy, yearly agriculture and fishery reports (2003-2015), agricultural sector five-year plans (2016-2020), *Sustainable Agricultural and Rural Development Strategy 2040*, Sustainable Development of the Agricultural Sector Forum held in 2007 and 2009, foreign capital investment law, treaties with the Food and Agriculture Organization (FAO), World Trade Organization agreements with the Omani government, the food security system in the Sultanate, Statement of the Ministry of Agriculture to the Shura Council 2015, the Oman Food Investment Holding Company mission and vision statement, Omani Farmers Association mission statement, Vision 2020 for the Omani economy, and investment policies in the agricultural sector. These documents were analyzed at a macro level to provide context for the interviews, which were my first level data.

In this chapter, I describe four ecocultural premises as emerging in the governmental discourse (i.e. both government documents and officials interviews) and as impacting agricultural discourses in Oman. These ecocultural premises communicate a neoliberal logic of conceptualizing modern agriculture as more effective than traditional agriculture, imported food as a way to feed a growing population, technologized agriculture as the way to attract youth to farming, and profit-motivated practices as the way to achieve sustainable agriculture.

Four Ecocultural Premises Communicated in Governmental Discourse

Governmental discourse, including both government documents and officials interviews, indicates that the government in Oman focuses on the economic aspect of development. Official and government document discourses define agricultural development purely in terms of economic means. This is seen in Gross Domestic Product (GDP) being put forth in these discourses as the only measure of progress. Within the ecocultural premises are other cultural meanings such as "economic efficiency," "profitability," and "competitiveness of agriculture" that work to guide sustainable agriculture. Governmental ecocultural premises promote industrialization of agriculture in Oman. Dominant discourses produce an understanding that "commercial" agriculture is more "economically rewarding" than traditional agriculture in claims that mechanized and technologized agriculture produces better quality and quantity of agricultural products, and "increases their competitiveness." In fact, officials discourse promotes a notion that Western ways are superior to local place-based knowledge and practices. According to officials, Omani people's connection to land is enhanced through capitalist practices. One official especially highlights the role of agribusiness in promoting this connection by saying:

> Sh: That is the best way…We develop major projects, multimillion-dollar projects, to attract more talents. Talented Omanis who work with us will be exposed to the way we do business. I am sure that this will reflect in their skills set and eventually they will do their own business, they will create their own.

Whereas the previous chapter's interpretations pointed to villagers viewing agriculture as a way of life, officials discourse frames agriculture as investment opportunities. As B put it, "Now the time has come to deal with the agriculture sector in terms of its role commercially and economically." This way, officials discourse encourages people to become dependent on the market economy, in which competitiveness is a key word for all agricultural practices. Also, by

focusing on commercial and economic aspects of agriculture more than cultural and ecological aspects, which are not voiced by the three officials, officials discourse emphasizes that people's well-being is improved mainly by material economic gain.

Ecocultural Premise 1: Modern Agriculture is More Effective than Traditional Agriculture

In my interpretation of the officials discourse, I found that officials describe modern industrial agriculture as being progressive, profitable, efficient, economically rewarding, and productive. According to these officials, these features of modern agriculture make it more effective than traditional farming. This section describes how officials define effectiveness of agriculture.

One grand narrative that governmental discourses promote is that inefficient management of resources in Oman is a problem that needs to be addressed. We need to create awareness for resource management; and modern technology is the way to manage those resources. This narrative holds an anthropocentric approach that perceives "nature" as a resource that needs to be managed. Adopting this approach, some officials promote introducing modern agriculture in place of traditional agriculture "to manage resources efficiently", thus; reinforcing the Western binary of human-nature by reproducing an ideology of human-centeredness.

Stemming from this premise are discourses that foster the need to move from personal use to commercial from farming as a lifestyle to farming as a profit-oriented business, from traditional farming to industrial agriculture (Agriculture Vs. Food Supply, 2013). According to B: "The government has no policy in adopting TEK [traditional ecological knowledge] and its practices in modern agriculture…The whole outlook of dealing with [the] agriculture sector has to be shifted to make it viable and commercial in a more sustainable manner." This account

reveals the shift from “adopting TEK and its practices” to industrial agricultural. This new “outlook” of agriculture seems to achieve sustainability by marginalizing TEK and its practices. This way, according to B, commercializing agriculture perhaps makes it sustainable.

Officials perceive modern technology as inherently beneficial. Their discourse constructs modern technology as a force that provides “progress” and profitability at a lower cost. Officials assert that technology saves time, money, and effort. The following excerpts illustrate officials’ view of modern technology:

> F: For example, in the past, to make trade with pearls in the sea they [Omani fishermen] stayed a month in the sea. So, what they would do? Sing to entrain themselves and tell stories. Now it is not needed. Why? Because technology saves time and effort. So now this [entertainment] has moved from the ships to twitter.
>
> Sh: Mechanical pollination is better, is easier, is efficient and it does not harm the environment. It is not labor intensive... and the end result is quite impressive because it reduces the errors. Because it is mechanical, it is massive, it covers all aspects of all areas, where all targeted trees are pollinated.

Moreover, officials discourse promotes the belief that technologies amplify material progress. These technologies confer upon agriculture a sense of significance and economic value. According to officials, material gain is the ultimate goal of using technology in farming.

> F: [By introducing technology] everybody gains. The country gains, the producers gain. Business people gain and the consumers gain. [Technology] creates jobs. The country is diversifying its economy. So it now depends on agriculture. So, hard currency has entered the country. The economy is more active and trade is active, technology transfer is in the country. Production has increased. The producer has sold more. The consumer has now good quality products with reasonable price. There are more alternatives and more varieties.

As evident in F’s account, effectiveness of agriculture is measured by material gains in the form of “hard currency” entering the country. This emphasis on economic and material gains that modern technologies provide shows that social, cultural, ecological, spiritual aspects of

agriculture are not as valuable. It is worth pointing out that officials' views of modern agriculture are influenced by two main challenges facing the Omani economy: dependence on oil and a large expatriates workforce. According to Sustainable Agriculture and Rural Development Strategy (SARDS) 2040 (Government of the Sultanate of Oman, 2016), the need for diversification of economy in Oman is an imperative; it is not an option, as oil reserves will last only for 15 more years. Therefore, the Omani government needs to generate jobs for nationals and to reduce dependence on oil. Against this background, officials regard applying modern agricultural practices as one way to create jobs for Omanis, which in turn may reduce the foreign workforce and diversify the economy.

Furthermore, officials highlight the need to increase crop production and productivity through the use of technological advancement. They advocate that utilization of technology can expand production for both local and export markets. This expansion contributes to escalating Gross Domestic Product (GDP), which measures the country's economy. To them, technology is necessary in farming and using it would change the way agriculture is viewed and enhance the representation of agriculture. The following utterances explain officials discourse:

> B: This is [a] very well perceived fact that introducing technological advancement in farming will help boost both agriculture and livestock production in both quantity and quality to ensure sustainability in agriculture and its ventures and raise the contribution to GDP of national economy.
>
> F: Technology is important for all. It is a necessity for youth and not youth. To improve productivity and efficiency, technology that facilitates production is of course helpful. It is needed. It is available to help, support, and encourage people to do farming.
>
> Sh: The minute we mechanize the agricultural practices and go to major agricultural projects, it will be totally, sort of, viewed differently [by the Omani society].

The implications of this unquestioned view of industrial agriculture as superior to local traditional farming practices are enormous. While this view constructs modern agriculture as superior, it also degrades indigenous knowledge and land-based farming as nonproductive. According to B, “It is inappropriate to associate modern technology and indigenous knowledge for the progress in agriculture.” Also, officials view traditional farming as inheritance that we should only preserve as an exhibit.

> F: I can preserve these practices in a way such as exhibit them in a festival or allocate a day for these practices such as open day for farmers. I can preserve it in a way so that it is not buried. But to make it as a system and I impose it on farmers, this is wrong.

The irony in F’ s account is that he is against “imposing” the traditional system of farming on farmers; while at the same time what he is doing is imposing a system of industrialization.

Not only do officials view local knowledge as heritage that needs only to be preserved in festivals or “museums,” as B earlier mentioned, they also commodify culture by regarding traditional ecological knowledge as “a selling point,” as one official said:

> Sh: It [traditional ecological knowledge] can be a selling point. You know, taking a local produce, putting it in a modern packaging with a local touch and adding local flavor to it would attract more buyers: either those who are the locals themselves or even expats or tourists who look for something traditional when they come to our country.

In officials discourse, a tension between traditions and modernization is observable. This discourse promotes that traditional land-based farming is unproductive and inefficient, and that “we need to enhance productivity of rural farms.” Officials view agriculture as a purely economic activity. Thus, they separate it from culture and traditions. As F put it, “Agriculture activity is an economic activity. It is not a souvenir that I need to keep. It is an economic activity.” Also, officials appear to equate traditional and enduring Omani culture with a souvenir.

Moreover, officials argue that traditional farming is not rewarding economically. Therefore, it can't be considered a productive economic activity. They claim that traditional farming is not profitable unless it is mechanized. The following officials' quotes illustrate this position:

> B: I do not apparently see any economic significant benefits in using TEK in Oman to a level of highlighting for the agriculture development of the country.
>
> F: As long as it [agriculture] is an economic activity what governs me is competitiveness. And competitiveness means the Market, and the Market has its own requirements…Some farms stay as is--traditional and there is no monetary return from them. But if I say this is business and trade and economy, then our concepts have to change. Do I need to tell all farmers to be traditional? No. Those who want to be traditional let them be. And this farmer shouldn't blame me if he loses.
>
> Sh: [Subsistence agriculture] is a low-paid profession today because it is not technology-based... [it is] non-efficient in financial terms unless you mechanize and use modern technology and less labor, then it becomes profitable…We need to see the GDP participation of agriculture. So, unless we mechanize, we will have what is called subsistence agriculture.

This discourse rewards economic growth over social interests. What this discourse marginalizes is social and cultural interaction with "nature." In almost all rural areas, traditional agriculture is the backbone of the community's relations. Therefore, there may be socio-cultural ramifications in these rural areas if traditional farming goes away completely. Traditional agriculture has economic value as well as social and cultural value. However, it is worth mentioning that currently in rural areas, traditional farming now is mostly practiced by an unskilled foreign workforce, brought in on two-year contracts, and who receive lower wages compared to other professions. Therefore, traditional farming in this context is associated with low-paying jobs. This situation further complicates the tension between modern agriculture and traditional agriculture.

In the same vein, officials claim that mechanization of agriculture achieves economic growth. This narrative perpetuates the idea that economic growth is essential to a prosperous society. Officials discourse reveals an assumption that mechanization can be one definite way to achieve economic growth, and that this economic growth is the main goal. At the same time, officials regard local knowledge as not economically viable. As B put it, “As far as Oman is concerned, traditional agriculture or its knowledge cannot contribute to economic growth.”

On the other hand, official F expressed that he “respects” traditional ecological knowledge as inheritance and that he “can’t just demolish it” as according to him “it is based on genuine understanding [of the land]” and that “it constitutes a wide base to springboard [in our planning].” However, he stated “using it [TEK] without improvement, defined as ‘modern technologies and mechanization that facilitate production and improve quality and quantity of agricultural product’ does not have economic return.” Yet another official (Sh) recognized that “Subsistence agriculture, though it has socioeconomic impact which is positive, it does not add much money to the overall economy.” Official Sh further added, to get money and economic return “we need to combine both modern technology with traditional ways.” He gave the example of how storing local seeds is economically rewarding when people use mechanization in order to package the native seeds and market and export them.

Marketability and the competitiveness of agricultural products are achieved, according to Sh, by “finding means and ways to package and export their [farmers’] products in more fashionable ways, then they can see the benefits.” Essentially, it is this narrative that creates increased pressure on the environment. Food packaging “in more fashionable ways” for the purpose of exporting uses up the environment in various problematic ways and, if not managed responsibly, can contribute to environmental problems. Packaging processes and exportation,

which are required for integrating into a globalized market economy, prolong the supply chain from producer to consumer, thus impacting the environment in destructive ways. What becomes sustained by this narrative is economic growth itself but not the environment nor the culture.

Moreover, officials view modern technology as neutral and objective. They do not question it. To them, it is common sense, and using a Foucauldian notion, it is an accepted regime of truth (Foucualt, 1972). In order to increase productivity of the agriculture sector, one major strategy employed is subsidizing implementation of new technologies. Government subsides are offered only to modern agriculture adopters and practitioners. At issue here is that farmers have access to governmental subsidies only if they adopt modern technology. This means that modern farmers who adopt modern technologies in farming have more access to resources and extension services than traditional farmers. As the official B explains,

> The Ministry helps in enhancing Omani peoples' connection to the land via agriculture in many ways such as providing subsidies in adopting new technologies like greenhouse and hydroponics cultivation, extension services, vaccination and treatment in livestock etc.…The MAF has strong activities of transfer of agriculture technologies to farmers in terms of conducting demonstrations, workshops, awareness programs--addressing all the ages of farmers including youths. The programs address new technologies in apiculture, aquaculture, hydroponics, greenhouse cultivation, technologies of bio-saline agriculture, livestock rearing, etc. These programs/activities will be helpful to convince local youths and farmers to take up these agriculture activities like hydroponic vegetable cultivation, apiculture, animal rearing, etc., as their profession that are more profitable and hence sustainable to the farmers lives and the country.

This official's utterance explicitly illustrates that subsidies and access to agricultural resources are offered only to farmers who adopt modern agriculture. This difference in access to resources perpetuates inequity and forces farmers to seek only modern agriculture practices.

Although officials discourse tended to favor mechanical modern farming over traditional farming, one official recognized that transformation of agricultural practice to modern practice can have negative impacts on cultural traditions. And some officials recognize this.

> Sh: The minute you start transforming the practices, there is a problem of losing traditions. For example, losing native seeds, we are losing some native practices. An example of this would be, for example, we lost a lot of native sugar cane genetics because we wanted to modernize sugar cane production because local sugar cane produce very little so by shifting and transforming to better yielding sugar cane species we almost lost the native genetic of sugar cane.

That said, officials separate agricultural practices from people. Overall, they do not appear to understand how modern agriculture can interfere not only with native cultivated plants but also with Omani ecocultural values. As B says, "TEK is intact; it is not eroded…The cultural values and agriculture heritage are in tact with the farmers and farming community. They are not eroded or replaced by modern agriculture." Based on my findings, however, I argue that mechanization and technologization, besides their potential destructive impact on the natural environment, is markedly interfering with Omani people's being and their worldview. Gleaned from the grassroots discourse, mechanization is a separation tool that has separated people from each other and separated them from soil and produce. Technology and the importing and government subsidizing of industrial agriculture are not culture neutral, as officials believe them to be.

Furthermore, narratives of technologizing and mechanizing agriculture are presented as objective. Whereas grassroots participants depict a sense of place that shows their connection to their living environment and the joy of living in community both culturally and ecologically, officials discourse normalizes modern technology; thus ecocultural relations and traditions are not seen as common sense. This discourse highlights the straightforwardness of embedding

modern technology into land-based practices and that modern and traditional methods work easily together with no consideration to how these practices can negatively impact longstanding ecocultural values and communities. One official (Sh) described the ease and simplicity of mechanizing ecocultural practices:

> Sh: Today it [bee keeping] is partially modernized and it becomes easy to handle the beehives and the collection of honey and transfer of bee and the production and genetic control and so on. So modern ways and means would attract more. Today it is much easier to deal with bees rather than the old traditional ways and means. For example using mechanized milking parlor or devices is totally different from using your hands. Today mechanized milking device makes it very easy for you to handle the animal.

Officials discourse is infused with a capitalist ideology that regards technological progress as inevitable and, as Harvey (2005) states, "is accepted as good in itself" (p. 40). Moreover, objectivity of modern technology is presented in how officials describe farming as a lifeless activity with no human relations or cultural values attached to it. As F described,

> We cannot do social activities with farming. This is an old concept. That's it. We can't go back. But we can do the social within it in a new form. For example, farmer's day, and bring kids. And all watch the activities. We can do it better than before. Why don't we make it festive by celebrating how our products are reaching Japan?

This official presents a teleological fallacy of "progress" by claiming that there is only one way that is going to take us forward, and that is through industrial technology and the global market. Any other way is going backward.

Indeed, officials discourse, as guided by neoliberal globalized ideologies, is rooted in a premise of disconnection similar to what is happening in Western settings in which a "dominant discourse provides a mythical story of progress centered in the human-nature binary, a one-way orientation naturalized in premises of disconnection and based in mastery of and extraction from systems no longer recognized as interconnected or alive" (Milstein, Thomas & Hoffmann, 2017,

p. 30). This “mythical story of progress” is shaping how sustainability is conceptualized in Oman by government officials.

Ecocultural Premise 2: “Imported Food and Modern Technology Feed a Growing Population”

A second premise promotes that a rapid population growth necessitates producing more food. This narrative fosters a Western model that is built on scarcity and primacy of material goods. Statistics show that the population in Oman has increased from 3.957.40 million in 2014, 4.254.416 in 2015 to reach 4.397.790 in 2016. Omanis make only 55% of the total population. The rest is expatriates from various countries. According to officials, two methods are necessary to meet the demand of a continuously growing population: imported food and modern technology. The following excerpts show how officials employ this narrative:

> B: The sultanate is importing food crops material to meet the demand of the continuously growing population.
>
> Sh: To feed the world, we need to have modern technology to be able to produce more food.

As exhibited in the officials’ accounts, the narrative of population pressure is linked to food import. This link is fostered by the WTO and free trade agreements that force the country to import food that can be grown locally, as was the case in the past, through their mandated policies. For instance, wheat used to be widely grown in Oman. In fact, the interior part of Oman produces the best wheat of the country. Now, Oman imports wheat. Although officials justify this act of importing wheat by claiming that Oman suffers from water shortage, it is worth mentioning here that the government has taken over the public lands where wheat used to be grown. In the past, people used to take over any piece of land, which does not belong to anyone,

and farm it. Nowadays, in order for the government to control the use of land and water, it has declared regulations, which govern the use of agricultural lands. The government is not using these lands to farm but they are used now as endowment, which is a practice of governance that allows people to rent these lands for commercial and agricultural use. However, changing government rules for how to rent these lands are making it less likely for people to take this opportunity. By taking control of the land, the government left the local farmers with small plots of privately owned land that are not feasible for growing wheat. In the following excerpt, B describes the case of importing food:

> B: Oman has to rely on the import of the food commodities with strategic food reserve policy like wheat for which self-sufficiency is estimated to be 1% and rice, sugar, grain and legumes, for which [Oman has] absolutely no self-sufficiency (0%).

While Oman used to be self-sufficient in wheat prior to WTO membership, according to B, Oman now "has to rely on" imported wheat.

On a different note, officials celebrate imported food as a consumer right.

> F: We talk about an open market now. Why should I give the consumer only one choice that he should eat? As a consumer, it is my right, why should I only have Omani cucumber in the market? Why don't I have the option to consume cucumber from another country? I have the right to try something different and taste something new. At least if I taste cucumber from another country I can tell how good the Omani cucumber is.

This official's account reproduces a neoliberal ideology that promotes free market choices as rights and humans as "consumers". Accordingly, being able to "consume cucumber from another country" is a natural right to freedom of choice. This democracy makes imported food a right for individuals that cannot be violated. Thus, free market practices facilitate imported food as inevitable and preferable to locally based markets.

When told about how grassroots participants complained about how imported agricultural products are negatively affecting their health and their land, and whether there was the possibility of re-localizing the food system in Oman, official B replied: “The (MAF) [Ministry of Agriculture and Fisheries] has all the activities that preserve local food system besides exotic one towards maintaining better health conditions of the people…[The sultanate] has no intention to discourage farmers from cultivating local crops for local consumption.” It is worth mentioning here that although this official states that the governmental policies “don’t discourage local farming,” the MAF essentially does not support traditional agricultural practices, which is evident in its policy of providing subsidies only to industrial agriculture adopters.

Furthermore, importing seeds is a common practice that accompanies imported food. Although, as B asserts, “MAF encourages growing indigenous varieties of all the crop species to preserve and localize the traditional food system,” farmers in Village G that I talked to reported that almost all seeds that are available to them in the stores are imported. Reading the labels on the packages of seeds the farmers use, I noted imported seeds come mainly from countries such as the USA, Holland, Chile, Thailand, India, and Jordan. The labels do not mention whether these seeds are genetically modified or not.

Ecocultural Premise 3: “Technologized Farming Attracts Youth”

The fourth grand narrative promotes that: “farming is more attractive to [the] younger generation if it is technologized” (Sh). Officials claim that modern agriculture attracts youth to farming. As B described,

> The educated youth is more eligible to get attracted to modern technologies in agriculture for earning their livelihood. Participation of youth in agriculture cannot be associated to

> TEK or IK [indigenous knowledge] in Oman, as it has no merits of contributing remarkably to livelihoods of famers or economy of the nation.

This grand narrative has a negative implication on traditional farming and land-based wisdom. A subtext to the narrative is: "Traditional agriculture should be conserved in museums" (B). Officials discourse framed ancestors' knowledge as an old tradition that does not contribute to farmers' well-being nor improve the Omani economy. As B put it,

> The Ministry has the policy of promoting modern agriculture in place of traditional agriculture, which was existing in earlier days of initiating application of modern practices and techniques in agriculture. The knowledge of traditional agriculture in Oman could be conserved through establishing museums in different governorates depicting traditional specific practices that were relevant to the area.

By favoring modern technology over place-based practices, officials promote dichotomous thinking and thus create a gap between old and young, urban and rural, culture and "nature." Officials discourse encourages industrial agriculture, which makes it challenging for seniors to remain in farming and, as seen in the previous chapter, leads to cultural, communal, and environmental degradation. This is evident in this senior male account, H: "Wheat harvesting used to be a collective work. People get together to help each other and now nothing." This challenge also is clear from the following statements of officials:

> B: Information about farming and the awareness of recent happenings in agriculture, such as controlling measures of *Dubas* bug in date palm, certain animal diseases etc., will be communicated to the farming community through newspapers (daily), weekly magazines, social media such as Twitter, YouTube, Instagram, etc.
>
> Sh: When you talk about the elderly generation most of them are leaving or passing away or you know. It is very difficult for them to pass it [traditional farming] to the second generation or to the youth unless it is mechanized or modernized.

Although one official (F) stated, “Modern technology is created to serve traditional farming,” another official (B) asserted that he “do[es] not think modern technology and indigenous knowledge will work together in agriculture…[because] IK cannot be sustainable for agricultural economy of the country.” These utterances reveal a dialectic tension between modern agriculture and traditional ecological knowledge.

In contrast, officials construct youth as educated individuals who prefer technology and don’t want to get their hands dirty.

> Sh: Today Omanis are educated, youth are educated and so dirty farming practices [traditional farming] that need them to work with hands and with their shovels are not attractive anymore and instead, if it is to use machinery to plow, or to harvest or to package or to transport goods or agriculture produce, then yes. Mechanizing and working as an operator instead of a laborer make it more attractive for Omanis because it is highly paid and at the same time it is a much neater [cleaner] profession.

One official further remarked,

> B: For the youths or students, ‘student companies’ have already been established in the Sultanate in the fields of Information Technology (IT) sector, homemade food, handy crafts, which will be extended to agriculture to make the youths or students to convince and prepare them for taking up agriculture ventures.

These officials’ accounts imply that only educated youth can further the future of agriculture through the use of mechanization and technologization. Hence, seniors or uneducated youth cannot. Also, they imply that traditional farming and ecocultural knowledge do not provide “highly paid” agriculture ventures, while “mechanizing” agriculture is going to make it a “more attractive” and “neater profession.”

I would like to point out that the use of the word traditional in the officials discourse and the lack of its use in grassroots discourse is significant. One the one hand, officials employ an

economist discourse that promotes neoliberal commercialization of agriculture and, thus; freezes traditional farming practices in time. By using the word traditional, they talk about traditional farming as something of the past that is not useful anymore and is not part of modernity, which is their justification for why we should no longer have traditional farming. On the other hand, grassroots participants never used the word traditional to describe their farming practices. For them, it is a way of living and the way things are.

Moreover, farmers in the villages are perceived to be weak. To illustrate, one official (Sh) describes that farmers should be strong in their activism for change and should be initiative takers, if they want to see change: "The government, in my understanding, will not come and force them to organize themselves. It will provide the legal sort of support and structural support that are needed, but they have to take the initiatives first."

These perceptions about traditional farmers are based in them not embracing neoliberal industrial agricultural innovations. Not only are they represented negatively in the society, traditional farmers are blamed for not paying "attention to the opportunity of farming" and thus not being able to "make a lot of money that will feed them and their families," as depicted in the following excerpt:

> F: If the Omani is not interested in farming and saying that it is not making a living, that is HIS problem…Omanis do not see farming as an opportunity. It doesn't mean if I don't see the thing that it does not exist. Because they didn't pay attention to the opportunity of farming. And if they pay attention to it, it is not in a right organized way…Youth do not know about the availability of opportunities in farming. Because they do not want to pay attention to this opportunity because they see other opportunities in other fields… If youth pay attention to farming opportunities they will make a lot of money that will feed them and their families…If they really understand farming, they would leave their current jobs and be farmers.

In these government officials positioning of the traditional farming practices of the farmers, they establish social relations with these farmers as a cultural group. As F stated, "Farmers are viewed as traditional individuals who lack resources, who lack understanding, and who do not follow technology. This is how the general people view them." In this positioning, officials construct self-identities of professional, progressive, and modern. Hence, they position farmers as unskilled, dirty, backward, underdeveloped, and traditional. This line of thinking reinforces hierarchical positioning that places TEK holders and practitioners in subordinated positions and modern agriculture practitioners in powerful positions. This inequitable relationship can disrupt people's cultural traditions and may force rural societies to abandon their ecocultural practices, as exhibited in the preceding chapter. That said, because government documents discourses and officials discourses depict farmers negatively, to correct the representation, the discourses now communicate that "We need to reestablish the farmer as a well-perceived member of society" (Agriculture vs. Food Supply, 2013). The new reestablishment of the Omani farmer is embedded in global discourses of industrialization, technologization and marketization. As such officials discourse communicate ecocultural premises rooted in profitability, productivity and efficiency.

Ecocultural Premise 4: Modern Agriculture and Profit-Motivated Practices "Achieve Sustainability" but Traditional Farming is not Sustainable

Official governmental discourses construct modern agriculture and profit-motivated practices as two methods to achieve sustainability. Sustainable agriculture coheres particular meanings in officials discourse. These meanings tend to subscribe to the logic of neoliberalism discourses. These discourses accentuate shifting rural farms into modernized farms in order to achieve sustainable agriculture. According to officials discourse, sustainability is achieved by

technological advancement separate from human life and cultural traditions. From a political official perspective, in this study, sustainability is defined in terms of profitability, productivity, efficiency and economic growth that are achieved by using technological advancement. As such, policymakers do not seem to view sustainability as the result of dialectical interaction among economic, social, cultural, ecological, and political factors as a whole. This view of sustainability is determined by various factors such as globalization discourses that foster materialism and an objective sense of reality as opposed to an interdependent sense of reality.

Officials normalize having faith in industrial agriculture as the means to achieve sustainability. As B asserted, "The modernization of agriculture would certainly make agriculture sustainable." Sustainability in the officials discourse means using technological advancement and mechanization to ensure marketability and profitability. Moreover, officials discourse fosters a way of conceiving of agricultural sustainability as a technical mechanistic issue rather than a process rooted in people's ecocultural values. In this discourse, modernization and technologization of agriculture undoubtedly achieve sustainability. As Sh described,

> For example, let's go back to the example of irrigation, using modern drip irrigation system or using hydroponic system will save a lot of wasted water. In hydroponics, you save around 85% of water. A huge quantity of water is saved. This is an example of the use of technology, which is hydroponics and you can also go for aquaponic where water is wisely used to grow both vegetables and to grow fish… So, modern technology can be utilized specifically, directed toward creating more sustainable use of our resources.

Officials do not appear to perceive sustainability as the result of dialectical interaction between economic, social, cultural, ecological, and political factors as a whole. To them, sustainability is achieved through technological advancement, detached from human life and cultural traditions. This view is driven by globalization discourses that promote materialism and an objective sense of reality.

This positioning of modern agriculture as sustainable functions to counter-position traditional agriculture as unsustainable. For one thing, officials associate traditional agriculture with food waste, low productivity, and low quality. As Sh explained, "So, food waste is very common in traditional agriculture, almost 40-50% is wasted. With modern technology, waste is controlled. You have less waste because you are [using] mechanized ways."

In addition, officials imply that traditional farming does not achieve sustainability, as it is outdated, it is limited, it helped only as subsistence in the past, and "it is not the right way to enter the market." This view of traditional farming is articulated by F in the following excerpt:

> Traditional farming helped a particular group of people. And the return from it is limited. It was only helpful as subsistence to help the farmer and his children to live. So, as an economic view of farming, it was not available. We need to improve this thinking. I believe it is the cause of the problem in Oman (not thinking economically but subsistence)—[we need to improve] our traditional view of the farmer and preserving the farmer as he is. As if we want to keep him in a reservation. And this is very wrong. We talk about high quality products that are highly competitive. If we say competitive, it means we are governed by the market. And if we are governed by the market then we have to enter the market in the right way. Market has requirements and it has ways to enter it. These requirements and ways to achieve them, you cannot do farming in the traditional way. Now we need to change concepts.

In this narrative, farmers are being pushed into the markets. They are forced to "behave" in market-determined ways. It is essential to recognize that this may result in draining the farmers of their vitality, money, and resources by those who control the market. At issue here are conflicts between market power and cultural power. I argue that compartmentalizing agriculture in a market-driven way can make achieving actual ecological, social, and cultural sustainability close to an impossible goal. This way, officials discourse perpetuates a neoliberal ideology that profit and the market are the yardsticks that measures people's well-being. What this discourse fails to recognize is that cultural knowledge also contributes to well-being. Cultural knowledge and hence traditional farming is not static but is transforming and is transformative. This organic

feature of cultural knowledge, I argue, qualifies it to sustain farmers' livelihood, unlike what F asserted that: "Traditional farming helped a particular group of people. And the return from it is limited." Also, I argue, to promote sustainable well-being, we need not only material resources, but cultural resources are significant too.

By constructing modern agriculture as characterized by high productivity and economic sustainability, which is a part of the larger discourses of sustainable development of the WTO, officials contribute to a view of reality in which the main things that matter are profit and material gain. This excludes the possibility of articulating a view of agricultural sustainability as a project that could be conceived not only in economic terms but as a holistic project, in which the material aspects are not the goal but are a space of possibilities for ecoculturally-defined sustainability. I argue that ecocultural knowledge and practices that are held and performed by local people in Village G are local enduring innovations that contribute to Omani well-being and sustainable agriculture defined in terms of consuming local food, building ecocultural relationships, enacting/embodying cultural traditions and religious values, being a member of the community, keeping healthy and sustaining availability of resources at a local level; in contrast to a profit-centered, free-market-oriented conceptualization of sustainability.

In addition to viewing modern agriculture as more sustainable than traditional farming, officials argue that profit ensures agricultural sustainability. Officials interestingly equate profit with agricultural sustainability. Through this equation officials are fostering neoliberal ideologies. As demonstrated above, officials discourse constructs a particular understanding of sustainability. This understanding fosters a disconnect between culture and sustainability. Whereas grassroots participants perceive community fabric and villagers' sense of interdependence with the natural world as fundamental to their sustainable living, officials

discourse emphasizes that profit and material gain achieve sustainability. As B put it, “The profitable venture in agriculture by individual farmers or in communities or associations will ensure sustainability of agriculture in the country.”

According to officials, profit is what determines whether agricultural traditional practices are sustained or not. This view of sustainability is illustrated by Sh:

> It has to do with the cost margins, or profit we should say, that farmers make out of these activities. And if they can make good margins of *Almabsali* [type of date palm] they will definitely continue this…Of course. It is market driven…It has to be profitable to continue…At the end of the day, people are not doing [the activity] to enjoy it. They are doing it to get money out of this activity.

This official’s account conjures a capitalist logic of sustainability discourse. In this discourse, the farmers’ ecocultural practice of *A’tabseel* is delegitimized in favor of profitable practices. This capitalist discourse overlooks ecocultural values of *relations-in-place*, and disconnects people from their land.

Furthermore, sustainability in officials discourse is achieved through applying industrial agriculture models. Officials discourse claims that the commercial industrial agriculture model and not traditional farming should be the way to improve the economy. Enhancing the competitiveness of agriculture in order to increase profitability is in fact one of the four pillars of achieving sustainable agriculture, as per the Vision 2040 Agriculture Policy document (Ministry of Agriculture and Fisheries, 2015). Currently, MAF is taking measures to foster industrial agriculture as the new vision of agriculture in Oman. This way, officials discourse promotes a message that traditional farming is a backward occupation that does not provide profit and so it does not ensure sustainability. Therefore, it needs to be replaced with industrial agriculture.

Industrial agriculture models thrive in a market economy that reinforces competitiveness and undermines cultural values. To officials, agriculture is a purely business activity and culture has nothing to do with it. This discourse fosters a neoliberal principle of "let the market decide." The following excerpt illustrates how officials employ the neoliberal tool of the market:

> F: I can preserve it [culture] and record this inheritance and have media register it and books record it and discussed in workshops and lectures...We can have open days in universities, schools, agriculture day, that hold all these [cultural] practices in order for me to feel this side of the practices. BUT to impose it [culture] as the way we should go to do business; this is NOT business. This practice moves me away from competitiveness. What is important for me? To keep this inheritance? Or to enter the market and compete? Which is more important? Those practices as a tradition, let them stay as tradition. I don't have a problem…why do we have to PUT this tradition in everything? It is not necessary.

In the above account, F reproduces a neoliberal ideology that prioritizes the market (Harvey, 2005). Market, as a neoliberal tool, defines how and what farming practices are performed. Using this neoliberal tool, this statement makes visible the extraction of tradition. Also, cultural traditions are used as a way to "reach the market" and thus enhance profitability. The following accounts further demonstrate how neoliberal ideologies function in this research context

> B: Selecting the appropriate crop, based on the knowledge of supply and demand of the vegetable product in the market, for hydroponics cultivation would further elevate youth's earning/income.

> Sh: Cheese making for example, if you continue using the traditional ways it is very intense labor requirement, but if you use mechanized means and ways of making cheese, you know at the same time maintaining traditional flavors, maintaining traditional taste, and maybe using some of the natural available packaging material, we still maintain a touch of the local culture and traditions to be able to reach the markets. To be able to meet the requirements by inspection agencies and certifying agencies you have to use modern hygienic healthy ways of handling the agricultural produce.

As shown, officials discourse materializes neoliberal ideologies through favoring competitiveness and responsibility in the market. This neoliberal discourse promotes that a business climate fosters economic growth and improves people's living standards. Industrial agriculture discourse reproduces a culture-nature dichotomy. It proposes new strategies of how people should interact with "nature" and how they perceive their reality. I argue we could improve our standards of living without totally sacrificing our ecocultural values that have formed our being, knowing, and relating in this universe. Thus, to achieve sustainability our economy should perhaps be built upon our cultural values as well.

Chapter Conclusion

Analyzing the officials discourse to answer RQ 2: What core ecocultural premises do official government documents and officials discourse communicate in Oman? I found that a tension exists between notions of "progress" and traditional practices in farming in Oman. This tension is evident in governmental ecocultural premises that communicate neoliberal capitalist conceptualization of sustainable agriculture; thus, promoting fragmentation and disconnection in humanature relations. In the next chapter, I explain the scope of the tension that is taking place by applying Collier's (2014) community engagement framework. Examining government documents discourse and officials discourse is essential for understanding the contextual factors that enhance/impede humanature relations. Building this understanding is foundational for any community engagement work. In the following chapter, I explore these discourses in an attempt to answer RQ3: How does analysis of core components of critical community engagement inform researcher-villager-governmental collaborations to design sustainable practices?

Chapter 6: Applying the Community Engagement Framework

Now that I have looked at grassroots and officials discourses from a theoretical and interpretive approach, I will focus on practical applications of the findings and interpretations that I made to answer RQ1 in chapter 4 and RQ2 in chapter 5 in order to respond to Cox's (2007) ethical imperative. Based on my research with the grassroots and high-level government official participants in Oman, my goal with community engagement work is to co-create community engagement that honors the ecocultural wisdom of farmers, promotes economic viability, and enhances ecocultural sustainability, taking into consideration officials goals of improving profitability and integrating modern technologies. In this chapter, I apply Collier's (2014) community engagement framework to answer RQ3: How does analysis of core components of critical community engagement inform researcher-villager-governmental collaborations to design sustainable practices? Using this framework, I focus on four community engagement framework constructs: reflexivity, context, cultural identification and relationships, and recommendation.

Evident in this study, is an ideological tension between Western views of progress and Omani traditions. Whereas grassroots participants describe traditional farming as sustainable, community supporting, and spiritually driven rooted in premises of *relations-in-place*, *kinship-in-place* and *nurturance-in-place*, government documents and government officials argue that this traditional farming is unsustainable, unprofitable and that it needs to be replaced with industrial agriculture as evident in identified premises of 'modern agriculture is more effective than traditional agriculture', 'imported food and modern technology feed a growing population', 'technologized farming attracts youth' and 'modern agriculture and profit-motivated practices achieve sustainability but traditional farming is not sustainable. In order to unpack this

ideological conflict, it is essential to understand the context of the current agricultural situation in Oman. Global, national, and local economic and sociocultural structures drive development in Oman, and all countries within the current neoliberal free market regime. In the following sections, before I examine context, I first describe my reflexivity. Then, I introduce the global context by explaining how the World Trade Organization and agricultural corporations impact the agriculture system in Oman. Next, I define the national context by focusing on structures such as education, religion and economy. After that, I explore the context of Village G and how participants define the status quo of farming. Next, I describe cultural identifications, representations and relationships among seniors, youth, officials and foreign workers. Lastly, I present recommendations for community engagement.

Reflexivity

Reflexivity is important to address because it allows me to interrogate my assumptions, positions, status and privileges as a researcher, and allows the reader to understand my orientation and how this influences community engagement work. My position as the researcher influenced my interview processes and interpretation, which necessitated being reflexive. Exercising reflexivity, I was able to address various perspectives and views other than mine. In this section I reflect on my biases and what I did to manage these biases.

First and foremost, I strongly believe that industrial agriculture can be a force that could threaten humanature relations. “Nature” is inherently valuable, and although we cannot measure its value, the social, cultural, ecological and spiritual dimensions of “nature” could be infinitely more valuable than economic gains when it comes to interacting with land, water, animals and date palms. Informed by *relations-in-place* theorization (Milstein et al., 2011), and my analysis

of the villagers' discourse, my conception of "nature" is not as something "out there," valuable merely for its market value and profitability. This means I do not completely agree with the discourses of officials, governmental documents, and some youth analyzed in this study that tend to lean towards valuing land and farms, specifically, for their economic return and profitability. For these participants, profit ideologies are at the forefront of their discourse. While it is not my intention to support industrial agriculture, I can see some potential for a middle ground that combines traditional agriculture with technological advances and innovation. My cultural identity positioning influence and shape my biases.

My intersecting cultural identities as an Omani female who originally comes from Village G but lives and works in the capital city of Muscat, and a researcher from a middle socio-economic background, studying in the United States, gave me insight to how I approach analyzing interview discourses and government documents in this study. For example, in analyzing the village participants' discourses and the officials discourses I could identify larger discourses dealing with land-based farming and ecocultural practices, urbanization and economic opportunities in the cities and how all these are influenced by globalization and development discourses.

As a highly educated female villager who chooses to live and work in the city, I have the privilege to exercise agency and seek an economically rewarding job that allows me to understand the challenges of negotiating power relations with the governmental structures. Throughout my research experience, privilege was at play in my relationship with my village participants. I recognized that there are power imbalances associated with my being a PhD student and a member of a family that holds a leadership position in the village. I was constantly struggling against that hierarchical position. I felt especially challenged in my first meeting with

the male seniors after I greeted them, introduced them to my research project, and told them that I am here to learn from their knowledge. R, a senior male, humorously said to me in a way to undermine their knowledge, “as if our knowledge is rocket science.” I felt the urge to do something about the power imbalance and told him: “rocket science will not feed us but your ecocultural knowledge will feed us.” I could read a sense of reassurance in the participants’ faces and my redirection of power was effective in reinforcing their confidence in their knowledge.

The challenges of doing research for ecocultural social justice from a more critical perspective were manifested throughout the different stages of this dissertation. In the piloting stage, it took me some time to establish relationships with the senior male group, because of my gender identity. I felt this challenge when I first met the senior male T, who eventually helped me in recruiting the other three senior male participants, when he said to me “why don’t you give me your questions and I will get you the answers you need.” He was suggesting that as a female it would be inappropriate for me to sit and talk with males. However, my educational and occupational identities facilitated building a relationship faster. Because education and being a lecturer at a university are regarded highly by villagers, when I explained to him that as part of my PhD studies I needed to meet with four senior males together in one place so that I can listen to their needs and challenges, and together discuss changes to their farming practices, he immediately suggested some senior male candidates. It seems that understanding that our meetings were going to be held as a group instead of individual meetings made him accept the idea, because meeting as a group was less inappropriate in his view. To the women participants, I was most recognized in terms of my occupational and educational identities. I found it less challenging to make connections with the women, as my relatives, who meet with them every morning for coffee, introduced me to them.

In the analysis stage, I struggled with translation from Arabic to English, as I felt challenged to not lose the deep meanings that the participants communicate, especially regarding their interconnectedness with the land. For example, male and female senior groups used a lot of idioms to construct their relationship with/in/as “nature”, which in many instances I couldn’t find an equivalent word in English. So I tried as close as I could to translate their meanings into English.

My interest in humanature relations influences how I see the world. Agriculture is not only about profit, but it is also about worldviews, cultural values, and a sense of being, knowing and becoming. As observed, two competing discourses are at play in this context of farming in Oman: Western views of progress, and traditions. While I agree with the kind intent of these officials, which is essentially to improve the Omani economy, I argue that the means of achieving this intent need to be unpacked in order to be able to create a middle ground that provides a space for grassroots and officials to collaborate and reconcile. I agree with Sen (1999) as cited in Goldin & Reinert, (2007) that “equity in cultural as well as economic opportunities can be proudly important in a globalizing world” (p. 209). In a reflexive move, I counter dominant ideologies that are significant to understanding what enhances or impedes humanature relations. I also realize that there are structural constraints such as the government and economic system in Oman, the need for global status, WTO as a globalization tool, education, levels of agency of the community members and high unemployment rate.

I recognize my biases towards ecocultural practices and to manage them I made sure to include multiple voices that I consider essential to effect social change in the village of Village G such as senior males and females, male and female youth living in the village, male and female

youth who moved out of the village, and government officials. What is missing in this whole conversation are the voices of foreign workers.

As the daughter of a family who owns several farms in Village G and thus has many foreign workers under my family's sponsorship, I am familiar with foreign workers' contributions on farms. Foreign workers now are a necessity in every house in Village G. Although they work on the land, take care of it and cultivate it, they don't own the land and are not considered as part of the decision-making processes when it comes to agriculture policies. It would be valuable to community engagement work to include the voices of foreign workers and understand their experiences and to explore how they can enrich the conversation. Because of language barriers, as I don't speak their language and as they speak neither Arabic nor English, I couldn't include their voices in my study.

I recognize that my privilege as being a member of family that holds a leadership position in the village has allowed me access to the community faster and affected how people interacted with me. This positionality framed how I negotiated my relationship with the villagers. I was able to meet with them several times during the course of my research. As a result of this position, village participants had a trust that I can do something to help improve their situation. I was honored. At the same time, I realized the responsibility that I now shoulder when one senior male participant told me in our last focus group meeting: H "I tell you what? It is you and not the government who is going to make the change." He further requested my phone number in order to reach me if he needed any help with farming. I again realized this privilege when one male youth living in Village G excused himself to ask me in our last meeting: SM "May I know why you chose to research this topic and to bother about farming and our problems when you actually are living [comfortably] in the city?" His query made me question my assumptions and revealed

to me some issues about my positionality as a researcher and as a city dweller. I came to understand that I couldn't be an insider even though I have always thought myself to be a villager. I recognized later that his question was actually one-way of saying: "We are willing to cooperate with you" (SM).

Generally, in Oman, most agriculture is practiced by small farmers living in rural areas, who depend on farming directly or indirectly for their livelihood. As subsistence farmers in Village G heavily depend on ecocultural practices for their food production system, I am concerned about how large-scale mechanized modern agriculture and traditional agriculture impact the life of villagers. Because large-scale agriculture is principally consistent with underlying frameworks of neoliberal economic models that privilege profit over care for land and people, humanature relations in Village G may be negatively affected.

In my analysis of officials and government documents discourses, I found neoliberal globalization manifests itself in unintended ways, impacting participants' ecocultural practices. Officials have diverse views about the value of traditional farming that echoes a globalized neoliberal dialogue. Some argue that traditional farming and traditional ecological knowledge are "inheritance" that must be respected but are not economically viable. Others argue, "Culture can be a selling point" and therefore "we should combine modern practices and traditional practices." I argue that these views are in line with neoliberal ideologies that construct cultural practices as backward or as a commodity. According to neoliberalism, traditions are a hindrance to progress and modernization is the way to economic growth. This neoliberal tool of cultural commodification is manifested in officials discourse. In theory, neoliberalism is about maximizing profits, efficiency and competitiveness. In this regard, consistent with literature critical of industrial farming, I argue that efficiency is measured by reduced human labor for a

lower cost, but not how much machines, chemicals and energy are used, which can be ecologically destructive and are long-term hidden costs in exchange for short-term profit.

A consensus among officials concluded that two things are necessary for improving productivity and profitability of agriculture in Oman. First is the need to appeal to youth by introducing mechanization and modern technology. These officials argue that Oman has a young population and traditional agricultural practices appear to be dying with the seniors; therefore, there is a need to attract youth to agriculture. Second is the need to increase profitability and economic growth through improving competitiveness. Although I recognize that Oman needs to diversify its economy and lessen dependence on oil, focusing mainly on economic growth without capitalizing on social, cultural and ecological values might create unsustainable development.

In order to increase profitability and drive economic growth, officials suggest increasing food production through the introduction of mechanization and technology. This assumption, I argue, creates dependency on global markets. Because of the country's limited research and innovation capacity, adopting transfer of technological advancement from abroad is a major strategy to achieve modernization of agriculture. While it may benefit farmers who have more access to resources, the supply of technological inputs to agricultural production, processing, distribution, marketing and sales is not readily available to all people.

Officials claim that modernization of the agriculture sector is one way to appeal to youth. However, based on industrial agriculture practices undertaken globally (Shiva, 2004), I argue technologization and modernization of farming do not automatically equate to more youth undertaking farming, nor does competitiveness equate to more profit. Maybe youth are interested

in jobs other than farming such as tourism, media, engineering or education. Also, more modern technology does not necessarily mean more profit. All things considered, perhaps the produce cannot compete in a global economy; thus, making no profit. However, it is wise to think that modern technology is not to be blamed. I recognize that structural forces such as neoliberalism, capitalism and globalization are highly influencing the context of agriculture in Oman.

What the government discourse assumes is that, "as the economy grows, the society also changes becoming more affluent and more educated…People will be richer; showing an increased ability to demand, and more educated showing an enhanced capacity to appreciate high value goods" (SARDS, 2016, p.50). What this discourse fails to recognize is that villagers also value community ties and humanature relations that are inherently rooted in spiritual beliefs. Also, the three officials I interviewed didn't indicate any potential social or cultural implications of introducing mechanization on the villagers' lives. When asked about whether mechanical harvesting can take away a sense of community, one official said, Sh: "it is the reality of life. We have to accept it."

However, based on my interviews with the village participants, I came to understand that traditional farming has social, economic, cultural and environmental benefits. These people value local food, natural fertilizers, native seeds and above all, community relations. The following excerpts reveal how the twelve male and female youth participants living in Village G and outside it perceive their relationship with the land.

> Hn: I would love to eat from what I grow. So that I make sure I eat healthy. [I know because] I grow it and water it and harvest it myself. On the weekends, when I go to visit my family, the salad I eat is locally grown, from our farm. Omani lemon, cilantro, tomatoes, lettuce. You feel the difference when you eat Omani produce. It is also healthier, unlike the imported.

MR: Omani compost is the best

Mh: The best compost is that which you get from cow and goat manure

Fh: They are called *Sarjee*l and *Di'men* [types of animal manure] from cows and goats.

MR: We still make our own compost. Only when it is not enough we buy.

Mh: We collect it [the compost] from the goats' barn.

Fh: What you get from the goats' barn is called *Di'men*. We use it for the date palms.

Mh: We also make our own compost by digging a big hole in the ground in which we put all the date palms leaves, the leaf [hairy part of the date palms], corn cobs. We also add the hay and wheat leaves from the wheat harvest. We leave it for months and then when it dries up it becomes compost.

Hd: I made sure that I bought some of my seeds from senior people. I don't want imported seeds. Local seeds are the best. Omani garlic is the best. You can't compare it to imported garlic. Not only it is more tasteful [than the imported], it is also healthier...When you grow local garlic you reap plenty. It's enough for my family and I give as gifts to my neighbors and relatives.

That said, according to senior male and female participants, farming has changed in Village G. They describe this change as being related to government jobs, imported food, youth disengagement in farming and availability of foreign workers.

T: People have salaries now. They know they have something to live on. Even if they don't work hard, they will find food. In the past you have to work hard to live.

S: Why would people want to grow their own food when they know that there is r cheaper imported food ready to buy? This is what is happening now.

R: Life has changed…this is the time of foreign workers, no Omanis work for other Omanis now…Omanis don't want to work in farms anymore so we had to have foreign workers.

H: [depending on] the land now is not enough [to feed a family]. We don't have the ability to work in the farm any more. And our children are not interested in working in the farm. This is the point

According to youth participants, loss of youth engagement in agriculture is a result of how the society looks at farmers. The society's view of farmers is described in the account of Mhd, a male youth living in the city who said:

> Mhd: Would the society accept you that you are a farmer? Or that you don't have a job? Can anyone agree to marry his or her daughters off to you if you don't have a job? No way! The first question a family would ask you if you go to propose is where do you work? If you say I have my own farm, the family would tell you get lost you and your farm. This is really happening. The society would look down upon you.

Moreover, youth living in the village and outside the village expressed that the society looks down upon farming. Youth living in the city revealed that they value farming even though they have moved out of the village looking for better job opportunities.

> Hd: Farming is not only about material gain. It also teaches you ethics and morals. We learn cooperation, honesty, responsibility and hard work from farming.
>
> Ala: How ever far [in our "progress"] we have gone, we have to come back to the land. Modernization won't provide our livelihood. The land will.

These youth's views reflect exactly my connection with the village and farming now, which fundamentally contrast with the officials assumptions about youth. It is these competing ideologies that I mainly address in this research project. Therefore, I intend to respond to these competing discourses by highlighting ways to combine both progress and traditions, which is a suggestion posed by both officials and some youth participants.

> Sh: Take those [traditional] practices, combine them with the modern…That is a better way of handling this dilemma.
>
> Hd: Regardless whether I have a degree or not, I can work in farming. Now thank God we have many options. If the person combines the traditional, which is our native farming identity, with the modern, then there will be big income.

These competing discourses further raise the need for a space that facilitates the integration of modern and ecocultural practices. Understanding and incorporating ecocultural practices along with modern practices is crucial for agricultural sustainable development in Oman. All in all, I argue the change we need to see in farming is to make economic growth inclusive and equitable.

As a researcher and practitioner, I aim to work with the seniors, youth and officials to co-design an alternative farming model that restores farmers' control over food systems. This regenerative model capitalizes on culture and promotes the economy in ways that generate income, create jobs, foster social cohesion and celebrate ecocultural diversity. Such a model can work as efficacy building for farmers by enhancing their cultural identities and honoring their ecocultural practices. This alternative model should strike a balance between valuing our traditional practices and choosing appropriate technologies that enhance ecocultural traditions.

As males and females work separately in the village, I aim to provide a space that caters to this need. This space can be the community center of the village, *Majlis al-Janah,* which is equipped with technology such as computers, microphones, and overhead projectors that can ease communicating with all groups at the same time. This center will be a space in which the farming system is considered and generated by villagers. To facilitate the meetings, it would be a good idea to have male and female facilitators working with the groups. Also, as it is a cultural norm that villagers usually interact more with a male speaker, I should have one of my brothers with me during these meetings. This idea was actually suggested to me by one male youth participant living in Village G who said:

SH: We are all with you to support you, but we need leadership. You need someone with you, not alone. Like one of your brothers. This way all people will participate with you.

I realize that in this cultural context, leadership is perceived as a male quality and villagers listen more and interact with a male leader.

I felt especially happy when youth participants living in the village thanked me at the end of our focus group meetings and expressed how much they have learned about agriculture from me and from their fellow participants. In fact, participants revealed that our focus group meetings created a space for them to share knowledge and build relationships. For example, one male youth conveyed how grateful he was that he came to meet all those young people who share the same concerns in farming. He said:

> SM: Thank you for creating this opportunity for me. I was able to get help from SH. The meeting connected me to the right person who can help me with my farm problems.

Indeed, my commitment to ecocultural and social justice as a researcher provided a lens of engagement to my interpretation and analysis.

Global Context

Understanding the dynamics of economic power and how they function to shape and control the food system in Oman is necessary. A neoliberal discourse that underscores profitability and economic growth is evident throughout my analysis of officials discourse. The economic system in Oman is best described as a free market economy. However, the government still plays a big role in structuring the economy. In this section, I describe the national economy as a structure that can enhance or impede local ecocultural sustainability. Specifically, I explain how the World Trade Organization (WTO) and multinational corporations function as structural forces that threaten the country's food sovereignty. By focusing mainly on economic growth, WTO exploitation discourses marginalize ecocultural practices in favor of mechanistic extractive practices.

Transnational institutions such as the WTO, which has liberalized trade in Oman since 2000, shape the global context in the country. As a structural force, this institution creates conditions that facilitate food import. One import that has direct economic, social, cultural, health and environmental impacts on Omani agriculture is the import of hybrid and treated seeds. These seeds cause damage not only to biodiversity, but also symbolically to villagers' agency and freedom to choose what to grow. The prevalence of imported seeds interferes with native seeds' role in maintaining community ties. Also, the import of these seeds comes with imported chemical pesticides and fertilizers to ensure "ideal" growth, and of course, profitability. Global seeds companies that promote the rapid spread of their hybrid and treated seeds not only make huge profits from the market in Oman, but most importantly, by exercising control over food systems and monopolizing production and marketing of seeds, they are impacting food sovereignty. As the government has promoted imported seeds, this action has in effect undermined the protection of native seeds, which is an essential pillar of food sovereignty in Oman. Food sovereignty principally focuses on the right of local small farmers, and not the forces of the global market, to have the fullest control of the food system (Shiva, 2004), from food production to food distribution. Globally, WTO, as a large contextual process, functions to protect the interests of multinational corporations at the expense of local small-scale farmers.

Moreover, a global agricultural corporate context must be acknowledged in order to understand the challenge of farming in Oman. Global corporatization of agriculture has various effects on farmers, food security, and the environment. For instance, respondents said that their cultural and physical well-being is negatively impacted. To illustrate, participants narrated that their farms now are not as healthy as they used to be in the past. They illustrated this by the various types of foreign weeds they get, and the unhealthy seeds they use. They also described

that their farms are less productive as a result of using imported seeds, pesticides and chemical fertilizers. Moreover, all four female youth participants living in Village G stated that they couldn't find native seeds for most of the food they grow, specifically wheat and vegetables. Native seeds are at risk of disappearing as most seeds used by farmers are imported from the USA, Holland, Chile, India and Jordan. Because the government has promoted a free market economy that facilitates agricultural imports, the ministry decided to create native seed banks to preserve native varieties. However, seed banks are only used to preserve seeds but not to distribute them for villagers' use. Also, participating villagers reported how seeds subsidies have decreased, which have led to their dependence on imported seeds from local markets. Village participants expressed that they cannot save seeds at the present because there is not enough yield to consume and save at the same time. Although not recognized by government officials as corporate control of native seeds, the distributers of imported seeds sold at local markets in Oman are big businesses owned by local people who own and manipulate production inputs such as imported seeds and chemical fertilizers; leaving farmers with virtually no other choice.

After the "free trade" agreement was signed in 2000, villagers have relatively quickly started witnessing a collapse in their farm activities. Food that they used to grow in their farms is now available at the markets (from imports) at cheaper prices. Villagers save money by buying imported food, and so many of them choose not to grow their own food. After producing their food for their entire life, villagers now have to buy imported chemical-laden food. WTO promotes the discourse that "Oman is likely to remain heavily dependent on imports to meet its domestic demand for most agricultural products" (WTO Report, 2008, p. 45). This dominant discourse functions to serve the interests of WTO, as it creates a stable market for imported food in Oman. Slowly, as government subsidies have started to fade as per WTO agreement, villagers

have lost hope in farming. Some sold their lands. Others who have an emotional connection kept their land but never benefited financially from it. Yet others chose to hire foreign workers to cultivate and take care of the land for them.

A free trade economy poses threats to local ecocultural sustainability. Officials regard place-based knowledge and ecocultural practices alone as economically unviable. To compete in a global market economy, MAF officials propose to gradually integrate land-based agriculture with industrial farming. Industrialization of farming is a process often accompanied with practices and structures different from what traditional farmers have been practicing, leaving them vulnerable to market conditions. All too often, traditions and ecocultural practices are detached from the economic context leading entire groups of people to be marginalized and silenced by neoliberal tools. Integrating into a neoliberal global economy that tends to favor big industrial farms for the purpose of increasing profitability can marginalize small-scale farmers. I realize there are competing interests (i.e. big corporations versus small-scale farmers) that this global international contextual factor further complicates.

National Context

Oman is a dynamic society in that progress and traditions work together. The Omani government has put special emphasis on the preservation of traditions. For instance, the government is maintaining traditional governance systems such as keeping the Sheikh role, sustaining falaj systems and keeping traditional building façades. At the same time, the country has opened to the world by inviting foreign capital investment and free trade. In this section, I describe education, religion and economy as national contextual factors.

Education

In Oman, education as an institutional structure, in combination with multiple institutions such as the government, the private sector, multinational corporations, and media, plays a role in enabling and constraining youth agency. While youth participants do exercise a certain level of individual agency, I argue that their positions of acting and their choice to leave their village and move to the cities are influenced by the educational context. Although no one forced them to leave their village, it is the combination of availability of better job opportunities in cities and modern education that has prepared them for work in a modern high-tech sector, which is promoted by the government and the private sector. The educational system emphasizes high-tech and business-oriented skills that prepare students in skills and knowledge needed in a knowledge-based economy, which is usually corporate-led economy.

While everyone's circumstances are different, as some youth perhaps are forced to leave villages by financial situations and possible family pressures, the four male and female youth I interviewed all moved out of Village G to continue their education and find employment. As a result, youth have become attracted to opportunities in cities. It is evident, as stated by Sh that "the educational system is encouraging white collar jobs" and is preparing the youth to be globally competitive. According to a WTO report (2008), development in Oman should implement a policy of highest importance that prepares Omani citizens to be globally competitive and to meet the demands of a knowledge-based market economy and of increasing globalization. This industry-oriented education, that is mainly available in the cities, contributes to disconnecting youth from their land and ecocultural practices, and qualifies them to seek jobs only in the cities. Therefore, the cultural pressure of a westernized education does not prepare youth practically nor psychologically to stay in their villages. Consistent with Turner and Turner

(2008) who connect the decline in using indigenous knowledge in education to forces of globalization and industrialization, school curricula in Oman marginalize indigenous local knowledge and so students are divorced from their land and ecocultural practices. One male youth stated that in the eighties, schools offered traditional farming activities for males, which are "all gone."

SH: I wish the Ministry of Education could do something. When I was in school, there was something called Farming activities as extracurricular. Also, we used to have Agricultural vocational institutions. These are all gone.

Although the Omani government has put special emphasis on the preservation of traditions through various ways such as His Majesty's Award for Handcraftsmanship, the maintenance of the traditional governance by keeping the Sheikh social role, the maintenance of the *falaj* systems in rural areas, the establishment of a public authority for cultural heritage and industries, school systems in the present, by deemphasizing traditional agriculture, decontextualize the educational experience and thus disconnect a big number of students from their lived reality. In school, these students learn about issues that do not necessary have direct applications in their every day life. School curricula do not connect them to their traditions. This disconnection results in undermining local traditional knowledge and practices and viewing them as useless in this current time. According to Sh, "our current curricula don't support linking youth to land and agriculture." In this regard, education functions as a power structure that creates ideological tension between "progress" and traditions.

Religion

While contextual factors function to constrain and/or enable certain cultural identities, in Oman, religion as a contextual factor enables participants' traditional ecocultural identity to be

practiced. It is evident from the grassroots discourse that ecocultural practices and religious spiritual beliefs are interwoven, as Islam is a way of life for Omani people. Islam as a structure for relationships calls for interconnectedness. In my research site, religion defines how villagers interact with the land, animals, plants, water, and with their fellow community members. Religious principles help shape the villagers' ecocultural values. According to the grassroots participants, taking care of one's land by farming it and raising animals is an expression of faith and spirituality. In this way, religion is an enabling structure that fosters human connection with land. Both senior and youth participants emphasized a religious identity when describing their relationship with other people, and with land, water, trees and animals. However, this identity is more salient in the male and female seniors' narratives. While grassroots participants negotiated a religious spiritual identity when describing their humanature relations, none of the officials spoke from a spiritual location.

Economy

Enhancing economic diversification is urgently needed in Oman. To support national development efforts, the government is currently pursuing a non-oil based economic growth plan that focuses on sectors such as tourism, manufacturing, logistics, fisheries and mining. Both government institutions and the private sector are participating in achieving this diversification plan. Although the agriculture sector is promising as grassroots participants expressed, it did not make it to the list of sectors that are believed to promote economic diversification because it is regarded as unviable as it contributes to less than 2% to Gross Domestic Product.

That said the Ministry of Agriculture and Fisheries is striving to look for what improves farming in Oman. The tension that arises is that the country is aiming to go global and compete

in a global market economy but current farming practices do not satisfy this goal. There is a whole set of global forces that indicate time has changed and that the country should not hold back “progress.” In fact, ecocultural practices and place-based knowledge are perceived as inherent impediments to agricultural development in Oman. Therefore, to comply with these global forces, the Omani government strives to be productive, profitable, and meet free market notions of “progress.” To achieve these goals, the government is working toward adopting industrial agriculture.

Industrial agriculture models are based on two interrelated goals, which are pursuing the maximization of production and the maximization of profit. As a system, it necessitates the application of mono-crop culture, synthetic fertilizers, chemical pest control and genetically modified seeds. In this way, industrial agriculture constitutes fundamentally different ideologies from Omani cultural and ecological principles.

Village Context

In the early 1980s, the growth of the country and the expansion of the job market to include all fields and levels of civil, military, and service sectors presented new opportunities for locals to work. As new jobs were created for locals and more schools were opened for students, villagers started moving out of their farms to assume their new roles in various sectors of the urban society. This change of lifestyle in the Omani villages, such as Village G, rippled across the country. On a local scale, from the villagers’ perspective, education took precedence over farming, and the opportunity of earning a high and stable income in the public sector was appealing.

Although changes of lifestyles resulted in changes in connection to land, village participants whom I interviewed honored their land and their ecocultural practices. Farming is based on traditional, intensified, poly-culture systems (date palm, alfalfa, beans, corn & vegetables) developed in response to limited irrigation. Currently, date palms and alfalfa are the most widely grown crops in Village G; both are a principal component in the village economy. Grassroots participants expressed that fifteen to twenty years ago the agriculture sector was full of life. “It was an excellent farming era,” they report. However, they state that agriculture now “is neglected,” as the government is not offering the same subsidies it used to provide. Because economic opportunities are concentrated in big cities, rural areas are in many cases left behind. As a result, villagers who used to grow strategic foods such as wheat and legumes left their villages looking for better quality of life. As exhibited, participants are calling for equal socioeconomic opportunities, as one female youth, who moved out of the village, put it

> Hn: If we talk about life in the village, there are no opportunities. Everything is in Muscat. All jobs are available in Muscat, the capital. It’s natural that we would move there.

According to the grassroots participants, agriculture is not a top priority in the government’s development plans. The thriving era that the village participants are describing was not driven by western notions of development and occurred before the Omani government signed the WTO agreement, which opened up the Omani market for free trade and integrated it to a market economy, which did a disservice to local agriculture.

The villagers’ desire to protect their land and traditions is considered uneducated by government officials. Villagers assert with one voice that government support is lacking. They position the government as uncaring. They also blame the government for the deterioration of agriculture in Village G. They explain that imported food has made it not economically viable

for them to grow their own food. As well, they complain about the absence of marketing outlets for their produce. Moreover, villagers state that the new seed varieties that the Ministry of Agriculture offers are not as good as the native varieties. They complain about the spread of harmful weeds and pests. They also describe that their animals, which constitute an important part of their farm as a source of food and natural fertilizers, are dying as a result of the spread of diseases. Furthermore, according to villagers, one major threat to farming is land transformation from agricultural to residential. They narrate that many people are building houses on their farmlands to accommodate their housing needs. All these complexities contribute to diverting the villagers from continuing to practice farming and all the related aspects of farming, and thus contributes to disconnecting community ties.

In addition to that, according to participants, the lack of the local community market, the *Souq*, negatively affects their farming practices and communal ties. The *Souq* was a space for enacting communal relationships and making decisions about social and ecocultural practices. Along with selling and buying local produce, villagers met in the *Souq* to share news and knowledge, discuss community matters, manage irrigation water, exchange seeds, and rent land for farming. As a cooperative framework, the *Souq* provided a space for villagers to enact various levels of agency.

According to male youth and seniors living in Village G, the *Souq*, a social, cultural and economic practice, played a major role in connecting villagers, strengthening their ecocultural relationships and building a strong local economy in Village G. It was a trade center in which people from various neighboring areas used to meet to exchange goods and services. Also, the *Souq* created an economic space for the villagers in which they made a living. When I asked the

grassroots participants to describe the situation of the *Souq*, a male youth living in Village G described this situation as follows:

> ES: This is a great question. Thank you so much for bringing this up. I can't stress out to you how the *Souq* played a big role in the village and people's life. Firstly, the *Souq*, before being an economic space, is actually a social space that connected many people from the village and the neighboring villages. The social role of the *Souq* comes first. Secondly, comes its economic role. Money used to stay in the village. With the disappearance of the *Souq*, the village's economy dropped, and the village's social status dropped with it. Village G used to be a center for economic activities.

Now that the *Souq* practice "disappeared" from the village, the economic activity of selling and buying local Alfalfa, animal fodder, dried dates for animals, fruits, vegetables, and even goat auctions are all gone. Most food now is imported. Villagers drive a long way to the next neighboring town to get their basic needs.

According to grassroots voices, when the *Souq* disappeared in the early nineteen eighties, community relations went with it. In response to the question about the implications of the lack of the *Souq* in the village, Mhd, a male youth who moved out of the village said:

> Mhd: Previously, Village G, as a trade center, welcomed people from different villages. There was strong connectedness between the villagers in Village G and those who came from farther areas. Many of the neighboring villagers couldn't go back to their villages on the same day [for business reasons], and so they would spend a night in Village G. This way, they made friends with some villagers and became really good friends that they even got married in Village G. This is gone now. People are scattered now.

Also, according to senior male participants, villagers now do not know where to market their excess produce. As one senior male explains:

> R: The disappearance of the *Souq* impacted the village socially and economically. The *Souq* was like a job for villagers and now they lost their job. It is like unemployment. Village G used to be a social and economic hub for all neighboring villages.

At the government level, absence of marketing outlets is a big concern for villagers. All participants question why the government had phased out the Public Authority for Marketing Agricultural Produce (PAMAP), which supported the farmers and encouraged them to grow various fruits, vegetables and crops, and created outlets to market their produce locally. When this government-run marketing institution was in operation, participants stated, imported food was substantially reduced. As one youth participant living in Village G described:

> SH: In the past it was prohibited to import food when local food was available. This [importing] law helped us a lot in selling our produce.

It seems that farmers lost this government support when the WTO agreement was signed. Since then, dependence on imported food has increased.

In the new economic system, villagers are not exercising the same power they used to have to make collective decisions over their own lives. They are now more dependent on a centralized new economy. Whereas all economic activities were based on local resources, in the new economic system, villagers depend on imported products. For example, traditionally, villagers recycled materials from farm waste (which are actually resources rather than waste) to produce local natural fertilizers, to nourish their animals and to support their needs. Now, their fruits and vegetables are imported, wheat is imported, fertilizers are imported and even seeds are imported. Subsidies for imported produce make it cheaper to buy than grow your own food. By adopting a Western-style development, the fabric of village interdependence and cooperation is disintegrating. The result of this modern model is that farmers cannot grow what they want in the way they want. Hence, farmers' agency is constrained by free trade economic structures.

As the agriculture sector changes toward mechanization and technologization, traditional farmers' ecocultural roles in agriculture may shrink, as they will be told what to do and what not

to do by government policies. Under the application of industrial agriculture, rural farmers perhaps might feel left behind, as they may experience a shift from a more spiritual ecocultural interpretation of reality towards a mechanistic one. This marginalization might have impacts on farmers' lives. Thus, farmers may leave their villages to seek better lives in cities. As these people leave their farms, their ecocultural values might disappear with them. According to critics of industrial agriculture, cultural values of farmers deteriorate, since industrial agriculture models require technicians and business people but not farmers (Shiva, 2016). Essentially, agriculture and villagers' cultural values and wisdom are intimately intertwined.

As a researcher and practitioner, I render examining this context of the village useful for community engagement work in order to achieve justice, equity and sustainability. Understanding the villagers' ecocultural values and traditions, their multiple locations of speaking and acting, and their positioning of the government allows me to uncover power relations between villagers and governmental institutions, and helps me understand levels of agency of all cultural groups. This knowledge is helpful in facilitating relevant community engagement.

Cultural Identifications, Representations and Relationships

Intersecting cultural identity positions and status relationship negotiation affect community engagement work. In the following section I discuss cultural identifications and positioning of seniors, youth, officials, and foreign workers.

Seniors

Generally speaking, although the eight senior participants yearn for the past and talk dearly about it, they are also grateful for the comfort and luxury of today. Now they have foreign

workers help them, because, as they said: “We are not healthy now” (S), “Our health is buried” (MZ), “We are all sick. We have diabetes, blood pressure and high cholesterol now” (Bh). Despite their unhealthy well being, seniors reveal a strong ecocultural identity when they describe their farming practices. Moreover, gender identity becomes salient when they narrate their farming activities in the past. Traditionally, men and women cooperate in doing farming practices. In general, women are in charge of raising animals, weeding, cutting alfalfa, pre-harvesting wheat, grinding grains, picking fallen dates from the garden to feed animals (*Raqat*), sorting dates after being harvested by men, and saving seeds. Men are responsible for preparing the land for farming, plowing, sowing, watering. Also, date palms are the work of men from pollination to harvesting. Women position men as strong and brave. They say climbing date palms is for men because it requires one to be fearless. Men position women as meticulous, dependable and responsible individuals who understand home economy. That said, participants reveal that nowadays these roles are not as strictly defined as they used to be.

According to seniors, youth are not interested in farming now for mainly two reasons: work and education. Seniors position youth as uncaring when it comes to farm work. They stated that today young people are unknowledgeable about farming practices and they are more interested in quick and easy fixes. They narrate that youth do not practice farming because salaried jobs are available now, and because farming is economically unviable.

> H: young people now depend on money and the easy fix… [they] don’t know what to grow when. They don’t know the timings. Every plant has a certain time. For example, growing grapes, if you miss the timing by a week, then grapes won’t grow. Youth don’t know these things.
>
> T: They [youth] are interested in jobs. They want salaries…it [farming] is not enough to feed a family. But we should guide them; yes depend on money but also depend on farming.

> S: Young people don't care about farming now… Not like us. You can't find one young person who would be plowing, irrigating or pollinating dates. They all depend on foreign workers…The children are either working or studying. This generation is different from our generation. In the past, there were no government jobs and no studying.

While many seniors blame youth for not undertaking farming, a few seniors defend youth by saying that life has changed and current jobs occupy youth for a long time. That said seniors highlight that young people are still attached to date palms and that they will never forsake them.

Furthermore, when asked about the reasons youth don't practice farming in the present, the eight male and female seniors' ascriptions of youth and youth's avowals matched exactly. Male and female seniors stated that youth would not practice farming. Youth described themselves as educated and employed. They say they don't have time for the farm because they have jobs.

> Hd: I have a job. I can't be in the village. Youth [in general] don't practice farming because they are required to have income and farming does not make good money.
>
> Mhd: Farming can't be my profession now. Maybe after I retire. Now I have a job and farming needs dedication. Currently, I think of it as a hobby.

Also, youth who live out of the village describe farming as a hobby unlike their parents who do farming as a way of life. Youth, by identifying themselves as educated people who don't want to practice farming, positioning farming practitioners as uneducated. This positioning indicates a status hierarchy and creates power relations that put educated youth as more powerful than the seniors and the uneducated youth.

Youth

Youth called on different identities to explain their views on farmers and farming, and the reasons that hinder their involvement in farming. While all twelve youth participants think highly

of farmers, none of the youth view farming as their own profession. There are several reasons that divert youth from working in farming. For one reason, government discourses perpetuate that working in a salaried job provides more security than working on farms. Youth argued that government jobs are more economically rewarding than farms. They say that what they make by working in a job is six times more than what they make from farming.

Secondly, youth reveal that the government makes it hard for them to own farmland. They argue that another factor that discourages them from farming is the permits, approvals and the expenses that the government requires in order to apply for land. What complicates the matter more, is that even after they get approved for farm land, they will be prohibited from digging a well, because the government is trying to control underground water usage to prevent depletion of water. These water regulations make irrigation water an issue for youth if they want to undertake farming as a profession.

Mhd: There are many rules and regulations for owning a farmland. If there is no *falaj*, you also have rules for how to use a well. It is a lot of permissions, licenses and you spend a lot of money on all this. A person feels tired and wouldn't want to go through all of this. If they [Ministry of agriculture] accept your application, they will tell you not to dig a well. O.K., how do I water the farm? [they reply:] "you figure it out. For two years you have to grow food and get water on tanker or any other way." This is one of the reasons why people don't want to do farming.

Moreover, youth state that extension services are very poor. They say, "We either don't get help or if we get it is either too late or it is the wrong type of help." A third reason why youth avoid farming is "society." Youth argue that the society represents farming and farmers as inferior, poor and backward.

> SM: Yes youth do leave the village looking for a source of income but also a lot of it [reasons not attracted to farming] is looking down upon the profession of farming. This is the real reason why youth are not into farming.

> Mhd: Would the society accept you that you are a farmer? Or that you don't have a job? Can anyone agree to marry his or her daughters off to you if you don't have a job? No way! The first question a family would ask you if you go to propose is where do you work? If you say I have my own farm, the family would tell you get lost you and your farm. This is really happening. The society would look down upon you.
>
> SH: Some young people would say that I am educated now I have a university degree I was living in Muscat, how on earth would you want me to go back to farming? No way! This is what is happening. Farming is not an option for them.
>
> Ala: Youth do love their land but the society is not helping them. The society makes it hard for them to work in farms. This is how they are viewed: if a person works in farming, this means he is poor.

Therefore, to avoid being labeled as uneducated, youth abandon their farms and look for jobs in the cities. It may be that the government, by educating youth to be globally competitive and by creating white-collar jobs, is diverting youth from farming.

At the same time, the eight in-village and four out-of-village youth participants enact a rural identity when they speak about farming and farmers. They reveal a strong connection to land and show their pride of their farming history. Although they don't own their farms, they sometimes help their families in their farms. Youth, in general, speak highly of the seniors and their ecocultural knowledge. They narrate how the seniors, with their ancestral knowledge and ecocultural practices, have kept the land fertile, regenerative, and maintained good communal relationships. As one female who moved out of the village puts it,

> Ala: Our parents and grandparents have a special language with their land. They have lived a healthier life...Their gatherings are always under the date palms; drinking coffee and eating dates. I so much have respect for them.

However, youth living outside the village negotiated multiple identity positions. Their rural identity and occupational identity are different. While their rural identity became salient

when they narrated their respect for ecocultural practices, they chose to enact a strong occupational identity to justify why they moved out of Village G and explain why they don't practice farming. Hn: "we can't go back to the village because all job opportunities are lumped in the cities." In fact, education-based privilege enhances these young people's agency. Although they blame the government for limiting their choices by putting all job opportunities in the cities, their educational identity position enables them to move to the city, which provides them some agency.

Three of the four youth who moved out of Village G enacted a weak urban identity by describing how uncomfortable they are living in the city and how foreign they feel in the city. As professional highly educated young mothers and fathers who left the village looking for jobs and better quality of life, they describe that they can't blend in to the city life and so they have to go back to the village every weekend.

> Hn: My husband and I have to go to the village every weekend. We feel so refreshed there. Life in the city is separated and so crowded. I have a neighbor who is also a nurse but we never see each other. I don't like it. We go to the malls, but you just spend your money without feeling good. I don't like this life.

Also, youth's rural identity is enacted through their stories about how they miss their family gatherings on the farms and the fresh food, and how they can't adjust well to city life where they have to eat imported food.

It is clear from the twelve youth narratives that in particular economic and social contexts, specific cultural identities are contested. To illustrate, multivocality emerged in the narratives of the youth who have moved out of the village. In discourses of ecocultural practices, youth's rural ecocultural identities that honor and respect ancestral ecocultural knowledge and practices were more emphasized. However, in discourses of economic viability of agriculture,

occupational and urban cultural identities were featured more strongly. In these discourses, youth negotiated contested identities that prevented them from practicing farming. One female explained:

> Ala: Currently farming is not economically viable…My job prevents me from going back to farming. I blame the whole government. Not only the ministry of agriculture. Where is agriculture from the development projects? Why do we hear big projects in tourism and we never hear about any development plans for the agricultural sector? 'They [our ancestors] grew food and we have been eating [from it], we should grow now so that others will eat' [reciting a cultural idiom]. We should proceed from this logic.

These intersecting cultural identities reveal existing power relations. Youth's cultural identities are influenced by agricultural policies and governmental practices. This may explain why youth cannot choose to stay in the village, farm according to traditional practices, and make a good living. Lack of profitable jobs in Village G and lack of equal distribution of modern technology among farmers mean that they cannot stay in the village and earn income. Also, villagers account that farming and owning a farm are not considered viable jobs that offer other life necessities such as marriage, social capital and owning cars. These accounts contribute to youth migration to cities. The whole context limits their choices.

Government Officials

The three government officials that I interviewed are holders of higher education degrees from Oman, USA and UK. They have educational backgrounds in economics, management and marketing. These backgrounds tie in with them holding up particular identities and their reproducing of particular discourses. They position themselves as professional, knowledgeable, and progressive individuals who know what is best for farmers and farming in Oman. The context of the government and being a government worker in Oman pre and post-WTO, shape their multiple identities. When talking about traditional farming, government officials described

mainly two group identities for seniors and youth: age-based and education-based identities. They argued that traditional agriculture, as is practiced now, is unsustainable and unprofitable.

The three officials ascriptions of grassroots were not consistent with the grassroots' avowal. For example, officials said that youth would not go back to farming unless we use modern technology. However, not all youth believed that modern technology is useful. To illustrate, the four female youth who live in Village G described how modern technology in the form of chemical fertilizers and imported seeds ruined their farms. These females also stated that modern technology is used only by inexperienced people, who want "quick fixes" such as "using chemicals to make melons grow faster and bigger" (MR). Moreover, officials said we need to import wheat while both seniors and youth stressed that wheat is a very important ecocultural practice for villagers in Village G, and that Omani wheat is healthier than the imported, and so they want to revive this practice and asked for government support. These officials ascriptions implicate a status hierarchy that functions to lower the grassroots' levels of agency. Excluded from the officials discourse are the youth who are not employed and/or who only have high school diploma. The four female youth participants living in Village G are housewives who are helping their families in farming activities. As a group, they represent a good number of young women in Village G who are non-university degree holders. Officials discourse seems to overlook this cultural group by focusing mainly on educated professional youth. Not only the agency of non-educated female youth is lowered, foreign workers' levels of agency are affected too in this research context.

Foreign Workers

At the government level, the growth of the public sector in the early eighties, with its associated services, stimulated rural to urban migration causing a gap in the farming workforce, which presented an opportunity for foreign labor to enter the agricultural sector. As a resolution from the government, to bridge the gap and sustain farms, foreign labor hiring laws were issued in early eighties. This law encouraged farm owners to employ expat laborers from east Asia, especially India, Pakistan, and Bangladesh.

Employing foreign workers by villagers has been a practical solution to compensate their choice of leaving behind their farms. As they hold an emotional connection to their farms that prevents them from selling them, villagers hire foreign workers to keep their farms alive. Most of the time, foreign workers are given the freedom to take care of the farm however they like as long as they keep the farm. In few cases, the male seniors supervise these foreign workers.

As a result of this new movement, the agricultural sector became saturated with foreign labor, in non-governmental roles. Although this resolved the gap, it had an adverse impact on the sustainability of the farms. The foreign labor recruited for farming, hired for minimum wage, was inexperienced and untrained. Therefore they often resorted to irresponsible practices in farming, which led to poor management of water resources and abuse of the farming lands by excessive use of chemical fertilizers and pesticides. This problem was aggravated by the fact that, in some cases, farm owners leased their farms to foreign labor in order to sustain their farms and gain an alternative source of income, taking away the oversight of traditional farming practices.

Accordingly, expat laborers, rather than being employees of the landowner, have become lessees leasing the farming land for a nominal fee. In many cases, as reported by government officials and grassroots, the lessees abuse the farms in an effort to make the most profit in the shortest period of time. They implement chemical fertilizers and many times use banned harmful insecticides in order to increase the production of crops and harvest more profit. Moreover, the large-scale planting of grass-clovers, used as livestock food that yields high return, affect the soil fertility and exhaust the land, rendering it unfavorable for future farming. The repercussions these practices have on soil fertility and sustainability of the farms are severe. Additionally, the conventional irrigation methods, utilized by the lessees, lead to wasteful water consumption. Coupled with the foreign workers' lack of investment in sustainable advanced irrigation systems, their practices could potentially lead to a water crisis, which is a scarce and valuable resource in Oman.

Despite the fact that recruiting foreign labor helped bridge the gap in the farming workforce, it brought about a change in farming practices, which deemed the sustainability of farms in small villages, such as Village G, questionable. In general, the profit-focused recruited workforce has led to unsustainable farming practices with severe repercussions on the agricultural sector in Oman. However, this is not necessarily the case for all recruits since there are those who are reliable and take responsibility for conducting sustainable farming practices, while refraining from utilizing unlawful agricultural products. In this study, all participants, including grassroots and officials hold different views of foreign workers

Positioning of foreign workers is contested in Oman. All grassroots participants emphasized a national identity when talking about foreign workers, which positioned foreign workers as foreign. While some position foreign workers as a problem that has negatively

impacted the farming land, the Omani society and its cultural fabric, others, especially seniors, position foreign workers as helpers. All participants generally express a belief that foreign workers are a solution to the problem of abandoned farms. However, all stated that foreign workers are damaging the farms with their use of excessive chemical fertilizers for the mere reason of making big profit. As one male youth put it,

> Hd: Foreign workers care only about making money. They use banned chemical fertilizers that ruin the land and ruin our health. They don't care [about the consequences]. It's not their country.

At the same time, youth participants expressed that foreign workers have become a necessity as farmers in the village are aging and many villagers are depopulating rural farming communities. In contrast, government officials position foreign workers as a burden that needs to be decreased by introducing modern technology. Generally speaking, the foreign labor work is appreciated because it sustains the production of local crops, offers the local villagers an opportunity to continue their education, and contributes more directly to the development of the country.

As I see it, the problem resides in the government system itself that creates this system of foreign labor rather than the foreign labor that is cast in a negative view. For instance, the government's rules and regulations do not make it attractive for Omani people to work in the agriculture sector. According to grassroots respondents, the long bureaucratic processes for owning and cultivating land, increase of the prices of farming inputs (i.e. tools, seeds, fertilizers), lack of agriculture insurance and low wages, coupled with the society's views of farming and farmers, are all factors that discourage Omanis from working in farming. Also, because the minimum wage for recruiting an Omani worker is about $777 US dollars, Omani employers who own agricultural projects find it cheaper to recruit a foreign worker who takes much less than that.

Recommendations

My analysis of four constructs within the community engagement framework, has taught me four important issues that inform my design of sustainable ecocultural practices with Village G people. First, I have learned that the discourses of "progress" and profit are pervasive and profound, especially in government officials and government documents discourses. Second, I have learned that as a result of changing conditions, young villagers have moved to the city but they are still drawn to traditional practices. Third, I have learned that foreign workers are used widely but are criticized for unsustainable agricultural practices that harm the land. Fourth, I have learned that the youth may be the key voices in being able to design new machinery or train foreign workers in ways that bridge cultural traditions and increase yields without compromising the land.

In this section, I recommend ways and practices that reconcile different forces by recognizing both the need for honoring ecocultural traditions and values, and the need for "modernization." These suggested practices should be profitable as well as ecoculturally just and inclusive. In the following, I present the needs of the grassroots and then the suggestions of the government officials in order to recommend sustainable community work. Recommendations include introducing co-operative agriculture, and an educational and research program.

All grassroots participants described a common need, which is the need for government support in the form of subsidies and agricultural extension. In addition to that, to reconnect villagers to the land, both senior and youth males living in Village G suggested they need the *Souq*. As SM, a male youth put it, "the *Souq* will bring people back to the land." Both senior and youth males cultural groups also suggested using endowment lands in Village G as cooperative

farms. Endowment is an Islamic way of property governance. In this act, a land or any other property is detained so that its income is used for charity.

When asked to describe an ideal farm, all grassroots participants proposed that the design of the farms should include varieties of crops and animals such as goats, cows and chickens. They all stated that wheat, dates and alfalfa are highly important in an ideal farm. H, a senior male, emphasized, “A farm should be planned very well in a way that makes space for varieties of produce. It shouldn’t only have one crop.” Moreover, male and female seniors and youth living in Village G suggested they needed farming land, water, people support and cooperation, and a tiller. Interestingly, they specifically mentioned a tiller and described how they can share one or two tillers for the whole community. Moreover, because wheat is considered an important crop for grassroots participants, two young people living in the city, Hd and Mhd, suggested that the community could share one harvesting machine that everybody can use during the season. By proposing a shared tiller and harvesting machine, grassroots participants are suggesting combining traditional farming with modern farming. This hybridization is consistent with other recommendations that have found these practices sustainable, such as permaculture models of farming and community-supported agriculture. I recommend this hybridization as it has the potential to acknowledge various cultures (i.e. seniors, youth, in-the-village youth, out-of-the village youth, males, females, villagers, officials, foreign workers), farming traditions, and at the same time utilize appropriate technology that strengthens community ties and achieves economic return. I would like to point out here that foreign workers are part and parcel of the village community fabric. Therefore, paying more attention to their needs is necessary. For example, I recommend including a different economic model for how they are hired and what they are paid.

Government officials I interviewed offered suggestions to enhance the agriculture sector in Oman; they all recommended co-operative agriculture as a potential model that addresses current farming issues. They suggested that combining farms through co-operative agriculture is a solution to fragmented lands. They describe that this land fragmentation is not viable for mechanization and so by consolidating fragmented land, farming would be more productive. Moreover, they argue that this practice is useful for addressing the issue of increased dependence on foreign labor and for keeping youth in their villages, as according to these officials, co-ops would solve the problem of unemployment. Grassroots participants, who recommend using the endowment lands in Village G as co-ops, echo this suggestion of co-operative farming. To achieve the goal of both honoring ecocultural practices and the need for economic return, a cooperative agriculture model might be feasible.

A co-operative agriculture model is consistent with other recommendations that have found these collective-action practices sustainable such as "civic agriculture," a term coined by Thomas Lyson (2004). Civic agriculture, according to Lyson (2004)

> references the emergence and growth of community-based agriculture and food production activities that not only meet consumer demands for fresh, safe, and locally produced foods but create jobs, encourage entrepreneurship, and strengthen community identity. Civic agriculture brings together production and consumption activities within communities and offers consumers real alternatives to the commodities produced, processed, and marketed by large agribusiness firms (p. 2).

I recommend a civic agriculture model because it is "associated with re-localizing of production," which means "agriculture and food endeavors are seen as engines of local economic development and integrally related to the social and cultural fabric of the community" (*ibid* p. 101). This model is based on "community problem solving rather than individual competition" and is committed to "developing and strengthening an economically, environmental and socially

sustainable agriculture and food production system," and therefore, "the imperative to earn a profit is filtered through a set of cooperatives and mutually supporting social relations" (*ibid* p. 102).

Using the civic agriculture model, I recommend creating community work that combines profitable, productive practices that require the use of appropriate, villager-identified mechanization and modern technology, such as tractors and tillers, as well as ecocultural practices that honor community values and sustain the health of the land. Such a model should create job opportunities for youth in order to appeal to their needs. For example, using the endowment lands, the government can provide the machines and technologies that the villagers identify. Because *falaj* water shares are distributed among villagers through auctions, villagers can pool their resources of water shares to take care of irrigation. As this model requires managerial and leadership skills, it creates jobs for youth living in the village. The whole project could be operated as a company and villagers have shares on it. Accordingly, this practice can bridge the social, cultural, ecological and economic aspects of the village life. That said I would like to put forth that

> in order to effect a shift to civic agriculture, it is critical that we recognize and address the fact that control of today's food system rests primarily with powerful and highly concentrated economic interests, and not with local communities or even government (Lyson, 2004, p. 102).

Such understanding facilitates acknowledging institutional contextual factors and how community members can navigate their paths within them in order to provide profit, employment, efficacy building for rural farmers, and improve the health of land and people. This understanding is relevant to my work as it involves finding a middle path that honors the voices

of grassroots and government officials to strengthen local economies in order to face the challenges of powerful economic interests.

In addition to cooperative agriculture and consistent with the youth, who are calling for teaching farming as an elective at university level (Ala) and re-integrating farming in school education curricula (SH), I recommend developing a program for agricultural literacy in which senior villagers share their knowledge and expertise with young people who might otherwise have no way of learning about how their food is produced. This intergenerational education can achieve social, cultural and economic goals. To illustrate, besides strengthening community ties and honoring ecocultural practices, seniors can receive some income by sharing their ecocultural knowledge and practices with the village youth. Furthermore, agriculture literacy programs can involve foreign workers. Youth can undertake the role of teaching sustainable farming skills to foreign workers who might not have any knowledge about village-specific ecocultural practices.

Besides ecocultural literacy development, this program can facilitate conducting research and indigenous innovations. This research program can help villagers grow their own food and keep the land healthy, since they all valued local food over imported food. To restore the health of the land, villagers can benefit from create ways to re-generate the ecocultural practices that kept their land fertile. Such practices include, as stated by villagers in the grassroots discourse, using the traditional plants called *Almehteedy* and *Alharmal*, which were traditionally used by seniors as bio-pest-control. Because the government has banned cutting plants as a way to preserve them, research and innovation can help reproduce these plants in order to use them as ecological ways of controlling pests and harmful weeds. Re-integrating these ecocultural practices could improve the land and thus enhance farming. Then, to overcome the issue of cheap imported food, villagers can grow their own food using the co-op model. Then they can

sell it to each other, but keep the price not so expensive. Keeping a reasonable price that they can afford would help them not buy the imported food. For the food to be inexpensive, the input such as compost, fertilizers and pest control should be inexpensive. Again, villagers can use their traditional natural ways to produce these inexpensive inputs. Therefore, research and indigenous innovation are essential for sustainability and regeneration. This suggested program can perhaps be a way to attract youth to the agricultural sector. All in all, I argue that if young people are offered education in agriculture, a voice at policy level, and in the media, and are engaged with innovations then the agriculture sector can attract youth again. The suggestions I provided above are recommendations for community members. In the following section, I offer recommendations for researchers and practitioners of community engagement work.

As a researcher engaging this particular community, I believe that building relationships and trust with community members is an essential active step towards affecting social change. In my research project, this was achieved by showing respect for diverse cultural identities and by conversing with villagers as experts and holders of knowledge as opposed to passive objects of research, as I believe that researchers as well as community members are "agents of knowledge" (Ledwith & Springett, 2010, p. 24). Also, the focus group meetings were sessions for co-learning. For example male youth living in Village G expressed how informative and supportive our meetings were, as we all learned various issues related to farming from each other.

Moreover, trust between researcher and community members was built by sharing mutual goals. At the very beginning of my research journey, before I even established my interview guide, by informally interviewing villagers in Village G, I was able to listen to their critical voice of the farming situation in the village. One senior male summed up my research assumptions in four words when he said, "farming is threatened today" (H). Several villagers I talked to, who

were able to identify the issues that were affecting their lives, echoed his critical voice. This process of questioning the status quo, which Ledwith and Springett (2010) call “becoming critical” makes community members autonomous, and “autonomy leads to empowerment” (p. 19), which eventually leads to change. As according to Ledwith and Springett (2010), “change for a just and sustainable future is based on questioning the status quo” (p. 21).

Recommendations for community engagement researchers and practitioners are warranted in this section. Context, cultural identities, and relationships between and within groups inform my findings in the following ways. Contextual analysis informs my findings in that I was able to explore the global and local forces that impacted humanture relations in Village G. Also, analysis of context provided me with an understanding of structural constraints that impact levels of agency of community members. As well, my analysis of the contextual factors helped me in building an understanding of how globalization processes are embedded in everyday life. These functions of the context calls for researchers and practitioners to conduct comprehensive analysis of political, economic, and historical factors as they all help shape the present. Global and local dimensions are interrelated wholes and understanding them provides explanation for the status quo. This understanding can provide the means for affecting change and exploring alternatives.

Understanding intergroup relationships is important for community engagement work as it reveals hierarchal status relations and influences agency, which together helps explain factors that influence humanature relations and ecocultural practices. For instance, in my study, I found out that the seniors view foreign workers as helpers. However, the youth and officials view them as obstacles and as a necessity at the same time. In fact, officials say that there is a need to introduce technology in order to reduce the numbers of foreign workers in the agriculture sector.

These foreign worker representations show the social hierarchies that impede the agency of foreign workers. For future research, I recommend that practitioners and researchers doing this community work to pay attention to contested representations, as they are one way to uncover power relations.

Analyzing cultural identities and relationships between cultural groups provides a different way of knowing; ways in which matter is not separated from spirit, which Ledwith and Springett (2010) call "ecological ways of knowing" (p. 78). These ways of knowing manifest multiple realities and they have **"**the potential to create knowledge that does not simply reproduce the worldviews, values, and interests of dominant groups" (Smith, Bratini, Chambers, Jensen, & Romero, 2010, p. 408). I recommend to researchers and practitioners doing community engagement work that they explore various cultural identities negotiated. These cultural identities include the emotional, spiritual, and physical dimensions of being human. In this research, emotional and spiritual identities offered alternative ways of knowing.

Chapter Conclusion

In this chapter, I attempted to answer RQ3: How does analysis of core components of critical community engagement inform researcher-villager-governmental collaborations to design sustainable practices? by applying four constructs within the community engagement framework (Collier, 2014), namely reflexivity, context, cultural identification and relationships, and recommendation. My analysis shows that in order to design sustainable community engagement work a researcher/practitioner should pay attention to global and local forces that impact humanture relations and how these forces influence intergroup relationships.

Chapter 7: Discussion and Conclusion

This research project serves as a case study for understanding agriculturally based humanature relations in Oman and the structural forces that impact these relations. My specific goals for this study were: (1) to build an interpretive understanding of ecocultural orientations of villagers and officials in Oman and how they conceptualize their humanature relations; (2) to critically examine ideologies and uncover structural forces that enable/constrain humanature relations; and (3) to co-create community engagement work that honors the ecocultural wisdom of farmers, promotes economic viability, enhances ecocultural sustainability. In this section, first, I provide a summary of my project. In this summary, I review the methodology used to answer my three research questions and then I present a summary of my analyses of grassroots discourse and officials discourse. In presenting my analyses, I employ the date palm metaphors described in Chapter Four as an organizing principle that depicts humanature relations and the contextual factors that enhance and/or hinder these relations. Then, still using the date palm metaphor I describe how the grassroots and officials discourses diverge and converge. After that, I offer my theoretical, methodological and practical contributions. Then, I discuss suggestions for future research. Finally, I conclude with some thoughts of what I hope to do with my research.

Summary of Research Project

Data were generated through focus groups, individual interviews, participant observation and government documents analysis. Using CuDA (Carbaugh, 2007) and Community Engagement Framework (Collier, 2014), I analyzed ecocultural premises in Chapters Four and Five based on Omani villagers' interviews, field observations, and an analysis of government documents and officials discourses. Informed by my critical goals to understand contextual

structures, I examined institutional policies, globalization and migration, emphasis on economic gain, religious values, histories of the region and nation. I also studied the effects of these structures on agricultural practices and sustainability in Village G. By examining grassroots discourse and governmental discourse, I built an understanding of how these discourses account for the resulting agricultural practices and relationships among people and between people and their land. Some of these effects include: fragmented communities, unhealthy land, youth moving to the cities, and an increasing number of unskilled foreign workers who are viewed differently by different cultural groups.

Through analyzing grassroots' discourse in Chapter Four and governmental discourses in Chapter Five and through applying the community engagement framework in Chapter Six, I answered my three research questions:

RQ 1: What grassroots core ecocultural premises do Omani villagers communicate?

RQ 2: What core ecocultural premises do official government documents and officials discourse communicate in Oman?

RQ 3: How does analysis of core components of critical community engagement inform researcher-villager-governmental collaborations to design sustainable practices?

Summary of Grassroots Discourse

Relations-in-place, kinship-in-place and *nurturance-in-place*, as discursive practices, define how participants in Village G conceptualize their humanature relations. As exhibited in Chapter Four, these ecocultural relations are rooted in spirituality. The interplay of faith and ecocultural practices brings forth a strong sense of community not only with humans but also with the more-

than-human-world. These discursive practices are grounded in a sense of *Umma,*a Quranic worldview, which inspires a relational component of connectedness and instills a sense of unity with all forms of life. These conceptualizations are consistent with McGregor (2004) and Berkes (2012) who view people and land as integrated whole rooted in spirituality and religious beliefs, and with Berkes (2012) who argue that these harmonious relations can be understood by "metaphors used in religion" (p. 122).

Using the date palm metaphor, the interwoven pinnate leaves along the spine symbolize unity and connectedness with all forms of life including land, water, animals and date palms. In this research, a date palm symbolizes centrality of spirituality in understanding humanature relations. Similar to the unity of a date palm tree's intertwined leaves, grassroots participants exhibited a sense of spiritual connection dictated by honoring all forms of life as *Amana*. This sense of *Amana* obliges them to be kind and respectful to all living beings and guides their relationships with water, animals and date palms as a united *Umma*. To these participants, a date palm, through its nurturance feature, unites humans, birds, animals, cows, goats, and camels, as they are all one *Umma* in this cosmology. In this way, ecospirituality offers unity that blurs the boundaries between the material and the spiritual. However, this unity between all living beings in Village G is impacted for various reasons.

Grassroots participants explained various reasons that have diverted people from farming. These reasons include availability of government jobs, salaries and attractive opportunities in the cities. Senior participants and youth stated that there is no economic return from farming now. They explain the uneconomic viability of farming by blaming the government for "neglecting" farming as H, a senior male participant, puts it, "farming is neglected [by the government] as the government now does not provide the same subsidies that it used to offer for farmers." These

villagers find it hard to continue farming without government support, as they have to compete with the imported food that invades the local markets. The status quo of farming in Village G has consequences for villagers and their land. With seniors aging and youth not being interested in farming for the reasons described above, some traditional farming practices and community relationships in the village are deteriorating.

Seniors explain that this disconnection from farming is a generational shift. They say, according to S, a senior female participant, "our generation is different from the youth generation. So the youth will not undertake farming." However, of all farming practices, seniors clearly stated that youth would continue the seniors' legacy by taking care of date palms. The tower-high trunk of a date palm with its deep roots in the ground is symbolic of this intergenerational connection. Also, youth attachment to date palms is like a *faseela* that is attached to its date palm parent. These youth express their connection to date palms by describing that before building their new houses, whether in the village or in the cities, they would plant at least two date palms around the house.

In addition to their attachment to date palms, youth maintain a connection to land. This attachment to land is evident in the accounts of the youth who live in the city. Youth move out of their villages looking for jobs and education as part of the changing needs of communities. Influenced by globalization forces, as one main reason, they orient their goals to a perspective beyond the village. That said youth participants expressed a strong connection to Village G. They explain that even though they live in the city, they have to visit their village at least every weekend. According to Hn, a female living in the city, "I am locked up in my apartment in Muscat. I don't even see my neighbors…I have to visit Village G in weekends. Sometimes I even go midweek. I miss fresh air, the sky, stars, food and listening to roasters." Youth living in

cities appreciate wholeness of the village, which they don't find in the city. This appreciation is rooted in spirituality, which defines these youth's attachment to land. As Ala, another female participant living in the city, expressed, "there is something deep that draws me to Village G. And you know, "loving one's land is part and parcel of a person's faith," as the prophet says."

Applying the date palm metaphor, after hand pollinating the female date palm flower with the male pollen that grows in the male date palm sheath, the date palm begins to bud. The buds develop in stages from small green to mid-size yellow to brown. In my research site, this metaphorical depiction of changing colors and size symbolizes changing needs of communities, which are related to improving the quality of people's lives.

Moreover, this feature of developmental-stages of the date palm represents fluidity and adaptability of cultures. These changes are natural and they are necessary for ecocultural sustainability. Also, the pinnate thorny leaves of a date palm facilitate the adaptation of date palms in dry and warm conditions. This feature of the leaves symbolizes how we can maintain our social and cultural integrity in a changing society. I argue that a livelihood is sustainable when it can cope with changes. Hence, adaptation to change is one key to sustainability.

Similar to a date palm tree's sustainability, grassroots participants' narratives convey that localization is the path to sustainable ecocultural living. They express localization in terms of eating local food, raising animals and keeping their land fertile through the use of native seeds and local natural manure. They narrate that Omani local food is better than imported food. They also encourage that people should grow their own food and raise their own animals, as M, an senior female participant puts it, "Grow your own food, do not buy your food." Moreover, youth participants living in Village G explain that they like to keep animals because it is a religious call

as they “don’t like to throw away left over food” (Mz) and because animals provide manure and natural ways of pest control. These practices are coherent with their own understanding of sustainable living. Although grassroots participants’ traditional farming practices achieve ecocultural sustainability, officials discourse defines sustainability differently and therefore suggests a need to change traditional farming to industrial farming.

Summary of Officials Discourse

Officials discourse states that farming techniques in Oman should change. Officials argue that traditional farming is unsustainable because it is a labor intensive, unproductive and unprofitable business. They argue that traditional farming is not rewarding economically, while they describe modern agriculture as being progressive, profitable, efficient, economically rewarding, and productive. According to officials, mechanization and technologization are the best ways to interact with/in/as “nature”. In this way, officials discourse tends to subscribe to the logic of neoliberal development. This discourse accentuates shifting rural farms into industrialized farms in order to achieve profitable sustainable agriculture.

Moreover, my analysis shows that officials equate agricultural sustainability with profit, and through this equation they promote neoliberal ideologies. Officials discourse shows that people’s well-being is improved mainly by material economic gain and that economic growth is essential to a prosperous society. To officials, Omani people’s connection to land is enhanced through capitalist practices. For instance, they describe that cultural traditions, such as using local flavors of food, are used as a way to “reach the market” and thus enhance profitability. At the same time, officials discourse value traditional ecological knowledge as “a selling point.” My analysis demonstrated that there exists a dialectic tension between modern agriculture and

traditions in governmental discourse. Despite this noticeable tension among officials regarding views of traditional agriculture, their accounts are characteristics of neoliberalism, an ideology which places emphasis on market mechanisms as central to people's well-being. I argue that neoliberal tools might not achieve sustainable agriculture in Oman. Instead, sustainable agriculture is promoted by attending to place-based local ecological knowledges and practices.

In the date palm metaphor, date palms are unique plants as they are either a male or female. Male palms produce pollen and female palms produce flowers. Each female date palm requires certain amounts of pollens at certain times. Villagers know which type of date palm requires how many *shamrookh*. It is this place-based traditional ecological knowledge that has sustained date palms in Oman. Understanding the biological features of date palms symbolizes how using place-based knowledge is crucial for sustainability of date palms. In the same manner, I argue that localization of definitions is essential to attend to people's needs, and; hence, to achieving sustainable well-being. To meet real needs and solve problems that matter, policies might benefit from redefining productivity from using global standards of quality and quantity to sustaining land health and fertility, which uses the villager's own local knowledge and cultural values. In this way, productivity is not defined only in economic terms. Rather, productivity is defined in terms of how meaningful the ecocultural practice is, how it contributes to people's well-being, and how it addresses their real needs.

Where Do the Discourses Diverge?

My interpretations show that grassroots discourses and governmental discourses seem to miss each other in two ways. First, the governmental discourses show that sustainability in agriculture is more akin to economic and market dimensions. Sustainability is achieved by

technological advancement detached from human life and cultural traditions. This discourse promotes sustainability by emphasizing profitability and productivity. This way, officials discourse fosters a conceptualization of agricultural sustainability as a technical mechanistic issue rather than a process rooted in people's ecocultural values. However, to village participants, sustainability is based on humanature relations. Villagers understand land, water, animals and date palms as kin connected by social *relations-in-place*. Whereas village participants perceive community fabric and villagers' sense of interdependence with the natural world as fundamental to their sustainable living, officials discourse emphasizes that profit and material gain achieve sustainability. To villagers, sustainability is promoted by building a village economy based on their understandings of economic resources within their cultural logic, and by maintaining relationships with people, land, animals, water and date palms. Indeed, an ideological tension is evident in both groups' conceptualization of sustainable living.

Second, while officials discourse mainly views traditional agriculture as outdated, limited, contributed only as subsistence in the past and "it is not the right way to enter the market" (F), village participants value their time-tested ancestral wisdom as it is interwoven with their ways of being, relating, becoming, and knowing in the land. This wisdom is inseparable from the land that carries their traditions, experiences, and their relations, in addition to their economic needs. To these villagers, land is more than a material space that provides their material gain and profit; it is also cultural, social, communal, ecological and spiritual.

Using the date palm metaphor, a *faseela*, an offspring of a date palm parent, extends out from the parent to generate new life. This extension ensures sustainability of the date palm kind and considers future generations. This feature of date palm symbolizes that for agricultural

development to be sustainable perhaps we should extend our measures of development beyond economic criteria to include cultural, social, ecological and spiritual aspects

As governmental discourse is gaining a broad status that legitimizes profitability and productivity through the use of mechanization and technologization in agricultural practices, what I am arguing against is industrial agricultural as a neoliberal economic framework. The underlying conceptual frameworks upon which industrial agriculture is based serve neoliberal economic systems that don't prioritize caring for people or for the planet. In these systems, ecocultural values are subsumed by market logic. It is this core neoliberal worldview of industrial agriculture that I am opposing and not modern technology as a tool.

Moreover, I argue that making profit by using new technology is not wrong if this technology serves the villagers' economic, social and cultural interests. Hence, I am not opposing the use of modern technology. However, technology should not function independently from land. Instead, it should emerge out of an interaction between people and their place including land, animals, water, and date palms.

I suggest we need appropriate technology that respects people's traditions and enhances humanature relations. I argue that modern technology and traditions are not necessarily opposites. However, before going ahead with replacing traditional pollination with the spry pollination technology, we should ask ourselves: who benefits from this technology? Relatedly, I ask who benefits from all the economic activities in Oman? Is it the local economy? Or global markets? In the same vein, I argue that the type of profit matters. I call for healthy profit. That is small local-based profits as opposed to large-scale global-market-force-dependent profits. This

type of profit comes from smaller endowed farming lands and cooperative farms that can go together to make regions profitable, which then go together to make nations profitable.

Indeed, one should be careful about technological interventions that serve the interests of the neoliberal corporations of the industrialized world. I argue sustainable agricultural policies might want to put more emphasis on people and their well-being rather than on profits to faraway economic interests. Also, to address social, economic and ecocultural disparities that neoliberalism creates, I argue what we need in Oman is not more profit. Rather, we need more equal opportunities.

Where Do the Discourses Converge?

A dialectic tension between applying Western globalized views of progress and maintaining traditions is manifested in officials and some youth accounts. Some officials and youth living in the city suggested combining modern agriculture with traditional farming practices. While governmental discourses are assigning market value to traditional ecological knowledge by using neoliberal measures, youth view that combining “modern” agriculture and traditional agriculture requires understanding traditional farming as accumulative land-based experiences and that modern technology is a tool that is useful only if serves the traditional ecological knowledge. In the village context, considering combining the two by balancing modern ways with time-tested ecological knowledge is an act of sustainability.

I argue that diversity promotes sustainability. Using the date palm metaphor, the 800 varieties of date palms available in Oman symbolize diversity. Many villagers value this diversity feature as it means that they can have a long season to enjoy more dates since each type

of date palm grows in different times. In this regard, diversity of date palms achieves sustainability.

Using diversity as a symbolic feature of date palms, to achieve a successful combination of traditional and modern agriculture, I suggest adapting the two by attending to diversity. By attending to diversity I mean understanding generalized perspectives that may affect the integrity of context-specific humanature relations. I argue that diversity can be achieved by attending to specific historical, cultural, ecological, and economic contexts. The homogenizing forces of globalization prescribe how humanature relations are enacted, and thus, industrial farming becomes a one-size-fits-all discourse. In this context, it becomes necessary to understand how globalization forces interplay with villagers' experiences.

In a globalized market economy in which global food systems are controlled by profit-oriented corporations, the regenerative feature of date palms symbolizes how we can improve our standard of living without sacrificing the social, cultural, ecological and economic balance that Omani people enjoy. Also, the tower-high trunk of a date palm is iconic of intergenerational connection that illustrates how local in-depth knowledge can survive in the contemporary context. This trunk symbolizes a bridge between deep-rooted ecocultural practices and modern technologies that are adapted by the villagers according to their needs. I argue that this bridge may provide a space to balance out globalization forces.

The date palm metaphor showcases resilience and sustainability. Even though the villagers may be threatened to lose some ecocultural practices and relations, they hold on to date palms. They express that the date palm will never die and youth are going to grow date palms even if they no longer practice farming and even if they live in the city. The seniors show

youth's attachment to date palms by describing how these youth would firstly plant a date palm in their land before building a new house. That is exactly what my father did when we first moved to the city; he planted a growing fence of date palms around the house.

All in all, in order to build a sustainable agricultural development into the future, sustainability should be approached as a bottom-up discourse coming from Omani people that attends to changes and meets different ideas for how to blend the ecological with the cultural, social and economic. Because agriculture has one foot in the cultural realm and another foot in the economic realm, I argue it is essential to honor villagers' ecocultural values with economic aspects in order to achieve sustainable development. As argued by development scholars (Escobar, 1994; Norberg-Hodge, 2016), a globalized free market economy can deepen inequality in the society by widening the gap between the haves and the have-nots. Instead of holding onto globalized models that have caused various socioeconomic imbalances, it is time to look for an alternative to globalized neoliberal models. In this alternative model, agricultural development should not be defined by purely economic, political and material measures. Instead, ecocultural values, social-cultural justice, inclusion and equity should also guide development.

Theoretical, Methodological and Practical Contributions

The current research offers theoretical, methodological and practical contributions to ecocultural communication, intercultural communication and community engagement research**.** Research examining intercultural communication, ecocultural communication and community engagement would benefit from understanding grassroots ecocultural premises and officials ecocultural premises identified in Chapters Four and Five and how the interaction of these premises reveals the dominant ideologies that impact the well-being of humans and the more-

than-human worlds, which is a useful analysis for applying community engagement work, which I did in Chapter Six.

Theoretical

For ecocultural communication, my findings extend understandings of humanature relations and contribute to environmental communication scholarship by introducing *kinship-in-place* and *nurturance-in-place* as core ecocultural premises that describe humanature relations in Village G. *Kinship-in-place*, is an ecocultural premise in which grassroots participants frame ecological relations through a kinship lens. In this way, this humanature kinship offers a traditional living alternative. *Nurturance-in-place*, another core premise, emphasizes how cosmology is organized and human's place in it. Moreover, my research project builds on *relations-in-place* theorization (Milstein et al., 2011), which centers social relations as being rooted in the natural world by emphasizing interdependence between humans and more-than-humans worlds. This example of *relations-in-place* in Oman, as represented by ecospirituality, strengthens neighborhood ties and builds community with all forms of life.

I build on existing *relations-in-place* theory by applying and adapting the theory to a different context. I suggest that the theory could be modified to recognize the importance of *kinship-in-place* and *nurturance-in-place*. In Village G, *relations-in-place* manifests in how people share farm food as an enactment of community building, how they use the *falaj* system as a space to relate to all forms of life including animals, birds and humans; and how they save seeds to enhance social relations and strengthen neighborhood ties. Overall, these examples of *relations-in-place* show that the community does not perceive relations with land, animals, water and date palms as separate. Instead, ecospirituality defines humanature relations as one entity

exemplified by a sense of *Umma* (i.e. one community) and a spiritual understanding of nature as *Amana* (i.e. a trust). Ecospirituality guides participants' interactions with land, animals, water and date palms by promoting an awareness of the interdependency of humanature relations.

My findings have implications for intercultural communication scholarship. Attention to cultures informs my study. In this research, understanding that cultures include political, economic, religious, spiritual and educational structures facilitated my understanding of humanature relations in Village G and the factors that enhance and/or impede these relations. Moreover, my study showcased how culture includes all forms of life. Land, water, animals and trees are all *Umma* (i.e. one nation) who have responsibility as they all have a voice and agency. While community engagement models underscore the significance of including the voices of all people concerned, I add that, equally significant, community engagement should also take into consideration the voice of all forms of life, that is, the more-than-human world.

In community engagement practices that involve humanature relations, understanding and valuing grassroots' experiences and lived realities is essential. My findings showcase that listening to people's emotions of joy, sadness, hope and despair, and valuing how they feel about their lives is especially crucial. In my research, a sense of loss identified by village participants, who are actually ordinary people as opposed to activists, is significant as it reflects critically their experiences and articulates their deepest concerns. This affective reflection, which I regard as "critical reflection," using a Freirean concept, "reveals the truths hidden by ideologies" (Freire, 1993, p. 109), which is necessary for community engagement work as it provides a first step to a liberating process.

Methodological

My study offers two methodological contributions to ecocultural communication scholarship. The first contribution is related to Carbaugh's (2007) CuDA framework. With a profound attention to context, I am building on Carbaugh's (2007) CuDA framework. Context in my study included macro factors such as neoliberal ideological discourses, globalization discourses and institutional structures that worked to enhance and/or impede sustainable humanture relations. Also, by formulating various ecocultural premises from grassroots discourse and government discourse, I am adding an in-depth ecocultural perspective to the CuDA framework. Furthermore, I uncovered multiple cultural identities, which extends the CuDA framework in that identities are not only about who the people are and how they talk about themselves, but also how they are represented and how they are positioned.

A second methodological contribution of this study is to the notion of ecospirituality. This study offers ecospirituality as an alternative research methodology to mainstream rational methodologies. As a traditional ecological way of knowing and being practiced by Omani participating villagers, this methodology contributes to data generation. At the beginning of this research journey, I was always uncertain about getting at the core values and beliefs of the participants. I did not know what to ask to elicit villagers' ecocultural meaning systems, beliefs and values. However, because I conducted participant observation prior to creating my interview guide, I was able to better understand what villagers value and why. This understanding helped me construct my primary interview questions.

Conducting this study, I have learned that cultural meaning systems are rooted in spirituality. For people in Village G, spirituality is not an abstract idea. Rather, spirituality is

practiced in their daily life. They experience it in everything. Spirituality is rooted in their ecocultural wisdom. To illustrate, in my focus group sessions with the senior females, I asked them: How did you learn how to make compost and use it as natural fertilizer?, two females said:

S: Allah gives insight to every person.

MZ: Every person who is given insight and wisdom shares that insight with others.

Participants stated that their knowledge of the world is given by Allah. These participants' answers reveal that there are other ways of knowing, which are spiritual ways of knowing grounded in daily experiences. For methodological considerations, a researcher can get at what is important to people and why it is important to them by understanding spiritual ways of knowing as a method to social construction of reality.

Practical

This research can practically contribute to policy development and environmental education. First, insights gained by combining community engagement with ecocultural communication can inform policy development in Oman and abroad. Understanding changes in humanature relations from a grassroots perspective is essential for policy development. Moreover, because the well being of land, water, animals and tress is inseparable from the well-being of people, I recommend that the voice of the more-than-human worlds should be integrated in policy development. As illustrated in my findings that all forms of life have agency and subjectivity, and consistent with McGregor (2004) who argues that sustainability is the responsibility of all creations, including the voice of land, water, animals, tress and date palms in policy development should achieve sustainability.

Second, this study has practical implications for environmental education. At this critical time of global ecological destruction, it becomes crucial for environmental education to raise awareness of global forces that impact humanature relations in Oman. Also, environmental education should incorporate moral and ethical principles, and cultural values of Omani people that promote sustainable well-being of people and land. My findings provide foundations for a place-based education model. By incorporating ecospiritual worldviews, this model provides alternative discourses to destructive ideological discourses. Furthermore, as youth participants suggested that they like to see agriculture integrated into the school curricula, this educational model can prepare students vocationally so that when they graduate from high school they have the training needed to embark on farming, if they choose to.

Suggestion for Future Research

This project has several implications for future research. The nature of this research being focused on a particular rural community limits the practical contribution of the research to a broad perspective. However, the research has practical contributions at the local Omani level. Also, because youth are a crucial player in community engagement work, I suggest including a bigger number of youth, both who live in cities and villages. Moreover, foreign workers accounts are not considered in this study, since this study focused on Omani people's interaction with land, water, animals and plants. It was not practical to include them in the study. However, findings revealed that foreign workers are significant contributors to the sustainability of agricultural development and community engagement work. Future research would benefit from including their voice. Finally, in future work, I would like to advance this study by using resilience theories that speak to various ways of thriving in hardship. As such, resilience theories acknowledge both global structural forces and their impact on humanture relations, and that at

the same time recognize the significance of ecocultural values and traditions which together allow communities to be responsive to change and to maintain the strengths that these communities have even in different contexts.

Closing Thoughts

Based on my research, I hope to affect ecocultural change in Oman by going back to Village G and sharing my research findings with the village participants in order to hear from them how they would want to take this research into the next practical level. I hope to bring together, in one space, the villagers and the officials to co-design an action plan for making Village G a sustainable ecovillage.

Exploring the ecocultural practices and relations of participants in Village G, allows me to conclude that sustainable living is rooted in villagers' cultural and spiritual values. Indeed, Village G can help to show the way to ecocultural sustainability, by giving us a deeper understanding of the interlinked forces that are shaping humanature relations. This understanding, I believe, is an essential active step in learning how to progress in our own ways. Ways that improve the well being of the people and the well being of the planet. In conducting this study, I have learned that an alternative discourse is possible. Village G has given me tremendous hope.

References

Agriculture vs. Food supply: Traditions and new tendencies. (2013). Retrieved fromhttp://www.studiobasel.com/assets/files/Oman/02_Agriculture%20vs%20Food%20Supply.pdf

Agyeman, J., Bullard, R. D., & Evans, B. (Eds.). (2003). *Just sustainabilities: Development in an unequal world*. Massachusetts, The MIT Press.

Alharthy, A. (2010). *Mariam's palm.* Oman: Al Batena Press

Al-Marshudi, A. (2007). Oman traditional farms: Changes and improvement of farms in Oman. *Agricultural Mechanization In Asia, Africa, and Latin America 38(1)* 68-73

Anguiano, C., Milstein, T., De Larkin, I., Chen, Y., & Sandoval, J. (2012). Connecting Community Voices: Using a Latino/a Critical Race Theory Lens on Environmental Justice Advocacy. *Journal of International & Intercultural Communication, 5*(2), 124-143.

Arab NGO Network. (2012). Annual report of Arab NGO Network for Development. Retrieved from http://www.annd.org/data/item/pdf/36.pdf.

Basso, K. (1996). *Wisdom Sits in Places: Landscape and Language Among the Western Apache*. Albuquerque: University of New Mexico Press.

Battiste, M., & Henderson, J. (2000). Protecting indigenous knowledge and heritage: A global challenge. Saskatoon: Purich Pub

Berkes, F. (2012). *Sacred ecology: Traditional ecological knowledge and resource management*. Philadelphia, PA: Taylor & Francis.

Berkes, F., & Adhikari, T. (2006). Development and Conservation: Indigenous Businesses and UNDP Equator Initiative. *International Journal of Entrepreneurship and Small Business,* 3(6): 671-690.

Berkes, F., J. Colding, and C. Folke. 2000. Rediscovery of traditional knowledge as adaptive management. *Ecological Applications,* 5:1251–1262.

Brascoupe, C. (1999). Reflections of a native American farmer. In G. Cajete (Ed.), *A People's Ecology: Explorations in Sustainable Living*. (pp 153-174). New Mexico: Clear Light Publishers

Brennan, A. (2006). Globalization, environmental policy and the ethics of place. *Ethics, Place and Environment, (19)2,* 133-148

Brinkmann, S. (2013). *Qualitative interviewing: Understanding qualitative research*. New York: Oxford

Bristow, E. (2011). Global climate change and the industrial animal agriculture link: The construction of risk. *Society & Animals*, 19(3), 205-224

Broome, B. & Collier, M.J. (2012). Culture, Communication and Peacebuilding: A Reflexive, Multi-dimensional Contextual Framework. *Journal of International and Intercultural Communication, 5* (4), 245-269

Brulle, R. J. (2010). From Environmental Campaigns to Advancing the Public Dialog: Environmental Communication for Civic Engagement. *Environmental Communication: A Journal Of Nature And Culture* Volume 4, issue 1

Bullis, C. & Ie, F. (2007). Corporate environmentalism. In S. May, G. Cheney, & J. Roper (Eds). *The debate over corporate social responsibility* (pp. 321-335). Oxford: Oxford University Press

Busingye, J. and Keim, W. (2009). The political battlefield: negotiating space to protect indigenous and traditional knowledge under capitalism. *International Social Science Journal*, *60*(195), 37-54.

Cajete, G. (1994). *Look to the mountain: An ecology of indigenous education*. Skyland, NC: Kivaki Press

Cajete, G. (1999). “Look to the Mountain”: Reflections on indigenous ecology. In G. Cajete (Ed.), *A People’s Ecology: Explorations in Sustainable Living* (Ed.). (pp 3-20). New Mexico: Clear Light Publishers

Cajete, G. (2000). *Native science: Natural laws of interdependence.* Santa Fe, NM: Clear Light Publishers

Carbaugh, D. (1996). Naturalizing communication and culture (Ed.). In J. G. Cantrill and C. L. Oravec. The Symbolic Earth: Discourse and Our Creation of the Environment (PP. 38-57). Lexington: University Press of Kentucky

Carbaugh, D. 2005. *Cultures in conversation*. Mahwah, NJ & London: Lawrence Erlbaum Publishers

Carbaugh, D. A. (2007). Cultural Discourse Analysis: Communication Practices and Intercultural Encounters. *Journal of Intercultural Communication Research*, *36*(3), 167–182

Carbaugh, D., & Cerulli, T. (2013). Cultural Discourses of Dwelling: Investigating Environmental Communication as a Place-based Practice. *Environmental Communication, 7*(1), 4-23.

Carmin, J. & Agyman, J. (2011). *Environmental inequalities beyond borders: Local perspectives on global injustices*. Cambridge & London: MIT Press.

Chapple, C. K. (2008). Sacrifice and sustainability. *Worldviews*, 12, 221-236

Chen, Y. W., & Collier, M. J. (2012). Intercultural Identity Positioning: Interview Discourses from Two Identity-Based Nonprofit Organizations. *Journal of International and Intercultural Communication, 5*, 1, 43-63.

Chen, Y., Milstein, T., Anguiano, C., Sandoval, J., & Knudsen, L. (2012). Challenges and Benefits of Community-Based Participatory Research for Environmental Justice: A Case of Collaboratively Examining Ecocultural Struggles. *Environmental Communication*, 6(3), 403-421.

Cleveland, D. A. (1998). Balancing on a Planet: Toward an Agricultural Anthropology for the Twenty-First Century. *Human Ecology : an Interdisciplinary Journal, 26,* 2, 323-340.

Collier, M. J. (2005). Context, Privilege, and Contingent Cultural Identifications in South African Group Interview Discourses. *Western Journal of Communication, 69,* 4, 295-318.

Collier, M. J. (2006). WSCA 2006 Presidential Address: Cultural Positioning, Dialogic Reflexivity, and Transformative/Third Spaces. *Western Journal of Communication*, *70*(4), 263-269.

Collier, M. J. (2009). Contextual Negotiation of Cultural Identifications and Relationships: Interview Discourse with Palestinian, Israeli, and Palestinian/Israeli Young Women in a U.S. Peace-Building Program. *Journal of International and Intercultural Communication, 2,* 4, 344-368.

Collier, M. J. (2014). *Community Engagement And Intercultural Praxis: Dancing with Difference in Diverse Contexts*. Peter Lang: New York

Corbett, J. B. (2006). *Communicating nature: How we create and understand environmental messages*. Washington, DC: Island Press.

Cox, R. (2007). Nature's “crisis disciplines:” Does environmental communication have an ethical duty? *Environmental Communication: A Journal of Nature and Culture, 1*, 5-20.

Crate, S. A. (2008). Walking Behind the Old Women: Sacred Sakha Cow Knowledge in the 21st Century. *Human Ecology Review*, *15*(2), 115-129.

Cresswell, J. W. (2013). *Qualitative inquiry and research design*. (3rd Ed.) Los Angeles, CA: SAGE

Dawson, J. (2006). *Ecovillages: New frontiers for sustainability*. Bristol: Green Books for the Schumacher Society.

Dei, G. J. S., Hall, B. L., & Rosenberg, D. G. (2000). *Indigenous knowledges in global contexts: Multiple readings of our world*. Toronto: Buffalo.

deMaria, J., & Collier, M. J. (2014). Dances of Neoliberal Resistance and Activism for Land Reclamation: Strategic Community Landscapes in New Mexico. In *Community Engagement And Intercultural Praxis: Dancing with Difference in Diverse Contexts.* New York: Peter Lang.

Denzin, N. (2001). The reflexive interview and a performative social science. *Qualitative Research*, 1 (1), 23-46

Emerson, R., Fretz, R., & Shaw, L. (2011). *Writing ethnographic fieldnotes*. Chicago: University of Chicago Press.

Endres, D. (2012). Sacred land or national sacrifice zone: The role of values in the Yucca Mountain participation process. *Environmental Communication*, *6*(3), 328-345.

Endres, D., Sprain, L., & Peterson, T. R. (2008). The Imperative of Praxis-based Environmental Communication Research: Suggestions from the Step It Up 2007 National Research Project. *Environmental Communication: A Journal of Nature and Culture, 2*, 2, 237-245.

Escobar, A. (2000). Place, power and networks in globalization and postdevelopment. In Wilkins, Karin Fwinn (Eds.), *Redeveloping Communication for social change: Theory, practice and power*. (pp. 163-173). New York: Roman & Littlefield Publishers.

Esteva, G. (2010). Development. In W. Sachs (Ed.), *The development dictionary: A guide to knowledge as power* (pp. 1-23). London: Zed Books.

Fernandez-Gimenez, M., & Fillat Estaque, F. (2012). Pyrenean pastoralists' ecological knowledge: Documentation and application to natural resource management and adaptation. *Human Ecology, 40*(2), 287-300

Freire, P. (1993). Pedagogy of the city. New York: Continuum.

Ford, L. & Yep, G. (2003). Working along the margins: Developing community-based strategies for communicating about health with marginalized groups. In T. L. Thompson, A. M. Dorsey, K. I. Miller, & R. Parrott (Eds.), *Handbook of health communication* (pp. 241-261). Mahwah, NJ: Lawrence Erlbaum.

Foucault, M. (1972). *The archeology of knowledge*. New York, NY: Routledge.

Garland, C. & Harper, S. (2012). "Did Somebody Say Neoliberalism? On the Uses and Limitations of a Critical Concept in Media and Communication Studies." tripleC*: Communication, Capitalism & Critique* 10(2): 741-751

Giddens, A. (1990). *The consequences of modernity*. Stanford: Stanford University Press.

Goffman, E. (1989). On fieldwork. *Journal of Contemporary Ethnography, 18,* 123-132

Government of the Sultanate of Oman (GoSO). (2016). *Sustainable agriculture and rural development strategy. Results Framework.* Muscat, Oman.

Guba, E., & Lincoln, Y. (2005). Paradigmatic controversies, contradictions, and emerging confluences. In N. Denzin & Y. Lincoln (Eds.), *The sage handbook of qualitative research* (3rd ed. (pp. 191 – 215) Thousand Oaks: Sage.

Halualani, R. T. & Nakayama, T.K. (2010). Critical intercultural communication studies: At a crossroads. In T. K Nakayama & R. T. Halualani (Eds.), *The handbook of critical*

intercultural communication, (pp. 1-16). West Sussex, United Kingdom: Wiley-Blackwell.

Harvey, D. (2005). *A brief history of neoliberalism.* Oxford: Oxford University Press.

Harvey, D. (2006). *Spaces of global capitalism: A theory of uneven geographical development.* London: Verso.

Harvey, D. (2006). *Spaces of global capitalism: Towards a theory of uneven geographical development*. London: Verso

Harvey, D. (2010). *The enigma of capital: And the crises of capitalism.* Oxford England: Oxford University Press.

Kamberelis, G., & Dimitriadis, G. (2011). Focus groups: Contingent articulations of pedagogy, politics, and inquiry. In N. Denzin & Y Lincoln (Eds.) *SAGE handbook of qualitative research* (4th Ed., pp. 545-561). Los Angeles, CA: SAGE

Kimmerer, R.W. 2002. Weaving traditional ecological knowledge into biological education: a call to action. *BioScience* 52:432-438.

Klein, N. (2014). *This changes everything: Capitalism vs. the climate*. New York: Simon & Schuster.

Kvale, S., & Brinkmann, S. (2009). *InterViews: learning the craft of qualitative research interviewing* (2nd ed.). Thousand Oaks: Sage Publications.

Ledwith, M. (2011). *Community Development: A critical approach* (2nd ed.). Bristol: Polity Press.

Ledwith, M & Springett, J. (2010). Participatory practice: Community-based action for transformative change. Bristol: The Policy Press

Lindlof, T. R., & Taylor, B. C. (2002). *Qualitative Communication Research Methods* (2nd ed.). Thousand Oaks, CA: Sage Publications, Inc.

Lindlof, T.R., & Taylor B.C. (2011). *Qualitative communication research methods (3nd.Ed.).* Thousand Oaks, CA: Sage.

Lovins, L. H., and Lovins, A. B. (2001). Natural capitalism: Path to sustainability? *Corporate Environmental Strategy,* 8, 2

Luke, T. (2005). Neither sustainable nor development: Reconsidering sustainability in development. *Sustainable Development*, 13, 228-238

Lyson, T. A. (2004). *Civic agriculture: Reconnected farm, food, and community*. Medford, Massachusetts: Tufus University Press.

Magallanes-Blanco, C. (2014). Talking About Our Mother: Indigenous Videos on Nature and the Environment. *Communication, Culture & Critique*, *8*(2), 199-216.

Marafiote, T., & Plec, E. (2006). From dualism to dialogism: Hybridity in discourse about the natural world. *The Environmental Communication Yearbook*, 3, 49-75.

Martin, J. N., & Nakayama, T. K. (1999). Thinking dialectically about culture and communication. *Communication Theory, 9*(1), 1-25

McGregor, D. (2004). Traditional Ecological Knowledge and Sustainable Development: Towards Coexistence. In Blaser, M., Feit, H. A., & McRae, G. (Eds.), *In the way: Indigenous peoples, life projects, and development*. London: Zed Books in association with International Development Research Centre, Ottawa.

Merriam-Webster's dictionary. (2011). Springfield, MA: Merriam-Webster.

Ministry of Agriculture and Fisheries. (2014). The annual book of agricultural and fisheries statistics. Oman Sultanate: Media Development Department.

Ministry of Agriculture and Fisheries. (2015). The annual book of agricultural and fisheries statistics. Oman Sultanate: Media Development Department.

Ministry of Agriculture and Fisheries. (2016). The annual book of agricultural and fisheries statistics. Oman Sultanate: Media Development Department.

Milstein, T. (2009). “Something tell me it’s all happening at the zoo”: Discourse, power, and conservation. *Environmental Communication*, 25-48

Milstein, T. (2011). Nature Identification: The Power of Pointing and Naming. *Environmental Communication*, *5*(1), 3-24.

Milstein, T. (2012). Banging on the divide: Cultural reflection and refraction at the zoo. In E. Plec (Ed.), *Perspectives on Human-Animal Interaction: Internatural Communication* (pp. 162–181). London: Routledge.

Milstein, T., Anguiano, C., Sandoval, J., Chen, Y.W., & Dickinson, E. (2011). Communicating a “new” environmental vernacular: A sense of *relations-in-place*. *Communication Monographs*. 78 (4), 486-510.

Milstein, T., & Dickinson, E. (2012). Gynocentric Greenwashing: The Discursive Gendering of Nature. *Communication, Culture & Critique*, 5(4), 510-532.

Milstein, T., Thomas, M., & Hoffmann. J. Dams and flows immersing in environmental meaning systems in western settings. Environmental Communication, revise/submit.

Noreberg-Hodge, H. (2016). *Ancient futures: An intimate portrait of life on the Tibetan plateau-offering profound insights for the modern world.* United States of America: Local Futures.

Pal, M. & Jenkins, J. (2014). Reimagining Sustainability: An interrogation of the corporate Knight’s global 100. *Environmental Communication*, 8:3, 388-405

Peterson, M.N., Peterson, M.J., & Peterson, T.R. (2007). Environmental communication: Why this crisis discipline should facilitate environmental democracy. *Environmental Communication: A Journal of Nature and Culture,* 1(1), 74□86.

Phillips, L and Jorgensen, M. (2002). *The field of discourse analysis. In Discourse as Theory and Method*, p. 1-23. London: Sage

Rai, A. (2005). Neoliberalism Globalization and The Commodification of Global Culture. Retrieved from

http://www.etalkinghead.com/archives/neoliberalism-globalization-and-the-commodification-of-global-culture-2005-12-16.html

Reynolds, C., & Griffith, A. (2002). *Equity and Globalization in Education*. Temeron Press: Calgary.

Salmón, E. (2000). Kincentric Ecology: Indigenous Perceptions of The Human–Nature Relationship. *Ecological Applications, 10*, 5, 1327-1332.

Salvador, M., & Clarke, T. (2011). The Weyekin Principle: Toward an Embodied Critical Rhetoric. *Environmental Communication: A Journal of Nature and Culture, 5*, 3, 243-260.

Schlosberg, D., & Rinfret, S. (2008). Ecological modernization, American style. *Environmental Politics*, 17(2), 254-275.

Scholte, J., A. (2008). Defining globalization. *The World Economy*, 1471- 1502

Schutten, J. & Rogers, R. (2011) Magick as an Alternative Symbolic: Enacting Transhuman Dialogs. *Environmental Communication*, 5:3, 261-280

Shiva, V. (2004). The future of food: Countering globalization and recolonization of Indian agriculture. *Futures*, 36:715-732

Shiva, V. (2016). *Who really feeds the world: The failures of agribusiness and the promise of agroecology*. Berkeley: North Atlantic Books.

Shizha, E. (2010). The Interface of Neoliberal Globalization, Science Education and Indigenous African Knowledges in Africa. *Journal Of Alternative Perspectives In The Social Sciences*, *2*26-56

Shome, R. (2003). Space Matters: The Power and Practice of Space. *Communication Theory*, *13*(1), 39.

Shome, R., & Hegde, R. (2002). Culture, communication, and the challenge of globalization. *Critical Studies in Media Communication*, *19,* 2, 172-189.

Singer, R. (2010). Neoliberal Style, the American Re-Generation, and Ecological Jeremiad in Thomas Friedman's "Code Green". *Environmental Communication*, *4*(2), 135-151

Smith, L., Bratini, L., Chambers, D.-A., Jensen, R., & Romero, L. L. (2010). Between idealism and reality: Meeting the challenges of participatory action research. *Action Research*, *8,* 4, 407-425.

Sorrells, K. (2010). Re-imagining intercultural communication in the context of globalization. In T. K. Nakayama & R. T. Halualani, (Eds.), *The Handbook of Critical Intercultural Communication,* (pp. 171-189). West Sussex, United Kingdom: Wiley-Blackwell.

Sowards, S. K. (2007). Identification through Orangutans: Destabilizing the Nature/Culture Dualism. *Ethics & the Environment, 11,* 2, 45-61

Stibbe, A. (2012). *Animals erased: Discourse, ecology, and reconnection with the natural world*. Middletown, CT: Wesleyan University Press.

Tipa, G. (2009). Exploring Indigenous Understandings of River Dynamics and River Flows: A Case from New Zealand. *Environmental Communication*, *3*(1), 95-120

Tucker, C., Kneebone, S. and Richardson, M. (2009). Gaining accreditation for sustainability: Oman Botanic Garden and Leadership in Energy and Environmental Design (LEED). *BGCI.* Retrieved 12/5/2013 from http://www.bgci.org/resources/article/0626/

Valladolid, J., & Apffel-Marglin, F. (2001). Andean cosmovision and the nurturing of biodiversity. In J. A. Grim (Ed.), *Indigenous traditions and ecology: The interbeing of cosmology and community* (pp. 639-670). Cambridge, MA: Harvard Press

WCED (World Commission for Environment and Development). (1987). *Our common future*. Oxford: Oxford University Press

Wessels, T. (2006). *The myth of progress: Toward a sustainable future*. University of Vermont Press: Lebanon, NH.

Wilkins, K. G., & Mody, B. (2001). Reshaping Development Communication: Developing Communication and Communicating Development. *Communication Theory, 11,* 4, 385-396.

World Wildlife Fund. (2000). Indigenous and Traditional Peoples of the World and Ecoregion Conservation: An Integrated Approach to Conserving the World's Biological and Cultural Diversity. Gland: WWF

Appendix A

Interview Guide

Set 1: Officials Interview Script

Farming and farmers overview

1. How would you describe farming and farmers in Oman?
2. What do you think is happening in the villages in terms of agriculture? What should it be?
3. What do you think about traditional agricultural practices?
4. In your opinion, are Omani youth interested in farming and agriculture? Why?
5. Why do you think youth migrate from their villages to cities?
6. What are the outcomes of this trend?
7. In your view, how do you explain the reason why the agriculture sector contributes less than 2% to GDP?
8. As a policy maker, how do you think changing the representation of farmers in Oman (the society's views and conception about farming and farmers) changes the attitude towards farming?
    a. Are there any programs to help achieve that?
9. As a policy maker, how would you help enhance Omani people's connection to land?

Youth

1. What initiatives has the ministry of Agriculture taken to attract youth to farming-- to the land?
2. Do you think technologies such as programmable modern irrigation systems or mechanical pollination can attract youth to farming?
3. How do you think youth can play a role in the future of agriculture?
4. Some people think, *"Traditional agriculture is not useful and does not contribute to economic growth."* They say, *"Youth won't do farming unless we use technology.* They add, *"What do youth benefit from restoring traditional ecological knowledge!?"*. Are you in favor of reviving Traditional Ecological Knowledge (TEK)? Why?
5. Many youth say, "*Farming does not make a living*." How do you respond to them?
6. Familiarity with agriculture at an early age is important. If TEK is not introduced in schools, students will not appreciate it. The current school curricula divorce students from nature, thus results in what Richard Louv (2005) calls Nature Deficit Disorder. Are there any initiatives to integrate agriculture education in schools? Are there any plans to coordinate with the ministry of education to teach TEK?

Traditional vs. Modern technology

1. In your opinion, do you think modern technology and indigenous knowledge can work together in agriculture? How?
2. Do you see any economic benefits in using traditional ecological knowledge?
3. Some people have said that one of the consequences of mechanical harvesting is that it is more individualized and takes away unity of people, whereas before it used to be a collective action in which people would come together and work as a community. How would you respond to people who see this as an issue?
4. On the other hand, some people say that mechanical harvesting is doing more good to our national income. How is that?
    a. Do you feel we should strive for an optimal combination of modern technology utilization and human relations in a way that enhances social harmony so that agriculture becomes a festive and appreciated activity rather than being a mechanical and foreign-labor oriented practice? How?
5. There are those who feel that modern technology and foreign labor have eroded our traditional ecological knowledge/practices and the associated agricultural heritage and cultural values.
    a. In your opinion, is this a true statement?
    b. In your view, what can be done to mitigate this issue?
6. What do Omani people gain by introducing modern technology to farming?
    a. What do they lose by replacing traditional ecological knowledge/practices?
    b. Who benefits from introducing technological advancement in farming? How?

Sustainability

1. In your opinion, what makes agriculture sustainable? What has the ministry done to achieve sustainable agriculture?
2. To what extent do you think modernization and technologization of agriculture achieve sustainability?
3. In your opinion, what determines which farming practices continue or not? For example, traditional vs. mechanical pollination
4. What do you think the role of the government is in preserving traditional ecological knowledge and practices?
5. I heard that "Atabseel has stopped in certain regions in Oman because it has no economic benefit". How does the government determine whether an agricultural traditional practice is economically viable or not?
6. Experience with sustainable agriculture from countries such as South America has shown that "*to improve agriculture, it is not modern technology that we need. Rather, we need human relationships-- People cooperating and caring about each other is the main factor."* What do you think?
7. One of the challenges facing the agricultural sectors worldwide that hinders the progress towards sustainability is a social challenge related to concerns about equity such as lack of economic opportunities in rural areas and lack of participation. What resources does the ministry provide to address this challenge?

8. Many countries subsidize agricultural activities for food and national security, what is the Omani government's policy in this regard?
9. Do you think there is a foreign labor dumping in agriculture in Oman that has prevented local labor from practicing farming? What will be the long-term impact of such a policy on the sustainability of agriculture in Oman?
10. Certain imported agricultural supplies such as fertilizers and seeds have caused significant harm to the agricultural land in Oman. In your opinion, what should the government do to reduce the risk to local agriculture?

Set 2: Youth Interview Script

1. What farming practices have you been involved with?
2. What does farming mean to you?
3. Why do people in Village G practice farming and animal raising?
4. How would you describe farming in Village G?
5. Have you ever thought about having your own farm? Why? Why not?
6. Can farming and raising animals be your career? Why? Why not?
7. What comes to your mind when you think of a farmer? How do you view a person who works in farming?
8. What makes you stay in /move out of the village?
9. What have you benefited from staying in/ moving out of the village? What have you lost?
10. Has staying in/ moving out of the village provided you with economic benefits?
11. Do you think you should work in a farm only if it provides economic benefits?
12. Can farming provide other non-material benefits (i.e. social, physical, cultural)? Explain.
13. In your opinion, why do youth don't work in farming? Why have youth left their villages and moved to the cities?
14. Do you think youth should practice farming or should farming be the career of the seniors? Explain your answer.
15. Do you think agriculture in Oman has a future? How?
16. If agriculture disappeared from Village G, would it matter to you personally? How? To your community? How?
17. Under what circumstances would you want to work in farming?
18. Do you think technological advancement and innovation will attract youth to agriculture?
19. Why? How? Give an example.
20. In your view, what makes farming continues and never stops?
21. Some seniors say that farming will continue not because youth will practice it but because foreign labors are working on it. What do you think? Are foreign labors a problem or a solution?
22. If you are asked to design your ideal farm, how would you want it to be? Describe it. Describe your day on the ideal farm? What would you not want to do in it? What would hinder you from having this ideal farm?
23. If you were put in a situation to choose between leaving your government job and working in farming, would you agree? Why/why not?