



Theses and Dissertations

2004-07-09

Communities, Place, and Conservation on Mount Kilimanjaro

Marie Bradshaw Durrant
Brigham Young University - Provo

Follow this and additional works at: <https://scholarsarchive.byu.edu/etd>



Part of the [Sociology Commons](#)

BYU ScholarsArchive Citation

Durrant, Marie Bradshaw, "Communities, Place, and Conservation on Mount Kilimanjaro" (2004). *Theses and Dissertations*. 143.

<https://scholarsarchive.byu.edu/etd/143>

This Dissertation is brought to you for free and open access by BYU ScholarsArchive. It has been accepted for inclusion in Theses and Dissertations by an authorized administrator of BYU ScholarsArchive. For more information, please contact scholarsarchive@byu.edu, ellen_amatangelo@byu.edu.

COMMUNITIES, PLACE, AND CONSERVATION
ON MOUNT KILIMANJARO

by

Marie Bradshaw Durrant

A dissertation submitted to the faculty of
Brigham Young University
in partial fulfillment of the requirements for the degree of
Doctor of Philosophy

Department of Sociology
Brigham Young University

August 2004

BRIGHAM YOUNG UNIVERSITY

GRADUATE COMMITTEE APPROVAL

of a dissertation submitted by

Marie Bradshaw Durrant

This dissertation has been read by each member of the following graduate committee and by majority vote has been found to be satisfactory.

Date

Ralph B. Brown, Chair

Date

Howard M. Bahr

Date

J. Lynn England

Date

Matthew J. Shumway

Date

Carol J. Ward

BRIGHAM YOUNG UNIVERSITY

As chair of the candidate's graduate committee, I have read the dissertation of Marie Bradshaw Durrant in its final form and have found that (1) its format, citations, and bibliographical style are consistent and acceptable and fulfill university and department style requirements; (2) its illustrative materials including figures, tables, and charts are in place; and (3) the final manuscript is satisfactory to the graduate committee and is ready for submission to the university library.

Date

Ralph B. Brown
Chair, Graduate Committee

Accepted for the Department

Ralph B. Brown
Graduate Coordinator

Accepted for the College

David B. Magleby
Dean, College of Family, Home and Social
Sciences

ABSTRACT

COMMUNITIES, PLACE, AND CONSERVATION ON MOUNT KILIMANJARO

Marie Bradshaw Durrant

Department of Sociology

Doctor of Philosophy

The Chagga people have lived and worked on Mount Kilimanjaro for more than 250 years. Through traditions and social practices within their communities and families, strong bonds are established between the Chagga and their home on the mountain. Kilimanjaro National Park and Forest Reserve (KINAPA) was established in the 1970s to protect and conserve the mountain, based on a long history of colonialism and western ideals. As KINAPA has attempted to preserve the flora and fauna on the uppermost portion of Mount Kilimanjaro, they have alienated local residents from the land through a conservation approach that relies on “fences and fines.”

By analyzing the interaction between the organization of Kilimanjaro National Park (KINAPA) and the Chagga people who live near its boundaries, I emphasize the social side of a conservation scenario by focusing on the cultural roots of the Chagga

people's sense of place and its influence on their interaction with the mountain. I take as a premise that place and culture are closely connected, and that both, in conjunction with an encroaching western influence in environmental approaches, influence environmental conservation in important ways at the local level on Kilimanjaro. By better understanding the motivations and priorities of the people who surround the lands they hope to protect, KINAPA could tap into some of the social resources it needs to sustain Mount Kilimanjaro.

ACKNOWLEDGMENTS

I would like to give great thanks to my husband and three sons, Ridge, Abe, and Taggart, who supported, encouraged, and endured my studies. I would also like to thank all the people on Kilimanjaro who were so generous not only to talk with us for the survey and interviews, but who also welcomed us as friends while we stayed there. And finally, a warm thank you to my mother and wonderful neighbors and friends who helped care for my boys so I could pursue this goal.

Table of Contents

CHAPTER 1: INTRODUCTION	1
Environment, Location, and Culture.....	2
The Place Called Mount Kilimanjaro	5
Research Presentation	13
CHAPTER 2: PEOPLE, PLACE, AND CONSERVATION	16
The Human Condition and the Inevitability of Place.....	16
Classical Theorists and Place	19
African Philosophy	23
Eco-feminist Literature: Relationship between Human Society, Gender and Ecological Surroundings	28
Ecology Literature.....	31
Different Perspectives on Place Affect Social Actions and Resource Outcomes	34
Exclusion of Local Populations vs. Involvement	36
Assessment of Literature: People and Place Must Be Considered Together	39
CHAPTER 3: COMMUNITY ATTACHMENT AND COMMUNITY CONSERVATION	44
The Systemic Model of Community Attachment	44
A Brief History of Community and Conservation on Mount Kilimanjaro	47
Understanding Models of Community and Conservation on Mount Kilimanjaro	50
College of African Wildlife Management Study	51
Marandu Study.....	53
Community Conservation Studies	54
KINAPA Internal Review	57
Concepts Not Taken into Account in These Models	59
CHAPTER 4: RESEARCH METHODS	60
Understanding Conservation through Community	60
Data Collection.....	62
Site Selection	62
Survey	68
Individual Interviews	70
Participant Observation.....	72
Ethnographies	73
Maps.....	73
Survey Study Variables.....	73
Community Attachment.....	73
Community and Conservation	76
Data Analysis	77
Statistical Analysis.....	77
Qualitative Analysis.....	77
Obstacles: The Two “Foreigns”: Using Foreign Methods in Foreign Places	78
Research Questions	80

CHAPTER 5: ATTACHMENT TO PLACE THROUGH TRADITION, FAMILY AND DEPENDENCE ON THE LAND.....	81
Influences on Attachment to Place.....	82
Pressures on Place: Population Growth, Environmental Pressures and Globalization.....	89
Population Growth.....	90
Increased Environmental Pressures.....	91
Globalization.....	93
Anchors to Place: Chagga Traditions that Bind People to Place.....	94
Grandmother Tradition.....	95
Land Inheritance.....	100
Family Connections and Burial.....	102
Woman and Sense of Place.....	105
Traditions vs. Globalization.....	108
CHAPTER 6: THE CHAGGA AND FORMAL CONSERVATION.....	114
Formal Conservation and Family Survival.....	114
Local Sentiments about Impacts from Conservation and KINAPA.....	116
The Community Conservation Service on Mount Kilimanjaro.....	122
Differences between KINAPA Policies and Actions.....	127
Difficulty of Combining Community and Conservation.....	128
Important Differences Between Mbahe and Villages not Adjacent to KINAPA.....	129
Confusion over KINAPA rules.....	130
Poverty and Conservation.....	131
Improving People/Park Interactions:.....	132
CHAPTER 7: RELATION OF SOCIAL VALUES AND CONSERVATION OF PLACE.....	135
Cultural Meanings, Understandings and Instincts Honed by Place.....	140
Loss of Shared Sense of Responsibility.....	144
Declining Attachment to Place.....	147
CHAPTER 8: SOCIAL RESOURCES AND ENVIRONMENTAL CONSERVATION.....	152
Theoretical Contributions to Understanding the Situation on Mount Kilimanjaro.....	153
Combining Tradition and Standard Practice.....	156
References.....	162
APPENDIX A: ENGLISH AND SWAHILI SURVEY.....	179
APPENDIX B: INTERVIEW GUIDE FOR GRANDMOTHERS.....	187

CHAPTER 1: INTRODUCTION

A commitment to staying in one place long term makes it more likely that people will engage in sustainable resource use practices, and be willing to cooperate in establishing a viable system of . . . resource management. Charnley 1997: 610

When one tugs at a single thing in nature . . . he finds it attached to the rest of the world.
John Muir

The forces of colonization and modern development work on at least two fronts to alienate rural people from their land and its conservation. The first front is through modernization theories, which argue that large, commercial farms are more productive and beneficial than small, family farms. The second is through conservation theories, which advocate people-free areas as a way to preserve “natural” flora and fauna (Igoe 1999). Ironically, those who are targeted by such polarizing views (those with small family farms and historical ties to an area) may be those best suited to participate in sustainable conservation. These people typically practice less intensive and destructive farming practices than large commercial farmers. They are also typically more connected and committed to the place where they live. With education they can become the best advocates and caretakers of it.

For this research, I use a case study to examine the relationship between a formal, conservation institution and the people who live around the place to be preserved. By analyzing the interaction between the organization of Kilimanjaro National Park (KINAPA) and the Chagga people who live near its boundaries, I emphasize the social side of a conservation scenario by focusing on the cultural roots of the Chagga people’s sense of place and its influence on their interaction with the mountain. I take as a premise that place and culture are closely connected, and that both, in conjunction with

an encroaching western influence in environmental approaches, influence environmental conservation in important ways at the local level on Kilimanjaro.

My analysis uses data from a household survey conducted in three Chagga villages, each of which represents different elevations on the mountain. However, the preponderance of data used in the analysis is from in-depth interviews with Chagga villagers, most particularly grandmothers, and field-observations gathered over a three month period from April to July 2002. The three study villages are connected through: ethnicity (they are all majority Chagga); their location (all three are on one of the main paved roads in the region); and their dependence on the same water sources that come from the mountain. By looking at issues of community and conservation in the three different villages, I was able to identify cultural traits and traditions that spanned the villages while also differentiating effects from village location and interaction with KINAPA.

Environment, Location, and Culture

The interconnectedness of nature and the world has become increasingly emphasized and accepted over the past several decades. The idea that a volcano in the Philippines can affect weather patterns in the United States is no longer perceived as a radical concept, nor is it highly disputed. Similarly, when humans and their activities are viewed as part of this natural world, one can see the same interconnectedness—human activities have immediate and long-term impacts on the environment. Consequently, nearly everyone agrees that succeeding generations inherit their predecessors' environmental baggage—good and bad. Each generation lives with the foundation its predecessors left it. From this perspective, it is clear that there is a direct link between

human culture and the physical environment (see Salamon 2003; Kellert and Farnham 2002; Gieryn 2000; Sack 1997; Basso 1996; Salamon 1992; Sachs 1992).

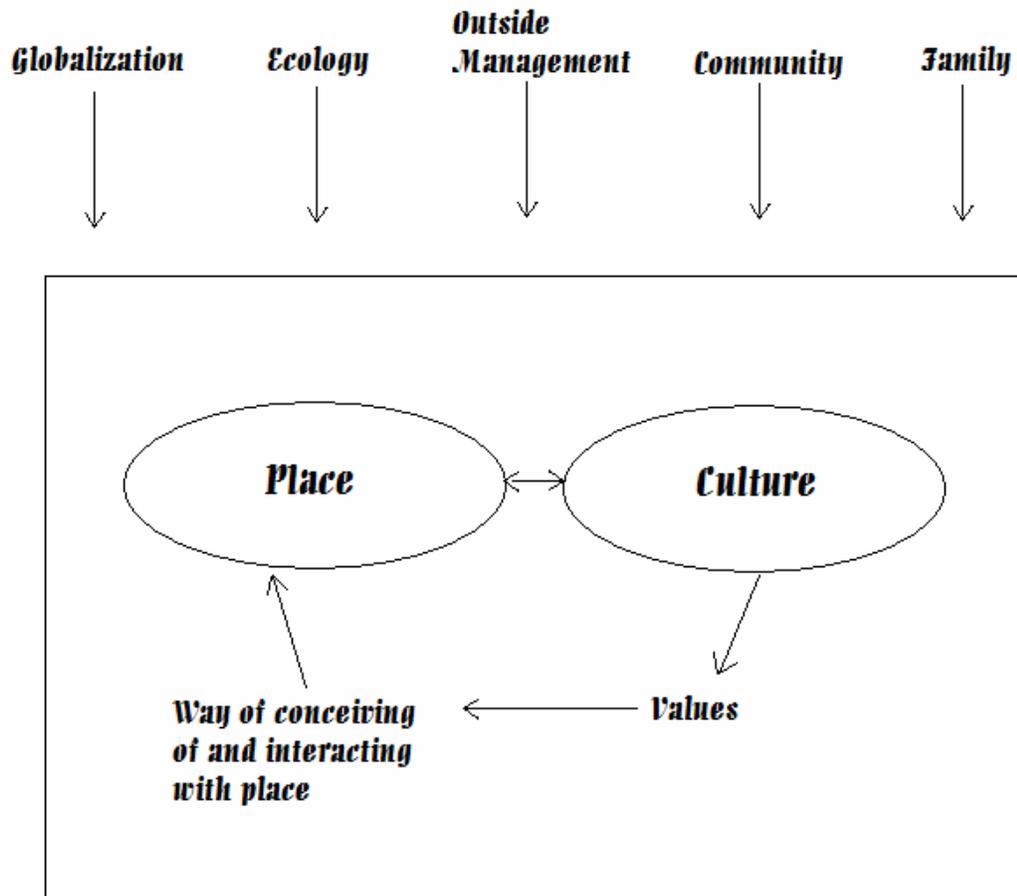
Culture influences the ways people interact with their environment. It is through culture that decisions are made about what the environment is, how people should interact with it, and the meaning that their actions have (Salamon 2003; Gieryn 2000; Neumann 1998; Sack 1997; Basso 1996; Salamon 1992; Weber 1947). Such decisions can include the use of technology, individual's roles and responsibilities, and common priorities. Culture provides the foundation upon which local populations build the meaning of the place where they live and make decisions about how they interact with that place. While increased technology and industrialization have had documented negative impacts on the environment, these human technologies and their various applications are subject to the dictates of culture. Culture and its effects on human/environmental interaction are, like Muir's "single thing," "attached to the rest of the world." By better understanding how human cultures affect interactions with the physical environment, the effects on nature of tugging at cultures can also be clarified. Specifically, I examine how cultural shifts among the Chagga relate to the adoption of western approaches to conservation on Kilimanjaro, and how these shifts are in turn affecting the conservation of the mountain.

León-Portilla (1990) writes of "endangered" cultures, threatened by the forces of globalization and western hegemony. As cultures change and memories are lost, critical knowledge and values disappear with them. Salamon (2003) demonstrates that cultural tolerances for the environment are founded on the relationship of *people* to the *place* where they live—through their community. Consequently, when shifts occur in either the

community or the place where it is located, the local culture is also affected. As environmental protection plays an increasingly important role around the world (Green and Paine 1997), local communities often find themselves on the front lines of environmental strategies and policies created by large, distant entities. In such cases, the opportunity for a clash between widely differing approaches to environmental protection and interaction—one generally an imposed western approach, the other more local and traditional—becomes imminent.

Figure 1 illustrates how social, economic, and ecological factors can influence place and community, and how these in turn may influence conservation. I apply this model to my study of the Chagga and their experiences with conservation policies on Mount Kilimanjaro.

Figure 1: Influences on Place and Culture



Accepting the concept that place and culture are closely connected and affect each other, it is also important to understand how broad forces affect the interaction between place and culture. Changes to a place—whether brought about by industrialization, a landslide, or out-migration—will certainly affect the local culture connected with that place, and, conversely, changes to a culture will affect the place where that culture is played out.

The Place Called Mount Kilimanjaro

Mount Kilimanjaro is the largest mountain in Africa and spans the border of Tanzania and Kenya (see Figure 2). Its presence in the surrounding area is unmistakable

as it gradually rises from the flat plains. The snow covering Kibo peak seems an impossible illusion when viewed from the heated savannas below. The mountain itself covers a vast area, 25 miles across at its widest point (see Figure 3). Many varied climate zones exist on the mountain. Mwasaga (1991) has identified five different vegetation belts. My study was conducted in villages on the southeastern side of the mountain. Here, the mountain is lush and green in its higher elevations but turns increasingly dry, giving way to red-soiled flatlands as one descends toward the east. At the base, the heat and aridity stand in marked contrast to the cool, wet weather found at the highest elevation village. The Montane forest in this high zone of the mountain has been the focus of conservation efforts as it contains most of the vascular plants endemic to Tanzania (IUCN 1986).

Figure 2: Location of Mount Kilimanjaro, Tanzania



Humans have occupied the slopes of Kilimanjaro for the last 2000 years (Schmidt 1989). The Chagga are the largest ethnic group in this area (Gutman 1926), and they have lived and worked on the mountain for over 250 years. As a group, they are noted for their commitment to education (Stambach 2000), their long-standing agricultural lifestyle (von Clemm 1964), and their skill in irrigation and water management (Grove 1996). Indeed, over 80% of this region’s economically active population is employed in agriculture (Newmark 1991). As one moves up the mountain, the land becomes increasingly divided into smaller family farms. There are few large commercial farms on this side of the

mountain. The small farms tend to look similar, with large, leafy plants used to feed cattle and other livestock lining their border, and banana, orange, guava, and papaya trees providing shade and food. Villages lower in elevation tend to have bigger fields with corn as the most visible crop. At these lower elevations, irrigation is necessary for most of the year, and land that is not cultivated is covered with dry grasses and/or bare dirt.

Those who live on the mountain do so in economic poverty relative to western standards. Yet, when compared with other areas in Sub-Saharan Africa, Mount Kilimanjaro offers its residents an abundance of food, water, and shade, with a pleasant and comfortable climate nearly all year round at higher elevations. People state that they prefer to live on the mountain because their family has always lived there, they have the ability to obtain food and fodder for their animals, and they feel comfortable there. It is most often the place where they grew up. Thus, another characteristic of the Chagga appears to be a high level of attachment to place—Mount Kilimanjaro. It is an attachment founded on their experiences, family connections, and widespread traditions, all of which tie in to the place where they and their ancestors live, work and die.

Figure 3: View of Mount Kilimanjaro



The Chagga have strong traditions and a culture that emphasizes family, land, education, and community (Dundas 1924; Gutman 1926; Grove 1993; Stambach 2000). I theorize that place acts as a strong social force through its role in Chagga cultural practices concerning families and communities. Connections between ancestors, land, family and future generations make Kilimanjaro an important part of Chagga identity and history. Kilimanjaro is also subject to the social forces driving ecological conservation and public land management—issues of daily importance in the Chagga homeland. The Chagga have always been conservationists because of their dependence on the mountain for their livelihood and for the future of their families. However, since the creation of KINAPA, conservation and land management issues have become more formalized,

received international attention, and the balance of power has shifted. Although economic benefits have come to many Chagga from the creation of the Park, local access to, and control over, its abundant natural resources have also become more restricted, creating a proverbial “double-edged sword” for the Chagga.

The Chagga’s situation is emblematic of many other peoples and places throughout the modernizing world. It is a struggle between old and new, objectivism and subjectivism, economic and social forces, and separation and inclusion. These modern, yet localistic, struggles are well articulated by writers and theorists from feminism and eco-feminism, conservation ecology, African philosophy and other non-Euro-centric traditions. Theorists from these approaches envision place as a critical player in local people’s actions and choices (Rocheleau, Thomas-Slayter, and Wangari 1996; Shiva 1988; Neumann 1998; Soyinka 2002). Thus, they articulate a more holistic conception of place and the people who interact in it than standard, western theories. Such a view is vital not only to understanding the interaction between the Chagga and the formal conservation institutions on Kilimanjaro, but also as a framework for using their experiences as a case-study by which to formulate some of the long-term cultural consequences of excluding and/or displacing local peoples in order to expand and regulate tourism and outsider access to the rich and beautiful resources there.

The western conservation bias on Kilimanjaro has a long history. Beginning with colonial occupation and continuing with the formal establishment of KINAPA, the upper slopes of Mount Kilimanjaro continue to be managed with a common protective approach, often referred to as “fences and fines.” This approach is typified by objectifying a place and creating management strategies to “protect” an area from further

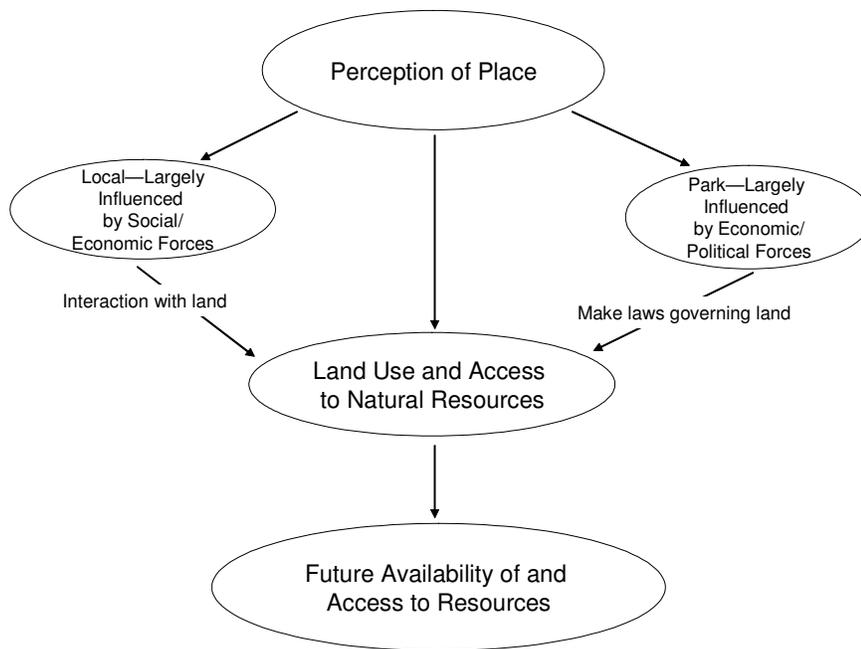
defilement by local people while allowing “amenity consumption” (see Hays 1987) of those who can pay, such as tourists. Such strategies are generally founded on an overarching economic rational, viewing local people simply as some among many potential amenity “consumers” of the place. Management for the lands is typically under the purview of hired outsiders who have more scientific but less indigenous knowledge about the land (Schwartzman, Moreira and Nepstad 2000; Neumann 1998; Sachs 1992). This puts such management officials in positions of authority over resource use in the area, and thus, by default, over those groups who have traditionally accessed these resources for hundreds of years.

A resource-management system that inherently recognizes more than the economic ways by which people may be attached to and benefit from a place could profit not only the Chagga but all people in similar situations. Beckley (2003) points out that a more holistic understanding of how people are attached to a given place:

has tremendous potential to inform and improve resource management, planning, and policy. . . . Resource managers and planners are frustrated with the inability of the rational, scientific policymaking process to account for or mediate intense, emotional expressions of values for natural resources. . . . Although there exists greater awareness and recognition of the diversity of human values for certain landscapes and places, and there are significant resources being applied to mitigating or mediating conflict over resource use scenarios, there have been few attempts to delve deeper into the nature of place attachment with the hope of clarifying the distributional effects of policy actions. (119)

An analysis of the Chagga's experience with KINAPA can potentially benefit resource management decisions and provide insight into the social and cultural costs of current exclusionary and top-down approaches to resource management. While the Chagga themselves do not contribute to the large monetary grants needed to staff and manage KINAPA, they interact with and depend on the land of the mountain much more than other groups. Consequently, it is the Chagga who have the most to gain or lose from resource management decisions. In Figure 4, I conceptually illustrate the interaction of land managers and local people and how their conceptions of place intersect and affect land and resource use.

Figure 4: Relation of Place Perception and Natural Resource Use



Building from this conceptual base, in this study I:

- 1) examine a conservation situation focusing on both ecological and social issues, with special attention to the social costs of the standard western model of conservation;
- 2) put the local residents' perceptions and understandings of their place and their relationship to it at the center of the analysis;
- 3) increase understanding of how issues of responsibility, connection, and human-land relationships are involved in nearly all situations of community conservation and how local traditions encourage these attributes.

Research Presentation

To address these issues, I have organized this dissertation into seven chapters. A brief description of each is presented below. Chapter 2 outlines arguments about the need for different perspectives relating to place and the need to make room for knowledge and values not normally recognized by a modern, western worldview. In this chapter I argue that place influences social actions. I make my case using literatures ranging from African philosophy to eco-feminism, and modern ecology. In each, I highlight the importance of allowing for alternative ways of knowing and interacting with place through land and resource use.

In Chapter 3, I present literature on community attachment in an attempt to show the situational inappropriateness of various approaches (used in other contexts) to try to

measure community attachment on Kilimanjaro. Previous studies on community and conservation on Mount Kilimanjaro are also presented to give context for my study.

Chapter 4 outlines the methodology of my study, identifying and justifying sample and interviewing strategies. In this study, I use specific, personal accounts from grandmothers living in the three Kilimanjaro villages. Their accounts are contextualized through community surveys and observations in the different villages. The grandmother interviews provide a window on those who still practice long-standing traditions connected with place and their own and their family's attachment to it. Their experiences and values span decades giving them a unique perspective on how their communities and families may be changing over time.

In Chapter 5, I document some of the most critical current social and ecological dilemmas facing the Chagga people who live on the mountain and how their place-related traditions and cultural norms help them respond and relate to these dilemmas.

Local perceptions of formal conservation strategies are considered in Chapter 6. I compare my findings with other studies on community conservation in this area. A consideration of these perspectives in conjunction with a better understanding of locals' sense of and attachment to place and the responsibilities this engenders in them creates an expanded conservation scenario for Mount Kilimanjaro.

I conclude the study in Chapter 7 by looking at social and cultural costs stemming from the different forces affecting the Chagga and how these also affect conservation efforts in the Park. I link the findings back to the literature reviewed in Chapter 2 to show that the local cultural effects of conservation are important considerations for long-term conservation sustainability. Local culture and the traditions it supports become an

important facet in Muir's "rest of the world" that is so closely connected to people's tuggings at nature.

CHAPTER 2: PEOPLE, PLACE, AND CONSERVATION

A human life, I think, should be well rooted in some spot of a native land, where it may get the love of tender kinship for the face of the earth, for the labours men go forth to, for the sounds and accents that haunt it, for whatever will give that early home a familiar unmistakable difference amidst the future widening of knowledge: a spot where the definiteness of early memories may be inwrought with affection, and kindly acquaintance with all neighbours, even to the dogs and donkeys, may spread not by sentimental effort and reflection, but as a sweet habit of the blood. (Elliot 1876, 20)

The Human Condition and the Inevitability of Place

Place influences all social interactions including the experience of community (Gieryn 2000; Bell 1997; Sack 1997; Basso 1996). In the human condition, place is ubiquitous. As Gieryn (2000: 465) notes:

In spite of its relatively enduring and imposing materiality, the meaning or value of the same place is labile—flexible in the hands of different people or cultures, malleable over time, and inevitably constructed. . . . Place is not space—which is more properly conceived as abstract geometries Space is what place becomes when the unique gatherings of things, meanings, and values are sucked out Put positively, place is space filled up by people, practices, objects, and representations.

Sack (1997: 127-128) explains how humans and place are inextricably connected.

Whereas places draw together and alter elements from the three realms [of place—nature, meaning, and social relations—] places require human agents or

selves; selves draw together and alter these three realms, and yet the self cannot be an agent, containing and altering the realms, without place. The structural similarities between self and place—the fact that they both interweave elements of nature, meaning, and social relation—are the key to their interconnections.

Again, Gieryn (2000) states: “Place saturates social life: it is one medium (along with historical time) through which social life happens . . . Places are made through human practices and institutions even as they help make those practices and institutions (Giddens 1984). Place mediates social life” (467). Place and community are statements of value. Because I must occupy a place in time, my community may, at a minimum, be very egocentric—the place I now occupy. But it is still tied to a perception of place and those who do and do not fit in it. Indeed, the value of my place, my community, can be altered if I feel others who “do not fit” are encroaching on it.

Place then, is subjective at its core. It is, in the words of Gussow (1971: 27), “a piece of the whole environment which has been claimed by feelings We are talking about a subjective thing, and it is quite useless to try measuring it, at least as social scientists try to measure indices of the ‘quality of life.’” Thus, an analysis of place is an analysis of social interaction, and social meanings and understandings. It is an analysis of community. “Community must occur some-place” (Flynn 1991: 24). Or as Hummon (1990: 15,141) states: “Popular views of community life should be interpreted within the context of shared beliefs about places and that such beliefs, in turn, are sustained and have meaning within social groups. . . . [Place] tells you who you are—either ‘I belong’ or ‘This is foreign to me and I am an outsider.’” Thus place is the act of imbuing space

with value. “What begins as undifferentiated space becomes place as we get to know it better and endow it with value. . . . What can be known is a reality that is a construct of experience, a concretion of feeling and thought” (Tuan 1977:6, 9). Place is the physical embodiment of human value. Attachment to place is thus undergirded by attachment to certain values and the world they articulate. Thus place and community are both cultural products.

Basso (1997) further explains that humans engage in “place-making” as a way to infuse meaning into their lives.

Place-making . . . is a common response to common curiosities—what happened here? . . . Places served humankind as durable symbols of distant events and as indispensable aids for remembering and imagining them. . . . What people make of their places is closely connected to what they make of themselves as members of society and inhabitants of the earth. . . . If place-making is a way of constructing the past, a venerable means of *doing* human history, it is also a way of constructing social traditions and, in the process, personal and social identities. We *are*, in a sense, the place-worlds we imagine (5, 7 emphasis in original).

To understand the Chagga’s affinity for their place on the mountain, one needs an understanding of how the concept of place has developed in the social sciences generally. Specifically, how it has developed in both the European social science tradition and in other non-European (in this case African) social science traditions.

Classical Theorists and Place

Dawood (1967: ix) has credited Ibn Khaldoun, with “the earliest attempt made by any historian to discover a pattern in the changes that occur in man’s political and social organization.” Khaldoun made place a central force in his analysis of society. In the first chapter of Khaldoun’s *The Muqaddimah* (written *circa* 1381 and published in English in 1967), entitled “Human civilization in general,” he discusses the affects of place on humans with regards to climate, geography, temperature, and potential to produce food. Khaldoun deals with place almost entirely as an external force. Consequently, sentiments and cultural meanings concerning place are not overtly considered.

Classical European philosophers also considered the importance and role of place in the human condition. In their search for universal laws that would apply to all societies and communities, many enlightenment philosophers tried to remove the effects of culture and locality, thus negating the effects of place. Descartes’ famous dictum, “I think, therefore I am” was a first step in this direction as he sought to free himself from all earthly ties in an attempt to attain “pure reason.” Can place be a part of such reasoning? If “pure reason” is attained through escaping the restraints of the body, then place can play no role in “reasonable” actions and associations. Those who followed Descartes’ reasoning also failed to allow for the importance of place for the human condition.

By definition, the search for comprehensive laws through scientific inquiry and application devalues context, experience, and feelings due to their idiosyncratic nature. Enlightenment ideals founded on the concept of “objectivity” fueled European agendas of imperialism, colonialism, and industrialism. As the foundation of European hegemony,

such ideals served the Europeans well. However, at their foundation, the ideals of objectivity were suspiciously subjective, as they reinforced a Euro-centric vision of nature as the only valid vision. The consequence of this blatantly “subjective objectivity” has been that any and all other ways of knowing that rely on anything other than detached logic and reasoning are discarded as inferior at best or untrue at worst. Consequently, the unique cultural underpinnings of place as a “concretion of value” (Tuan 1977) are discarded. Yet philosophers like Kant saw the great thinkers of Europe as participating in a progression of knowledge that would eventually provide universal truth for all the world.

If one starts with Greek history . . . if one follows the influence of Greek history on the . . . Roman state . . . then the Roman influence on the barbarians . . . if one adds episodes from the national histories of other peoples insofar as they are known from the history of the enlightened [European] nations, one will discover a regular progress in the constitution of states on our continent (which will probably give law, eventually, to all the others) (in Serequeberhan 1997: 149).

Comte, Marx, Hegel, Adam Smith, Durkheim and other now-revered enlightenment theorists laid the foundation that reduces place to, at best, an external force providing a stage for social events. Marx, for example, placed all societies into an evolutionary matrix based on their economic mode of production. In such a scheme, place was important only in that “the nature of individuals thus depends on the material conditions determining their production” (Marx and Engels 1996: 42). Regardless of

where one lived, their experiences in and connections with place were only important in relation to how they produced economically.

Adam Smith (1998: 8) also proposed what he considered to be universal laws that he claimed applied to all people regardless of their location.

Whatever be the soil, climate, or extent of territory of any particular nation, the abundance or scantiness of its annual supply must, in that particular situation, depend upon those two circumstances[–skill of labor and level of employment].

Ironically, such enlightenment philosophers were only reacting to and justifying their own place-experience; yet the theories they created, because they were “objective,” lacked critical self-reflection, thus blinding the theorists to the boundedness of their purported universal laws. “Objective” laws of human behavior, because they do not recognize place as a “concretion of value,” could be wielded with neutrality of conscience by the European powers. Engaged in colonialism, imperialism, and discrimination that always seemed to disproportionately favor their position, Europeans were not “destroying” local culture. They were simply the vectors of a universal truth. Against such a backdrop, there was no need to justify one’s actions. Universal truth is complete with its own legitimacy. Conrad (1991:5) expresses the inevitable clash between universal truth and place-based context well when he argues:

The conquest of the earth, which mostly means taking it away from those who have a different complexion or slightly flatter noses than ourselves, is not a pretty thing when you look into it too much. What redeems it is the idea only. An idea at

the back of it; not a sentimental pretence but an idea; and an unselfish belief in the idea—something you can set up, and bow down before, and offer a sacrifice to.

Not all classical European theorists rooted themselves in natural laws. Among enlightenment philosophers, Herder differed greatly from his peers in this respect. A student of Kant, Herder acknowledged the possibility of universal laws but argued they could not be divorced from culture and place. To Herder, universal laws are understood and acted upon in different ways depending on the physical and cultural context of the actor. “No universal natural law comes into existence through my will; my deed must express the universal natural law as it is conditioned in my existence and situation” (Herder in Anchor 1965: 32). Thus according to Herder, *the conditioning of place affects how people think about and perceive their world*. “Their own mode of representing things is the more deeply imprinted on every nation, because it is adapted to themselves, is suitable to their own earth and sky, springs from their mode of living, and has been handed down to them from father to son” (Anchor 1965: 137).

Weber (1947) also allowed for place to act as both an external and internal social phenomenon. For Weber, understanding how people view their actions and position in the world is necessary to understanding what their actions mean.

Thus for a science which is concerned with the subjective meaning of action, explanation requires a grasp of the complex meaning in which an actual course of understandable action thus interpreted belongs (95-96).

Place is an important part of “the complex of meaning” in which actions take place.

While classical European theories remain hegemonic in their approach to place, they do not represent the only theories to address place. Theories that reject Euro-centric-universalism and a male-dominated view of life provide a different view on place and attachments to it. Such theories advocate context over universalism; feeling, caring, nurturing, and sacrifice instead of domination; and connectedness versus detachment. These theories articulate the need for a more holistic understanding of place and how people can live and connect with a place to achieve environmental protection that is sustainable without resorting to misanthropy.

African Philosophy

Many major African philosophers and artists write about relationship to place and the value of “settled experience” as opposed to the placeless forces of universal science and “objectivity.” Leopald Sedar Senghor, former president of Senegal, was a poet, philosopher and activist. He saw Africa's genius in intuition, the wisdom of settled experience, and instincts educated by history. According to Senghor, "the human instinct is a better guide to behaviour than the more precise computer" (Boahen 1985: 671). Such instincts are conceived and honed in the caldera of place. Although Senghor, in his later years, argued that people should see themselves as “cosmic” members of the world rather than a single society (Kluback 1997), he also writes of the influence that one’s homeland has. Several of his poems evoke the power of place:

Écoutons son chant, écoutons battre notre sang sombre, écoutons battre le pouls
profond de l’Afrique dans la brume des villages perdus. (Senghor in Spleth
1993: 92)

Translation (mine): Listen to its song, listen to the beat of our somber blood, listen to the profound pulse of Africa in the mist of the lost villages.

But Senghor's writings of home are always tempered by the conflict of influences from Europe and Paris (Spleth 1993). The rhythms of Africa are often interrupted by the more cacophonous cadences of Europe. While place supports and encompasses cultural meanings, it is also vulnerable to outside influences.

One of Senghor's closest friends and fellow authors was Aimé Césaire. Césaire, like Senghor, wrote passionately about the problems that Africans and their descendents faced as a result of how their race had been conceptualized by the western world. In his seminal work, *Cahier d'un retour au pays natal (Notebook of a Return to the Native Land)*, Césaire uses the metaphor of a village to describe how his people have been oppressed and separated from their home foundations by colonialism. Irele (2000) describes the importance of Césaire's depiction of the interrelationship between people and landscape and how he was reacting against the writers from his area who imitated the French with a superficial portrayal of the relationship between humans and the landscape:

The almost total fixation upon landscape in its purely decorative aspect, deprived of the resonance of a full human relation to the natural environment, presented in this poetry [of earlier writers from Césaire's region] as an object of superficial contemplation, condemned it to the status of a derived and ineffectual mode. . . .

This was the situation into which Aimé Césaire was born, in which he grew up and formed his earliest impressions, and with which his mature consciousness was confronted, calling forth the response of which *Cahier [Notebook]* is a powerful testimony. . . . There is good reason to suppose too, that the natural milieu of his

birthplace, with its rugged landscape and tropical exuberance and its backdrop of the sea with its breaking waves, became imprinted upon his mind, later to emerge as a primordial register of his imagination” (xii).

Césaire sees the interrelationship of people and place as one of the most important determiners of who they are and how they relate to the world.

Wole Soyinka, Nigeria's leading playwright, won the Nobel Prize for Literature in 1986. He argues that African values and virtues cannot be separated from the place where they were formed. Social actions must be seen in context ("in situ"), and several of his stories and plays explore the conflict between the power of “settled experience” and the seductions of western knowledge and world views. He argues that western philosophy reached a point where it could no longer progress without taking into account the “others” and places that had been discounted by it for so long.

The traducers of the history of others have discovered that the further they advanced, the more their very progress was checked and vitiated by the lacunae they had purposefully inserted in the history of others. Self-interest dictated yet another round of revisionism--slight, niggardly concessions to begin with. But a breach had been made in the dam, and an avalanche has proved the logical progression . . . narratives, uncluttered by the impure motives that needed to mystify the plain self-serving rush to dismantle independent societies for easy plundering, pointed accusing fingers unerringly in the direction of European savants, philosophers, scientists, and theorists of human evolution (Soyinka 1988: 9-10).

However, Soyinka also warns of the dangers for African societies, which he refers to as “receptive societies,” who may suffer from “cultural osmosis” from their contact with the West (1988b). For Soyinka place and culture act as social forces, but they are also subject to outside (ie. western) influences.

In her book called *Nervous Conditions*, Tsitsi Dangaremba (1988), also builds on the concept of place as a social force that is being eroded by globalization and the dominance of western cultures. She writes of how a girl’s African home and values are challenged and shaped. The girl talks about her brother, educated by western missionaries, who is beginning to despise his home and the places where he grew up.

I . . . could not understand why my brother disliked walking so much, especially after being cramped in an airless bus for such a long time . . . Besides the relief of being able to stretch your legs after such a long journey, the walk home from the bus terminus was not a long walk when you had nowhere to hurry to. The road wound down by the fields where there were always some people with whom to pass ten minutes of the day—enquiring about their health and the health of their family, admiring the broad-leafed abundance of the maize crop when it was good, predicting how many bags the field would yield or wondering whether the plants had tasselled too early or too late. And although the stretch of road between the fields and the terminus was exposed to the sun and was, from September to April, except when it rained, harsh and scorching so that the glare from the sand scratched at your eyes, there was always shade by the fields where clumps of trees were deliberately left standing to shelter us when we ate our meals

or rested between cultivating strips of the land. . . . When I was feeling brave, which was before my breasts grew too large, I would listen from the top of the ravine and, when I was sure I had felt no one coming, run down to the river, slip off my frock, which was usually all that I was wearing, and swim blissfully for as long as I dared in the old deep places.

This was the walk that my brother detested! Truly, I could continue endlessly describing the possibilities that were in that walk, so I could not understand why he was so resentful of it. (3-4)

Dangaremba continues the theme of western influence associated with detachment from home and nature.

Franz Fanon (1963) also wrote of the dangers for Africa of assimilating too many ideas from Europe and the West. While he did not think that Africans could go back to their “natural” state after encounters with Europe, he argued that holding onto the ideas and morals of home must act as a foundation for those oppressed by the West.

No, there is no question of a return to Nature. It is simply a very concrete question of not dragging men toward mutilation, of not imposing upon the brain rhythms which very quickly obliterate it and wreck it. The pretext of catching up must not be used to push man around, to tear him away from himself or from his privacy, to break and kill him.

No, we do not want to catch up with anyone. What we want to do is to go forward all the time, night and day, in the company of Man, in the company of all men. The caravan should not be stretched out, for in that case each line will

hardly see those who precede it; and men who no longer recognize each other meet less and less together, and talk to each other less and less. (314-314)

Many of these and other African philosophers and writers include the theme of place, context, and communities based around place in their writings. Ngugi Wa Thiongo (1993;1989; 1983), Achebe (1994; 1990; 1984), Cabral (1973), Amidou Kane (1972) Mudimbe (1994; 1988), Obbo (1989), Ogundipe-Leslie (2001), Akiwowo (1986), Serequeberhan (1991, 1997), Eze (1997), and Busia (Anyidoho, Busia and Adams 1999) have all written powerful narratives against neo-colonialism and the threat of losing place-based traditions and world views to the powerful placeless forces of universalism, capitalism, and globalization. Others too, besides Africans, have weighed in on a different perspective toward place, reflecting a feminist voice for place.

Eco-feminist Literature: Relationship between Human Society, Gender and Ecological Surroundings

Mellor (1997) argues that the inequalities in human relationships are mirrored in human's treatment of the environment. Just as there are human costs to social inequalities between men and women and the accepted knowledge-base of standard western understandings about the roles of men and women, so too are there costs to the environment from these same understandings. "In bringing together ecology and feminism, ecofeminists see women and nature as subject to the destructive socio-economic and technological systems of modern male-dominated society" (178). Coupled with many African, non-Euro-centric theories, this statement could read, "modern,

western, male-dominated society.” The same forces that shape the ways men and women interact are also shaping how they interact with their surroundings. León-Portilla (1990), although not an eco-feminist, supports this idea with his notion of “Ecosis,” or how people interact with the environment to create their homes and habitat. He claims that “in the dynamic realization of any ecosis, the community’s own world view, system of values, and local institutions play a vital role” (12). Not only do these things affect the environment, but changes to the environment also affect “the internal structures of the society” (12). People and place are not separate from each other but are interconnected and influenced by one another in complex ways.

Shiva and Mies (1988 and 1993) also argue that gender discrimination is a manifestation of values that affects place. This concept is difficult in relation to the situation with the communities on Mount Kilimanjaro, for while they certainly have a different perspective on place than the standard western perspective that drives KINAPA management decisions, there is also strong evidence of gender discrimination. However, the values that Shiva and Mies refer to derive from ideas inherent in modern, western society that builds on the foundation laid by European enlightenment theorists. Ideas of dominance, separation, detachment, survival of the fittest, and reason divorced from feeling are values that support both gender discrimination and exploitation of the environment.

Capitalist patriarchy or “modern” civilization is based on a cosmology and anthropology that structurally dichotomizes reality, and hierarchically opposes the two parts to each other: the one always considered superior, always thriving, and progressing at the expense of the other. Thus, nature is subordinated to man;

woman to man; consumption to production; and the local to the global, and so on.
. . . An ecofeminist perspective propounds the need for a new cosmology and a new anthropology which recognizes that life in nature (which includes human beings) is maintained by means of co-operation, and mutual care and love. Only in this way can we be enabled to respect and preserve the diversity of all life forms, including their cultural expressions, as true sources of our well-being and happiness (Shiva and Mies 1993: 5-6).

According to this view, foundational values of western society lead to oppression and degradation of both social and environmental structures. Changing these practices must therefore involve changing these foundational values.

Mies (1989) and Folbre (1994 and 2001) extend this theme by looking at how economics has systemically left out the contributions of women and thus skewed western societies' perceptions of value. In modern, global society, when lower or no monetary value is attached to the actions of women—even if these actions are vital to society's healthy functioning and productive growth—these actions become viewed as low, or not real, work. In relation to the situation on Mount Kilimanjaro, local residents are fit into a system where their care and responsibility for the land where they live and their surroundings is discounted in favor of a state-sponsored bureaucracy that is able to manage paying tourists and follow the prescribed, western scientific model for conservation.

Modern society's tendency to discount caring, involvement and responsibility as legitimate forces that can contribute to conservation is criticized by many feminist writers (see for example: Folbre 2001, 1994; Spretnak 1999; Rocheleau *et al* 1996; Little 1995;

Shiva 1988). Rocheleau *et al* (1996) argue that important questions must be addressed “about the relations of human beings to ‘nature’ as manifested in various contexts, to other species, to ‘the land,’ to ‘place,’ and to the resources that support both lives and livelihoods” (296). Salamon (2003: 84) writes of the damage to places that can occur from outsiders who seek “monetary or professionalized solutions rather than those that require commitment of self.”

Agarwal (1992) proposes that there are connections between women’s interests and nature. She points out that in situations involving land use change, there is a great need to better understand both “how gender relations and relations between people and the non-human world are conceptualized, and how they are concretized in terms of the distribution of property, power, and knowledge” (153). These issues are at the forefront of the situation on Mount Kilimanjaro. The different conceptualizations of place of the residents on the mountain and KINAPA greatly influence access to resources for both those with little financial resources who live on the mountain and those who have the money to pay for access.

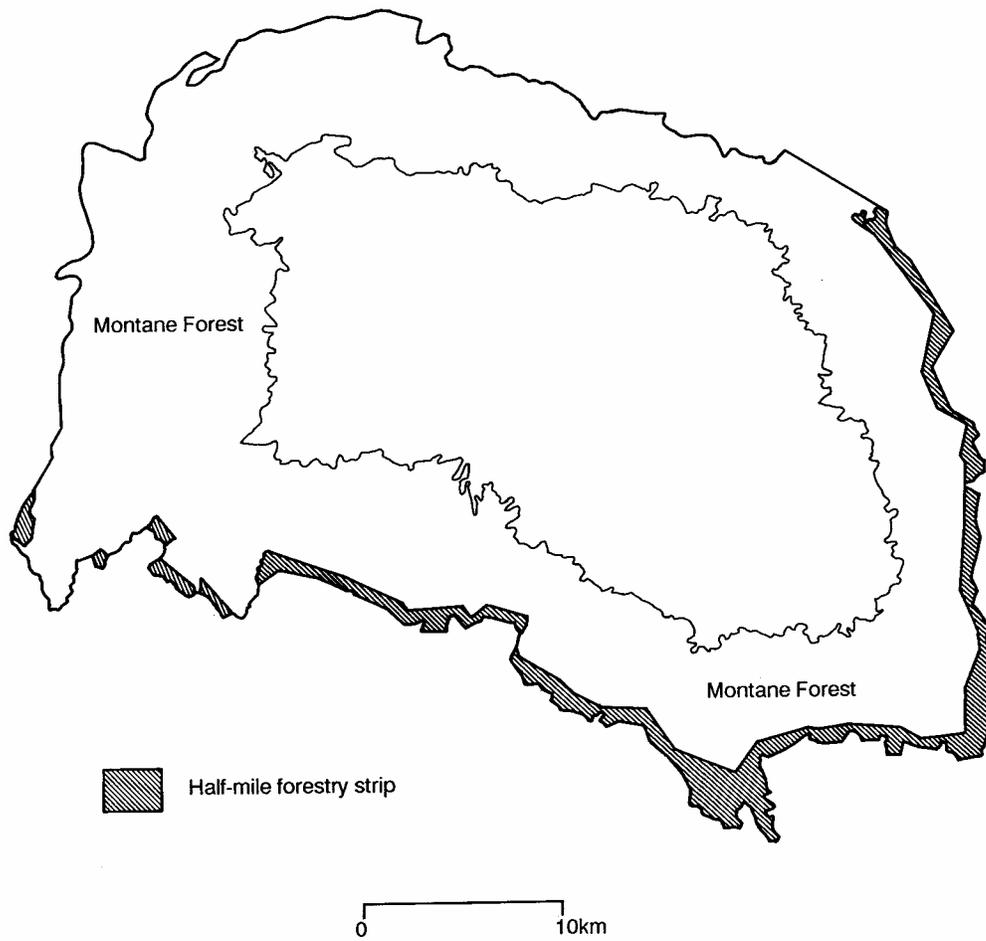
Ecology Literature

In framing the debates from the ecology literature, it is important to make some distinctions about types of protection and land management situations. Around the world, human-induced global environmental change is leading to aggressive conservation and preservation strategies that usually rely on formal protected areas that exclude human interaction to various degrees (Sachs 1992; Green and Paine 1997; Neumann 1998; Nash 1967). The World Conservation Union (IUCN) created six categories (I-VI) of protected

areas, from category I—the most restrictive category prohibiting nearly all human interaction—to category VI—the least restrictive, allowing different forms of human access and use. In 1997 over twenty-one thousand category I-III (the most restrictive) protected areas were listed by the World Conservation Monitoring Center, covering over eleven million square kilometers worldwide. Over thirty-three thousand category IV and V areas were also listed, taking in nearly seven million square kilometers (Green and Paine 1997).

KINAPA is a category II protected area, which is quite restrictive of human use and interaction. However, KINAPA is surrounded by a forest reserve that has varied in its level of protection over the years (see Chapter 3). A half-mile (.8 kilometer) strip also exists around the borders of the forest reserve, mostly on the southern and eastern sides of the Park (see Figure 5: Half-mile strip on Mount Kilimanjaro). “The half-mile forestry strip (HMFS) on Mount Kilimanjaro is one of the oldest social and buffer forests in East Africa. It was established in 1941 under the Chagga Council to provide local people with wood and wood products” (Newmark 1991: 81). Local resource extraction has been allowed in the half-mile strip to various extents (see Chapter 3). Villages border this strip, and people live within feet of the boundary of lands managed by KINAPA. This boundary is sometimes delineated by a fence, other times it is unmarked. The discussion below of the ecological literature deals with the less restricted areas of protection. I do not argue that category I and II restricted areas should be turned over to local populations, although such arguments do exist. However, the controversy arises when deciding how local access and use of resources on the border lands that surround the more restricted areas should be conceived.

Figure 5: Half-mile strip on Mount Kilimanjaro



Source: Newmark 1991

Different Perspectives on Place Affect Social Actions and Resource Outcomes

Building on perspectives that differ from dominant Eurocentric views, several authors argue that place perspective influences the way people interact with a place and, when those people wield the power, how resources are distributed. For example, Neumann (1998) writes of how local residents of Mount Meru in Tanzania react against standard western interpretations of place. The creation of a National Park on Mount Meru was based on the western interpretation of nature as separate from human influence. This perspective allowed the Park to encroach on traditional land and resource uses, with the justification that protecting it from local access would preserve its desirable, “natural” state. Because the local people don’t view the place as subject to ownership by one entity, they have developed forms of resistance and survival that undermine the laws created by the National Park. Similar to the views of many residents on Mount Kilimanjaro, local residents view the land through a social perspective that is often in contradiction to the political/economic perspective that inspires the rules and restrictions of the park. This can be illustrated in examples from a variety of settings.

Taking an example from the Midwest in the United States, Salamon (1985) writes about different communities and resource distribution systems that have resulted from two different perspectives on place. The “Yankee” community developed around an entrepreneurial perspective of place, with land conceived of as a commodity that was bought and sold. Farms in this community focused on single, cash crops and tended to be larger. The “German” community, on the other hand, developed around a more social/familial perspective of place. Land was cared for with an eye to passing it on to future generations, farms tended to be more diversified, and plots smaller. The makeup of

these communities reflected their conceptions of place, with the Yankee community having a larger percentage of landlords, a larger average farm size, and a lower percentage of part and full owners. The Yankee community also was less stable in its institutions and had more out-migration or less attachment to place among its residents, particularly among the younger generation.

Additionally, Durrant (2001) looks at the effects of different perspectives about place on protective designations proposed for an area of public land in southeastern Utah. Environmentalists, who see the place for its environmental qualities and external features, propose protective designations that are highly exclusive and restrict human interaction with the land. Local residents, who have more personal and historic connections with the place, propose designations that protect the place while also allowing different types and amounts of human interactions based on both ecological and social assessments of their value for the place.

Sacks (1997) proposes a model for examining place that takes these different aspects of place into account, arguing for three realms of place: meaning, nature, and social relations. Gieryn (2000: 464) uses a similar framework, where place has “three necessary and sufficient features”: Geographic location; material form; and investment with meaning and value. Gieryn reviews many studies that support the argument that place attachment is closely related to identity, memory and loss. “Because of these kind of attachments, sociologists should perhaps add place to race, class, and gender as a wellspring of identity, drawn upon to decide just who we are in an always unsettled way” (Keith and Pile in Gieryn 2000: 481). Indeed, a growing number of sociologists are looking to place as a social force that should be taken into account when examining

social issues (see Gieryn 2000 and Bell 1997 for reviews). Basso (1995) argues that place, like no other force, contains memories, connections and concrete forms that are an integral, lasting part of culture and meaning for communities and societies. Indeed, the whole discipline of Geography is built around the notion that place is a force that has influence on the people and social actions within it. Certainly how people see, relate to and understand a place will influence their actions, and this influence is especially important when place is the center upon which these actions are based, such as in conservation management and resource distribution.

Exclusion of Local Populations vs. Involvement

There is an on-going debate about the involvement of local communities in conservation. Arguments range from the need to exclude or manage local residents, especially those who rely on the resources of a protected area, in order to preserve the “natural” flora and fauna of an area (see Robinson and Bennett 2000; Redford and Sanderson 2000; Terborgh 2000; Pelkey, Stoner and Caro 2000; Spinage 1998; Caro *et al* 1998; Newmark 1996; Mwalyosi 1991) to calls for more involvement and respect for local residents and their indigenous knowledge (see Schwartzman *et al* 2000; Colchester 2000; Chicchón 2000; Schartzman *et al* 2000b; Rocheleau *et al* 1996; Shiva 1988; Homewood and Brockington 1999). The first group of scholars usually supports its arguments with biophysical evidence of degradation that is blamed on local resource extraction. The second group points to weaknesses in linking the degradation to local residents along with arguments about local rights, knowledge, and stewardship.

However, the need to work with local communities in one form or another is now becoming widely accepted (Beltrán 2000). Studies looking at attempts to involve community in conservation often point to structural constraints that are barriers to local involvement. Lachapelle, McCool and Patterson (2003) and Wilson (2003) both argue that the bureaucratic structure of land management is often responsible for barriers to effective public interaction and local participation in conservation strategies. Both of these authors examine conservation situations in the United States, where the balance of power between local residents and land managers is most likely less uneven than that on Mount Kilimanjaro.

The structures of formal protection, the balance of power, and access to information all affect formal conservation situations. In order to better understand the context on Mount Kilimanjaro, I will highlight some considerations specific to the situation there.

1) It is difficult to connect biophysical evidence of environmental degradation on Mount Kilimanjaro with specific causes of the degradation. Aerial photography has only been available beginning in the 1980s, and much work with such photography has yet to be connected with groundwork to verify and substantiate results (e.g., Pelkey *et al* 2000; Engelhardt 1979). While there is evidence of decreasing montane rain forest on the mountain as well as soil degradation and erosion in certain areas (Newmark 1991), the causes of these changes are mostly conjecture. Gamassa (Newmark 1991) lays much of the blame on “inequality in access to particularly land [sic] . . . commercialization of natural resources . . . [and] the breakdown of traditional resource management systems” (7). Some scientific studies are based on data detached from realities on the ground and

promote the assumption that the less human influence the better conservation is served (Pelkey *et al* 2000; Tertborgh 1999; Brandon, Redford and Sanderson 1998; Kramer, Schaik and Johnson 1997; Peres and Terborgh 1995; Peres 1994; Redford and Stearman 1993; Engelhardt 1979). However, there is evidence that there was less degradation in certain areas in the half-mile strip on Kilimanjaro when local communities had more control and responsibility over resources (Newmark 1991). Homewood and Brockington (1999) point to a case in Tanzania where communities were forced to relocate based on the ready acceptance of claims that they were contributing to land degradation with little data to support these claims. They claim there is an “urgent need for rigorous studies leading to a better understanding of land use impacts” (310).

2) There is a strong argument forwarded by many environmentalists that the greater good must be weighed against the local good (Spinage 1998). Local need for resources such as grass and fuel may be taking away from the greater good that will come from preserving these resources. Arguments are that long-term global issues such as rainfall, soil degradation, erosion, and animal extinction are more critical than local residents’ current needs for fuel and fodder. Richard Leakey (2003), a famous environmentalist heavily involved in Kenya’s government and conservation efforts, said, in reference to one of the most famous National Parks in Kenya, run by a local Masai governing body, “The Masai Mara can’t be left to the Masai . . . It’s too important to Kenya as a country. . . . The Masai must give up something to be a part of Kenya. We can’t afford to have whole nations collapse. Wildlife in Africa plays a vital and irreplaceable role in the welfare of the states of Africa.” Such arguments carry much weight because of the fear of irreversible ecological and perhaps thereby economic

damage. However, there is little attention to the social and cultural costs that may result from protective restrictions that move local populations from their land or make traditional lifestyles and livelihoods impractical.

3) As the local relationship with land on Kilimanjaro has changed over the past century, there is little evidence that increased centralization of land management and exclusion of local people from the land has resulted in better conservation. In my view this may be blamed on several factors including a failure of the protective system; lack of resources to enforce policies; a decrease in local feelings of responsibility for the land; increased global pressures through capitalism, pollution and global warming; lack of long-term data trends; draught; increases in population; and certainly many more. However, on the other hand, there is much evidence that these same measures are changing local lifestyles, traditions, and culture. These issues underscore the need to frame discussions of the situation in Kilimanjaro in a more holistic manner. No one is arguing that the situation will be simple to solve. All agree that it is complex, precipitated by multiple factors all of which contribute to the conservation outcome. Structural constraints and failings, outside political and economic factors, and local sentiments and concerns must all be taken into account when considering the conservation situation on Mount Kilimanjaro.

Assessment of Literature: People and Place Must Be Considered Together

I do not address the scientific side of the conservation question in this study. More scientific data is needed to determine the actual condition of the land surrounding Kilimanjaro National Park and Forest Reserve, especially the lands administered by KINAPA and the areas directly adjacent, and how the land cover and soil conditions have

changed over the past several decades. While some of the groundwork was laid by researchers in a landmark study, *The Conservation of Mount Kilimanjaro* (Newmark 1991), there is still much conjecture as to the amount of change and degradation and the relationship between the degradation and local communities' resource use (Homewood and Brockington 1999). Such research should include ground-truthing as well as interviews with local people who use and rely on the land, especially those who have been around long enough to witness the changes in the area. Community conservation can be envisioned as a two-way street; one side of the street would be concerned with the biological changes and the causes behind them. Scientific measurements and experimentation would be the method of choice on this side of the conservation two-way street. The other side of the street, the one I examine in this study, involves the cultural/social understanding of those who live in a conservation area, including how their understanding affects and is affected by their interaction with and influence on the biological side. The method of choice on this side of the conservation two-way street is inductive—orientating surveys, field observations and, most importantly, in-depth interviews.

The literature reviewed above supports strong arguments for the importance of context, connection and responsibility, and local knowledge in land distribution and resource management decisions. In a “place” like Mount Kilimanjaro, we should expect that place greatly influences values and lifestyles, even in the face of increasingly placeless policies universally applied in the name of science and a greater good. African, feminist, and ecological philosophers argue eloquently that just because science and standard western practice may dictate a specific course, this does not mean that it is the

right one for all contexts, for all “places.” Local traditions, feelings, connections, and responsibilities are important not only to the people who hold them but as a part of a larger milieu that constitutes the basic building-blocks of our humanity. They inform our social knowledge and worldviews. Consequently, changes in the places in which these building-blocks are rooted may result in important (and often irretrievable) shifts in our collective social knowledge.

This study provides a case study that focuses on local attachment to place and how this affects local effectiveness and rights in conservation—a needed contribution to the ecological literature on community and conservation. While several studies have examined conservation from the biological/scientific side of the two-way street (Charnley 1997; Homewood and Brockington 1999; Caro *et al* 1998; Newmark 1996; Pelkey *et al* 2000; Mwalyosi 1991; Newmark, Boshe, Sariko, and Makumbule 1996; Newmark, Manyanza, Gamassa, and Sariko 1994; Redford and Sanderson 2000), and have addressed structural barriers to successful community conservation (Alpert 1996; Newmark and Hough 2000; Songorwa 1999; Stocking and Perkin 1992; Chicchón 2000) and even documented community sentiment about conservation (Schwartzman *et al* 2000; Newmark, Leonard, Sariko and Gamassa 1993; Neumann 1998; Harcourt, Pennington and Weber 1986), there is a lack of studies that examine how community residents’ attachment to a place affects sociological resources that impact conservation of that place (but see Neumann 1998 for an examination of how different perspectives on beauty and nature affect local/Park interactions). This study will contribute to understanding the connections between place attachment and community conservation by:

- 1) Integrating data about local opinions and perceptions of the conservation situation on Mount Kilimanjaro with data on local conceptions of place, community attachment, and their relationship to Kilimanjaro.
- 2) Based on this integration, identifying important social and cultural costs of the top-down protective strategy adopted on Kilimanjaro.

I will address three specific research questions in this research:

- 1) What are the social and cultural factors that influence local people's (the Chagga's) connection to their place—their village and homes?
- 2) How do local people (the Chagga) feel about official protection and management of the mountain?
- 3) What are the social and cultural costs in relation to conservation of the current exclusionary protective management style?

By examining local people's perceptions of and relationships with the land on Mount Kilimanjaro, their attitudes and actions in relation to formalized protective strategies on the mountain can be better understood. In addition, the effects of resource management plans and protective strategies on both the communities and the ecology of a specific place can be framed in a more comprehensive way, better reflecting the complexities that exist there. From this starting point locals are seen not just as consumers but as integral parts of the environment with the potential for responsibility and care for the place where they live—their place. Seen as a part of the place, versus its antipathy, locals may be factored into potential conservation solutions. Thus, despite a serious lack of resources for working with the local communities, current confrontation and misunderstandings between KINAPA and the surrounding communities could be

reduced by reframing the assumptions about place and the importance of the human element in its definition and, ultimately, its management.

CHAPTER 3: COMMUNITY ATTACHMENT AND COMMUNITY CONSERVATION

Over the past several decades the concepts of community and conservation have been increasingly linked (see Beltrán 2000). This has been true for Tanzania as well, with a national mandate for state-sponsored conservation projects to work with local communities to improve conservation efforts (TANAPA 1995). In this chapter, I review the literature on community attachment and identify the key variables used in the “systemic model”—a widely-accepted western model used to measure community attachment. Additionally, I review and discuss previous studies on conservation attitudes of local residents on Kilimanjaro as well as locals’ perceptions of Community Conservation Services in Tanzania and on the mountain. I conclude with a discussion of other concepts and issues generally neglected by western models.

The Systemic Model of Community Attachment

By the late 1970s, community theorists in the United States and Britain had all but abandoned the linear development model of community attachment first made popular by the Chicago School theorists Park and Burgess (1921) and Wirth (1938). This model envisioned community and place attachment as a function of size, density, and heterogeneity of a local population. Introduced in the late 1960s, the systemic model (see Janowitz 1967; Kasarda and Janowitz 1978), saw community attachment as a function of a person’s length of residence, age, occupation, and acquaintances—these were the most important influences on community attachment, not size, density and heterogeneity of the local population. Numerous comparisons across the two competing models have

consistently shown the systemic model to be superior. Consequently, the systemic model has become the orthodox model for predicting community attachment in western, capitalist societies. An impressive genealogy of research findings has supported the basic arguments which under gird the systemic model—community attachment is primarily affected by length of residence (Gieryn 2000; Beckley 1998; Herting, Grusky, and VanRompaly 1997; Elder, King and Conger 1996; Sofranko and Fliegel 1984; Bach and Smith 1975), with position in the social structure (Fried 1984; Fernández and Dillman 1979) and stage in the life cycle (Beckley 1998; Sofranko and Fliegel 1984; Fernández and Dillman 1979; Deseran 1978; Bach and Smith 1977) also playing important roles. While the systemic model has served as a foundation for many community attachment studies, it does not address *why* individual and/or collective experiences tie people to a specific place. Nor does it address different perspectives that may shape *how* people view their place and their attachment to it.

In an effort to better understand these *hows* and *whys*, some sociologists are reemphasizing the importance of place as a social force, a concept long accepted in geography (see Gieryn 2000; Bell 1997). This emphasis on place as an important factor in understanding community attachment comes after a long theoretical hiatus (see for example Bender 1978, Pahl 1968; Webber 1963; see also Wilkinson 1991 for a very one-sided treatment of place). For Sack (1997) and Gieryn (2000) place, as a concept, encompasses both ecological and social aspects in that the unique human and ecological influences of a specific location must be taken into account. Thus, even though community theorists over the past two decades have explored various components of place and their impacts on community—such as history, belief systems, family

influences, and religious background—experience and personal background were largely ignored but are now gaining more recognition as important factors that influence community attachment and sense of place.

Hummon (1990) asserts that the type of place where one was raised and lives influences their “community ideology,” including how they view themselves and people from other places, and what is important for a good community. Salamon (1985) similarly finds that people’s ideologies affect how they organize and structure their communities and the place where they live. Others have written on the importance of family and household in predicting community attachment (Brown 1993; Freudenburg 1986; McAuley and Nutty 1985; Sofranko and Fliegel 1984; Fried 1982; Fernández and Dillman 1979; Marans and Rogers 1975). Bender (1978) and Ward (1998) also emphasize history and the social context of actions in a specific place in order to understand community and communities. Place provides people with an identity (Gieryn 2000; Basso 1996; Werlen 1993; Abu-Lughod 1968). Place secures traditions (Gieryn 2000; Basso 1996) and thus also acts as a social force (Sack 1997; Basso 1996; Werlen 1993). Such factors are not accounted for by the systemic model.

While the systemic model has been applied extensively in the United States, due to the issues identified above it may not be as effective a model when applied in places with different world views, conceptions of place, and economic and social systems. I anticipate that communities that have a different relationship with the forces of capitalism, individualism, and globalization will consequently manifest those differences in how their members form community and place attachments. As Bahr and Caplow (1991) point out in their studies on *Middletown*, community and community attachment

are multi-dimensional and cannot be predicted *a priori*; they must be understood through empirical evidence—even in one of the most studied communities in the United States.

In order to understand community and place attachment in a place like Tanzania, standardized variables and models of community attachment developed in and applied to western communities may not only be insufficient but inappropriate. The cultural influences of place on local traditions must also be examined. There is no doubt that the traditions and social practices of Chagga communities are being challenged by reduced access to land, tourism, and changing values and perspectives as their homes on the mountain are increasingly drawn into a globalizing world dominated by a western zeit Geist. Thus, in such a context, it is important to examine how place and tradition affect community and how the Chagga are attached to their communities. Such understanding will help illuminate *their* view of and involvement in conservation practices on the mountain—their place, the place where their communities are.

A Brief History of Community and Conservation on Mount Kilimanjaro

While formal conservation management strategies on Mount Kilimanjaro now include communities in their conservation plans, they have simultaneously decreased residents' access to lands under state management, causing confusion, frustration, and even resentment on the part of locals and KINAPA staff. A brief history of the Chagga's interaction with now protected areas on Kilimanjaro will help outline a context for understanding the interactions between Park management and local residents and some of their sources of frustration and resentment. There currently exist three different forms of formal protection/conservation on Mount Kilimanjaro.

1) The half-mile strip (.8 km): A zone established between the more densely populated areas along the southern slopes of the mountain and the forest reserve to help preserve the forest while still allowing some local access (see Figure 5 in Chapter 2).

2) The Forest Reserve: An area that surrounds the entire mountain where wood harvesting and other extractive/harvesting activities are banned. In 2002 there were plans to incorporate this area into the National Park with its established restrictions.

3) The National Park: An area covering the upper-most region of the mountain. It is off-limits except to formal permit holders. Permits are obtained from Park officials.

Historically, the half-mile strip (.8 km) and parts of the Forest Reserve were highly trafficked by the Chagga, who used the resources of the mountain to sustain their families. Today, however, access to these areas must be gained covertly. The Mount Kilimanjaro Community Conservation Service (CCS) was created amidst an on-going struggle between local residents and Park and other officials, all vying for control over the mountain's resources. The time line for management of Kilimanjaro and the establishment of different forms of protection from early German colonial occupation through the present is illustrated in Table 1 below.

Table 1: Timeline for Management of Protected Areas on Kilimanjaro

1904-08	Forest Reserve established and managed by German colonial government; Chagga access to forest limited
1921	Forest Reserve and game reserve established and managed by British colonial government; Chagga access to forest limited
1941	Half-mile strip (.8 km), originally known as the Chagga Local Authority Strip, established and managed by Chagga Council—emphasized forest products for local use and profit; much of the strip had already been exploited by plantations; large re-forestation project undertaken with much success
1962	Management of half-mile strip (.8 km) transferred to district councils—more emphasis on commercial use of forest; less successful than Chagga Council in profits, social relations, and reforestation
1972	Central government takes over management of half-mile strip (.8 km)—emphasis on soil and water conservation; government takes revenues from strip; less reforestation; local resentment builds
1973	Forest Reserve boundaries increased by presidential proclamation
1972-76	Norwegian agency (NORAD) provides funds and training to establish park for tourism
1977	KINAPA officially opened for tourism
1987	District councils again given authority to manage half-mile strip (.8 km) for forest products and watershed protection
1989	KINAPA declared World Heritage Site; all wood harvesting banned in Forest Reserve
1994	Tanzania National Parks service (TANAPA) establishes CCS program—National parks are required to help surrounding communities with park revenues
1995	Government policy declares half-mile strip (.8 km) closed to any extractive uses; KINAPA hires conservation warden and assistant to oversee CCS program
2002	KINAPA given authority over Forest Reserve

(Source: Newmark 1991; KINAPA 1995)

While the timeline presented in Table 1 makes the management process seem distinct and clear to an academic audience, local residents have been expected to know of and react to these changes given only minimal information, if any at all.

In attempting to implement new plans, KINAPA and CCS have discovered that achieving conservation by working with local communities is very complicated.

Worldwide, community-based conservation approaches have faced many obstacles and often severe criticism. Both conservation and community development are complex enterprises with limited measurable success in either on its own. Attempting to combine the two is fraught with difficulty.

Understanding Models of Community and Conservation on Mount Kilimanjaro

Over the past three decades as more formalized protective strategies have increased around the world, scholars have also begun to examine attitudes of residents' from adjacent communities towards national parks and other protected areas (see for example: Mehta and Kellert 2001; Ite 1996; Newmark *et al* 1993; Newmark 1991; Infield 1988; Leonard 1987; Harcourt *et al.* 1986; Pennington 1983). Such case studies have particularly increased in Africa due to the creation of a number of national parks and protected areas across the continent. Within Tanzania alone, 12 national parks, 17 game reserves, and 1 forest reserve have been created within the last century, with more than 40 percent of Tanzania's surface area under some form of protection (Protected Areas Information Service 2002). While increased tourism on Mount Kilimanjaro has brought economic growth, other impacts of KINAPA have not been so positive for locals (Kaswamila 2002; Marandu 2002). Many local residents, who previously had unlimited access to these areas, are now restricted in terms of land availability, water use, grazing areas, and fodder and grass collection (Newmark 1991). Some residents must also deal with wildlife encroachment which can destroy crops and homes and cause soil erosion

and compaction. However, many studies on local attitudes towards KINAPA show that locals, often substantially impacted by the Park, still desire its existence. For example, Pennington (1983) reported in a survey of 527 Tanzanian secondary school students that 81% of the students were opposed to using the Park land for crops. And, in a survey of 206 local people near the College of African Wildlife Management, Newmark (1991) found that 84% were opposed to the abolishment of Kilimanjaro National Park and Forest Reserve. Likewise, over 71% of 1190 local people surveyed, who were living within 7.45 miles (12 km) of a national park/protected area in Tanzania, stated that they were opposed to abolishing the adjacent protected area (Newmark *et al* 1993).

College of African Wildlife Management Study

A survey of residents in villages bordering KINAPA by the College of African Wildlife Management (Kaswamila 2002) found that a majority of respondents felt that many of the negative issues that exist between KINAPA and local residents had either decreased or improved over the past several years. Table 2 shows nine major issues that the respondents were questioned about, including whether or not these issues had increased, decreased, had no change, or they did not know. I also listed the minority opinion if it was within five to eight percentage points of the majority opinion to illustrate areas where there were contradicting differences across responses.

Table 2: Problems between Kilimanjaro Residents and KINAPA

Issue	Majority perception of issue over past several years	Minority (percent)
Illegal Hunting	Decreased	40% did not know
Agricultural Encroachment	Decreased	
Land Use Conflict	Decreased	
Relationship with Park	Good	37% felt it was moderate
Environmental Awareness	Increased	
Wildfires	Decreased/Improved	
Cattle Grazing	Decreased	33% increased
Deforestation for fuel	Decreased	44% increased
Deforestation for timber	Decreased	

With several of the above responses, a substantial minority response contradicts the majority. For instance, 44 % of the population felt that deforestation for fuel had increased, while 47 % felt it had decreased. Ronald (1997) claims that deforestation for fuel and timber, especially along the half-mile strip (0.8 km) is a serious problem plaguing Kilimanjaro. However, the amount of deforestation most likely varies widely from village to village, depending on each village's geographical location in terms of rainfall, proximity to plantations, and proximity to large population centers. In addition, the exact causes of deforestation have not been definitively established (Newmark 1991; Homewood and Brockington 1999).

When asked what issues they wanted KINAPA to address in their communities, most respondents to the CAWM survey answered in terms of personal benefits to themselves or their villages. Residents of Mbahe (a village also included in my study) gave the following responses about issues that needed to be addressed:

1. Community conservation education
2. Social services projects
3. Improvement of relationship with Park authorities

4. Fuel wood problem
5. Harassment by rangers
6. Land use conflict
7. Community not involved in selection of project
8. Protection of crop damage
9. Protection of corridor between KINAPA and Amboseli National Park

In the overall survey of 14 villages, all of these issues were identified by fifty percent or more of the respondents as needing immediate attention. In many ways, this list contradicts that of problems that residents feel are improving in Table 2 and shows, at the least, that there are several major issues connected with conservation that the villagers themselves see as needing improvement.

Marandu Study

In a study on effects from wildlife in the area (elephants) conducted in 2001 in the Rombo district on Kilimanjaro (Marandu), local residents' responses were mixed and often evenly split in their opinions about the personal costs of conservation and the role of Park management in protecting their communities. Many (32.9%) favored removing elephants from the area. However, the majority (41.5%) was not comfortable with that idea, even though most said they received no personal benefits from the elephants. When asked for recommendations as to what could be done to mitigate the impacts, the responses were similar to residents' responses about problems with KINAPA in general.

1. Improve the relationship with villagers and management of the Park
2. Commit to increasing conservation education throughout the entire district

3. Initiate some type of compensation program for those residents who are impacted by wildlife encroachment
4. Improve the monitoring of elephant behavior and migration patterns

This list is very similar to the responses from the CAWM survey. People want to learn more about conservation, improve their relationship with the park, and develop some type of compensation system for the detrimental effects they personally experience because of the Park. Perhaps most interesting is the call on both lists for more conservation education. People want to learn more about conserving the resources in the Park *and* their place. They do not want to formulate the problem as an either/or. Respondents also want to see some sort of mitigation/compensation program for conflicts that arise because of issues related to the National Park. They see land use conflicts and damage to crops from wildlife encroachment as a result of Park policies that ultimately cost local residents.

Community Conservation Studies

In addition to studies on general attitudes towards protective management in Tanzania and elsewhere, other studies have examined the concept and effectiveness of community conservation programs. These programs are often referred to as Integrated Conservation and Development Programs (ICDPs). Alpert (1996) argues that ICDPs have proven “their worth, within limits” (845), but that long-term biological research is needed to make them work. Barrett and Arcese (1995) question such strategies’ effectiveness in promoting real conservation gains in terms of biological species preservation. Newmark and Hough (2000) also see such conservation approaches as ineffective and call for new models. While Strong (in Speth 2002) also cites a need for new approaches, he argues

that locally-based approaches are necessary if environmental conservation is to be successful on a global scale. Stocking and Perkin (1992) outline the complexity of such approaches and discuss some of the conflicts inherent in these systems. Spinage (1998) accuses advocates of community management of protected areas of exaggerating local knowledge and interest in conservation. He warns that conservation should be based on “ecological criteria and not political ideology” (274). All who observe situations where environmental degradation and community development are involved acknowledge the difficulties and contradictions both in the concepts behind such attempts and the structures designed to identify and carry-out community conservation goals.

The Community Conservation Service on Mount Kilimanjaro

KINAPA and other Tanzanian park management efforts to work with local communities were formalized in the creation of a “Community Conservation Service” (CCS). This organization has the mandate of working with local communities surrounding national parks to improve conservation, including revenue sharing (TANAPA, 2000). Likewise, the CCS is intended to help KINAPA reach its five stated objectives: 1) create awareness in local communities to support preservation of the mountain and its resources; 2) provide opportunities for residents of Tanzania to enjoy Kilimanjaro; 3) assure that local communities derive benefits from the park; 4) work with local communities to help them attain community goals; and 5) heighten visitor and local community awareness of the interrelationship between people and the environment (KINAPA, 1995).

The CAWM surveys (Kaswamila 2002) mentioned above also contained three main questions that targeted the CCS outreach program, referred to as *Ujirani mwema* (good neighbor) in the Kilimanjaro region. These questions focused on:

- 1) whether people had heard of the program
- 2) if they knew its objectives, and
- 3) if they were involved in the selection of the community projects.

In response to question 1 (“Have you ever heard of the *Ujirani mwema* program?”), 81.3% of respondents in all 14 villages had heard of the program, with 100% of the respondents from Mbahe having heard of the program. However, only 61.7% of respondents answered Question 2 (“Do you know the objectives of the *Ujirani mwema* program?”) positively. In Mbahe, 70% of the respondents knew the objectives. Lastly, the CAWM survey showed that all those surveyed in Mbahe (100%) had been involved in the selection of the CCS project in their community. In all of the villages combined, 64.2% of respondents said they had been involved in the selection of the projects. Projects mentioned in Mbahe include the building of a bridge and the building and or renovation of a school.

The CAWM students also asked people what issues they felt needed immediate attention by the CCS. Of the five most mentioned issues, “Community conservation education” was mentioned the most often. Even though the CCS is mandated to teach conservation education, it is only occurring on a limited basis and not in every village. Other issues included social services provisions, improved relations with Park authorities, harassment by rangers, the community being excluded from the selection of a project,

crop damage, protection of the corridor, building bridges, beehives destroyed by rangers, and village leaders not consulted when a village member was arrested.

KINAPA Internal Review

In 1999, KINAPA leaders met to review the CCS. They identified the following strengths and accomplishments:

- Existence of a full-time Community Conservation Warden
- CCS involvement with groups in all four districts surrounding the park
- Completed and on-going community-initiated projects
- Strong integration of CCS with other sections of KINAPA and support of Chief Park Warden
- Possibility of working with other partners
- Reliable transportation available for operations
- Establishment of environmental education programs in schools and for the general public

The strengths noted appear to focus on the simple fact that the CCS has been initiated as a program and also on the basic structure of the program. This is no small accomplishment given the limited resources KINAPA has to work with. The establishment of the CCS marks a turning point for conservation on Mount Kilimanjaro, following a national mandate for all parks in Tanzania to work more closely with, and channel benefits towards, local communities. However, the strengths noted above in the internal review focus strictly on the KINAPA structure, with no attention paid to local residents' strengths or contributions. Speth (2002) and Lachapelle *et al* (2003) claim that such a narrow, institutional view is one of the main barriers to effective conservation

worldwide. The objectives and goals of the institution become the focus rather than the foundational goal of conservation. This leaves little room for local influence and input.

In addition to these strengths, the review also cited several weaknesses of the CCS:

- Inadequate manpower, equipment, and financial resources
- Inadequate communication with other partners
- Lack of specified community contribution to community-initiated projects in some targeted areas
- Inadequate environmental education awareness in some targeted areas
- Lack of work ethic among professionals in particular areas
- Lack of local participation in the preparation of the current General Management Plan
- Inadequate knowledge and skills by park staff on business entrepreneurship (KINAPA, 1999)

Many of the weaknesses coincide with other protective management studies focusing on structural barriers to successful public involvement (see for example: Lachapelle *et al* 2003; Wilson 2003). While Wilson (2003) argues that these structural barriers are usually more responsible for disagreements or misunderstandings with communities than are any cultural or social barriers, they only present a picture of how the institution of the CCS aligns itself with its institutional guidelines. Comments from locals in the various studies cited in this chapter show their perceptions of the failings of the CCS are connected to how they are personally impacted by the program. Certainly the ability of the CCS to meet local expectations, while linked to structural issues, also

involves the broad perceptions of place and humans' role in its definition and maintenance.

Concepts Not Taken into Account in These Models

While many studies examining the link between formal conservation measures and community involvement have been conducted on Mount Kilimanjaro, they tend to be limited to the more objectifiable, external factors of place and conservation management. Other, more subjective forces must be considered as well. These will also have a direct affect on the conservation situation on the mountain. Locals' perceptions of place, values, and social change in the area will affect how they view their community and their attachments to it, and their perceptions of their rights and responsibilities over the place where their communities are. All of these affect conservation efforts in a place. While the importance of local communities to conservation has been increasingly recognized, many of the factors that influence communities and how they conserve their sense of place have not. Thus, in order to better understand how communities influence conservation efforts, it is logically necessary to better understand how locals develop and maintain their sense of community, their sense of place. And this can best be understood by talking to the local residents themselves and broadening the context in which their actions are viewed. Looking at formal and community conservation programs from the foundation of local perspectives can put standard institutional practices in a new framework that may produce new insights on both conservation and culture.

CHAPTER 4: RESEARCH METHODS

Understanding Conservation through Community

This study was designed to examine the conservation situation on Mount Kilimanjaro with a focus on local residents' opinions. By using both quantitative and qualitative techniques across three villages, the study aims to place individual specific comments about local values, culture, and social practices within the broader context of the region and ultimately the debate on local community participation in formal conservation strategies. This design allowed for the collection and analysis of in-depth social and cultural data along with conservation-related data. These data can be compared with results from previous studies. Because conservation on Mount Kilimanjaro must include human communities, with their attendant ecological, social, economic, and political values, more insight into the views and values of residents of these communities is necessary to fully understand the overall conservation situation. My study specifically examines the Chagga's community and place attachment. I examine them using both a western model (the systemic model discussed in Chapter 2) as well as an approach that focuses on less explicit (or less objectifiable) variables. The intention is to better understand local residents' sense of place. After exploring this, I examine how it relates to local sentiments and reaction to formal conservation practices on Mount Kilimanjaro.

Field work was carried out during the summer of 2002 in conjunction with the Brigham Young University Department of Geography (BYU-DG). Undergraduate and graduate students served a vital role in both collecting and formatting the different types of data. The overall project was designed as a research-learning experience for students from BYU and was funded in part by the University Student Mentoring Initiative and

International Study Office.

I lived with my husband and family on Mount Kilimanjaro in the Sembeti area from April through July, 2002 and coordinated the field work efforts. Eight undergraduate and three graduate students from BYU assisted us. The students were from a variety of backgrounds. Two of the undergraduates were Geography majors. The other six came from various backgrounds and majors including biology, elementary education, and various social sciences. The three graduate students were all from Geography. The students helped gather social and ecological data by living in three communities at different elevations on the mountain. Data was collected by: mapping key features of these communities; conducting a survey of randomly selected households in each village; conducting ten in-depth interviews in each village; and collecting participant observations from students and faculty. The research objectives for the larger research project included: 1) mapping the three villages including all households; 2) gathering social data on the communities with a focus on their views and expectations of the park and its management, indicators of community satisfaction and attachment, and how environmental and social changes are connected; and 3) developing a geographic information system (GIS) using remotely sensed ecological data, *in situ* cartographic data, and geo-referenced social data. From this larger body of data, I focus on the second objective, drawing from all available data.

Data Collection

Due to the nature of the research questions, I used both qualitative and quantitative techniques in this study. The quantitative techniques—a household survey and mapping surveyed villages and households—provide broad, summary data that can be analyzed statistically to document trends, anomalies, and groupings. These data were used, in turn, to select individuals for in-depth interviews. The interviews focused on the relationship between traditions, families, and ties to place; issues that would illuminate and extend information gained through surveys and participant observations. The intent of the interviews was to:

provide insights based on local concerns and subject experiences, views, and perceptions to the analysis of wider patterns of response and behavior. Qualitative methods are able to reveal issues and meanings undiscovered in quantitative designs and begin to identify the importance of local context to, reaction to, and interpretation of [the subject matter] (Dyck 1999: 246).

The combination of techniques from different disciplines and paradigms is aimed at increasing understanding about place and community by looking at the research problem from multiple viewpoints (Bahr 1994; Durrant 2001). Emerson (1988) advocates using multiple methods to provide rich detail that prevents respondent duplicity and observer bias.

Site Selection

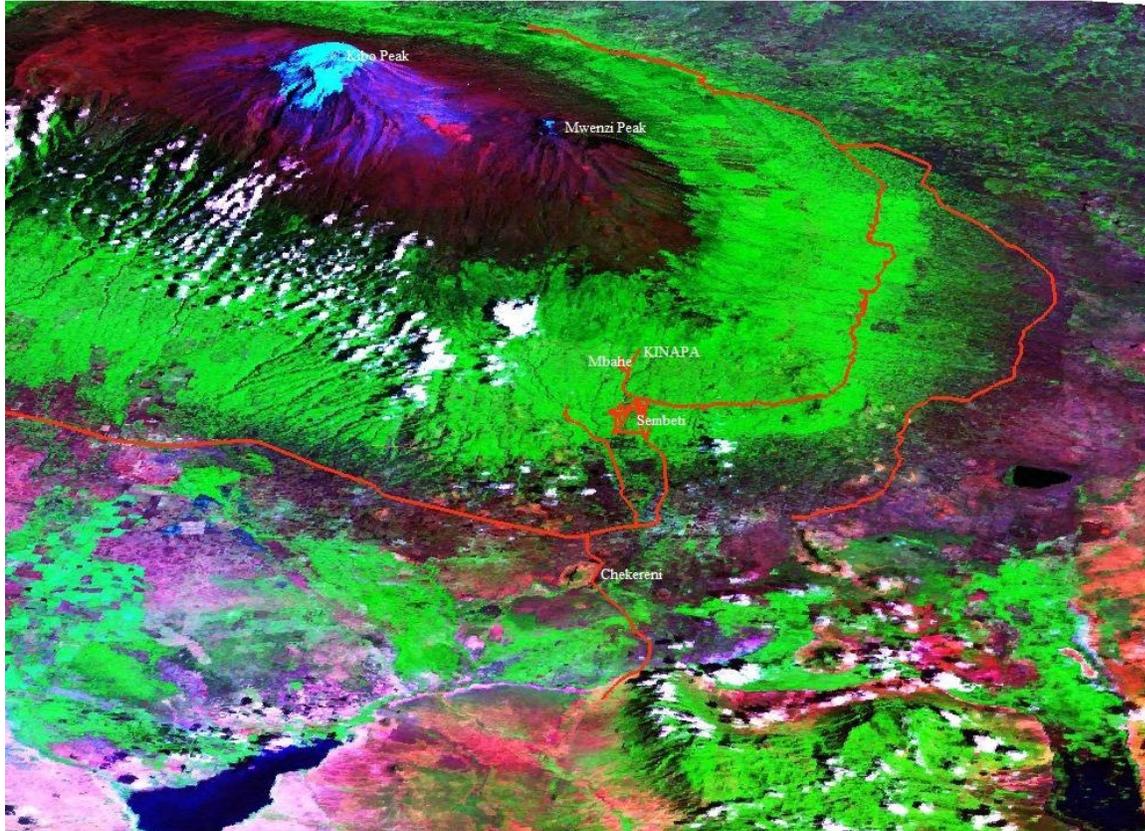
The Chagga people are descendants of various Bantu agricultural tribes. They have lived and worked on Mount Kilimanjaro for at least the past 250 years (Gutmann

1926; Dundas 1924). Kilimanjaro is noted for its fertile, volcanic soils (Newmark 1991), and the mountain is vital to the well-being of the entire country both for water and agricultural products (Newmark 1991; Grove 1993; Gillingham 1999). There are approximately 900 persons per square kilometer in this region, with an average *kihamba* (homestead) size of 0.2 hectares (Gillingham 1999). The Chagga are also noted for an extensive system of irrigation, using furrows that have been kept up over centuries (Grove 1993; Gillingham 1999).

Three villages were selected based on their location in three different farming zones on the mountain—low (500-700 meters), mid (700-1400 meters), or high (1400-2000 meters) (O’Kting’ati and Kessy, in Newmark 1991)—as well as differing levels of exposure to the pressures of Kilimanjaro National Park (KINAPA), commercial farming, and population growth. All three villages are adjacent to one of the few paved roads in the region that accesses KINAPA; all three villages also use the same water sources.

Each village has its own distinct climate and community, and together these villages represent a significant cross section of life on Mount Kilimanjaro. Students facilitated coverage of this large transect by getting to know intimately the physical and social characteristics of each village. From low to high, the villages are **Chekereni** at about 700 meters, **Sembeti** at about 1400 meters, and **Mbahe**, adjacent to the KINAPA boundary, at about 1800 meters (see Figure 6).

Figure 6: Three Study Villages on Mount Kilimanjaro



Annual rainfall in Chekereni (see Figure 7) is a fraction of that in Sembeti and Mbahe. However, the soil of the savannah is fertile, and irrigation has made it possible for the people to farm for at least part of the year. All water for irrigation comes from the mountain, which ties the people of Chekereni inextricably to those living higher on Kilimanjaro. Few, if any, rely on tourism or KINAPA for their livelihood.

Figure 7: Chekereni



The tropical climate of Sembeti (see Figure 8) is a stark contrast to the savannah of Chekereni. Despite a significant number of residents who rely on tourism for their income, like Chekereni and Mbahe further up, the majority of residents rely on farming for their livelihood; and the vast majority of the farms are small and family owned, growing a variety of subsistence crops with very little need for irrigation.

Figure 8: Sembeti



Mbahe (see Figure 9) is high enough that the temperatures are noticeably cooler than those in Chekereni and even Sembeti. They also receive the largest amount of rainfall. Subsistence farming is the predominant method of survival despite having the main entrance to KINAPA at the border of the village. This proximity to the Park has provided a substantial number of tourism-related jobs as well as generated higher expectations of benefiting from the presence of the Park.

Figure 9: Mbahe



Data from these three villages give a broad picture of differences in ecology, climate, and culture in this area, providing a contextual picture of life on Mount Kilimanjaro. The three villages therefore provide broad context data for the area allowing

for an analysis of differences that might be due to elevation, different ecological conditions, and distance from the National Park.

Survey

A survey was administered to 92 households in the three villages for a total of 191 individuals. We defined a household as all people who ate from the same pot (Netting 1993). From each household, using a standardized survey instrument (See Appendix A for a copy of the survey in English and Swahili), we interviewed, as available, the owner and his/her spouse, a male child and female child over 18 years old, and any grandparents present. We also interviewed one other person selected from any house-help or other unrelated people eating from the same pot.

We first mapped all households in each village (because Mbahe was so large, we mapped out all households in the upper half of the village) using handheld GPS units. Houses identified for surveys were randomly selected from all households in each village. Twenty-five households were selected randomly from each village. However, we initially had intended to survey all households in each village. We began surveying in Sembeti and Mbahe. However, the surveys took much longer than we had expected, and we decided to move to a random sample technique. Because we wanted to increase the sample size to provide more data for comparison, we decided to include the households we had already surveyed in the final sample even though they were not randomly selected. Since we had not selected these households based on any criteria, we did not feel they would invalidate the random nature of the sample. In Sembeti (mid-elevation), in addition to the 25 randomly selected households, 11 others were also surveyed for a total of 80 individuals. In Mbahe (the highest elevation), in addition to the 25 randomly

selected households, 6 others were included for a total of 62 individuals. We surveyed Chekereni after making the decision to use a random sample, so all 25 households in Chekereni are from this sample for a total of 49 individuals.

The surveys were conducted using translators from the area. Unfortunately we were unable to find women who could act as translators for the surveys. While, there were several women with acceptable English skills, the time commitment was often too difficult for them to balance between work or young children. We did find that a woman translator for the individual interviews with the grandmothers made a difference in the depth and quality of answers the grandmothers were willing to give. None of the translators were from the village where they conducted surveys. This helped avoid embarrassment and minimized potential bias in responses on questionnaires due to acquaintance with the interviewer. There were, however, a few instances where the interviewers knew the respondents. The survey was created in English then translated into Swahili by one translator and then checked for accuracy by another. In administering the survey, translators would read the question to the respondent in Swahili, the respondent would then answer in Swahili, and the translator would translate the answer into English for the student who would then write the answer down in English.

Purpose: The survey was intended to give a broad picture of locals' views on conservation, place, connection to their village, land access, and livelihood options. It provides large-scale, surface data that shows general trends that can be compared with specific viewpoints and opinions identified in smaller-scale, more in-depth data from interviews.

Individual Interviews

In addition to the surveys, in-depth interviews were conducted with 3 grandmothers from each village, with an additional grandmother in Sembeti who we used as an initial test interview. Through field observations and preliminary survey results, it was apparent that there were a large number of grandparents in the area who were caring for their grandchildren. Upon further investigation, I was informed that this was a Chagga tradition, one that has been practiced for generations. I designed the grandmother interviews to access the knowledge these grandmothers would have of local traditions and values, and also to elicit stories and experiences about the grandmothers, their communities, and changes over time to their place on the mountain. Because the interview questions dealt with their grandchildren and how ideas about place and connection related to them, many of the grandmothers were very open to the interviews.

The grandmothers were selected through survey results and student observations. I specifically wanted grandmothers who were caring for one or more grandchildren on a full-time basis, according to the Chagga tradition. I selected this group for interviews because:

1) their participation in a long-standing Chagga tradition led me to believe they valued Chagga traditions and would have insight into how these traditions affect them, their children and grandchildren, and their communities.

2) although their age and social standing may make them more prone to nostalgia, these women have valuable knowledge gained through experience. They have seen life in the Kilimanjaro region over several generations and would therefore be some of the most qualified to comment on changes in local Chagga culture and values.

3) I theorized that the role of raising multiple generations on their home plot would give these women a strong opinion about the place where they live and the people they live around.

A woman translator worked with me for all of the interviews. She was trained in the interview questions and the general issues that I hoped to learn from the interviews. As an example of the difference a woman translator made, one grandmother, when asked to participate in the survey by a male translator, responded that she could not understand Swahili. She only spoke Chagga. The male translator spoke some limited Chagga and struggled for over two hours to ask the survey questions to the grandmother in Chagga. I warned the female translator when we returned to interview this grandmother that the interview would have to be in Chagga, which she spoke fluently. However, the grandmother gave the entire interview in fluent Swahili, never once mentioning that she could only speak Chagga.

The interview questions were loose and the interviews were kept flexible to pursue interesting issues and probe for experiences and opinions. The translator asked the interview questions in Swahili. My grasp of Swahili is sufficient enough that she only translated general answers for me during the interviews to keep interruptions to a minimum. The interviews were tape-recorded and a male translator translated them into English on cassette tapes. The interviews were transcribed from the English tapes and then checked against my original interview notes for accuracy. Three interviews were re-translated by a Swahili speaker at BYU to check for accuracy.

Purpose: The interviews provide vital, in-depth, personal views about traditions, family, and community and how these are related to place. Responses are less structured

by my own perception of the situation than the more formal household survey. In addition, the interviews allowed the grandmothers to talk freely about an issue that was important to them. This was in contrast to the survey interviews where people seemed to feel confused at times as to why we were asking them about certain things. They also appeared to be nervous, as if they were trying to provide the “right” answer for a test. The interviews were much more relaxed, personal, and relevant for the women we talked with. They told us stories, and many of them elaborated on the questions without needing encouragement. Thus, the interviews provide data relevant to social and cultural practices in the Kilimanjaro region, as well as the grandmothers’ perspectives on how these issues have changed over time. (A copy of the Interview Schedule can be found in Appendix B.)

Participant Observation

Students lived with families in the three villages for approximately three months. All students kept a daily field journal where they recorded relevant experiences, observations, and thoughts. The program director, Dr. Jeffrey Durrant, and I also kept a journal.

Purpose: Understanding of the research situation is pivotal both for data collection and analysis. Observation compliments interviews and surveys by allowing the researcher to compare what she is told with what can be seen. We also benefited greatly from having several different observers in all three research sites. We were able to get a large body of data in a relatively short period of time. Although all observers were similar in that they were white, outsiders with western upbringing and values, I could compare the observations between two or three students in each village as well as with my own, since I spent time in all three villages as well.

Ethnographies

All students were required to complete 2 ethnographies about people in their villages. These ethnographies varied in quality and length, with most students using a translator to conduct at least one interview with the subject. The ethnographies were also coded using the N6 qualitative data software package.

Purpose: These more in-depth studies of people provided additional insight on specific issues of interest. Although they were conducted by white, western outsiders, there were many different individuals who were interviewed, and the interviews provided some very interesting and useful information.

Maps

All three villages were mapped using a GPS unit to mark major roads, rivers, and other landmarks as well as all households in each village.

Purpose: The maps allowed us to select a random sample and provide useful, visual data on each village. While not used in this way for this study, the maps will allow future geo-referencing to connect qualitative data with satellite imagery and other ecological data.

Survey Study Variables

Community Attachment

Originating with Park and Burgess (1921, 1925), and others (see for example Thomas, 1967) the *systemic model* of community attachment identifies length of residence, social class and stage in the life cycle as the most important determinants of community attachment. Since Kasarda and Janowitz's landmark study (1974), this model

has been widely accepted over the linear-development model which claims that size of community, population density and heterogeneity are the most important predictors of attachment (Wirth 1938). I used fourteen variables from the systemic model to fashion questions for my study on Mount Kilimanjaro. I did this, however, harboring doubts that the model would translate neatly across western to non-western cultures like those on Mount Kilimanjaro in Tanzania. I also obtained general demographic information such as age and sex through the survey. Table 3 outlines specific questions from the survey and their relationship to variables from the systemic model.

Table 3: Survey Community Attachment Variables

Survey questions	Independent Variables from systemic model
Where were you born?	Length of residence
Where were you raised? (First 12 years)	
How many years have you lived in this village?	
House Structure(s): 1=mud; 2=mud/wood; 3=wood; 4=brick/plaster; 4.5=mud/brick/plaster; 5=wood/concrete; 6=brick/concrete/plaster; 7=concrete	Social class
How much education have you completed? [none] [adult education] [primary I-IV] [primary V-VII] [secondary I-IV] [secondary V-VII] [other (specify)]	
How much land does/did your father own?	
Marital status	
Age	Life-cycle
How are you related to the head of this household (specify if owner)?	
Number of people in household for most of the year, (include age)	
How many of the adults in this village would you say that you know by name? [All] [Most] [About half] [Less than half] [Very few]	Number of friends
On a scale of 1 to 5, with 1 being very bad and 5 being very good, how well do you feel that you fit into your village?	
Approximately how many of your adult relatives, including those of your spouse, live in this village?	Number of relatives

Using these indicators, I created a quantitative model to examine community attachment. With this model, I wanted to explore what factors may contribute to community attachment and the model’s applicability to non-western contexts like the Chagga.

Community and Conservation

In addition to the above variables measuring community attachment, nine questions measuring conservation attitudes were included for comparability (see Table 4). Five of the nine questions were drawn from a survey conducted by the College of African Wildlife Management (CAWM; Kaswamila 2002) and Newmark (1991). The remaining four were devised by the BYU research team (Durrant 2002).

Table 4: Conservation Questions

How would you feel if KNPFR were abolished? Why?	Newmark 1991
Have you ever heard of the Kilimanjaro National Park “Ujirani mwema” outreach program?	Kaswamila 2002
Do you know its main objectives? If yes, mention the program’s objectives.	Kaswamila 2002
Has there ever been a “Ujirani mwema” project in your village? When? What was it?	Kaswamila 2002
On a scale from 1 to 5, with 1 being very unimportant and 5 being very important, how important do you think it is to have formal/government protection for wildlife and nature, for example in national parks?	Durrant 2002 survey
Why do you think this way about formal protection of wildlife and nature? [What specific things do they like or dislike about formal/government protection?]	Durrant 2002 survey
What do you think is the purpose of KNPFR?	Durrant 2002 survey
Who benefits from KNPFR?	Durrant 2002 survey
What is your opinion of the “Ujirani mwema” program? (PROBE if they have suggestions or experiences)	Durrant 2002 survey

Our additional questions were included to improve our understanding about local attitudes towards formal protection and who it does or does not benefit.

Data Analysis

Data analysis occurred across several stages. First, all data—both qualitative and quantitative—had to be prepared for analysis. This involved transcription of interviews, data entry of the survey, and compiling all student field journals and ethnographies in an electronic format. Several students from the field experience helped with this stage. The second stage of analysis proceeded separately for the survey data and the interview and student-produced data.

Statistical Analysis

Data from the survey was separated into quantitative and short answer sections. The quantitative data was further refined, creating numeric equivalents and categories for data not in numeric format. Some of the short answers were also categorized to allow statistical analysis. Several different regressions were run using SPSS with little success finding significant results. In addition, frequencies and cross tabs were run for several survey questions that provided added insights to specific topics. For example, it was interesting to look at the number of people willing to sell their land, allow daughters to inherit land, or felt the National Park should benefit them personally. These outcomes are discussed in Chapters 5 and 6.

Qualitative Analysis

With the large amount of qualitative data, it was important to be systematic. With the assistance of three students who had participated in the field work, the transcribed

interviews, student field journals, and student ethnographies were imported into QSR's N6 qualitative data analysis program. In addition, I imported relevant literature notes, and personal papers. I developed a set of categories as I read through the data that helped me group relevant information together. After this initial pass, I worked with the information grouped into the initial categories to develop more specific, in-depth categories that were relevant to issues for this study. Looking at relevant literature along with field data helped me connect concepts and bring ideas together that might not have occurred otherwise. For example, while coding an article with a decidedly ecological focus, I came across a passage that strongly supported another idea I was developing about cultural values. Consequently, I was able to link this passage with data I had already coded under a more culturally focused category.

Obstacles: The Two “Foreigns”: Using Foreign Methods in Foreign Places

While conducting the field research, I consistently wished that I spoke fluent Swahili. Although I feel I made great progress and could converse easily about surface subjects by the end of our stay, I was not able to fully grasp or communicate in-depth information about the research topics. This would have greatly aided my research and helped me gain even better insight into people's views and insights about the conservation situation on Mount Kilimanjaro. The woman translator who helped me with the interviews did a great job putting the women at ease and pursuing the topics I was interested in. She was a personal friend with very proficient English and an open, outgoing personality. However, in going over the translations of the interviews, there

were a few spots where I would have liked a deeper understanding of the original Swahili to assure myself that I was grasping the intricacies correctly.

Another obstacle relates to the overarching theme of this study—the way we as Westerners understand the world is often very different from those not from the West. This was apparent with the survey instrument itself and with some of the specific questions we asked through it. This obstacle led me, however, to look more in depth at the issue of place and community understandings. Although we in the West are used to being surveyed on just about everything, surveys are far less common in rural Tanzania. The country had conducted a census the year before we were there, and this may have helped people accept the idea of strangers asking them questions. Generally, however, people were very curious about why we wanted to ask them these questions and what we were going to do with the information they gave us. In one of the grandmother interviews, a man even warned his wife not to talk to us and tell us personal information because the tape recorder we were using was transmitting her answers to a satellite in the sky. We also had a few people who were offended by the questions we asked, especially those connected with land ownership and inheritance. One man left the room angrily, saying such things were none of our business. He later returned, but I realized how sensitive some of our questions were. Some of this sensitivity arose from how I as a Westerner conceived of place. To most Westerners, myself included, place is primarily a commodity; something to be bought and sold. Even though we changed the wording on questions about selling land after the first two interviews, it was hard to overcome this conception of land as property.

Research Questions

Based on the literature reviewed in the preceding chapters, three research questions guided my field work and analysis of the data; these questions center round potentially different conceptions of place and community.

- 1) What are the social and cultural factors that influence local people's (the Chagga's) connection to their place—their village and homes?
- 2) How do local people (the Chagga) feel about official protection and management of the mountain?
- 3) What are the social and cultural costs in relation to conservation of the current exclusionary protective management style?

Building off of these questions, the data gathered will be useful in understanding how the Chagga on Mount Kilimanjaro perceive their communities and place, the formal protection of the upper portion of the mountain, and their involvement in and responsibility for it.

CHAPTER 5: ATTACHMENT TO PLACE THROUGH TRADITION, FAMILY AND DEPENDENCE ON THE LAND

One could envision any number of reasons why someone would be attached to their community. The systemic model attempts to identify sociological characteristics that are supposedly universal to community attachment. However, when we asked people on Kilimanjaro to express their reasons for attachment, their words put a more human-face on the issue. When given the opportunity, in an open-ended question on the survey, respondents expressed their attachment to the community and place with quotes such as these:

I have land, friends, family, food. Why should I leave?

It's my homeland.

Me? Where would I go?

All the generations are here.

I was born here. I don't think I can start a new life in another place.

It is a good place. You can run a business here and there are elders here. I will conduct business here so I can look after my old grandfather.

You can farm here and do livestock activities.

Because traditionally when you have land and you bury your people there you are not allowed to leave a place.

These responses are typical of the respondents in general, regardless of which community they lived in. Most responses involved elements of family, long-term habits, and livelihoods. Although short answers such as these can't express the complexity of the

decision to stay or relocate, they do convey some of the ways that the people we surveyed think about their home. While Kilimanjaro may be a mystical, exotic place to the thousands of tourists who visit it each year, to the people who live on it, being able to support their families with food, shelter, and loyalty are the most important assets of the mountain.

Influences on Attachment to Place

The systemic model of community attachment theorizes that length of residence is the most important determinant of community attachment, with age, social status and number of acquaintances also playing important roles. Table 5 summarizes the variables associated with the systemic model and their frequencies from our survey.

Table 5: Community Attachment from Three Villages on Kilimanjaro

Independent Variables from systemic model	Survey questions	Survey Results in Percentages
Length of residence	Where were you born?	Born there = 56.3% Not born there = 43.7%
	Where were you raised? (First 12 years)	Raised there = 57 % Not raised there = 43 %
	How many years have you lived in this village?	0-10 = 25.5 % 11-20 = 19.2 % 21-30 = 16.2 % 31 + = 39.2 %
Social class	House Structure	Mud = 19.1% Mud/wood = 3.2% Wood = 19.7% Brick/plaster = 8.0% Mud/brick/plaster = 1.6% Wood/concrete = 5.9% Brick/concrete/plaster = 4.8% Concrete = 37.8%
	How much education have you completed?	None = 12.1% Adult education = 2.1% Primary I-IV = 14.2% Primary V-VII = 55.8% Secondary I-IV = 11.6% Secondary V-VII = 4.2%
	How much land does/did your father own?	No land = 1.2% 0.1-0.5 acres = 7.5% 0.6-2 acres = 34.8% 2-5 acres = 24.2% 5+ acres = 32.3%
	What is your occupation (separated into agriculture vs. non-agriculture)	Agricultural = 63 % Non-agricultural = 37 %
	Marital status:	Single = 18.6% Married, lives w/spouse = 61.7% Married, spouse elsewhere = 6.4% Divorced/separated = 2.1% Widowed = 11.2%
	Sex	Male = 42 % Female = 58 %

Independent Variables from systemic model	Survey questions	Survey Results in Percentages
Life-cycle	Age	18-30 = 34 % 31-40 = 18.3 % 41-50 = 22.7 % 51-60 = 6.3 % 61-70 = 6.9 % 71-80 = 6.4 % 81-90 = 3.7 % 91 + = 1.0 %
	How are you related to the head of this household?	Head = 34.7% Not head = 65.3%
	Number of people in household for most of the year	Mean = 6.36 people/house
Number of friends	How many of the adults in this village would you say that you know by name?	Very few = 33.5 % Less than half = 7.1 % About half = 12.6 % Most = 44.5 % All = 2.2 %
	On a scale of 1 to 5, with 1 being very bad and 5 being very good, how well do you feel that you fit into your village?	Very bad 1 = 2 % 2 = 1 % 3 = 28 % 4 = 39 % Very good 5 = 29 %
Number of relatives	Approximately how many of your adult relatives, including those of your spouse, live in this village?	0 = 9.7 % 1-10 = 56 % 11-20 = 22 % 21-30 = 4.8 % 31 + = 7.4 %
Dependent Variable	If you had the means to move, would you stay in your village or move?	Stay = 78% Move = 22 %

While a large range of people representing different ages, social and financial backgrounds responded to the survey as indicated in Table 5, the systemic model indicators did not follow the usual patterns associated with community attachment. While length of residence has been identified by several studies as the most significant predictor of community attachment, age was a more significant predictor for the three villages on Kilimanjaro. Length of residence was highly correlated with age in the three villages, suggesting that people do not move much as they get older. Regressions were run using both age and length of residence, just age, and just length of residence. The model using just age gave the best results, and age was a significant predictor of a person's plans to stay or move from their village. Both the high correlation (.776) and the fact that age was much more significant than length of residence (.096 vs. .020), show that there are differences in levels of mobility and the ways people are attached to their communities in the villages we surveyed compared with U.S. models. People in the villages we surveyed are much less likely to move numerous times, making age more of a deciding factor than how long they have lived somewhere. The regression using age is shown in Table 6 below.

Table 6: Stay or Move Regression

Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	106.851(a)	.250	.380

a Estimation terminated at iteration number 8 because parameter estimates changed by less than .001.

Variables in the Equation

	B	S.E.	Wald	df	Sig.	Exp(B)
SEX	-.707	.560	1.594	1	.207	.493
AGRICULTURE VS. NONAGRICULTURE	-.133	.614	.047	1	.828	.875
FATHERLAND	-.014	.037	.148	1	.700	.986
RELATIVES IN VILL	.002	.006	.151	1	.698	1.002
ADULTS KNOWN BY NAME	-.120	.215	.312	1	.576	.887
HOW WELL FIT IN VILL	-.478	.308	2.403	1	.121	.620
PLOT SIZE	-.269	.201	1.797	1	.180	.764
PEOPLE IN HOUSE	-.035	.095	.137	1	.711	.965
HOUSE TYPE 3 (MOST EXPENSIVE)			7.048	2	.029	
HOUSE TYPE 3 (1 LEAST EXPENSIVE)	-1.468	.582	6.361	1	.012	.230
HOUSE TYPE 3 (2 MID-EXPENSIVE)	-1.192	.947	1.585	1	.208	.304
MARITAL (WIDOWED)			10.332	4	.035	
MARITAL (1 SINGLE)	-1.313	1.193	1.211	1	.271	.269
MARITAL (2 MARRIED/LIVING W/SPOUSE)	-2.591	.949	7.448	1	.006	.075
MARITAL (3 MARRIED/SPOUSE ELSEWHERE)	-2.361	1.263	3.496	1	.062	.094
MARITAL (4 DIVORCED/SEPARATED)	-1.339	1.496	.801	1	.371	.262
AGE	-.058	.025	5.422	1	.020	.944
Constant	6.879	2.425	8.046	1	.005	971.540

A high percentage of respondents said they planned to remain in their village, even if they had the financial means to move away. Only 40 people (21.6%) said they would move from their village if they had the means. The variable for education had to be dropped from the model because the model would not compute with this variable.

However, since there were other variables to account for the concept of social class, this

was not felt to be a significant problem. The significant variables in this model are interesting. Those in the least expensive type of house are more likely to plan to stay in their village than those who live in the most expensive type. While I do not have data to support this assertion, it would be interesting to explore whether those who make their living from agriculture do not tend to live in less expensive houses. In addition, married people, whether living with or apart from their spouse, are more likely to plan to stay put. This may again be related to agriculture because wives are often left to take care of the family shamba while the husband goes to find work in the city. Finally, as people get older, they are more likely to plan on staying in their villages.

Another interesting correlation among the variables in this equation was between those who said they made their living through agriculture and those who felt they fit in with their village (-.157). While this is not a high level of correlation, it does show a relationship between those who work in agriculture and those who feel they fit well in the community. The above regression model does not explain a large amount of the variance, but it does provide some interesting trends to consider. The most important possibility for this study is that age and working with the land are important factors in attaching people to their communities on Mount Kilimanjaro.

As discussed in Chapter 2, a standard quantitative survey may not be the most appropriate way to measure and understand community and place attachment in non-western contexts. The inappropriateness of surveys in non-western settings has been documented by the United Nations Development Programme. Pointing out the weakness of surveys, for example, for understanding women and children's economic contributions, they state: "Typically, simple retrospective questions are asked . . . The

questionnaires leave no room, and the interviewers have no time or instructions for how to handle . . . complex stories” (UNDP 1980: 10). Additionally, in Indonesia, Handayani, Brown and Valdivia (1993) found that surveys were not as effective as participant observation in documenting family labor patterns. Surveys cannot capture the emotional aspects of place-attachment to the same degree in-depth interviews can. Basso (1996) argues that a sense of place is closely connected with culture. Sense of place and community attachment are culturally-based. Thus it stands to reason that a model that measures community attachment in the United States most likely will not fit well for communities with different cultural traditions. In studying community attachment on Mount Kilimanjaro, our survey—though carefully thought-out and based on sound theory—could not adequately account for other, more localistic factors affecting community attachment. The in-depth interviews with local grandmothers combined with participant observations and student ethnographies, however, allowed us to gain knowledge outside our own models and base assumptions revealing other important considerations about people’s attachment to their communities on Mount Kilimanjaro.

The majority of people surveyed felt strong attachments to their place, whether by choice or by destiny. Many seemed to feel they couldn’t move because they were born there and had inherited responsibilities associated with the place. Over 78 % of those surveyed said they wanted to stay in their communities, even if they had the means to move elsewhere. The fact that length of residence, social status, stage in the life-cycle, and number of relatives and acquaintances were not sufficient to explain their attachment underscores the argument that place attachment is both complex and personal (Beckley 2003, Basso 1996).

To better understand these issues of place attachment on Mount Kilimanjaro, I focused the analysis on field observations and notes and most especially the grandmother interviews. The grandmothers who, by tradition, were raising one or more of their grandchildren were, I felt, the best people to tell me more about their culture, traditions, and values of their families and communities, and how these have or have not changed over time. Therefore, in this chapter I further explore place and community attachment of the Chagga through the grandmother interviews, field observations, and student ethnographies, as well as the open-ended questions from the survey. I use quotes from these sources to illustrate their conceptualizations of attachment to place and community. First, however, I lay the groundwork for the interview data by providing more information on various social and ecological changes occurring in the Kilimanjaro region which have impacted the mountain and the culture and traditions of the Chagga people who live there. Many of these changes are related to growth and modernization, and pull at people to abandon their homes and traditions on Kilimanjaro—traditions that connect them to each other and to their homes and land.

Pressures on Place: Population Growth, Environmental Pressures and Globalization

Outside influences associated with globalization have combined with rapid population growth in Tanzania changing the options and expectations of its people. These same influences have also taken a toll on the environmental resources of Kilimanjaro. Water has become increasingly scarce, especially for those at the base of the mountain who depend on what is left after those further up the mountain have used what they need. This is particularly worrisome as several scientific reports have warned that the ice cap

atop Kilimanjaro is shrinking (Gough 2002; Irion 2001; Revkin 2001). No doubt, the rapidly increasing population of this region has had a role in these changes. The resulting land shortage due to the increasingly dense population on the mountain is leading many Chagga to look outside their home villages to make a life for themselves.

Population Growth

Population pressure, both through high birth rates and immigration, has affected the region of Kilimanjaro to the point that it is now the most densely populated area in Tanzania (Fernandes, Oktingati, and Maghembe 2000; Cook and Kerner 1989). Gamassi (1991) estimates that the population in the six districts of the Kilimanjaro region has more than tripled over the last 40 years. Table 7 below shows population density changes from 1967-1988 in the Kilimanjaro region by mountain districts. Villages in our study are in the Moshi Rural district.

Table 7: Population Change in Kilimanjaro Region

District	Area (km ²)	1967	1978	1988	2002
			(people/km ²)		
Moshi Rural	1558	155.4	200.3	219.9	234.9
Hai	1482	77.3	106.4	135.5	123.1
Rombo	2269	51.6	76.0	88.2	170.9

Source: Newmark 1991; Kilimanjaro Census Office

Grove (1993) reports that densities increase as you go up the mountain. As more and more people depend on the land and resources in the area, the Chagga's place, and their

communities have changed. People who have grown-up there often must look elsewhere for other options to create and maintain a livelihood. The 2002 census shows that the growth rate has decreased from 2.1 in 1988 to 1.6 in 2002. This change is attributed to out-migration as well as people having fewer children (Benne 2003).

Increased Environmental Pressures

Mount Kilimanjaro is one of the most important ecological areas in Tanzania. Its rainforest is the primary source of water for agriculture, hydroelectricity, and economic activities from Kilimanjaro to the coast (Newmark 1991). Environmentalists have sounded the alarm about its shrinking glacier, underscoring concerns about regional environmental degradation due to increasing human influences, especially around the Park (Mwalyosi 1991; Newmark 1991; Pelkey *et al* 1999; Caro *et al* 1998; Newmark 1996). Some of the main concerns include decreasing water supply, soil degradation, and loss of vegetation and ground cover.

Soil degradation and loss of vegetation and ground cover are logical consequences of the growing population in the area, as well as the increase in commercial farming. Breaking from tradition, fields are no longer allowed to lie fallow, being pushed to their productive limits from year-to-year. Commercial agriculture has over-exploited the soils through mono-cropping and replaced smaller family plots with large multiple crops (Newmark 1991; Grove 1993)¹. Additional factors that have contributed to environmental changes include such world-wide phenomena as increased urbanization

¹ Precise quantitative data is not available to substantiate these changes. I base my assertions on Newmark's (1991) comprehensive study of the Kilimanjaro region; Grove's (1993) study; and my own observations.

and its association with increased solid wastes, environmental degradation, global warming, and pollution.

Like other areas with growing populations, water on Kilimanjaro is one of the most vital resources. Many people on the mountain expressed that there has been a relative draught in the Kilimanjaro region over the past several years. However, Newmark (1991) reports that mean annual rainfall has shown no signs of either increase or decrease since records have been kept starting in the 1950s. However, demands on the water supply have greatly increased due to population growth, and especially for those lower on the mountain the lack of water has become a serious issue. A man in Chekereni told a student how his farm has suffered from the lack of water.

Sometimes I enjoy farming, but it is not very good because we don't have enough rains. We fail for many years. The crops have failed for many years, and we use water irrigation, and it is not enough. That is why I haven't enjoyed farming for many years (Borchert 2002).

In the three villages, each located at different elevations on the mountain, survey respondents identified how they obtain water as well as whether they are able to get enough water. These figures are reported in **Table 8**. The lowest elevation village—Chekereni—is reported first, then the next highest—Sembeti—then the highest—Mbahe.

Table 8: Water Sources for Three Villages

<i>Village Name</i>	<i>Rain</i>	<i>Irrigation</i>	<i>Rivers/ Streams</i>	<i>Well</i>	<i>Piped</i>	<i>Percentage Majority</i>	<i>Percentage w/enough water</i>
Chekereni	2	12	24	0	0	63% - Rivers	53%
Sembeti	51	1	1	2	0	93% - Rain	78%
Mbahe	35	1	9	0	3	73% - Rain	100%

Over the past several years, people report that the weather has been dryer even at the higher elevations. A grandmother from Mbahe commented,

In previous years it rained a lot. The rain was more than enough at that time. But now it only rains in the areas very close to Mount Kilimanjaro, but for those very far from Mount Kilimanjaro, the rain is very scarce.

While broad environmental concerns are usually placed in the context of formal conservation scenarios, changes such as these in rainfall also affect the people and their communities on Mount Kilimanjaro.

Globalization

The people of Kilimanjaro are increasingly coming into contact with the effects of globalization through increased tourism and reliance on a cash economy. While the effects of globalization are complex, multi-faceted, and sometimes difficult to pinpoint, fairly obvious signs include tourists and the ancillary industry they bring with them. Numerous souvenir shops and hotels employ local workers for a few dollars a day to serve foreigners paying hundreds of dollars a day for the chance to see or climb the mountain. Although there are no McDonalds or WalMarts, yet, you can buy items from

around the world if willing to pay enough. And in Moshi, the biggest city in the region at the base of the mountain, the pollution, noise, and traffic attest to outside influence.

These changes are beginning to pull people from their home villages towards the emerging urban centers where there are more chances for employment. While these are only some of the more external manifestations of globalization, local Kilimanjaro residents, especially the grandmothers, are not oblivious to the more subtle effects of globalization on their families, communities and shared values. This can be seen in many of their comments outlined below.

Anchors to Place: Chagga Traditions that Bind People to Place

Amongst the changing social and environmental conditions, there are many long-standing traditions practiced in the Kilimanjaro region and throughout Tanzania that continue to connect people to the place where they or their parents or grandparents grew up. These traditions are based on the very non-western notion that a person belongs to a place rather than a place belonging to a person. After liberation, Julius Nyerere, president of Tanzania, capitalized on these traditions and based many of his policies on the strong ties people had to their home villages. Indeed, there are numerous traditions that significantly affect how people think of and respond to the place where they and their ancestors come from. I was able to catch periodic glimpses of how these cultural traditions of the Chagga influence people's sense of place and their understandings of their responsibilities and rights in that place. The role of the ethnographer is decidedly that of the outsider trying to understand a culture not of her own (Whyte 1992). She must use her own cultural categories and concepts to make sense of another's reality. The final

product is never completely “accurate” as it must be passed through the ethnographer’s own cultural filters. However, it does reflect a reality—the reality of the ethnographer’s experience of other people’s experiences. It is in this spirit that I present the following Chagga traditions.

Grandmother Tradition

One of the most interesting of these traditions is the practice of grandmothers raising one or more of their grandchildren. In this tradition, the oldest child should name his or her first child after the paternal grandmother or grandfather, and the second child after the maternal grandmother or grandfather. When these children turn two, they are sent to live with their respective grandparents who raise them until they are old enough to attend secondary school. Of the 90 households we surveyed, 16 (5.23%) had children living there whose mothers were absent.

Nearly all of the grandmothers interviewed expressed at some level the importance of raising their grandchildren for keeping the family connected to their place of birth. Many expressed that, although their grandchildren would most likely not be able to inherit the family land, it was still important for them to learn farming, get to know the neighbors, and know what it is like to live on the land of their ancestors. As one grandmother said,

I think that the grandchildren like their home. I don’t think that they can go anywhere else. . . . Here is their home. . . . We are not like the Masai who move here and there. We live at our village home. In general, the Chagga tribe has the custom of staying where they are. They don’t move.

Others didn't express the attachment to place so overtly but saw their role as helping the children learn strong values that might be emphasized less now than they were in the past. How to care for the land and farm animals was frequently mentioned in addition to learning respect for their elders and getting to know and help their neighbors. The grandmothers who were practicing this tradition also saw many practical benefits for themselves. Some commented that caring for their grandchildren provided them with company. This is illustrated in the following quotes:

When I stay with my grandchildren, I feel very warm and very good, and this is because my children have already moved away from this home. I don't have any more children here at home. I stay here with only this [grandchild].

When I miss [my grandchildren] I feel like I'm sick, because I am used to them shouting. They come just to play with me. . . If I maybe travel and go somewhere, I can stay there for two days. But when I remember them I come right back. And if their mother comes to take them, after a certain time I just send a message and tell their mother to send these grandchildren back very soon.

Others identified help with chores and common tasks as a benefit. "I can send [my grandchildren] to take water somewhere for me. I can send them to cook some food for me, and that's why I am very happy to stay with them. Anything I want, I just send them, and they do it. So it's my happiness and also our happiness."

Another common response was sustained connections with family and financial benefits.

At the end of the month, the parents of the children left behind, if they can get enough money, sometimes send some money. But those parents also take care of children who are living with them in town.

When these grandchildren are taken [back] by their parents, especially their fathers, they should remember and have the heart of remembering that they were taken care of by me. So they should also remember back and help me too.

Consequently, raising their grandchildren also acted as a tie between the grandmothers and their children, even if the children had moved from the village. Additionally, many of the parents would send financial help to the grandmothers. Others who could not help financially still felt a social bond with the grandmothers. Thus this tradition ties people to a place and each other through shared experiences and responsibilities—the place becomes “inwrought with affection . . . as a sweet habit of the blood.” (Elliot 1876, 20)

While the practical benefits were important and perhaps fairly objectifiable, the less tangible, but nonetheless equally important, personal values of the grandmothers were frequently mentioned. Several felt that caring for their grandchildren was the socially correct thing to do. In some cases, the grandchildren would help their grandmother have a positive influence on her own children or her community. Other grandmothers mentioned a sense of spiritual fulfillment in raising their grandchildren.

Sometimes I tell God, ‘Why did you give me such a heavy and weighted burden like this? . . . I have already taken care of my own children, and now you are

asking me to take on another burden—these grandsons.’ This was supposed to be my time off—resting—but now I’m getting more tired. What can you do? But I also thank God very much because maybe God has some purpose and some objective for giving me this burden, these grandsons.

Another commonly mentioned theme was that of improved status in the community, thus indicating the importance of the community as a reference point for these women.

If somebody comes to ask for my grandchildren’s help or assistance, I allow them to help people. . . . They sometimes help clean the church. Actually, the grandchildren assist the community.

[One] grandfather had 14 children, 60 grandchildren, and 89 great-grandchildren, and also one great-great-grandchild. Grandchildren are a very, very important thing in Africa. Here with the Chagga and in Africa, it is very good to have children and grandchildren and a great-great- grandchild. It’s a very happy and a very proud thing.

Similar to higher status in the community, grandmothers also commented that it improved their status in their own families as well.

I am living with [my grandchildren] hand in hand, assisting each other. If my grandchildren can complete school, they can find good jobs, maybe find a job there in town. And they can remember their grandmother and maybe send me something. I also believe the others will get married and go to their husbands.

They can remember me and assist me just as I cared for them, and they will come back to greet their grandmother.

Finally, many saw a direct social benefit to their families and community by being able to set an example for these children—an example of social and familial responsibility.

My sons can go for up to three years without seeing their children. In my thoughts, I don't say I am helping my sons care for their children. I take care of them as my sons and as my children, not as my grandchildren . . . I ask [my sons], 'What plan do you have for your sons?' I ask them, 'Don't you know that your sons want to eat, want live and want to go to school?' Then they answer me, 'Mother, do you want us to rob or steal somewhere? If you hear that we are caught and we are in prison, could you be happy?'

No, I am not just taking care of these grandchildren so that their mothers can be free. It is because of the Chagga tradition—that's why I'm staying with these grandchildren. Those who don't like to stay with grandchildren—people think it's bad manners. . . . Not all grandmothers take care of their grandchildren. Some just go to the city to stay with their daughters so that they can get money. They don't want to stay with their grandchildren in the village.

Thus, following the Chagga tradition allows these grandmothers to feel they are helping perpetuate positive values and exerting influence over their communities. As the grandchildren begin to contribute to their communities, it binds both grandmother and

grandchildren to the place where they live through memories, good feelings, and a sense of responsibility.

Land Inheritance

Another tradition that is inextricably connected with family and place is the practice of sons inheriting the family land from their father. Although population and ecological pressures in this region are putting significant strain on this practice, it continues to influence how people conceive of their home place and their connection to it. Although individual households have considerable discretion over how to use the land while they are living on it, in most instances the clan still has ultimate authority over the land, especially with issues of inheritance (Gutman 1926). One family we interviewed was renting a home in another village while they waited for their clan to decide if they could receive the land the husband's father had left to them at his death. They were trying to farm the land while they waited but were not yet allowed to reside there. These practices lead people to conceive of the land as something they belong to and are a part of—a responsibility rather than a commodity.

Just because a child is raised on the land by the grandparents is no guarantee that s/he will inherit the land. Inheritance follows traditional laws, with women almost always excluded from opportunities to obtain land. However, many of the grandmothers talk of the land as being *theirs* and speak actively about their participation in the inheritance process as illustrated in the following quotes:

This shamba [family farm] belongs to my sons, and the land will belong to my sons and their children. We were given this land by our father. And so we will

also distribute this land to my three sons. Everyone will get his own portion. And when they get their own portion then it will belong to them and these grandchildren.

Before [our land] was just 2 acres, but now I have distributed it to my sons so that everyone can have his own portion. So these grandchildren have a connection here in Mbahe with this land because their fathers will also distribute it to them.

My daughter can get married [and] can go with her husband. In our tradition when a woman gets married she is no longer part of us; she will be part of her husband's family.

This plot is very small. Maybe my inheritance is prayers to God asking that [the grandchildren] can at least get educated.

The grandsons are the only ones who are allowed to inherit the land here, and they should be the grandsons of my son. This son of my daughter cannot inherit land here. He has his own home there where his mother is married.

The above comments show that even though women are excluded from owning land, they feel a sense of ownership and involvement with their husband's land that will be passed to their children. The average plot size for those surveyed was 1.37 acres compared to 6.11 acres for the previous generation. The smaller plot size has obvious

connotations for the tradition of inheritance. Fewer children will have the option of remaining on family land and making their living from farming. Because of this and other factors, many of the younger people are reluctantly making plans to move to other areas. Of those who said they planned to move from the area, 69.2% were under 30 years of age. It was also common for people in Chekereni, the lowest elevation village in our study, to mention how crowded it was higher up the mountain. Several of them mentioned this as a reason they had left the area or would not move there. One of the grandmothers gave an interesting analogy of the effects of this growth.

As the family is expanding—maybe the sons are marrying and the daughters are being married—so the family is expanding, but when we slaughter [a goat], we share a small portion. This portion of meat we distribute becomes smaller and smaller, but we are satisfied with what happens.

Family Connections and Burial

When asked if they would sell their land, 99% of those surveyed said they would not. Only two respondents said they would. Of these two, one didn't actually own any land and the other said he would only sell it to family. When asked why they would not sell their land, 65.5% gave a reason related to their family—either children or ancestors. Several people said they could not sell their land because their ancestors were buried on it. This too is a long standing tradition in this area, and the tie to the land is especially strong if parents have buried their children there. Some mothers told us they could never leave their land since their children were buried there. Another of the most common responses was that they could not sell their land because it was for their children.

Children would either inherit it outright or depended upon its productivity, even if not in their own hands, for food and money to survive. As one man told us, “The aim of having land is not for selling. It is for taking care of everyone.” And several told us that their grandfathers and fathers had not sold the land; how could they then sell it? Thus through traditions surrounding both birth and death, people remain tied to the place where they live.

Such family ties and responsibilities act as important anchors to place. Both through ownership of land by the extended family and traditional family responsibilities, the home plot for the Chagga has not become just another commodity as it is in western society. Chagga clans (or extended families) tend to have strong ties with each other, with many of the men inheriting and living on land next to other family members. Many writers have argued that stronger familial ties lead to increased community attachment in western contexts as well (Brown 1993; Freudenburg, 1986; McAuley and Nutty, 1985; Fried, 1984; Sofranko and Fliegel, 1984; Fernandez and Dillman, 1979; Marans and Rogers, 1975). With women’s increased vulnerability because they are excluded from inheriting land, great expectations are placed upon their children, especially sons, to provide for them after their father dies. Consequently, the decision of whether to stay or leave affects not just one person but potentially the entire extended family’s security and well being. This is especially the case for the women. Again, because land is not treated as a commodity, something to be sold or traded, even if women are able to use the land after a husband’s death, they rarely have power over its distribution upon their own death. This contributes to a *de facto* feeling of attachment. Many of the women we surveyed were unwilling to speculate about the possibility of moving to another village. “I don’t

decide if we should stay or move. My husband makes the decisions.” People we spoke with in Kilimanjaro commented on some of the family responsibilities that are part of Chagga traditions. One student reported on siblings’ responsibilities for each other in her field journal:

Simon explained that in Chagga tradition the families try to have three sons and three daughters. The oldest son is expected to take care of the youngest daughter. The next oldest son takes care of the next oldest daughter, and so on. If one of the sisters has a problem in her life, like a problem in her marriage, she is expected to go to the brother responsible for her for help first. (Parnell 2002)

Another area of responsibility is that of burial. Different survey respondents told us:

Traditionally when you have land and you bury your people there you are not allowed to leave a place.

My 3 children died, and I buried them here so I cannot move.

There is also a strong sense of familial responsibility that spans the generations, as illustrated the following grandmothers’ statements.

These grandchildren are helping the family. When they are grown-up they will also take care of me and help me as I have helped them when they were young. I expect they will help me when they are grown-up. When they are grown-up they will also assist family, relatives and everyone.

Maybe in the future we might become like children, because we will be unable to work, unable to care for ourselves. But these grandchildren will care for us too.

That's why we are making an effort to take care of them and support them while they are young.

Feeling responsible for others through their families and land helps tie people to their home and place. Place and land are closely connected with family responsibility and the past and future of the family for the Chagga. Thus the decision to stay or move involves more than just the individual. Caring for the family land is integrally connected to caring for the entire family.

Woman and Sense of Place

While the long-standing tradition of inheritance is under threat as family land is increasingly divided into smaller pieces, strong family ties and the desire of most to remain in the area encourage the continuation of inheritance methods and the conception of a family belonging to a specific place. The gender division of this tradition also has interesting implications for place attachment. Traditionally, land is given to sons by their fathers. According to the Tanzania Law of Marriage Act of 1971, section 114, wives are not considered members of the family for land-holding purposes, and the contribution of labor by a wife does not give her inheritance rights to her husband's property. James and Fimba (1973) claim that this discrimination has broken down in many areas, with more females having inheritance rights to self-acquired property of their deceased father. Women, however, are still far behind men in acquiring land or having a say in how it is used.

While many talk about not discriminating against women, actions are lagging behind the words. Our survey showed that 63% of those interviewed said they would allow daughters to inherit land. However, many of these only gave the names of their sons when asked who would actually inherit their land. In addition, many of those who said they would allow daughters to inherit land also added the caveat that they would allow them to inherit land only if they got a divorce or had other personal problems that kept them from being provided for by their husbands. The difference between men and women with respect to land is important in the context of place attachment. As with the grandmother tradition, women often fulfill roles that help attach their children and grandchildren to the places they can never own. As more men seek work away from their home land, women are expected to care for the land and keep it productive, as shown in Table 9 from our survey results.

Table 9: Male/female ownership and management of land

	Male	Female	Both
Own land	63.4%	14.1%	20.4%
Manage land	27.2%	38.2%	29.3%

Because of their roles in child rearing and, increasingly, in land management, women act as important agents in creating a sense of place and place attachment. Although women are expected to resettle in the village of their husband on the land of his family, they are also expected to continue important, place-based traditions and practices that make the family plot a connection between past ancestors and present and future residents. It is not uncommon therefore, for a woman to live on her husband's land with

his parents and to farm and care for the land and the children while he works in a city that may be hours or days away. Women continue to perform important caring roles in the family home, such as a tradition where the daughter-in-law resides with the mother-in-law for the first 6 months after the birth of a child. Women are also expected to be buried and to bury their children on their husband's land.

The following quotes illustrate the role of care-givers and place-makers that Chagga women play.

My children are sons. Our sons are men, and my grandsons are men. It is different for daughters because daughters miss and have sympathy for their mother. The sons and grandsons don't miss her.

We are taking care of these grandchildren—living with them and taking care of them, teaching them good behavior to perpetuate this generation to the next generation.

The pregnant wife comes to the mother of the husband and stays there to give birth to the children. She stays on maternity leave for six months. The mother of the husband teaches the wife how to wash the baby, how to take care of the baby, how to put the clothes on the baby, and helps her cook the food. Maybe they cook some food and call some neighbor women to celebrate a little bit.

My daughter ran away from school and didn't complete school. When she was married she was pregnant. If she didn't want to stay with the children, she could

maybe run and away and leave this child here. But she will follow my behavior, and she will take care, and she will never throw away a child.

My work is to collect the grandchildren and children and find something to give them and to support them. When I become old, it's ok. If the time comes that I leave them by dying, it's ok. It's God's plan. It is my generation that I am collecting here, no problem. I will just take care of them here.

Smith (1998) expresses this often unseen and unappreciated role of women as caregivers:

We are the ones who first ploughed the earth when Modise (God) made it . . . We are the ones who made the food. We are the ones who look after the men when they are little boys, when they are young men, and when they are old and about to die. We are always there. But we are just women, and nobody sees us (34).

Women's unseen roles are an important component of place-making. Through their care giving, a place is infused with meaning and "inwrought with affection" (Eliot, 1876: 20). People feel more bound to and responsible for a place because of the care and feelings they associate with it.

Traditions vs. Globalization

For the people on Mount Kilimanjaro there are many things that infuse life in this region with a strong sense of place. Traditions, family ties, and their dependence on the

land play important roles in connecting the people to each other and to the place where they live. Understanding these connections helps clarify people's perceptions of both the place where they live and their roles and rights in maintaining it. For many here, the place where they live on Mount Kilimanjaro is a connection between the past, the present, and the future.

Increasing social and ecological pressures, however, are pulling people away from their familial places. Many people in the survey as well as nearly all of the grandmothers interviewed articulated worries about the influences of money and modern life. Of those who said they would like to move away from their village, over 55 percent gave a reason related to work or money, while just over 20 percent gave a reason related to environmental conditions such as the land shortage or poor farming conditions. Amidst these pressures, traditions and cultural practices often take second place. Several of the grandmothers commented on these competing pressures.

We decided to live here and have our activities here and produce together and eat together and not to stay very far. But actually most people don't want to live here in [this village]. They want to go far away to find more income and a better life. And so people think finding money is more important than living here. The next generation is changing. More people will be scattered than the present generation.

Another commented:

Things are changing only because of jealousy. People these days are very jealous of each other. People prefer money more than human beings; people prefer

money and are jealous. And in previous times many years ago there was no jealousy like in this present life.

Another stated:

But nowadays there is jealousy—even about cooking the food and coming over to celebrate. They say [the tradition of staying with the mother-in-law] is getting lost. Also they say it is outdated. Now the wives, they say they are modern and things have changed. When the wife of the son gives birth or has a small baby, then she stays with the husband at their house, and they don't go to the mother of the son. The husband brings charcoal to the wife, and then she cooks alone, and they do all their activities alone. . . . So now people are changing their minds, people have different lives, different from the previous life in which the pregnant woman would stay with the mother of the son to give birth. She would stay six months or more and learn different ways of caring for the baby. Now this life has changed so much.

The issue of no money and the difficulty it creates was also strongly voiced.

Life is difficult—no money, no income. Income is low. For example, in the past things were cheaper, money was available. You were able to get income, and things were cheaper. Things were even free. And also education was free . . . but now things are expensive . . . For example, in the past cooking oil was very cheap. You could get 20 liters or 5 liters of cooking oil for a very cheap price, like 700 or

800, but now things are very expensive. You can't get anything that is cheap now. So that's why people are deciding to have fewer children because life is difficult.

Poor harvests were also frequently mentioned.

When we were cared for by our parents, the farm lands were very big. When you cultivated in the farm you got enough crops and enough of a harvest. But lately there are no crops and no good harvests—very minimum harvests. And in the past it was raining a lot. The rain was more than enough at that time. But now the rain is only in the areas very close to Mount Kilimanjaro . . . Maybe if you can put fertilizer, or manure, then . . . fortunately you can harvest a little bit . . . Now it is just running here and there, not enough crops. Now people are eating a little food because of a lack of food. Now-a-days there are many problems. We just live like that. What can we tell God to do? I don't know what we can tell God to do.

Finally, some grandmothers even found their situations to be a matter of fate. Perhaps God had sent the heavy burden on them for some unpunished transgression.

Maybe this is a punishment or penalty because of our sins, because in previous times there were not many sins like in this time. And lately God has brought a punishment without forgiveness.

The backgrounds and expectations of people influence their attachment to place, and in the Kilimanjaro region, expectations for the future are changing. People have traditionally been less mobile and have had fewer options or resources than Westerners. For many Chagga, however, mobility may be becoming a necessity and not an option. Of

those who either had or expected to inherit land, 80 percent said they planned to stay in their villages. However, when asked if they would move given sufficient financial means, only 65 percent of those inheriting land said they would stay, a decrease of 15 percent. This compares to a decrease of only 6 percent for those who did not expect to inherit land. Some traditions and connections to the land may act more as a responsibility that attaches people to their communities than a privilege (see Beckley, 1998). As options and incomes increase, it is likely that the influence of traditions, family, and land will decrease commensurately. Yet most of the grandmothers felt that life was not changing for the better. The increased benefits of mobility and individuality were also taking something away. One of the oldest grandmothers we interviewed said,

Life changes, and people do not live in the same places anymore. They move around searching for better life—some live in Dar es Salaam and others here in the village. People are beginning to work on their own. They do not help each other. . . . If I could do something it would be to change life. I wish we could go back and live like in the past when people respected each other, cared for one another, and loved one another. I do not know if it is because of development. I worry that we are heading in the wrong direction. I wish, if it was possible, I could force everyone in my country to live the kind of life we had in the past.

This chapter has presented data in answer to my first research question: What are the social and cultural factors that influence local people's (the Chagga's) connection to their place—their village and homes? While the Chagga are not returning to past livelihoods as the grandmother above wishes, important cultural traditions and beliefs

still contribute to strong feelings of attachment to their community and place on the mountain. As in western societies, place is becoming increasingly commodified, often relegating traditions and experiences to secondary status. And while the increased mobility and decreased attachment to a place may allow more individuality and freedom, it may also weaken local traditions and social responsibilities. In rural Kilimanjaro, traditions and experiences often still hold sway over the dollar (or schilling). We heard several stories of Westerners trying to buy land in the area without success. On the other hand, most all of the grandmothers talked extensively about how values are shifting because money is becoming so much more important. The familial ties and traditions that contribute to the Chagga's strong attachment to place are facing increasing pressures from both internal and external forces. Population growth, globalization and capitalism, and increased ecological pressures are surely affecting and changing the influence these practices have on people's perspectives and plans. Place, people, and culture are inextricably connected, and changes in one affect the others. As these changes play out, the Chagga's roots in their homeland on the mountain may weaken. But many still believe and hope that a "tender kinship for the face of the earth" (Eliot, 1876: 20) on Kilimanjaro will remain with their people. This kinship for Kilimanjaro may be one of the best social resources for conserving the mountain's important environment.

CHAPTER 6: THE CHAGGA AND FORMAL CONSERVATION

Rights over resources such as land or crops are inseparable from, indeed are isomorphic with, rights over people. (Watts 1992: 161)

Formal Conservation and Family Survival

As demonstrated in the previous chapter, the people who live on Mount Kilimanjaro are highly attached to their place through their families and traditions. Mount Kilimanjaro is “for taking care of everyone.” This often involves using the resources of the mountain to support their families. Thus a commitment to their families and future generations acts as an important motivation for conservation of these mountain resources. These commitments are expressed in the exemplary quote provided below, which illustrate both the frustrating struggle to make a living when the land no longer provides adequately and their strong attachment to their family lands.

My life is just roaming here and there, finding something for some income. I am just hunting like a leopard. I can't stay in one place because my life's just going here and there to find some income so that I can get something to give to my grandchild. This grandchild wants milk, wants some sugar, wants some porridge, some coffee. What would she eat if I stay in one place? I don't have an income, that's why I am just struggling.

Others envision the land as the economic connection between generations. The quotes below are from open-ended questions on the survey:

The land will help my sons as it has helped me before.

If my parents had sold their land I would have none—my land is an asset for my children.

According to tradition it is very bad to sell land that you inherited from your elders. If you sell it you will get a lot of problems.

The coming generation is depending on this land for cultivation and someplace to live.

Like the villagers, KINAPA is also motivated to conserve the mountain. Yet for most of the Park's staff, Kilimanjaro is not closely tied to their family's history or future. They are part of an institution—KINAPA—created to help minimize human impacts on the flora and fauna of protected areas on the mountain. They are employees. As such, mission statements, goals and objectives direct their conservation efforts and strategies, not generational investment in the long-term viability of the place. Similar to other formal conservation management organizations, KINAPA attempts to promote conservation through partnerships with local communities. And in this vein, they have experienced some success as well as some broad failures and inadequacies (KINAPA 1999).

Thus, while both local residents and KINAPA desire conservation of the mountain's resources in the long run, their approaches to achieving it are very different as both come at it from very different perspectives, backgrounds, and positions of power. The data presented below show general trends in how local residents perceive and interact with

KINAPA. Their opinions and attitudes about the formal institutions enforcing outsider laws of conservation are important indicators of the potential for successful conservation efforts by two groups. The data presented address my second research question: How do local people (the Chagga) feel about official protection and management of the mountain?

Local Sentiments about Impacts from Conservation and KINAPA

Similar to other surveys on local attitudes towards conservation on Kilimanjaro (see Chapter 3), our study, conducted in 2002, found that a majority of respondents in the three villages at different elevations on the mountain felt formal protection was “important” or “very important.” We asked: “How important do you think it is to have formal/government protection for wildlife and nature, for example in national parks?” These results are reported in Table 10. Eighty two percent overall and 78% in Mbahe said it was “important” or “very important.” To assess whether the overall difference between the means of the variable for Mbahe and the other villages was statistically significant, I performed a one-way ANOVA test that showed no significant pairs across the three communities. Consequently, there were no significant differences between communities based on their elevation on the mountain or proximity to the Park for the variable for formal protection.

However, the fact that Mbahe rates formal protection lower than the other two villages is interesting because Mbahe is the village directly adjacent to KINAPA, has the most direct contact with the staff, and, therefore, is most directly impacted by its policies.

Table 10: Attitudes Towards Formal Protection by Village

	Formal Protection										
	Very unimportant		Unimportant		Neutral		Important		Very important		Total
	N	%	N	%	N	%	N	%	N	%	N
Chekereni	3	7%	1	2.3%	5	11.6%	10	23.3%	24	55.8%	43
Sembeti	2	3.1%	0	0%	5	7.8%	16	25.0%	41	64.1%	64
Mbahe	2	3.6%	0	0%	10	23.3%	15	27.3%	28	50.9%	55
Total	7	4.3%	1	0.6%	20	12.3%	41	25.3%	93	57.4%	162
Significant pairs*	None										

* One-way ANOVA—Sheffe's range test

The higher percentage of people who give the “neutral” or “important” rating rather than the “very important” rating for formal protection in Mbahe may be the result of having their personal lives more directly impacted by KINAPA. They have had to experience personally some of the costs and restrictions connected with protective designations and outside land managers.

Table 11 reports the survey responses concerning Park visits. As would be expected, the number of people who said they had visited the Park was much higher in Mbahe, given its close proximity. Living directly next to KINAPA makes it much easier for Mbahe residents to work, visit, and obtain resources there. The Tanzanian government and Tanzania National Parks (TANAPA) have made an effort to help residents throughout Tanzania gain more opportunities to visit the National Parks through lower Park fees and sponsored trips for school students. A one-way ANOVA test showed significant pairs between Mbahe and Sembeti and Mbahe and Chekereni, showing that elevation on the mountain and proximity was a significant factor in predicting whether people had been into the Park.

Table 11: Respondents Who Have Visited KINAPA

Village	Yes have been in KINAPA (% of total)	No have not been in KINAPA (% of total)	Total
Chekereni	11 (22.4%)	38 (77.6%)	49
Sembeti	28 (36.4%)	49 (63.6%)	77
Mbahe	49 (80.3%)	12 (19.7%)	61
Significant pairs*	Mbahe/Chekereni; Mbahe/Sembeti		

*One-way ANOVA—Sheffe's range test

However, as seen in Table 12, of those who admitted going into the Park, Mbahe had a high percentage who did not/would not indicate how many times they had gone into the Park.

Table 12: People Willing to Tell Number of Times They Have Been in KINAPA

Village	Number who were willing to tell how many times they had been in KINAPA	Percentage of those who said they had been in the Park
Chekereni	7	63.6%
Sembeti	20	71.4%
Mbahe	12	24.5%
Significant pairs*	Mbahe Chekereni; Mbahe/Sembeti	

*One-way ANOVA—Sheffe's range test

While some people may not have known how many times they had been in KINAPA, we recorded if they said many or a few or some other inexact answer. In Mbahe, more than 75% did not or would not give an answer of any kind on how many times they had

entered KINAPA. I speculate that this is most likely related to uncertainty about their right to enter the Park and/or knowledge of entering KINAPA illegally or unofficially.

Of the respondents who had been in the National Park, from the three villages, 36.8% said they entered the Park for work (tourism), usually as a porter or guide. One-third of the respondents (33.3%) went into the Park to gather grass and firewood or even look for pasture land for their livestock. All but three of these respondents were from Mbahe (the village directly adjacent to the Park). Over 50% of those in Mbahe who answered the question about why they entered KINAPA said they went into KINAPA for some type of resource use. However, I feel it is likely this statistic is underreported because some of the respondents were worried about admitting they had entered the Park or Forest Reserve because they had done so illegally. Many who admitted gathering grass or wood in the survey also said they went officially or with permission. Since resource extraction was outlawed by TANAPA in 1995, this illustrates the lack of clear communication and understanding between KINAPA staff and residents.

Another question asked how respondents would feel if KINAPA were abolished. The majority (83%) of respondents said they would feel “bad” or “very bad” if the park were abolished, mostly because of the water that the mountain provides. The reasons given for this response are listed in Table 13 as well as comparative responses to a survey completed during 1988 by Newmark (1991). The biggest group of respondents in both surveys feels that the National Park protects the watershed, which the residents are highly dependent on for crop production. As can be seen by comparing results from the two surveys, over the past ten years, the number of those who appreciate KINAPA for providing employment opportunities has grown.

Table 13: Reasons People Do Not Want KINAPA Abolished

Responses	BYU-DG (2002)		Newmark (1991)	
	N	Percent	N	Percent
Protects watershed	*84	43.8	109	55.1
Access to Resources	13	16.7	Na	Na
Earns foreign exchange	*31	16.1	34	17.2
Provides Employment	*19	9.9	5	2.5
Protects wildlife	*9	4.7	12	6.1
Natural Heritage	*7	3.6	2	1.0
Future Generations	6	3.1	7	3.5
Other (favorable)	20	10.3	26	13.1
Other (oppose)	3	1.5	18	Na
No Response	17	8.7	2	1.0

*13 people gave 1 or more responses in addition to this response; percentage will not equal 100.

It is interesting to note that in Newmark's survey no one gave the response that protection of Kilimanjaro gave them access to resources. Instead, there were several people who said they would like KINAPA to be abolished so they could get more land and access to timber (17 people or 7.9% of the total respondents). This may indicate a change in people's perceptions of KINAPA, or it could also be related to the way the two different surveys were conducted. Newmark used a sample of convenience rather than a random sample. His survey was conducted by students from CAWM, who were probably recognized as people of authority who were advocates of formal protection and would, therefore, not approve of resource extraction from the Park. Regardless, the idea of protecting resources through allowing some access to them has increased over the past decade.

Another interesting comparison is between the question about abolishing KINAPA and the responses people gave to an open-ended question about why they thought formal/government protection of nature and wildlife was important. The way the open-ended question was phrased may have made the protection seem more formal and remote than the abolishment of KINAPA. The number one response about why formal protection was important was that it brought tourists and foreign earnings (36.4% compared to the next highest 26.7% for protecting the environment and wildlife). This is in contrast to the more personal responses above of protecting the watershed and providing access to resources.

When asked who benefits from the National Park, a majority felt that all people, specifically the citizens of Tanzania were benefiting from Kilimanjaro National Park (Table 14). These responses were stratified by village, showing a significant difference in the response. The largest group of respondents in Mbahe (39.0 percent) said that villages around the National Park were benefiting. A one-way Anova test showed that these differences were statistically significant. Residents of Mbahe are much more likely to see and expect personal benefits from the Park than those living further down the mountain, or even the rest of the country.

Table 14: Who respondents feel benefits from KINAPA

Who benefits from KINAPA	All Villages Percentage	Mbahe Percentage
1. All people, citizens of Tanzania, etc.	40.8	25.4
2. Villages around Kilimanjaro National Park	14.0	39.0
3. Government	14.0	6.8
4. Don't know	11.7	5.1
5. Park management and tourist companies	8.4	13.6
6. Both the government and all of Tanzania (its people)	5.6	1.7
7. Other responses	5.6	8.5
Significant pairs*	1. Mbahe/Chekereni; Mbahe/Sembeti at 0.131 2. Mbahe/Chekereni; Mbahe/Sembeti 3. Mbahe/Sembeti 4. Mbahe/Sembeti at 0.078 5. None 6. None 7. None	

*One-way ANOVA—Sheffe's range test

Another difference between Mbahe and the other two villages is their perception that KINAPA management and tourist companies benefit from the Park. When separated from Chekereni and Sembeti, the percentages for this question are 13.6 in Mbahe with 4.3% in Chekereni and 6.8% in Sembeti. I would expect Mbahe residents to experience more personal impact from and contact with KINAPA and tourist agencies and their clients. However, a one-way Anova test did not show statistically significant differences between the villages for this variable.

The Community Conservation Service on Mount Kilimanjaro

As discussed in Chapter 3, the Community Conservation Service (CCS) on Mount Kilimanjaro, and at other National Parks in Tanzania, constitute a branch of formal Park

management strategies designed to “identify and implement opportunities for sharing park benefits with adjacent communities” (KINAPA 1999: 4). The CCS is known locally as the *Ujirani mwema* (good neighbor) project. The park warden over the CCS, Ole Meikasi (2003) stated that the CCS is meant to benefit communities all over the mountain, but especially those bordering KINAPA.

We have got 88 villages around the mountain . . . bordering the 1/2 mile belt around the mountain. But also, we normally go beyond that because you may find a [CCS] project at Himo; you may find a project at Moshi Town; you may find a project at the ward where it is not adjacent to the Park. But . . . we try to foresee if that project benefits most of the people. . . . Normally we are concentrating on adjacent people first, and then the neighboring others.

Our survey used two questions from the CAWM study (Kaswamila 2002) that addressed how many people knew about the CCS and its objectives. We also added a question seeking the respondents’ opinions about the CCS program. Of all the people we surveyed, 25.1 percent had heard of *Ujirani mwema*, however, there was considerable confusion in Sembeti and Chekereni (the two villages furthest from KINAPA) as to what the program was. Several people seemed to understand it as just being a good neighbor or else a general social program, with no relation to the Park; in other words, a program to promote neighborhood cooperation. In Mbahe, 48.4 percent of those interviewed said they had heard of the program. This is a considerable difference from the CAWM study, which found that 100 percent of respondents in Mbahe had heard of *Ujirani mwema*. This can clearly be attributed to the CAWM students’ sampling procedures as well as the

sample size of the survey (10 in the CAWM study vs. 62 in our study). As with Newmark's (1991) survey, students from the local wildlife college administered the survey and may have been seen as supporters for the CCS program.

Our survey included an open-ended question to probe deeper about people's understanding of the CCS program. Findings are reported in Table 1 below.

Table 1.

Table 15: Understanding of CCS by Village

Village	% who knew objectives	% who indicated CCS project
Chekereni	0	0
Sembeti	11.3	6.3
Mbahe	30.7	30.7

We found that only 30.7 % of respondents knew any of the objectives of the program in Mbahe. As one moves further down the mountain, in Sembeti and Chekereni, the portion of respondents who knew of the objectives of the program decreased to 11.3% and 0%, respectively. Thus, only 14.7% of all people surveyed knew of the program's objectives. Our survey also asked whether there had ever been a CCS project in the village. In Mbahe, only 30.7% of respondents said there had been, while in Sembeti 6.3% responded that there had been, and none in Chekereni. Finally, we asked people their opinion of the CCS program. This was an open ended question. In Chekereni and Sembeti, only a few people gave opinions. Of those who commented in these villages, several wanted more help from KINAPA in their villages. In Mbahe, 21 people, or 33.87%, gave an opinion of the program. The number of people giving an opinion along with a representative example are shown in Table 16 below.

Table 16: Opinions of the CCS program–Mbahe village

Comments	N	Example
Negative	5	“It has failed to take care of the forest. When I was young, I cared for the forest, but now they have failed to care for it.”
Positive	13	“There is no bad thing about it.”
Unrelated	3	Not applicable

The unrelated comments were non-committal, some felt park jobs were connected with the program. Many of the people who responded did not seem to differentiate between the *Ujirani mwema* program and KINAPA in general. Looking specifically at Mbahe, the village closest to the Park, residents' opinions about the CCS program are illustrative of its ambiguous position in the village for a program that is supposed to be promoting Park and community interface.

“The program is not very active here, so I don't know what they do.”

“They should distribute clothing to children in the village.”

“It is easier for boys who finished primary school to get jobs.”

“If people are ill or the village needs help, go and ask the Park—they help.”

“Good here. Makes the area accessible to cars.”

“Needs to give more help.”

“I like it because it helps people.”

“Good. If they make sure they will do what they promise it is very nice.”

These comments also illustrate the wide range of expectations people have for the CCS. Expectations range from providing jobs to helping sick people to providing clothing. As the CCS has involved itself in village projects and development, many have come to look to it to solve a range of problems not directly related to conservation. While the CCS warden told us, he was going to be “strict” in the future about targeting environmental conservation with CCS projects, he also admitted that the CCS was making efforts to decrease the problems of poverty as a first step towards influencing people to become more involved with their conservation initiatives (Meikasi 2002).

Differences between KINAPA Policies and Actions

Our observations in Mbahe also enhance understanding of the survey results. There was a great deal of inconsistency in written park policy for CCS and Park access, staff understanding of the policies, and residents' understanding of the policies. Just walking around Mbahe, especially near the paths that go in and out of the Forest Reserve/half-mile strip (.8 km), it was very common to see people coming out of the forest with huge bundles of grass or wood. Many people in the survey indicated they entered the Park officially ("legally") to gather grass and firewood. Nevertheless, there were several different stories about what was and was not allowed in the Forest Reserve/half-mile strip (.8 km) and Park from both villagers and park rangers. Some said a person was allowed to cut grass and wood; others said a person could do it if she obtained permission from the park rangers; others said a person could only cut what he could carry out on his head; and one park ranger said that people could cut grass and wood and graze animals all the way up to Mandara Hut, which is a significant distance beyond the half-mile strip. The official policy is obscure, having changed so many times over the past few decades (see Table 1 in Chapter 3). However, in 1995 a government policy was passed prohibiting resource extraction in the half-mile strip. Yet even the current CCS warden does not follow this policy. Meikasi (2003), the CCS warden, told us,

We used to educate [residents] to create awareness that they have to use the half-mile strip in a sustainable use way . . . not to destroy, not to cause soil erosion, and not to cut off the live trees and so forth. The demand is very high for fodder

collection. But this one, I can say, is not recent. It has been done since time immemorial up to today. And they still use it. We allow them to use it. No problem at all. But the limitation is they are not allowed to go beyond the half mile belt. They are not allowed to enter the National Park land. We are also always educating them to plant trees . . . They are not allowed to take their cattle inside the half mile belt or in the forest catchment or in the National Park. They are not allowed completely. But sometimes people do.

In talking with different park rangers about Park boundaries and resource access and we received different responses. We found that the two most significant differences in ranger responses were (1) what types of activities were legal and illegal (grass cutting, firewood gathering or cutting old growth trees, and livestock grazing) and (2) how far the villagers were able to travel into the buffer zone (2.5 to 4.3 miles/4-7 km) (Tarullo 2002). Rangers may not always be informed of changing boundaries and even if informed, do not always enforce the same restrictions in KINAPA. This leads to inconsistent enforcement and understanding of policies (Nango 1999). We also heard from several local residents that bribes are common.

Difficulty of Combining Community and Conservation

When looking at the results of the survey and observations, one can conclude that local people are generally supportive of the idea of formal protection of Kilimanjaro and having the CCS program, however, the results and personal impact from efforts to reach out to communities have been mixed. The CCS cites their major accomplishments so far

as getting organized and hiring a warden (KINAPA 1999). While there have been some projects completed, they have almost always been infrastructure-building projects and not closely tied with conservation efforts. It is difficult to promote tree planting or clean-water initiatives when the local bridge needs repairs or a school is falling apart. In some ways, this shows the CCS may be responding to what the communities want, but often it has only been the village leaders or elite who are involved in making these decisions. According to Meikasi (2002), this was largely a problem related to the past Park warden and something he is working to correct, however, the numbers from the survey show he still has much work to do.

Important Differences Between Mbahe and Villages not Adjacent to KINAPA

In Mbahe positive opinions of formal protection are lower than in the villages further away from KINAPA. Only about 21 percent of the people in Mbahe had a positive opinion of the CCS, with most people offering no opinion at all. Although the communities did seem to appreciate the CCS projects they were aware of, local understanding of CCS objectives and their expected role in the CCS was low. At the same time, expectations for what CCS should be delivering were high. The people who have the most interaction with the land of KINAPA also have the most interaction with the organization of KINAPA. From the survey data, a trend becomes apparent that, in relation to people from villages further down the mountain, the people of Mbahe are more likely to

- 1) see KINAPA as a source of natural resources for themselves and their families;
- 2) have higher expectations of benefiting personally from KINAPA;

- 3) are more likely to think KINAPA is benefiting directly from managing the Park.

Direct interaction with KINAPA has perhaps confused more than cleared up misconceptions. CCS projects target social infrastructure needs such as schools and bridges rather than conservation needs. People see these projects yet know little about them or why they have been completed. The low percentages of people who know about the CCS and its objectives means that most residents are left to their own imaginations about what KINAPA should be doing. They experience the negative sides of the relationship through fines, cattle confiscation, and restrictions. However, the positive benefits they are supposed to be receiving from the CCS are not widely known.

Confusion over KINAPA rules

The changing nature of regulations for both the half-mile strip (.8 km) and the Forest Reserve along with poor communications between KINAPA and the villagers are contributing to general confusion and inconsistency concerning legal resource use for residents, what KINAPA and the CCS are expected to contribute to the surrounding villages, and the definite boundaries where different types of resource use are allowed. Although one role of the CCS is to educate local residents about conservation policies and legal resource uses (KINAPA 1999), Park staff told students that villagers are expected to know the half-mile strip (.8 km), Forest Reserve and national park boundaries themselves. In their defense, the CCS staff consists of two rangers with limited resources and transportation who are expected to cover over 80 villages around the mountain. According to Meikasi (2002), even the “reliable transportation” cited as a strength in the

review is often not available for the CCS rangers, with other park rangers being given higher priority for vehicle use. However, even in Mbahe, the closest village to KINAPA headquarters and easily within walking distance, there is confusion over boundaries and legal resource use activities.

Poverty and Conservation

KINAPA and the CCS have the inclination and the mandate to tackle “conservation,” while local communities are concerned with social and infrastructure needs as well as maintaining control over and access to the area that is their home. To the villagers, such things are not separated into neatly exclusive categories. The business of going about life on the mountain seamlessly merges the two. In this scenario, the CCS projects become a middle ground for both sides. The community gets a needed school or bridge and KINAPA gets to report interaction and expenditures in a local community. The hope is that these projects will encourage the villagers to cease from practicing banned resource extraction and find alternatives to the resources they have been extracting from protected areas. As Meikasi (2002) termed it, “[We] try and minimize [residents’] problems in order to be in a better position to twist them how we want.” However, residents’ expectations and opinions of KINAPA do not seem to be getting “twisted” in the direction KINAPA wants. As noted above, Mbahe’s lower overall ratings of formal protection and higher suspicion of KINAPA benefiting from the land show that they are experiencing more negative than positive outcomes in their relationship with KINAPA. Part of this may be confusion over expectations and policies. Over 45 percent of the respondents to our survey in Mbahe said they had gone with permission or

“officially” to collect grass, honey or find grazing areas. It is apparent that people are still extracting resources from restricted areas. On several different occasions we encountered people in protected areas who would run and hide—sometimes even leaving their scythes behind—when they heard or spotted us. We, ourselves, were not always clear which protected area we were in (the ½ mile strip or the Forest Reserve). Even Park rangers give differing interpretations of the laws, and often allow people into these areas with their permission (see also Nango, 1999).

The Kilimanjaro CCS also has the goal of helping Park benefits flow back to local communities to help them meet conservation goals. They have begun this process in Mbahe, and those who are aware of CCS influence are grateful for the improvements. However, to be able to accomplish a true mix of community development and conservation, there is a need for: greater awareness of, greater understanding of, greater benefits from, and greater involvement with KINAPA and its policies. With the current amount of resources and personnel dedicated to the CCS, these goals will be very difficult to reach.

Improving People/Park Interactions:

Improving local residents’ attitudes and understanding about KINAPA can have a significant future impact on the management plan of the Park. Kangwana and Mako (1998) found that as residents living next to Tarangire National Park in Tanzania saw more benefits from the Park, their attitudes about the Park improved. Because the power and economic resources lie in their hands, the burden for improving community conservation rests primarily with KINAPA. Based on their institutional goals, the

obvious areas for improvement are to 1) communicate park policy more clearly and comprehensively to local villages and officials; 2) clarify conservation goals and provide local education to villagers to involve them in reaching goals; and 3) improve how benefits from the park are shared with local residents. KINAPA policy states that local villages should see 25 % of Park revenues through the CCS. However, at present the CCS is only receiving 7.5 % of Park revenues (KINAPA, 1995). This translates into fewer benefits for local residents and a less positive relationship with KINAPA. Add to this the fact that KINAPA is under-funded and understaffed (KINAPA, 1999), and the complexity of the situation only grows. For now, the attitudes of residents are largely positive towards conservation, yet with little benefits and a perception of personal costs from KINAPA, negative attitudes are likely to increase in the future as demands on the Park continue to increase and could possibly even drive the residents to detrimental action in KINAPA.

A fourth area for improvement is for KINAPA to increase its understanding of the local residents' perspective of place and capitalize on the local dedication to preserving their home for future generations. This approach is more involved but potentially more productive. Charnley (1997) argues that strong attachment to place is a great benefit for ecological conservation. People who are attached to the place where they live are much more likely to work and contribute to its conservation than those who see the place only as a transitory stop. Songorwa (1999) argues that in order to experience success, community conservation programs must overcome the mistrust of the communities they work with and work towards their real involvement in conservation and the benefits from it. Part of overcoming this mistrust involves acknowledging and learning from the

different values and understandings of the communities the programs work with, including the social and cultural costs that a top-down management approach imposes. I examine these costs in the following chapter.

CHAPTER 7: RELATION OF SOCIAL VALUES AND CONSERVATION OF PLACE

Why lament: is it lost time? Days irretrievable?
Why play the cards of time with vain resentment
And thus augment the deficit imposed
By usurper hands in stolen spaces?

Hands that spurn acknowledgement of debt to earth
That spawned and nurtured them,
Shun bonds of kin, mock pride of race
Devoid of thought that seeks renewal
For each day's depletion, for community's
Creeping senescence, premature decay.

Theirs are the minds that breed the virus of loss
Theirs the agency of our untimely death.

...

An earthquake would be welcome arbiter,
A cosmic convulsion, a gloating *dues ex machina*
To impose their own disorders on disordered minds
And land. . . .

Soyinka 2002: 7

Soyinka's ironic bitter call for non-bitterness highlights the social and spiritual costs to both those who have suffered from colonization and those who have imposed it—loss of connection to community, to place.

The environmental movement has brought attention to the many ecological costs of the modern age. Evidence of these costs is often provided through the modern-age tools of science and statistics. Many important instances of environmental change and degradation have been discovered and studied in this manner. Because the message speaks the language of science, the western world has generally accepted the need for conservation, and many important, scientifically-based, approaches to reducing the negative impacts from humans on the environment have been developed. I do not dispute

the importance of such contributions nor do I argue that they should be ignored. The objectifiable effects of local people on their environment—even when that environment is their home to which they are closely and positively attached—cannot be ignored or glossed over. Recognizing that local residents have important rights over and contributions to make towards environmental conservation “does not mean that as conservationists we must count as conservation everything that these people have done or wish to do” (Redford and Sanderson 2000).

However, the findings of science must also be put in context and not allowed to be over-generalized and/or used as a tool to ignore local human needs. Assumptions with little or no scientific basis about the *causes* of environmental degradation have done much violence to unfortunate rural residents who have had to confront powerful movements that lay the blame for environmental degradation at their door. Charnley (1997) argues that forces of “rural capitalism” are largely responsible for environmental degradation in Usangu, Tanzania, not the widely assumed over-use by local residents. She argues further that problems caused by this force are not solved by people being forced out of a rural area but are rather transferred to the new area. Roe (1991) gives several examples of narratives that developed from biological studies that, regardless of subsequent evidence refuting them, served as the basis for social and political action in developing countries. And other writers have decried the policies and justification for outside management resulting from the scientifically-based Brundtland report, commissioned by the United Nations in the 1980s (Sachs 1992; Visvanathan 1991). Scientific rhetoric is often an easy tool for political motives.

So while acknowledging the value and contribution of the scientific side of conservation, this chapter focuses on its social and cultural side, which, like the physical environment, may be suffering equally devastating degradation. Chapters 5 and 6 addressed issues of local attachment to place and local sentiments about KINAPA. Using this foundation, local residents' relationship with KINAPA can be placed within the context of their perception of and relationship to the place where they live. With this framework, some of the social assets of locals that could benefit the conservation of Mount Kilimanjaro can be more easily identified. This chapter addresses my third research question: What are the social and cultural costs in relation to conservation of the current exclusionary protective management style?

Because formal environmental conservation projects are usually conceived of and enforced by entities with western, capitalistic views and financial suppliers behind them, they can also fall prey to the problems such world views engender. Economic values can begin to supersede all others, and the continued comfort and production of the "haves" far outweigh considerations of the discomforts and disruptions for the "have-nots." Polanyi (1944) points out the readiness of modern, capitalistic societies to ignore the social side of economic "progression." "Fired by an emotional faith in spontaneity, the common-sense attitude toward change [is] discarded in favor of a mystical readiness to accept the social consequences of economic improvement, whatever they might be" (33). As Logon and Molotch (1987) argue, it is not spontaneity at all—it is the brute power of capital and the willingness of those who wield it to mow down any in their path with the argument that the rules of the market are for the good of everyone, even if it means sacrificing whole populations in their name.

In conservation, such values contribute to the continued over-taxing of the environment. Many now realize that sustainable conservation will require foundational changes in social values and world views. Strong (in Speth 2003) makes a connection between economic forces and conservation.

The system of market capitalism, which has become the dominant theology of our times, has demonstrated an unprecedented capacity to generate wealth. But we are now realizing more and more that it also produces a series of deepening imbalances and inequities between the winners and the losers of the great globalization game, with profound implications for the stability and social equilibrium of national societies as well as the world community.

. . . [A] sense of shared responsibility . . . must be reinforced, for many of the actions that will ensure a secure and sustainable future for those who follow us on this planet require new dimensions of cooperation with others, both at home and internationally. (46-48)

Missing in Strong's comments is the recognition that the values and culture needed to develop this shared sense of responsibility are another of the social costs of the modern age. Serequeberhan (1991) argues that these costs—just now gaining widespread attention in the west over the past two decades in the form of the deconstructive movement—have been apparent to those oppressed by the modern age from the beginning. “The latest deconstructive wisdom of the West coincides with the robust awareness our grandparents had of the implications of the European presence on African soil for African existence” (xxii). More widespread attention to the social and cultural

costs of capitalization and globalization in general, and the specific way these costs affect conservation scenarios, is needed. As values and social institutions are affected, we may lose social resources that take generations and irretrievable history to form.

Environmentalists need to recognize that more than a scientific approach is needed to stem the tide of environmental destruction.

Because my study focuses on how community residents on Kilimanjaro view the place where they live and their relationship to it, I have been able to examine specific social and cultural costs related to the conservation of Mount Kilimanjaro. As Baxter and Eyles (1999) point out, many quantitative environmental studies focus on specific environmental phenomena rather than the communities and individuals facing the phenomena. Such a narrow focus does not consider the role of social and cultural factors in the overall analysis of conservation scenarios. But Spretnak (1999) argues that such consideration is needed. “To see our story in fuller, richer terms is essential to correcting the destructive course of the modern age” (184). On Mount Kilimanjaro, many residents speak of the social changes and costs that are accompanying the modern age. One often cited cost relates to social and cultural “instincts” based on specific meanings and understandings fostered by place. Modernization is moving people toward sameness, with money the determiner of value—both economic and social. Another cost is the value of shared responsibility. While this is a value now being called for by modern, western conservationists, it is also a value that people on Kilimanjaro see being depleted by modern forces. Finally, people’s attachment to place is being weakened by modern forces. Traditions and the bonds formed through them are being weakened as people

exercise less control over their places and modern benefits become increasingly desirable and necessary.

Cultural Meanings, Understandings and Instincts Honed by Place

While the traditions and cultural understandings of the Chagga on Mount Kilimanjaro foster attachment, responsibility for the home “shamba”, and connectedness—valuable assets in the context of conservation—these same traits tend to be devalued in modern, western societies. People’s attachment to home must compete with the lure of economic gain in the city. KINAPA’s formal management structure takes responsibility for the land and resources of Kilimanjaro. This, however, takes away from local peoples’ sense of responsibility for the land and contributes to a feeling that connections to people and place are less important than “going with time” and finding financial success.

Senghor argued that "the human instinct is a better guide to behaviour than the more precise computer" (Boahen 1985: 671). Especially in the context of conservation, this all depends on how such instincts are formed. Such social “instincts” are shaped and guided through interaction with and socialization by those around us. Akiwowo (1986:104) writes, "By paying attention to certain beliefs and rituals, it is possible to arrive at an understanding of a society." On Kilimanjaro, traditions and beliefs connect people together and to the place where they live. These connections are a strong force to motivate them to care for and preserve their home lands. One grandmother expressed how taking care of her grandchildren binds them together and improves her life:

I am happy when they stay with me. We eat together, sleep together, and perform home duties collectively. I enjoy their singing, how they get along together. They go to church on Sunday; they go to school—this makes me very happy.

Everyday activities bind this grandmother and her grandchildren together and infuse the place where they do these activities together with meaning. For them it is “instinctive” to take care of the place where they live.

While most of the grandmothers did not want to say that they were raising their grandchildren better than their children would, nearly all of them referred in some way to the benefits the children gained from the rural lifestyle they lived in with them. These benefits were often contrasted to the way other children lived in the big cities. One grandmother articulated it especially clearly.

These grandchildren staying with me are learning very much. They are learning many activities like cultivation. They can also [clean] the house, mop the floor, and they can cultivate in the garden. They can do many things that those children who are living with their family [in the city] can't do. Those children who are living with their parents are getting out of doing activities because they don't want their children to become tired and thirsty. These children who are staying with me are getting more education, and they will survive better than those who are staying with their parents. For example, me, I have been taken care of by my parents and have been taught many activities, so that's why I don't have problems when I'm doing my activities. Those children with their parents, they are being

taken care of like an egg, taken care of so they won't get broken by very many activities.

The values of hard work, togetherness, and cooperation are not necessarily unique to rural communities, however, they are an important and enduring part of the lifestyle on Kilimanjaro and are passed on "as a sweet habit of the blood" (Eliot 1876: 20). The settled wisdom people gain through the way they are raised is directly connected to the place where they live.

Another grandmother talks of how traditions influence how people interact with each other as well as their priorities, and, in her view, how these traditions are being overborne by modern life.

I don't know why these things are changing like this because in the past people were fined when conflict arose. People were fined, penalized. But now people are just quarreling without any penalty, because in the past parents were very strong and had very strong decisions for their children. But also there is money, so people prefer money more than humanity. People see money as better than humanity. . . . People are saying that people should change their mind or style. People should be modern. People are saying that without money—no life. People are saying time will tell, and styles are changing and things like that.

As money becomes more of an issue in everyday survival and functions, connections to place become weakened. Social instincts and cultural understandings are changing. One grandmother, who had already commented on how everyone was moving to different

places and getting increasingly out of touch with each other, also hoped for more financial success for her grandchildren.

I hope my grandchildren will move to another place or a town to find more income. For example, my grandchild—one is a tour guide—he has more income and is bringing more support here for the family than the ones who are living here at the house. So I wish them to go and find more income somewhere.

Even those who are still practicing traditions of the past are also wishing for the comforts of the modern age. Another grandmother felt sure that the ties to place and family were strong enough to withstand separation.

The parents of these grandchildren . . . they also must remember those other children who are living with me here. These sons and daughters should remember that here, at home is their father and mother and their children, so they must remember home. Even if they did not have children here, they also must remember because we are their parents. This is because they have a job and they have a salary so they help us.

While the younger generation may remember its ties to family and place, their cultural instincts, the meanings they give to the world around them, and the responsibility they feel for a place they no longer live will develop differently as their place of residence and lifestyle change. Change seems to be the one inevitability. However, the losses to cultural practices and the values that are developed and supported by these practices are often not considered as people make decisions about economic support of

their family. In relation to the conservation of Mount Kilimanjaro, cultural and social changes occurring in local communities are diminishing some of the values and attachments that would most benefit the lands on the mountain.

Loss of Shared Sense of Responsibility

The World Conservation Union (IUCN) drew up a plan in 2000 outlining principles for working with indigenous communities around protected areas (Beltrán 2000). While this and other studies call for local involvement in protective management plans and conservation strategies, the reality on Kilimanjaro falls short of this ideal. The most recent strategic action plan for the Kilimanjaro Community Conservation Service was drawn up without any local participation (KINAPA 1999). As resource and land management is taken out of local control, the surrounding communities also begin to feel less responsible for the areas that are out of their control. We heard from several people how local communities on the mountain would join together to fight fires on the mountain, but this has become more of a problem as people expect KINAPA to take care of fires; and when they do help, they feel they should be compensated for their help. (See discussion of fires in KINAPA 1999.) As one man stated in the survey, “[Ujirani Mwema] has failed to take care of the forest—when I was young I cared for the forest, but now they have failed to care for it.”

Akiwowo (1986) highlights the importance of groups and self-sacrifice in African poetry about the creation. In this poetry, individuals must rely on the group for existence and salvation. There are evil consequences to self-alienating behavior and serving oneself at the expense of the group. "There is no luckless head in the domains of Ife. / It is not-

being-in-tune-with-other-heads that is the problem" (112). Similarly, serving the group and sharing your good fortune with the group is praised. "If one ori [head or mind] improves / Its improvement will affect two hundred others" (112). Self-alienation is the original sin of this creation myth.

The communities on Mount Kilimanjaro have a sense of shared responsibility for their own lands and families. These communities are fostering the values that environmentalists claim are needed to reverse world trends of environmental destruction. Schwartzman *et al* (2000) point out that local residents are often the strongest advocates for protected areas: "Forest residents—and rural people generally—are potent political actors in tropical forest regions and an essential component of the environmental political constituencies that are necessary for the long-term conservation of tropical forests" (1351). However in protected areas such as Kilimanjaro, policies crafted to stop environmental destruction by local people also diminish the communities' sense of responsibility and feeling of connection with the protected area. Several people I talked with expressed how the values of responsibility and connection are being damaged as people move away. Such values are keys to conservation. For many people, these values are expressed by a willingness to help each other out in times of need.

Here in this village there are cooperative values. If a neighbor needs your grandchildren, for example if a neighbor needs a grandson to help her, that grandson will help her. There is good cooperation between neighbors here. Each grandchild helps the community and neighbors when they are ready to do so.

But another grandmother tells how such values are changing as people loose the attachment to their homes. "Because people are staying far away from each other and everybody is doing their own activity people are not organizing and they are not cooperative."

A leader of another community that lives near a protected area in Tanzania expresses how the formal organization of TANAPA has not grasped this understanding of shared responsibility.

TANAPA can't teach us about Ujirani Mwema [good neighbor]. We had Ujirani Mwema before TANAPA came here. If it doesn't rain here, I know that I can take my cattle to Naberera [a neighboring village]. The people at Naberera won't turn me away. They will let me stay so that my cattle will not die. They will help me, because they may need my help another year. This is Ujirani Mwema. TANAPA does not understand this. Their livestock [wildlife] come to graze in our villages, and we don't bother them. If it rains in the park we can't go there, even if our cattle are dying. If we do, we are beaten up and our cattle are taken away. This is not Ujirani Mwema. I know all about TANAPA's Ujirani Mwema. I've seen it first-hand, and we don't need it here. We would all be better off if TANAPA took their Ujirani Mwema and went away. (Maasai elder in Igoe 1999: 15)

For the people living closest to the Park, the formal conservation of the mountain is mostly a one way street. While they have seen some benefits through the CCS, such as a school being renovated and a bridge built, most of their interaction with KINAPA is in the form of restrictions and fines. People who live near the Park need to see some sense

of responsibility for their well-being from KINAPA. They are anxious to better learn how to conserve the mountain (Kaswamila 2002; Marandu 2001), however, they also feel KINAPA itself is benefiting from the resources of Kilimanjaro. If KINAPA could fit into the local culture of cooperation and shared responsibility, they could tap a powerful force for preserving the mountain.

Declining Attachment to Place

“A commitment to staying in one place long term makes it more likely that people will engage in sustainable resource use practices, and be willing to cooperate in establishing a viable system of pastoral resource management.” (Charnley 1997: 610). People with a long-term commitment to place are valuable assets for preserving and caring for that place. As one grandmother told us, staying in one place is a hallmark of the Chagga culture.

We are not like the Masai who move here and there. We live at our village home. In general, the Chagga tribe has the custom of staying where they are. They don't move.

However, as Bell (1997: 832) notes, “Our sense of the rightful possession of a place depends in part upon our sense of the ghosts that possess it, and the connections of different people to those ghosts.” The “ghosts” of Kilimanjaro are changing. As KINAPA takes more control away from local residents, people's connections to the place are weakened. Outside factors are combining with pressures from the Park to make staying in

one place harder and harder. A grandmother tells of their decision to stay while others are choosing to leave.

But we decided to live here and have our activities here and produce together and eat together, and not to stay very far. But actually, most people don't prefer to live here in Mbahe. They like to go far away to find some more income, a better life, and so people are just preferring finding money more than living here. So the next generation is changing. And more people will be scattered more than the present generation.

Salamon (2003: 183) demonstrates that changes to community and its relationship to place occur as livelihoods move away from the direct relationship with the land of farming.

A farming community has organic coherence because its residents have strong ties to the land that defines the place. This agrarian attachment to land as a part of place differs from the characteristic postagrarian attachment to land as personal property or investment. . . . Only through repetitive informal interactions do people forge the shared meanings that foster a sense of community. When a place is cherished for its uniqueness, people are more committed to sustaining the place. . . . Postagrarian communities are best at providing privacy and autonomy; agrarian communities opt for maximizing togetherness.

Salamon further argues that such agrarian communities have more “social resources” at their disposal. Such social resources, founded on individuals’ attachments to place, are

one of the key elements needed for successful conservation. A grandmother articulates how such social resources are developed and passed on.

Children also inherit and imitate this behavior. In the past there was good cooperation with neighbors, with people, because people respected each other; people had discipline; and people were visiting each other, talking about life or helping each other. Also when the children of the neighbors come from somewhere, maybe from Dar es Salaam, they will come and visit the neighbors and maybe bring some sugar and talk about their life and where they were and many things of good behavior.

The Chagga's attachment to place has been passed down from generation to generation, through social relationships and a history of cooperation and shared responsibility. This attachment can be a great resource for the conservation of the mountain. These people are committed to maintaining their homes and the resources that support them.

However, those who run KINAPA are looking in another direction. They see the changes brought in from outside influences as inevitable and generally positive.

There is this thing concerning Europe and America changing the people's behavior. . . . We believe that the white people have got a good way of life—the way they behave, and . . . our children tend to copy that. For example, you find some of our ladies nowadays, they put on trousers, which is not our tradition. They copy that from the white ladies, you see. And also put on the short dress. For us, Africans, we are not allowed, but because our friends from Europe and America are coming. . . . Changes are there. Changes are there. . . . When we say

retention of the Chagga values and traditions, yes. . . . We who are here now, we have young people, we have old people. Now, the old people who are normally people who maintain the traditional ways and value of the tribe are going. They are going naturally. They are going. I mean, they are dying. So, what remains are the young people, now, continuing what they take over from their elders. Now, you find because of education, life changes. They never maintain the real traditional ways of living according to the situation now. So, the Chagga values and traditions keep on changing, but slowly. Just because of life changes and interference from other people. From people from other continents. (Meikasi 2003).

In this same vein, KINAPA sees the shifts in economy from agrarian to non-agrarian as positive.

As I told you, here is the tourism industry center. Yes, I can say the market is very, very good so long [as the] human population is high and also money is there. And also that I told you the place is a tourism center. People have money and products—products must have a market. A good market also. I don't see any place here where you find products are in the lower price. Sometimes you ask yourself why things are expensive while they are producing themselves. It is just, they cope with the life situation, the life standard of the area.

When it comes to the improvement of the villages on and off the mountain, for me, what I know is that there is good improvement. Actually, when you look at the way people live, because Mt. Kilimanjaro is a center of tourism

business or industry, people are producing more and more products like vegetables and other things to be used by the tourists, and by doing so they are earning a lot of money from tourists and the residents as well. Also, there is this small business—scale businesses along the roads and the markets. Because the area is the tourism center, then people are earning a lot of money and so improving their livelihood. There are a lot of hotels here also—around the mountains and also beyond, off the villages from the mountain. Those hotels, some are big and others are of the local state. . . This type of business now creates employment. It creates employment for local people, and so, improves their life. It creates employment in this hotel and also when people are doing this business along the road, that is employment. Also, people are getting employment going to the mountain, say as porters or guides. People are from these villages. So the money they are getting, they spend to improve their lives, so improvement is there. (Meikasi 2003)

As the Chagga on Kilimanjaro are alienated from their lands both by the Park and the forces of modernization, more will be lost than just a few farms or the rural lifestyle. Values of caring for and maintaining a place will change as connections to that place change. As people are “treated like an egg” (as one grandmother put it), the benefits of privacy, autonomy and comfort may become more accessible. However the togetherness, shared sense of responsibility, and attachment to place through its connection to their personal and family’s well-being that were developed on Kilimanjaro will diminish as more and more people move towards what Salamon (2001) calls a post-agrarian lifestyle.

CHAPTER 8: SOCIAL RESOURCES AND ENVIRONMENTAL CONSERVATION

An interesting word in Swahili is “*pole*” [*poe-lay*], which can mean “slowly,” “sorry,” or “I feel for you.” When you pass someone hard at work, it is common to say “*pole*,” showing that you appreciate their effort and feel for their situation. Living on Kilimanjaro with my three children, I was often greeted with “*pole*” as a sign that the speaker recognized the hard work I had to put in as a mother. And when someone dies, it is a community ritual to pass by their home to say “*pole*” to their relatives—often no more than that. This kind of feeling together and acknowledgement of shared burdens is symbolic of a larger cultural trait. The Chagga of Kilimanjaro have traditions and family values that foster connections and shared responsibilities.

Those who label themselves “environmentalists” are looking, whether consciously or subconsciously, for such traits of connection and responsibility to support their ideals of conserving the beautiful and scenic places on earth. A recent book articulates the need for social and cultural ideals to support preservation of the earth, asserting that “in pursuing a more *nurturing* relationship with the natural world, we see our own salvation in the preservation of the health, integrity, and beauty of creation” (Kellert and Farnham 2002: xiv; emphasis added). Nurturing implies connection and responsibility. The traditions and social understandings of the Chagga support such nurturing relationships with their surroundings, which they see as an important part of their families, their past, and their future. Many of the modern forces associated with globalization and westernization are putting pressure on Chagga traditions and social understandings. While KINAPA is not the sole cause of the modern forces coming to

bear on these traditions and cultural practices, it does operate based on many of the same assumptions.

Theoretical Contributions to Understanding the Situation on Mount Kilimanjaro

The importance of place, feelings of responsibility, belonging, and personal attachment are given more prominence in the theories of African philosophers, eco-feminists, and place theorists than in traditional, western social theories. I have applied the broad concepts from these theories to the specific conservation situation on Mount Kilimanjaro. I recognize that many who are seen as experts in conservation do not treat such emotional and social issues as important for ecological conservation. Spina (1998, 274) articulates a common disregard for social, or what he terms political, sentiments as important to conservation.

If change [in environmental conservation] is to come, then it should be based on ecological criteria and not political ideology. Although the IVth World Congress on National Parks and Protected Areas, held at Caracas in 1992, resolved that new partnerships were needed for the management of land and natural resources, this did not mean that their management should become the domain of sociologists and anthropologists.

I would not argue that the management of conservation be turned over to sociologists and anthropologists. However, there are important social sides to conservation, and unless the social and cultural aspects of conservation are given more attention, important social resources vital to successful conservation will be lost or degraded to the point that conservation is no longer possible without excluding humans altogether from the

equation. Sociologists and anthropologists may be those most fitted to identify and articulate such resources and their importance to conservation.

My own research has focused heavily on the social and cultural aspect of the conservation of Mount Kilimanjaro, not because these aspects of conservation are the most important, but because they are often ignored or discounted in the decisions about how an area is to be conserved. Place is made up of three realms—meaning, nature, and social relations—and this framework

is an integrated whole. It helps us see more clearly, not only by seeing particular effects of place, or even by seeing beyond our culture to others and their views, but by making us aware that our powers as geographic agents range from the empirical to the aesthetic to the moral. This understanding requires that we be willing to expand our views and be less partial. Without this willingness—without free will—there cannot be a clearer picture, nor can there be moral responsibility (Sach 1997: 257).

I argue that the best chance to conserve Mount Kilimanjaro lies in recognizing the social resources that the local people have cultivated in terms of their attachment to the place, their feeling of responsibility for it, and their commitment to the long-term survival of the mountain as the home and future of their families. The social theories presented in Chapter 2 provide a framework from which to do this. African philosophers have well articulated the importance of place and experience for grounding knowledge and understanding. In their view, people living on Mount Kilimanjaro have much to offer because of their experiences on the mountain and their understanding and attachment to the place itself. Place, culture, and commitments all influence how people act and react in

the world. As Soyinke (2002) warns, the consequences of western power and material temptations can be the alienation of people from their homes and lands.

The children of this land are proud
But only seeming so. . . .
These are the offspring of the dispossessed,
The hope and land deprived. Contempt replaces
Filial bonds. . . .
A new race will supersede the present –
Where love is banished stranger, lonely
Wanderer in forests prowled by lust,
On feral pads of power,
Where love is hidden, ancient ruin, crushed
By memory, in this present
Robbed of presence
(*The Children of This Land*, 63-64).

Attachment to place and land are the foundation for important social and cultural traits. Time is also an important factor for the conservation of Kilimanjaro. As Meikasi (2003), the conservation warden, pointed out, the locals are changing from generation to generation. Some of the social resources of the older generations may not be as strong with the next generation. Nearly all of the grandmothers were doubtful that their children would carry on the practice of raising their grandchildren. However, those who are

remaining on the mountain seem to be those most likely to carry on at least some of the traditions of their parents, and the attachment to the land that they will pass on to their children and grandchildren should remain strong, both from bonds formed through the traditions their parents practiced and their continuation of many of the traditions such as land inheritance and burial.

Salamon (2003) showed that communities whose members are involved in agriculture develop different institutions and norms than communities without this connection to the land. She found that many people migrated to agricultural communities because of the lifestyle and culture. However, often these immigrants did not participate in the community practices that served to build and strengthen such lifestyles. Thus the newcomers were attempting to capitalize on the community's social resources without participating in the cultural practices and traditions necessary to maintain these resources. The situation on Mount Kilimanjaro can be viewed similarly. Environmentalists are attempting to preserve Mount Kilimanjaro, which they have labeled beautiful or valuable. However, the institutions they have helped put into place in the name of preservation are putting enormous pressure on the very cultural and traditional practices that contribute to its preservation.

Combining Tradition and Standard Practice

By combining local residents' social strengths with sound natural science research and environmental education, the people who live on the mountain can be seen as assets to its preservation rather than liabilities.

I have analyzed at the situation on Mount Kilimanjaro from within a framework created by African philosophers, eco-feminists, and place theorists. These theorists

identify weaknesses in the standard, western ecological thinking that has been the basis for the protective strategies applied on Mount Kilimanjaro. By giving a more prominent place to the role of sentiments, instincts, and relationships as important social forces, KINAPA can benefit from the strengths of local residents. Using the above theories as a starting point, I was able to identify strong feelings of attachment, responsibility, and loyalty to the place of Kilimanjaro in the people of three communities on the mountain. These feelings have been fostered through traditions and family connections that are under increasing pressure from global economic and social forces, of which KINAPA is only a small part. The younger generation, according to the grandmothers of the region, are looking for and expecting more material comforts and individuality. However, many grandmothers also express the hope or expectation that the younger generation will also remember their parents and honor their families and homes. Such issues are becoming critical as modern environmentalists add a sense of urgency to protecting places from the destructive influences of human society. Richard Leakey (2003), a prominent environmentalist from Kenya schooled in western ecology, has warned that there is no time to worry about local populations—the urgency to protect environmental resources is too great. My own work suggests that such sentiments are exactly backwards: by disconnecting the people from the places they know and love, we may be losing the most important resources needed to preserve those places. Given the urgency of the situation, it is short-sighted *not* to worry about and enlist the communal wisdom and support of the local populations.

Changing paradigms or world views is never an easy task. However, many environmentalists and champions of science are beginning to promote ecological

solutions that require a shared sense of responsibility and an attachment to place. But while recognizing that such traits are a necessary ingredient for successful conservation, most do not acknowledge that these traits must be built from cultural meanings and instincts that are being degraded by the very forces that support much modern, formal conservation. By better understanding the motivations and priorities of the people who live in and near the lands they hope to protect, KINAPA could tap into significant social resources that would sustain and strengthen the conservation effort.

This is not a simple process. It is important to remember, as Redford and Sanderson (2000) insist, that just because people are indigenous to a place does not mean that they will know the best way to conserve it. However, if taught conservation strategies, many locals on Kilimanjaro have a foundation of values and attachments that well suit them to be successful conservationists. The people want and need more education on ways to preserve the lands they depend on. They are an invested and interested audience. However, those who will work with them and provide this education must understand and build upon the beliefs and motives behind the investment of the local people. Kilimanjaro is their home. It provides them and their families with many of the natural resources they need to survive. Kilimanjaro also contains memories, the bones of dead relations, responsibilities, and hopes for the future. Their place is more than a means of economic survival; it is also a link between generations, communities, and families. Their connection is thus both pragmatic, in an economic sense, and sacred, in a generational sense. For many who live and work on Kilimanjaro, “the aim of having land is not for selling. It is for taking care of everyone.” KINAPA can help teach the locals modern conservation techniques, and at the same time support traditional attachment and

connection, thereby increasing the commitment to the future well-being of Kilimanjaro and its people.

KINAPA cannot solve all the problems facing communities on Kilimanjaro. The amount of land available is fixed, and out migration will continue and probably increase as fewer and fewer children are able to inherit enough land to make a living on the mountain. However, those who are able to remain should be viewed as partners in conservation. While KINAPA cannot control or exert much influence over the broad forces of globalization and population increase, they can recognize and foster the local values of connection, responsibility, and loyalty to place. These values can be channeled towards improving environmental conservation on the mountain. To accomplish this, KINAPA should accept and support the local conception of place as an integral part of the community. More emphasis must be put on educating local populations about how to best preserve Kilimanjaro and its resources for future generations. Rather than just encouraging the younger generations to pursue economic benefits from the Park, KINAPA should look for ways to help locals feel more personally connected to the Park and foster a sense of responsibility for its preservation.

Responsibility can only grow from real local involvement. This could be accomplished by giving local councils and community groups, including a newly formed women's group, more decision-making power over access, resource extraction, and enforcement of policies. Locals must be included in KINAPA planning committees and given real representation in its CCS. They were conspicuously missing from the 1999 CCS meeting (KINAPA 1999). Like any bureaucracy, KINAPA is concerned with keeping itself going. For real local involvement, there will have to be structural changes

and some funds will have to be diverted away from KINAPA, the organization, towards local representatives. This mandate is already laid out in their handbook (KINAPA 1995)—local communities are scheduled to receive 25% of Park revenues, however currently they are receiving only 7.5%. Some of these revenues should be used to organize and sustain community councils which would be involved in KINAPA management decisions that affect local residents. Again, in order to make this work, local communities must get more education and information on the status of the land so they can understand and be responsible for their interaction with it.

As KINAPA implements such changes, they should also work to document the effects of altered procedures and policies. Otherwise both positive and negative outcomes may be exaggerated, ignored, or unnoticed. In relation to documentation, as mentioned in previous chapters, more study is needed to accurately identify the environmental changes taking place on Kilimanjaro as well as establishing the real causes of these changes. Such study must include ground-truthing as well as input from locals on their understanding of recent environmental changes and their causes. The speculations of outside scientists should be combined with the understanding of the local people to provide more accurate assessments of what is truly happening on the mountain.

While traditions and practices of the past are changing, residents' feelings of attachment and responsibility are still strong on Kilimanjaro. The traditions of land inheritance and family ownership of the land may be undergoing slow changes—such as the notion that women may be able to inherit land, or that younger children must look elsewhere—but all indications point to their continuation well into the future. If the benefits to conservation from these traditions are recognized and fostered, the current

generation can be expected to continue at least the foundational traditions that contribute to a strong attachment to place and a concern for its preservation in the future. The communities on Kilimanjaro are a part of the place, and for successful and sustainable conservation, they must be a part of its preservation. In order to work with local communities rather than alongside or even against them, KINAPA needs to recognize the social resources the communities have to offer and to build the necessary relationships and understandings to support and benefit from these resources.

References

- Abu-Lughod, J. 1968. The city is dead—Long live the city. In: *Urbanism in World Perspective*, ed. SF Fava. Pp. 154-65. New York: Crowell.
- Achebe, Chinua. 1994. *Things Fall Apart*. New York: Anchor Books.
- Achebe, Chinua. 1990. *Beyond Hunger in Africa: Conventional Wisdom and an African Vision*. Nairobi: Heinemann Kenya.
- Achebe, Chinua. 1984. *No Longer at Ease*. New York: Ballantine Books.
- Alpert, Peter. 1996. Integrated conservation and development projects. *Bioscience* 46(11): 845-855.
- Agarwal, Bina. 1992. The gender and environment debate: Lessons from India. *Feminist Studies* 18(1): 119-158.
- Akiwowo, Akinsola A. 1986. Contributions to the sociology of knowledge from an African oral poetry. In Martin Albrow and Elizabeth King, eds. *Globalization, Knowledge and Society: Readings from International Sociology*. London: SAGE Publications. 103-117.
- Bach, R.L. and J. Smith. 1977. Community satisfaction, expectations of moving, and migration. *Demography*. 14:147-167.
- Bahr, Howard. 1994. Multiplying glimpses, gleaning genres: A multidisciplinary approach to the study of change among the Navajo peoples. *Human Organization* 53(1): 55-71.

- Bahr, Howard and Theodore Caplow. 1991. Middletown as an urban case study. In Joe R. Feagin, Anthony M. Orum and Gideon Sjoberg, eds. *A Case for the Case Study*. Chapel Hill and London: The University of North Carolina Press.
- Barrett, Christopher B. and Peter Arcese. 1995. Are integrated conservation-development projects (ICDPs) sustainable? On the conservation of large mammals in Sub-Saharan Africa. *World Development* 23(7): 1073-1084.
- Basso, Keith H. 1996. *Wisdom Sits in Places: Landscape and Language Among the Western Apache*. Albuquerque: University of New Mexico Press.
- Baxter, Jamie and John Eyles. 1999. The utility of in-depth interviews for studying the meaning of environmental risk. *The Professional Geographer* 51(2): 307-320.
- Beckley, T. 2003. The relative importance of sociocultural and ecological factors in attachment to place. In: *Understanding Community-Forest Relations*, ed. L.E. Kruger, 105-126. Portland: U.S. Department of Agriculture, Forest Service Pacific Northwest Research Station.
- Beckley, T. 1998. Community attachment as anchors and magnets. Paper presented at the Rural Sociological Society Annual Meetings, August, Portland, OR.
- Bell, Michael Mayerfield. 1997. The ghosts of place. *Theory and Society* 26: 813-836.
- Beltrán, Javier, ed. 2000. *Indigenous and Traditional Peoples and Protected Areas: Principles, Guidelines and Case Studies*. Gland, Switzerland: IUCN and WWF.
- Bender, T. 1978. *Community and Social Change in America*. New Brunswick, NJ: Rutgers University Press.
- Benne, M. 2003. Interview with Secretary in the Regional Authority Secretary Kilimanjaro Office by Elizabeth Carr. June 12, 2003.

- Boahen, A. Adu, ed. 1985. *Africa Under Colonial Domination 1880-1935*. Vol. 7 of *General History of Africa*. London: Heinemann.
- Borchert, Lisette. 2002. Unpublished field notes from April – August, 2002. Recorded in Kilimanjaro, Tanzania.
- Brandon, K., K.H. Redford, and S.E. Sanderson, eds. 1998. *Parks in Peril: People, Politics and Protected Areas*. Washington, D.C.: Island Press.
- Brown, R.B. 1993. Rural community satisfaction and attachment in mass consumer society. *Rural Sociology* 58(3): 387-403.
- Busia, Abena P.A. in Anyidoho, Kofi, Abena P.A. Busia, and Anne V. Adams, eds. 1999. *Beyond Survival: African Literature and the Search for New Life*. Trenton, NJ: Africa World Press.
- Cabral, Amilcar. 1973. National liberation and culture. In *Return to the Source: Selected Speeches of Amilcar Cabral*, 39-56. New York: Monthly Review Press.
- Caro, T.M., N. Pelkey, M. Borner, K.L.I. Campbell, B.L. Woodworth, B.P. Farm, J. Ole Kuwai, S.A. Huish, and E.L.M. Severre. 1998. Consequences of different forms of conservation for large mammals in Tanzania: Preliminary analyses. *African Journal of Ecology* 36: 303-320.
- Césaire, Aimé. 2000. *Cahier d'un retour au pays natal*. Edited by Abiola Irele. Columbus: Ohio State University Press.
- Charnley, Susan. 1997. Environmentally-displaced peoples and the cascade effect: Lessons from Tanzania. *Human Ecology* 25(4): 593-615.
- Chicchón, Avecita. 2000. Conservation theory meets practice. *Conservation Biology* 14(5): 1368-1369.

- Conrad, Joseph. 1991. *The Complete Short Fiction of Joseph Conrad*. Hopewell, NJ: The Ecco Press.
- Cook, K. and D.O. Kerner. 1989. Gender and food shortage in Tanzania. *Feminist Issues* Spring 1989: 57-72.
- Dangarembga, Tsitsi. 1988. *Nervous Conditions*. Seattle, WA: The Seal Press.
- Deseran, F.A. 1978. Community satisfaction as definition of the situation: Some conceptual issues. *Rural Sociology* 43:235-249.
- Dundas, C. 1924. *Kilimanjaro and Its People*. London: Witherby.
- Durrant, Jeffrey. 2001. Applying geographical techniques to land use/land cover analysis in and around protected areas. *Papers of the Applied Geography Conferences*. November 2001. Fortworth Texas.
- Dyck, Isabel. 1999. Using qualitative methods in medical geography: Deconstructive moments in a subdiscipline? *The Professional Geographer* 51(2): 243-253.
- Elder, G.H., V. King, R.D. Conger. 1996. Attachment to place and migration prospects: A developmental perspective. *Journal of Research on Adolescence* 6: 397-425.
- Elliot, George. 1876. *Daniel Deronda*. New York: R. F. Fenno & Co.
- Emerson, Robert M. 1988. *Contemporary Field Research: A Collection of Readings*. Prospect Heights, IL: Waveland Press, Inc.
- Engelhardt, K. 1979. Kilimanjaro–Vegetationsstufen und Bodennutzung. (Beschreibung und Interpretation eines Satellitenbilds.(Kilimanjaro: vegetation zones and land use. Description and interpretation of a satellite picture). *Geographische Rundschau* 31(8): 327-328.

- Eze, Emmanuel Chukwudi, ed. *Postcolonial African Philosophy: A Critical Reader*.
Cambridge: Blackwell.
- Fanon, Franz. 1963. *The Wretched of the Earth*. Translated by Constance Farrington.
New York: Grove Weidenfeld.
- Fernández, R.R. and D.A. Dillman. 1979. The influence of community attachment on
geographic mobility. *Rural Sociology*. 44:345-360.
- Folbre, Nancy. 1994. *Who Pays for the Kids: Gender and the Structures of Constraint*.
London: Routledge.
- Folbre, Nancy. 2001. *The Invisible Heart: Economics and Family Values*. New York:
The New Press.
- Freudenburg, W.R. 1986. The density of acquaintanceship: An overlooked variable in
community research? *American Journal of Sociology* 92(1) 27-63.
- Fried, M. 1984. The structure and significance of community satisfaction. *Population and
Environment* 7(2): 61-86.
- Gieryn, Thomas. F. 2000. A space for place in sociology. *Annual Review of Sociology* 26:
463-96.
- Gillingham, M.E. 1999. Gaining Access to Water: Formal and Working Rules of
Indigenous Irrigation Management on Mount Kilimanjaro, Tanzania. Natural
Resources Journal 39:419-441.
- Gough, David. 2002. The melting mountain. *Newsweek* 139(8): 34.
- Grove, A. 1993. Water Use by the Chagga on Kilimanjaro. African Affairs. Vol. 92.
431-448.
- Gutmann, B. 1926. *Das Recht der Dschagga*. Munich and Berlin: C.H. Beck'sche

Verlagsbuchhandlung.

Handayani, Sri Wening, Ralph B. Brown, and Corrine Valdivia. 1993. Bio-social roles in peasant small-ruminant production: The importance of children versus women in secondary economic activities. *Small-Ruminant Collaborative Research Support Project Technical Report #109*. Columbia, MO: University of Missouri-Columbia.

Harcourt, A.H., H. Pennington, and A.W. Weber. 1986. Public attitudes to wildlife conservation in the third world. *Oryx* 20:152:4.

Hays, Samuel P. 1987. *Beauty, Health and Permanence: Environmental Politics in the United States, 1955-1985*. Cambridge: Cambridge University Press.

Herting, JR; Grusky, DB; Van Rompaly, SE. 1997. The social geography of interstate mobility and persistence. *American Sociological Review* 62: 267-87.

Homewood, Katherine and Daniel Brockington. 1999. Biodiversity, conservation and development in Mkomazi game reserve, Tanzania. *Global Ecology and Biogeography* 8: 301-313.

Hummon, David. 1990. *Commonplaces: Community Ideology and Identity in American Culture*. Albany: State University of New York Press.

Igoe, Jim. 1999. Roadblocks to community conservation in Tanzania: A case study from Simanjiro district. *Working Papers in African Studies*, No. 218. Boston: African Studies Center, Boston University.

Infield, M. 1988. Attitudes of rural community towards conservation and location conservation in Natal, South Africa. *Biological Conservation* 45:21-46.

Irion, Robert. 2001. The melting snows of Kilimanjaro. *Science Now* Feb. 20, 2001: 1.

- Ite, U.E. 1996. Community perceptions of the Cross River National Park, Nigeria.
Environmental Conservation 23:351-57.
- Janowitz, M. 1967. *W. I. Thomas on Social Organization and Social Personality*.
Chicago: University of Chicago Press.
- Kasarda, John D. and Morris Janowitz. 1974. Community attachment in mass society.
American Sociological Review 39(June): 328-39.
- Kaswamila, Abuid. 2002. Assessment of impact of community conservation service case
study of fourteen villages on Mount Kilimanjaro. Unpublished manuscript.
Mweka, Tanzania: CAWM library.
- Khaldoun, Ibn. 1967 (written around 1381). *The Muqaddimah: An Introduction to
History*. Translated by Franz Rosenthal. Edited and abridged by N.J. Dawood.
Princeton, NJ: Princeton University Press (Bollingen Series).
- KINAPA. 1995. *General Management Plan*. TANAPA: Kilimanjaro: Tanzania.
- KINAPA, 1999. *Community Conservation Service, Strategic Action Plan*. TANAPA:
Kilimanjaro: Tanzania.
- Kluback, William. 1997. *Léopold Sédar Senghor: From Politics to Poetry*. New York:
Peter Lang.
- Harcourt, A.H., H. Pennington, and A.W. Weber. 1986. Public attitudes to wildlife
conservation in the third world. *Oryx* 20:152:4.
- Homewood, Katherine and Daniel Brockington. 1999. Biodiversity, conservation and
development in Mkomazi game reserve, Tanzania. *Global Ecology and
Biogeography* 8: 301-313.

- IUCN. 1986. *Review of the Protected Areas System in the Afrotropical Realm*. Gland, Switzerland.
- Kane, Cheikh Hamidou. 1972. *Ambiguous Adventure*. London: Heinemann.
- Kramer, R., C.P. van Schaik, and J. Johnson. 1997. *Last Stand: Protected Areas and the Defense of Tropical Biodiversity*. New York: Oxford University Press.
- Lachapelle, Paul R., Stephen F. McCool, and Michael E. Patterson. 2003. Barriers to effective natural resource planning in a “messy” world. *Society and Natural Resources* 16(6): 473-490.
- Leakey, Richard. 2003. Keynote address at Beyond the Arch: Community and Conservation in Greater Yellowstone and East Africa. 7th Biennial Scientific Conference on the Greater Yellowstone Ecosystem. October 6-8, 2003. Yellowstone National Park, Wyoming.
- León-Portilla, Miguel. 1990. *Endangered Cultures*. Translated by Julie Goodson-Lawes. Dallas: Southern Methodist University Press.
- Leonard, N.L. 1987. An assessment of the interaction between Arusha National Park and adjacent areas. Post-graduate diploma dissertation (unpublished). CAWM Library, Mweka, Tanzania.
- Little, Margaret Olivia. 1995. Seeing and caring: The role of affect in feminist moral epistemology.” *Hypatia* 10(3): 120.
- Logan, John R. and Harvey L. Molotch. 1987. *Urban Fortunes: The Political Economy of Place*. Berkeley: University of California Press.

- Marandu, A. M. 2001. Negative Impacts of Elephant Migration: A Case Study of Rombo District. Unpublished thesis. Sokoine University of Agriculture, Tanzania.
- Marans, R.W. and W. Rogers. 1975. Toward an understanding of community satisfaction. In: *Metropolitan America in Contemporary Perspective*, eds. A.H. Hawley, and P.V. Rock, 299-352. N.Y.: Sage.
- Marx, Karl and Frederick Engels. 1996. *The German Ideology*. Edited by C.J. Arthur. New York: International Publishers.
- McAuley, W.J. and C.L. Nutty. 1985. Residential satisfaction, community integration, and risk across the family life cycle. *Journal of Marriage and the Family* 47(1): 125-130.
- Mehta, J.N. and S.R. Kellert. 1998. Local attitudes toward community-based conservation policy and programmes in Nepal: A case study in the Makalu-Barun Conservation Area. *Environmental Conservation* 25(4):320-333.
- Meikasi, L. Ole. 2002. Informal interview with Jeffrey O. Durrant. KINAPA, Tanzania. 8 July, 2002.
- Meikasi, L. Ole. 2003. Taped interview with Elizabeth Parnell Carr. KINAPA, Tanzania. 29 May 2003.
- Mies, Maria. 1989. *Patriarchy and Accumulation on a World Scale: Women in the International Division of Labour*. London: Zed Books.
- Mies, Maria and Vandana Shiva. 1993. *Ecofeminism*. London: Zed Books.
- Mudimbe, V.Y. 1994. *The Idea of Africa*. Bloomington: Indian University Press.

- Mudimbe, V.Y. 1988. *The Invention of Africa: Gnosis, Philosophy, and the Order of Knowledge*. Bloomington: Indiana University Press.
- Mwalyosi, R.B.B. 1991. Ecological evaluation for wildlife corridors and buffer zones for Lake Manyara National Park, Tanzania, and its immediate environment. *Biological Conservation* 57: 171-186.
- Mwasaga, B.C. 1991. The natural forest of Mount Kilimanjaro. In William D. Newmark, ed., *The Conservation of Mount Kilimanjaro*. Gland, Switzerland: IUCN.
- Nango, D. 1999. The Extent of Local People Participation in Natural Resources Management and Utilisation within Kilimanjaro Forest Reserve-Tanzania. (Dissertation)
- Nash, Roderick. 1967. *Wilderness and the American Mind*. 3rd edition. New Haven: Yale University Press.
- Netting, Robert. 1993. *Smallholders, Householders: Farm Families and the Ecology of Intensive, Sustainable Agriculture*. Stanford, CA: Stanford University Press.
- Neumann, Roderick P. 1998. *Imposing Wilderness: Struggles over Livelihood and Nature Preservation in Africa*. Berkeley: University of California Press.
- Newmark, William D. 1996. Insularization of Tanzanian parks and the local extinction of large mammals. *Conservation Biology* 10(6): 1549-1556.
- Newmark, William D, ed. 1991. *The Conservation of Mount Kilimanjaro*. Gland, Switzerland: IUCN—The World Conservation Union.
- Newmark, William D. and John L. Hough. 2000. Conserving wildlife in Africa: integrated conservation and development projects and beyond. *BioScience* 50(7): 585-592.

- Newmark, William D., John I. Boshe, Hashan I. Sariko, and George K. Makumbule. 1996. Effects of a highway on large mammals in Mikumi National Park, Tanzania. *African Journal of Ecology* 34: 15-31.
- Newmark, William D., David N. Manyanza, Deo-gratias M. Gamassa, and Hashan I. Sariko. 1994. The conflict between wildlife and local people living adjacent to protected areas in Tanzania: Human density as a predictor. *Conservation Biology* 8(1): 249-255.
- Newmark, W. D., N.L. Leonard, H.I. Sariko and D.M. Gamassa. 1993. Conservation attitudes of local people living adjacent to five protected areas in Tanzania. *Biological Conservation* 63: 177-83.
- Ngugi wa Thiongo. 1993. *Moving the Centre: The Struggle for Cultural Freedoms*. London: J. Currey.
- Ngugi wa Thiongo. 1989. *Matigari*. Oxford: Heinemann.
- Ngugi wa Thiongo. 1986. *Decolonising the Mind: The Politics of Language in African Literature*. London: J. Currey.
- Obbo, Christine. 1989. Sexuality and economic domination in Uganda. In Nira Yuval-Davis and Floya Anthias, eds. *Woman, Nation, State*. Houndmills, Basingstoke, Hampshire: Macmillan.
- Ogundipe-Leslie, Molar. 2001. Moving the mountains, making the links. In Kumkum Bhavani, ed., *Feminism and "Race"*. Oxford, NY: Oxford Univ. Press.
- Pahl, R.E. 1968. The rural-urban continuum. In *Readings in Urban Sociology*. edited by R.E. Pahl. London: Pergamon Press. 263-297.

- Park, R.E., and E.W. Burgess 1921. *Introduction to the Science of Sociology*. Chicago: University of Chicago Press.
- Park, Robert E. and Ernest W. Burgess. 1925. *The City*. Chicago: University of Chicago Press.
- Parnell, Elizabeth. 2002. Unpublished field notes from April – August 2002. Recorded in Kilimanjaro, Tanzania.
- Pelkey, N.W., C.J. Stoner, and T.M. Caro. 2000. Vegetation in Tanzania: Assessing long term trends and effects of protection using satellite imagery. *Biological Conservation* 94(2000): 297-309.
- Pennington, H. 1983. *A Living Trust: Tanzanian Attitudes Towards Wildlife and Conservation*. Masters Thesis. Yale University, New Haven.
- Peres, C.A. 1994. Indigenous reserves and nature conservation in Amazonian forests. *Conservation Biology* 8: 586-589.
- Peres, C.A. and J.W. Terborgh. 1995. Amazonian nature reserves: An analysis of the defensibility status existing conservation units and design criteria for the future. *Conservation Biology* 9: 34-46.
- Polanyi, Karl. 1944. *The Great Transformation*. Boston: Beacon Press.
- Protected Areas Information Service. 2002. 1992 protected areas of the world: A review of national systems. Tanzania. Webpage at www.wcmc.org.uk/cgi-bin/pa_paisquery.p. Accessed 1/21/2002.
- Redford, Kent H. and Steven E. Sanderson. 2000. Extracting humans from nature. *Conservation Biology* 14(5): 1362-1364.

- Redford, K.H. and M. Stearman. 1993. Forest-dwelling native Amazonians and the conservation of biodiversity: Interests in common or in collision? *Conservation Biology* 7:248-255.
- Revkin, Andrew C. 2001. A message in eroding glacial ice: Humans are turning up the heat. *New York Times* 150(51669): A1.
- Robinson, J.G. and E.L. Bennett. 2000. Carrying capacity limits to sustainable hunting in tropical forests. In J.G. Robinson and E.L. Bennett, eds, *Hunting for Sustainability in Tropical Forests*. New York: Columbia University Press. 13-30.
- Rocheleau, Dianne Rocheleau, Barbara Thomas-Slayter, and Esther Wangari, eds. 1996. *Feminist Political Ecology: Global Issues and Local Experiences*. London: Routledge.
- Roe, Emery M. 1991. Development narratives, or making the best of blueprint development. *World Development* 19(4): 287-300.
- Ronald, T.W. 1997. Protecting the catchments of Kifura Forest Reserve. Document in CAWM Library, Mweka, Tanzania.
- Sack, Robert David. 1997. *Homo Geographicus: A Framework for Action, Awareness and Moral Concern*. Baltimore and London: The Johns Hopkins University Press.
- Salamon, Sonya. 2003. *Newcomers to Old Towns: Suburbanization of the Heartland*. Chicago: University of Chicago Press.
- Salamon, Sonya 1992. *Prairie Patrimony: Family, Farming, and Community in the Midwest*. Chapel Hill: University of North Carolina Press.
- Salamon, Sonya. 1985. Ethnic communities and the structure of agriculture. *Rural Sociology* 50(3): 323-340.

- Schmidt, P.R. 1989. Early exploitation and settlement in the Usambara Mountains. In A.C. Hamilton and R. Bensted-Smith (eds), *Forest Conservation in the East Usambara Mountains*. Gland: IUCN. 75-78.
- Schwartzman, Stephan, Adriana Moreira, and Daniel Nepstad. 2000. Rethinking tropical forest conservation. *Conservation Biology* 14(5): 1351-1357.
- Senghor, Léopold Sédar. 1991. *The Collected Poetry*. Translated by Melvin Dixon. Charlottesville and London: University Press of Virginia.
- Serqueberhan, Tsenay, ed. 1991. *African Philosophy: The Essential Readings*. New York: Paragon House.
- Serequeberhan, Tsenay. 1997. The critique of Eurocentrism and the practice of African philosophy. In Emmanuel Chukwudi Eze, ed. *Postcolonial African Philosophy: A Critical Reader*. Cambridge: Blackwell.
- Shiva, Vandana. 1988. *Staying Alive: Women Ecology and Development*. 1988. London: Zed Books.
- Smith, Adam. 1998. *Wealth of Nations*. Oxford: Oxford University Press.
- Smith, Alexander McCall Smith. 1998. *The No. 1 Ladies Detective Agency*. New York: Anchor Books.
- Sofranko, A.J. and F.C. Fliegel. 1984. Dissatisfaction with satisfaction. *Rural Sociology* 49(3): 353-373.
- Songorwa, Alexander. 1999. Community-based wildlife management (CWM) in Tanzania: Are the communities interested? *World Development* 27(12): 2061-2079.

- Soyinke, Wole. 1988. *This Past Must Address Its Present: The 1986 Nobel Lecture*. New York: Anson Phelps Stokes Institute for African, Afro-American, and American Indian Affairs.
- Soyinka, Wole. 1988b. Cross-Currents: The 'New African' After Cultural Encounters. In *Art, Dialogue and Outrage: Essays on Literature and Culture*. Ibadan: New Horn Press.
- Soyinka, Wole. 2002. Hours lost, hours stolen. In *Samarkand and Other Markets I Have Known*. London: Methuen.
- Speth, James Gustave, ed. 2003. *Worlds Apart: Globalization and the Environment*. Washington: Island Press.
- Spinage, Clive. 1998. Social change and conservation misrepresentation in Africa. *Oryx* 32(4): 265-276.
- Spretnak, Charlene. 1999. *The Resurgence of the Real: Body, Nature, and Place in a Hypermodern World*. New York: Routledge.
- Stambach, Amy. 2000. *Lessons from Mount Kilimanjaro: Schooling, Community, and Gender in East Africa*. New York: Routledge.
- Stocking, Michael and Scott Perkin. 1992. Conservation-with-development: an application of the concept in the Usambara Mountains, Tanzania. *Transactions of the Institute of British Geographers* 17(3): 337-349.
- TANAPA (Tanzania National Park Authority). 2000. *Strategic Action Plan for Community Conservation Services* (Draft Report).
- Tarullo, Cara. 2002. Unpublished field notes from April – August, 2002. Recorded in Kilimanjaro, Tanzania.

- Terborgh, J. 1999. *Requiem for Nature*. Washington, D.C.: Island Press.
- Thomas, W.I. 1967. *On Social Organization and Social Personality*, ed. Morris Janowitz.
Chicago: University of Chicago Press.
- UNDP. 1980. *Rural Women's Participation in Development: Evaluation Study No. 3*.
New York: United Nations.
- Visvanathan, Shiv. 1991. Mrs. Brundtland's disenchanted cosmos. *Alternatives* 16: 377-384.
- Von Clemm, Michael. 1964. Agricultural productivity and sentiment on Kilimanjaro.
Economic Botany 18: 99-121.
- Ward, C. 1998. The importance of context in explaining human capital formation and labor force participation of American Indians in Rosebud County, Montana. *Rural Sociology* 63(3): 451-480.
- Watts, Michael. 1992. Idioms of land and labor: Producing politics and rice in Senegambia. In T. Bassett and D. Crummey (eds.) *Land in African Agrarian Systems*. University of Wisconsin Press: Madison, 157-93.
- Webber, Melvin M. 1963. Order in diversity: Community without propinquity. In *Cities and Space: The Future of Urban Land*, edited by Lowdon Wingo. Baltimore: Johns Hopkins. 23-54.
- Weber, Max. 1947. *The Theory of Social and Economic Organization*. New York: Free Press.
- Werlen, B. 1993. *Society, Action and Space: An Alternative Human Geography*. London: Routledge.

Whyte, William Foote. 1992. *Learning from the Field*. Newbury Park, CA: Sage Publications.

Wilkinson, Kenneth P. 1991. *The Community in Rural America*. Middleton, WI: Social Ecology Press.

Wilson, Douglas Clyde. 2003. Examining the two cultures theory of fisheries knowledge: The case of bluefish management. *Society and Natural Resources* 16(6): 491-508.

Wirth, Louis. 1938. Urbanism as a way of life. *American Journal of Sociology* 44(1): 3-24.

APPENDIX A: ENGLISH AND SWAHILI SURVEY

KILIMANJARO SURVEY-Summer 2002 (some fonts modified)

HOUSEHOLD DATA (Group or "Pot" section)

No. _____

Date of Interview: _____

Respondent(s): _____

Family Name(s) _____ Owner/Head of Household: FEMALE MALE BOTH

How much of the year is the owner/head of household absent?

ALL OR MOST MORE THAN HALF HALF LESS THAN HALF NOT OFTEN ABSENT

Who manages the household day to day? FEMALE MALE BOTH

Do you have more than one wife: YES NO USED TO If yes, how many? _____

House Location(s): _____ S _____ E _____ Elev. _____

Village: Chekereni Sembeti Samanga Mbahe Other: _____

House Structure(s): ___Mud ___Wood ___ Brick ___Concrete ___Other

Plot size at House(s) ___ acres/hectares (circle one) Plot in family for ___ generations?

How did family obtain the plot? _____

How did you obtain the plot? _____

Number of people in household for most of the year, (include age):

Husband/wife	Sons/Grandsons	Daughters/Granddaughters	Househelp	Others (Specify):

Children with Mother absent from area for much of YEAR--only for those 12 and under

Age	Sex	Mother Status			Father Status		Child cared for by whom (Be specific)
		Months absent	*Location	**Activity	Location	Activity	

*Location: 1= Northern Zone (Kilimanjaro, Arusha, Tanga, Manyara), 2=Central Zone (Dodoma, Singida, Tabora), 3=East Coastal Zone (Morogoro, Dar Es Salaam, Pwani, Mtwara, Lindi, Zanzibar), 4=Southwest Mainland Zone (Mbeya, Iringa, Rukwa, Ruvuma), 5=Western Zone (Shinyanga, Kigoma, Kagera, Mwanza), 6=Out of Tanzania (specify)

**Activity: 1=Job, 2=Education, 3=Dead, 4=Other

Children with absent Mother most of DAY

Age	Sex	Part of day absent	Mother Activity	Child cared for by whom
		½ ¾ all		
		½ ¾ all		

Individual Interview (Only Household members over 18)

*Write any answer too long for space provided, with accompanying number, on back or attached sheet

SECTION I: GENERAL INFORMATION

No. _____ Date of Interview: _____

1. Respondent's name: _____

2. Sex: M F 3. Age: _____ 4. Where were you born? _____

5. Where were you raised? (First 12 years)

6. Marital Status:
[single] [married-lives w/spouse] [married-spouse elsewhere] [divorced/separated] [widowed]

7. Spouse's name(s): _____

8. What is/are your spouse's occupation(s)? _____

9. How many years have you lived in this village? _____

10. How much education have you completed?
[none] [adult education] [primary I-IV] [primary V-VII] [secondary I-IV]
[secondary V-VII] [other (specify)]:

11. How are you related to the head of this household (specify if owner)?

12. How do you earn most of your money?
[Agriculture] [Livestock] [Tourism job] [Own business]
[Work for wage] [Other (specify)]:

13. Where do you get most of your food?
[Buy at market] [Grow/raise yourself] [Family provides] [Other (specify)]:

14. How much of your day do you spend working to grow food/raise animals for food?
[All] [Most] [About Half] [A few hours] [Very little] [None]

15. Do you own other land? (acres/hectares) 16. Where is your land? (place and distance)

17. How did you get this land? When?

18. How much land does/did your father own? Where is/was it? _____

19. How much land does/did your grandfather own? Where is/was it? _____

20. Do you expect to inherit more land? YES NO MAYBE

21. Where? _____ How much? _____ From whom? _____

22. Who will inherit your land from you? [Name and relation]: _____

23. Do you plan to sell your land? YES NO MAYBE 24. Why?

25. Would you allow a daughter to inherit your land? YES NO 26. Why or why not?

27. How much land do you rent? (acres/hectares) _____ 28. Where is the land you rent located?

29. How do you get water for your land?
[rain] [irrigation] [rivers/streams] [well] [piped water]

30. Are you able to get enough water? YES/NO If not, why not?

31. What do you do when you can't get enough water?

32. How many animals do you own?
Pigs___ Cows___ Chickens___ Goats___ Sheep___ Ducks ___ Other _____

33. Do you have other sources of income (specify)?

SECTION II: COMMUNITY ATTACHMENT QUESTIONS

34. Where was your spouse born? _____ 35. Raised? _____

36. Approximately how many of your adult relatives, including those of your spouse, live in this village?

37. How many of the adults in this village would you say that you know by name?
[All] [Most] [About half] [Less than half] [Very few]

**Now, we want to ask you some questions about how you like living in this village. We will use a scale that looks like this [show the first card]. It has five numbers. The number 1 represents the bottom end of the scale and the number 5 represents the top. For example, if 1 represented terrible and 5 represented fantastic, a response of 2 would be closer to terrible but not totally terrible and a response of 3 would be neutral.

38. On a scale of 1 to 5, with 1 being bad and 5 being very good, how well do you feel that you fit into your village? [SHOW SCALE CARD]

VERY BAD	BAD	NEITHER	GOOD	NOR	BAD	GOOD	VERY GOOD		
[01]		[02]		[03]		[04]	[05]	NA	

39. Imagine the perfect village where you would like to live. On a scale from 1 to 5, with 1 being farthest from your perfect village and 5 being closest, where would your village be? [SHOW SCALE CARD]

VERY FAR	FAR	A LITTLE	FAR	CLOSE	VERY CLOSE		
[01]	[02]	[03]		[04]	[05]	NA	

40. Why did you rate your village the way you did? [PROBE: WHAT'S GOOD OR MISSING IN THE COMMUNITY, Note if not applicable or no answer.]

41. Over the past 5 years would you say that your village has become MORE or LESS desirable as a place to live or has it stayed about the same?

LESS DESIRABLE	ABOUT THE SAME	MORE DESIRABLE	NO ANSWER
----------------	----------------	----------------	-----------

42. Why is your village [MORE OR LESS DESIRABLE] compared to 5 years ago? [PROBE: WHAT HAS CHANGED OR NOT CHANGED DURING THE PAST 5 YEARS.]

43. Do you plan to live in your village long-term or do you have plans to move?

STAY	MOVE
------	------

44. If you had the means to move, would you stay in your village or move?

STAY	MOVE
------	------

45. Why do you want to stay here/move?

SECTION III: CONSERVATION ATTITUDES/PROGRAM KNOWLEDGE

46. On a scale from 1 to 5, with 1 being very unimportant and 5 being very important, how important do you think it is to have formal/government protection for wildlife and nature, for example in national parks?

VERY UNIMPORTANT UNIMPORTANT NEUTRAL IMPORTANT V. IMPORTANT
[1] [2] [3] [4] [5] [NA]

47. Why do you think this way about formal protection of wildlife and nature? [What specific things do they like or dislike about formal/government protection?]

48. Have you ever been in KNPFR? YES NO If yes, How many times? _____

49. With whom did you go? ___Family ___School ___Other? _____

50. Why did you go? (Mbahe: official entry?)_____

51. What do you think is the purpose of KNPFR?

52. How would you feel if KNPFR were abolished? Why?

53. Who benefits from KNPFR?

54. Have you ever heard of the Kilimanjaro National Park “Ujirani mwema” outreach program?

YES NO

[If yes, when was that (year)?]

55. Do you know its main objectives? YES NO 56. If yes, mention the program’s objectives

57. Has there ever been a “Ujirani mwema” project in your village? YES NO 58. When? What was it?

59. What is your opinion of the “Ujirani mwema” program? (PROBE if they have suggestions or experiences)

60. Have you ever been to any other Tanzania National Park? YES NO

61. If yes, which one(s)? _____

62. With whom did you go? ___Family ___School ___Other? _____

63. Why did you go?

CONCLUSION

Do you have anything else you would like to tell us?

KILIMANJARO SURVEY-Summer 2002 (Swahili)

MDHIBITI WA KAYA MAELEZO/DATA (Kikundi au “Chungu” kikosi) Nu. ___

Tarehe ya Majaribio: _____ Anayejibu/Wanaojibu: _____

Jina la Ukoo/Baba: _____

Miliki/Mdhibiti wa kaya: MKE MME WOTE

Ni muda kiasi gani kwa mwaka ambao mmiliki/mdhibiti wa kaya huwa hayupo nyumbani?

WOTE AU KABISA ZAIDI YA NUSU NUSU PUNGUFU ZAIDI YA NUSU

SIYO MARA NYINGI HAYUPO

Nani anayedhibiti kaya/eneo siku kwa siku? MKE MME WOTE

Una mke zaidi ya mmoja: NDIYO HAPANA ALIKUA ANA Kama jibu ni ndiyo, ni wangapi?

Eneo Nyumba liko: _____ Kusi. _____ Masha. _____ Mwinuko.

Kijiji: Chekereni Sembeti Samanga Mbahe Kingine: _____

Muundo wa Nyumba: ___Tope___Mbao ___Tofali ___Zege ___Nyinginezo

Ukubwa wa Shamba/kihamba: ___ hekari Shamba/kihamba ni kwa ajili ya vizazi vingapi?

Familia ilipataje shamba/kihamba _____

Wewe, ulipataje shamba/kihamba? _____

Idadi ya watu wanaoishi kwenye nyumba katika muda wote wa mwaka (andika umri):

Mume/Mke	Wavulana/wajuku u	Wasichana/wajukuu	Msaidizi wa nyumbani	Wengine (Mtu maalum):

Watoto wanaoishi bila mama zao kwa muda mrefu wa mwaka nyumbani—katika umri wa miaka 12 kurudi chini

Umri	Jinsia	Hali ya mama			Hali ya baba		Nani anayehudumia watoto kwa wakati huo (Mtu maalum)
		Muda asio kuwepo (mwezi)	*Eneo	**Kazi/ Shughuli	*Eneo	**Kazi/ Shughuli	

*Eneo: 1= Kanda ya Kaskazini (Kilimanjaro, Arusha, Tanga, Manyara), 2=Kanda ya Kati (Dodoma, Singida, Tabora), 3= Kanda ya Mashariki na pwani (Morogoro, Dar Es Salaam, Pwani, Mtwara, Lindi, Zanzibar), 4= Kanda ya Nyanda za Juu Magharibi (Mbeya, Iringa, Rukwa, Ruvuma), 5=Kanda ya Magharibi (Shinyanga, Kigoma, Kagera, Mwanza), 6= Nje ya Tanzania (taja)

**Kazi/Shughuli Activity: 1=Kazi 2=Elimu, 3=Amekufa, 4=Mengineyo

Watoto wanaokaa bila mama zao kwa siku/mchana mzima

Umri	Jinsia	Muda ambao mama hayupo Nyumbani	Mama ana kazi/shughuli gani?	Nani anayehudumia watoto kwa wakati huo (Mtu maalum)
		½ ¾ siku nzima		

Maswali kwa Mtu Binafsi (Muhimu kwa mwenyeji aliye na umri wa miaka 18 na kuendelea)

*Andika jibu lo lote refu kwa nafasi uliyopewa, nenda na namba uliopewa ambatanisha nyuma ya karatasi.

SEHEMU KWANZA: MAELEZO YA KAWAIDA

Nu. _____ Tarehe ya Majaribio: _____

1. Anayejibu: _____
2. Jinsia: MME MKE 3. Umri: _____ 4. Ulizaliwa wapi (Eneo/Kijiji/Mji)? _____
5. Ulikulua wapi? (Eneo/Kijiji/Mji) (kwa miaka 12 ya mwanzo) _____
6. Hali ya ndoa: [hujaoa/hujaolewa] [umeoa/umeolewa na mnaishi wote]
[umeoa/umeolewa na mnaishi moja wenu anaishi mbali na nyumbani] [talaka/kutengana][kifo
kimewatenganish
a]
7. Jina la mke/wake au mume: _____
8. Nini kazi ya mkeo/wakeo/mumeo? _____
9. Ni miaka mingapi umeishi katika kijiji hiki? _____
10. Una elimu (Umesoma) kiasi gani?
[sina kabisa] [elimu ya watu wazima] [msingi I-IV] [msingi V-VII] [sekondari I-IV]
[sekondari V-VII] [Ingenio (taja)]:
11. Unauhusiano gani na kaya eneo hili (taja kama wewe ni mmiliki au la)?
12. Unapataje kipato chako (pesa)?
[Kilimo][Ufugaji] [Kazi ya utalii] [Biashara zako mwenyewe] [Kibarua] [Kwingineko (taja)]:
13. Unapata wapi chakula chako zaidi?
[Unanunua sokoni] [Unalima mwenyewe] [Unapata kutoka kwenye familia] [Kwingineko (taja)]:
14. Muda gani unatumia kwa siku kulima mazao/kutunza wanyama kwa ajili ya chakula?
[Wote] [Mwingi] [Kama Nusu] [Masaa machache] [Muda kidogo] [Hakuna]
15. Unamiliki ardhi nyingine kiasi gani? (hekari/hekta) 16. Ardhi yako iko wapi (eneo/kijiji/mji)?
17. Ulipataje hiyo ardhi? Lini?
18. Ni kiasi gani cha ardhi ambacho baba yako alimiliki/anamiliki? Iko wapi/ilikuwa wapi (eneo/kijiji/mji)?
19. Ni kiasi gani cha ardhi ambacho babu yako alimiliki/anamiliki? Iko wapi/ilikuwa wapi (eneo/kijiji/mji)?
20. Unatarajia kurithi ardhi zaidi? NDIYO HAPANA LABDA
21. Wapi? _____ Kiasi gani? _____ Kutoka kwa nani? _____
22. Nani atarithi ardhi kutoka kwako? [Jina na uhusiano]: _____
23. Unapanga kuuza ardhi yako? NDIYO HAPANA LABDA 24. Kwa nini?
25. Utamruhusu mwanao wakike kurithi ardhi yako? NDIYO HAPANA
26. Kwa nini ndiyo/hapana?

27. Umekodi ardhi kiasi gani? (hekari/hekta) 28. Ardhi uliokodi iko katika eneo gani? (kijiji, mji)

29. Unapataje maji kwa ajili ya shamba lako?

[mvua] [umwagiliaji] [mito/mifereji] [kisima] [bomba la maji]

30. Unaweza kupata maji ya kutosha? NDIYO HAPANA Kama hapana, kwa nini?

31. Unafanya nini kama huwezi kupata maji ya kutosha?

32. Unamiliki wanyama wangapi? Nguruwe__ Ng'ombe_ Kuku__ Mbuzi___ Kondoo___ Bata
__Wengineo __

33. Unavyanzo vingine vya kujipatia mapato (vitaje)?

SEHEMU YA PILI: MASWALI YA VIAMBATANISHO VYA JAMII

34. Mke\Mume wako alizaliwa wapi? _____ 35. Alikulia wapi? _____

36. Kwa kukadiria una ndugu wangapi ambao wana uhusiano na wewe, pamoja na hao na wakwe zako wanaoishi kwenye kijiji hiki? _____

37. Ni watu wangapi wakubwa kiumri kwenye kijiji hiki utakaosema unawafahamu kwa majina?

[Wote] [Wengi] [Kama nusu] [Pungufu ya nusu] [Wachache sana]

**Sasa tunahitaji kukuuliza maswali machache kuhusu namna unavyopenda kuishi katika kijiji hiki.

Tutatumia kipimo ambacho kinaonekana kama hiki [onyesha kadi ya kwanza]. Ina namba tano. Namba moja inawakilisha chini ya kipimo na namba tano inawakilisha juu ya kipimo. Kwa mfano, kama moja inawakilisha ubaya, na tano inawakilisha uzuri sana, jibu la pili litakuwa karibu sana na ubaya lakini siyo ubaya moja kwa moja, na jibu la tatu litakuwa huru [lisilosaidia upande wowote].

38. Kwenye kipimo cha kwanza mpaka cha tano, pamoja na moja kuwa mbaya sana na tano kuwa nzuri sana, unajisikiaje vizuri kukaa katika kijiji chako? [ONYESHA KADI YA KIPIMO]

VIBAYA SANA VIBAYA KAWAIDA TU VIZURI VIZURI SANA

[01] [02] [03] [04] [05] HAKUNA JIBU

39. Fikiria kijiji kamili ambacho ungependelea kuishi. Kwenye kipimo cha kwanza mpaka cha tano, pamoja na moja kuwa mbali sana na kijiji chako kamili na tano kuwa karibu sana, kijiji chako kitakuwa wapi? [ONYESHA KADI YA KIPIMO]

MBALI SANA MBALI KAWAIDA TU KARIBU KARIBU SANA
[01] [02] [03] [04] [05] HAKUNA JIBU

40. Kwa nini umepangilia kijiji chako kwa namna hio? [PIMA: NINI UZURI AU KINAKOSEKANA KATIKA JAMII, Andika kama haupangiki au hakuna jibu.]

41. Kwa zaidi ya miaka mitano iliyopita unaweza kusema kuwa kijiji chako kimekuwa kizuri sana au kidogo kama sehemu ya kuishi au kimekuwa chakawaida tu?

KIZURI KIDOGO CHA KAWAIDA TU KIZURI ZAIDI HAKUNA JIBU

42. Kwa nini kijiji chako ni [KIZURI AU KIBAYA ZAIDI] ukilinganisha na miaka mitano iliyopita? [PIMA: NINI KIMBADILIKA AU HAKIJABADILIKA KWA HIYO MIAKA MITANO ILIYOPITA..]

43. Unapangilia kuishi kwenye kijiji chako kwa muda mrefu au unampango wa kuhama?

KUISHI KUHAMA

44. Kama utapata hela, utaishi kijijini kwaku au utahama? KUIISHI KUHAMA

45. Kwa nini unataka kukaa hapa/au kuhama?

SEHEMU YA TATU: MTAZAMO WA HIFADHI/MPANGO WA ELIMU

46. Kwenye kipimo cha kwanza mpaka cha tano, pamoja na moja kuwa si kitu sana na tano kuwa ni muhimu sana, kuna umuhimu gani unaofikiria kuwa na utunzaji/serikali rasmi wa wanyama pori na mazingira, kwa mfano kwenye hifadhi za taifa?

SI KITU SANA [1] SI KITU [2] YA KAWAIDA TU [3] MUHIMU [4] MUHIMU SANA [5] [Hakuna jibu]

47. Kwa nini unafikiri kuhusu njia hii ya utunzaji rasmi wa wanyama pori na mazingira? [Ni vitu gani muhimu wanapendelea au hawapendelei kuhusu utunzaji/serikali rasmi?]

48. Umeshawahikufika kwenye eneolamsitu wa hifadhi ya mlima Kilimanjaro [KNPFR]?
NDIYO HAPANA Kama ndiyo, ni mara ngapi? _____

49. Ulienda na nani? ___Familia ___Shule ___Wengineo? _____

50. Kwa nini uliingia katika hifadhi ya mlima Kilimanjaro?
(Mbahe: Ingia ki halali au kwa ki chochoro)

51. Unafikiria nini madhumuni ya hifadhi ya mlima Kilimanjaro [KNPFR]?

52. Utajisikiaje endapo msitu wa hifadhi ya mlima Kilimanjaro [KNPFR] ungefutwa? Kwa nini?

53. Nani ananufaika kwa msitu wa hifadhi ya mlima Kilimanjaro [KNPFR]?

54. Uliwahikusikia kuhusu mpango wa Kilimanjaro National Park “Ujirani mwema”?
NDIYO HAPANA [Kama ndiyo, ilikuwa lini (mwaka)?]

55. Unaelewa nini ni malengo makuu? NDIYO HAPANA

56. Kama ndiyo, taja malengo ya mpango.

57. Ulishakuwepo mradi wa “Ujirani mwema” kwenye kijiji chako? NDIYO HAPANA

58. Lini? Na ilikuwa nini?

59. Nini mawazo yako kuhusu mpango wa “Ujirani mwema”? (PIMA kama wana maoni au uzoefu)

60. Ulishawahi kufika katika hifadhi nyingine yeyote katika Tanzania? NDIYO HAPANA

61. Kama ndiyo, ni ipi au zipi? _____

62. Ulikwenda na nani? ___Familia ___Shule ___Wengineo? _____

63. Kwa nini ulienda?

MAONI

Una lolote lile unalopenda kutuelezea sisi?

APPENDIX B: INTERVIEW GUIDE FOR GRANDMOTHERS

We are university students from America. We are studying this area to learn how people use the land, how people feel about their communities and villages, and how they feel about conserving the environment. One thing we have found very interesting here is the roles grandmothers play in raising their grandchildren. We think that the caring and nurturing the grandmothers do is very important for their families and neighborhoods. We hope you can tell us about how the things you do help your families and neighborhoods.

Please tell us a little about yourself.

How many children do you care for? What are their relations to you? How long have you cared for them?

Why are you caring for these children? (Serendipity/Happenstance or Cultural Structure?)

Talk about the things that you enjoy in caring for these children.

Talk about the things that are difficult.

How does your caring for these children help your family? Your neighborhood and community?

What kinds of connections to the family/community/land do the children you care for develop that other grandchildren might not?

Do you think that your children will care for their grandchildren like you? Why or why not?

What things will be different for the next generation in raising their children? Why?

What things do you think will be different for the neighborhoods of the next generation? Why?

always probe for Experiences with the hypothesis that attitudes and opinions are based in, or evolve from, life experiences