Seeing Through the Eyes of Dragons:

Connecting Conservation, Science and Society through Traditional Folklore

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Introduction

> *We are entitled to require a consistency between what people write in their studies and the way in which they live their lives. I submit that no-one lives as if science were enough. Our account of the world must be rich enough - have a thick enough texture and a sufficiently generous rationality - to contain the total spectrum of human meeting with reality.*— John Polkinghorne

The Mandinkas of West Africa often quote this popular proverb: "*Yirijuwo meng wo meng jiyo la, a te ke bambo ye,*" which, literally translated, means "no matter how long a log floats in a river, it will never become a crocodile." The underlying message to this metaphor is that when a person is transferred to another social context, he/she will never fully assimilate all the requisite forms of expression, behaviors and worldviews that would make him/her truly a part of that culture. To understand and appreciate Mandinka knowledge, one must be situated within a certain cultural and environmental context. In this case, not only must there exist such things as logs, rivers and crocodiles; but there must also be an appreciation for the subtlety of metaphor, the ability to grasp orally-conveyed wisdom, and an understanding of the significance of Mandinka social relationships. What the Mandinka way of expressing knowledge does not imply is that their myths, legends and beliefs would be equally appropriate if applied directly to other cultural contexts. Traditional knowledge makes no claim to the universal. Rather it is the long-time association of community members with the ecological and social components of their specific environment that imparts value to traditional knowledge.

The growing popularity of animal rights, biocentrist and deep-ecology movements are indicative of an increasing number of Americans who see intrinsic value in nature, independent of any direct utilization by humans. This sort of environmental appreciation, more prevalent among the urban upper- to middle-class, differs dramatically from how

many communities view those natural resources that they directly depend upon for food, shelter and medicine. To be successful in the long-term, conservation policies must incorporate the value systems of the cultures that affect and are affected by the ecosystems to be conserved, as well as take into account the present social and environmental conditions. Ultimately, the dearth of clear examples of conservation strategies that have successfully been grounded in principles of community-based management has a dampening effect on continued confidence and financial investment in the participatory approach. Therefore, it is time to incorporate radically different norms in how we incorporate the voice of local communities in conservation strategy. This approach would involve expanding the boundaries of what is considered 'legitimate' ways of knowing to include not only science-based information, but the practical forms of knowledge that characterize what James Scott terms as *mêtis*—including myths, fables, oral traditions, values, taboos, and other cultural mechanisms for social motivation.[1] However, the value of traditional knowledge systems does not lie purely in the adaptability of a few of its components to a scientific framework. Rather, its importance lies in the need to promote the dialogue that is necessary to solve complex, multi-faceted policy issues. Without an assorted array of tools and techniques that are appropriate in local contexts, conservation fails to encourage the very diversity within human societies that it strives to protect in the biophysical world. These tools necessarily differ in shape and function from community to community, depending on the particular environmental, social, economic, historical and cultural variables with which they must

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[1] Scott defines *mêtis* as "a wide array of practical skills and acquired intelligence in responding to a constantly changing natural and human environment." James Scott, *Seeing Like A State: How Certain Schemes to Improve the Human Condition Have Failed* (New Haven and London: Yale University Press, 1998), 313.

fit. It is precisely because of its fundamental role in determining the particular nature and expression of those tools that traditional folklore comes into play.

In all societies, including those of the 'modernized' West, folklore operates like a kind of cultural mirror; our fairy tales, metaphors and jokes are all reflections of our underlying values and beliefs. Yet, like an infinite procession of mirrors within mirrors, what we see in the looking glass can also shape our values and beliefs. The influence goes both ways. So what exactly is folklore? The bottom-line is that it is about how people connect to their environment and to each other. Whether it's through a style of folk-dance, a myth, legend, or a taboo, folklore reveals much about what motivates people to act in certain ways and adhere to certain beliefs. If there is one defining characteristic of folklore, it is that its embedded wisdom tends to require a combination of oral and visual expression to be successfully conveyed. And because folklore is generally not transmitted in written form, it is more likely to be flexible and open to transformative change. Therefore, because conservation efforts have tended to coalesce around areas that support the livelihoods of non-literate societies, it is important that we begin to understand this relationship between non-written forms of folklore, like myths, taboos and folk-dancing, and the values and beliefs that motivate that community. Especially since these values and beliefs are fundamentally what cause people to think about, and behave towards, the land in a certain way.

Yet there remains a pervasive bias within conservation discourse against those very aspects of traditional knowledge systems that inform how communities respond to their environmental and social surroundings. Instead of taking into account contextual understandings of local history and socio-environmental relationships, conservation

planners and policy-makers rely almost exclusively on the application of the universalist norms and logics embodied in scientific theory. What dominant paradigms regarding Western scientific norms have done is to conceptually remove the 'story' from 'history.' Instead of acknowledging the inherent subjectivity that color interpretations of the past, Western history books implicitly equate 'account' with 'fact.' This characterization of knowledge not only reinforces the notion of a logic-emotion dichotomy, it informs hierarchical social institutions that emphasize supremacy of humans over nature, male over female, simplicity over complexity, and science over tradition. An explicit acceptance of traditional knowledge in its various local contexts is essential to promoting a more level playing field in the political game of international conservation. Two overarching themes have been identified in this paper as requirements for ensuring the long-term success of conservation policy: (1) conservation discourse must release itself from a single-minded adherence to a dominant paradigm informed by the norms of scientific theory; and (2) conservation strategies must take into account, and be embedded within, an appropriate historical, social, and cultural context. This would allow a range of counter-narratives to add leavening to the flat debates surrounding the implementation of current conservation initiatives.

Perhaps the best way to introduce the ways traditional folklore can imbue conservation policy with local legitimacy, is to introduce an alternative form of knowledge conveyance. Though the use of a pen and paper obscures one of the most important features of folklore—the on-going interactions between words, intonation, expression, environment and personal identity—I am going to use a narrative style to relate a story about a day in a small village in The Gambia called Limbambulu-Bambo. The purpose of

this method is to impart some important contextual information that frames the embedded kernel of traditional knowledge located within. Like the maze of dendrites that links the neurons of our brains, a narrative is designed to surround a piece of practical information with a network of connective strands, which allows relevant information to be transferred from one situation to another. So in reading this written account of what was a profoundly emotional and educational experience for me, notice how words and images blend together, and imagine that it's about 115 degrees wherever you are right now.

Case Study 1

Here be Dragons: The Myth of Ninkinanko[2]

Nine o' clock in the morning and already the sun was white-hot in the sky. Normally the combination of intense heat and the steady clip-clop of the horse's hooves would quickly lull me to sleep, but not today. My host-brother Keekuta and I were going to see the Soninke village of Badjakunda, the most important trading center in The Gambia's Wuli district. A relatively new, but badly deteriorating, government-built road connected our village of Limbambulu to Badjakunda along a pot-holed stretch of 15 miles; but everybody knew that the fastest and most direct route was to follow the well-worn trail snaking through the bush. I shifted my weight on the flat wooden horse-cart and gazed at the dry scrublands rolling past. The coucals punctuated the steady hum of the cicadas with deep-throated "whoop-whoop" calls, their tails and heads bobbing in tune to a mysterious internal melody. After several minutes, Keekuta's voice suddenly broke

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[2] The following passage is adapted from the recorded experiences of the author during her two year Peace Corps service in the Wuli District of The Gambia.

through my trance, "Isatou, tell me about the dragons in America." Smiling, I remembered that the day before I had been drawing in my sketchbook while surrounded by a throng of wide-eyed children and a few curious adults. "*Ninkinanko,*" whispered one child who instantly recognized the scaly-skinned, sharp-toothed creature that was coming to life right in front of his eyes. That is how I had first learned the name for 'dragon' in Mandinka and it is also when I first began to contemplate the striking similarities of the creatures of our nightmares across our very different cultures. I began to weave a story for Keekuta filled with knights on horseback and fire-breathing monsters that protected hoards of gold and had appetites for young regal women. The final part of my tale involved the forced retreat of dragonkind into the safe realm of the imaginary, where they continued to inspire books, films and art. Clearly impressed, Keekuta clucked, eased up on the reins of his horse, and pointed towards the great Gambia River. "Isatou," he said, "we also fear *ninkinanko*. He lives in the great forest by the banks of the river." I looked towards the south and, sure enough, saw a distinct unbroken line of tall acacia, mahogany and silk-cotton trees on the horizon. "*Ninkinanko* lives in the streams that flow under the roots of the trees, so it is impossible to see him until he sees you...and then it is too late. Only a great fool would enter the forest to graze his cattle or collect wood, for *ninkinanko's* wrath can bring terrible floods and deadly sickness to the village of the trespasser." I fell silent with the sudden awareness of why last week's training workshop in the scientific principles of sustainable watershed management had been so utterly frustrating. Like the pot-holed new road that connected Limbambulu to Badjakunda, my carefully rehearsed workshops essentially threatened to replace the finely-tuned local mechanisms for interacting with the world with less-efficient imported ones. Why hadn't

my 10 intensive weeks of in-country Peace Corps training ever brought up these sorts of connections between Gambian folklore and riparian zone conservation? Sensing that I was deep in thought, Keekuta glanced over at me with a questioning look, "What is wrong, Isatou? You know, you have nothing to fear…you are *toubab* [white person] and *ninkinanko* has no power over you!" Sighing, I nodded and smiled ruefully at the irony of his statement, looking out over the plumes of dust swirling from where the wheels of the cart had just been. We had just passed the first of the outermost groundnut fields of Badjakunda when we came across a group of young women returning to town after having completed their morning washing at the river. "*I ning barra,*" Keekuta greeted the women and stopped his cart so they could climb onboard with their families' laundry. As our fully-laden cart slowly neared Badjakunda, we were passed by several other people on the way to market, carrying everything from chickens and dried corn, to automobile parts and old Winchester rifles. No longer did I hear the incessant whooping of the coucals. They had almost imperceptibly faded to the background, to be replaced by the unmistakable "*thump-thump-thump*" of hundreds of pestles striking hundreds of mortars; each woman pounding her day's supply of millet under the spell of her own rhythm.

Redefining the Role of "Traditional" Knowledge in Conservation

"You do not teach the paths of the forest to an old gorilla." –Congolese proverb

The Gambian myth of *ninkinanko* illustrates an instance where replacing a local myth with the scientific tenets of riparian zone conservation would not only be needlessly "reinventing the wheel;" it also threatens to alienate the community from the very mechanisms by which their traditional knowledge is formulated. A key attribute that separates the methodology of folklore from scientific practice is its reliance on all five senses to properly be conveyed. This automatically limits the capacity of a purely written account to successfully transmit the full extent of the knowledge embedded within the legends, taboos, rituals and folk-dancing of the community. The persistence of folkloric tradition lies in its general tendency to be embedded in the here and now. Written narratives, on the other hand are like snapshots that affix single instances to a piece of paper. Unlike books that gather dust and eventually become obsolete, orally-transmitted knowledge is not subject to the permanence of ink and paper, and thus is quick to adapt to new situations and is open to transformative change. The two-way mirror of folklore frequently operates well under the radar screen of our consciousness, yet in order to gain a more nuanced understanding of what motivates our actions and beliefs we must acknowledge its influence in how we interact with the world around us.

No condition, perhaps, is as fundamental to the survival of a culture, and its relevance to its surroundings, as the transmission of knowledge. Knowledge represents not only concepts and strategies that are necessary for survival; it embodies all the historical experiences that bind a community to each other and to its environment. The sustainable coexistence of people and the natural world is certainly not a new concept. For thousands

of years, human communities have relied upon systems of intergenerational knowledge transfer in order to maintain the collective wisdom and flexibility needed to respond effectively to the constant changes in their surroundings. In fact, those cultures that have thrived, in some cases for as long as three thousand years, did so, in part, by incorporating within codified behavior patterns and belief systems the sustainable use of the limited resources upon which they depend. By way of illustration, indigenous peoples themselves have articulated compelling arguments proclaiming their communities as invaluable repositories of ecological wisdom, which embody appropriate behaviors, attitudes, and norms for environmental conservation:

> "If I go to Panama City and stand in front of a pharmacy and, because I need medicine, pick up a rock and break the window, you would take me away and put me in jail. For me, the forest is my pharmacy. If I have sores on my legs, I go to the forest and get the medicine I need to cure them. The forest is also a great refrigerator. It keeps the food I need fresh. If I need a peccary, I go to the forest with my rifle and—pow!—take out food for myself and my family. So we Kuna need the forest, and we use it and take much from it. But we can take what we need without having to destroy everything as your people do."[3]

> "When the forest is leveled, the land destroyed, we cease being Shuar and Achuar people. For three decades we have been organizing to declare our presence in the forest, and we wish to strengthen our ties with outsiders to preserve this area. Our survival is linked to the planet's survival…So for us, the land is not a commodity to be bought and sold for a price. It is what sustains us. The moment our land is lost, we are no longer Shuar and Achuar. When we cultivate the land, we honor its bounty, give it worth. We protect it because *we have no place else to go.* Outsiders often do not understand this. They see land as something a person can own and cash in. For us the land is part of our family, and because we are all one family here, we hold the land in common."[4]

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[3] A statement by Kuna leader, Rafael Harris, quoted in Charles D. Kleymeyer, "Cultural Traditions and Community-based Conservation," in *Natural Connections: Perspectives in Community Based Conservation*, eds. D. Western and R.M. Wright (Washington: Island Press, 1994), 326. The Kuna are indigenous to the Atlantic coast of Panama.

[4] This statement was made by the President of the Shuar-Achuar Federation of Ecuador, also quoted in Kleymeyer, 328.

Traditional knowledge can be defined in a variety of ways, depending on how one chooses to draw the boundaries. Also referred to as aboriginal knowledge,[5] indigenous knowledge,[6] indigenous technical knowledge,[7] and practical knowledge,[8] traditional knowledge embodies a set of beliefs and behaviors that tie a community to a particular place and time. Fikret Berkes provides a workable definition of traditional knowledge, characterizing it as a "cumulative body of knowledge, practice, and belief, evolving by adaptive processes and handed down through generations by cultural transmission, about the relationships of living beings (including humans) with one another and with their environment."[9] Here, the environment is broadly defined so as to include the totality of its biophysical, social, economic and cultural aspects.

Starting in the early 1980's, there arose an increasing awareness among practitioners of other academic disciplines of an observation that anthropologists and ethnographers had articulated decades earlier—that the cultural practices and beliefs of traditional peoples frequently reinforced relationships between their communities and the environment.[10, 11] This led to a broader appreciation of traditional knowledge among conservationists as a mechanism to promote sustainable use of local natural resources in indigenous communities. Berkes, Brokensha and Pinkerton provided some of the earliest

[5] Marlene Brant Castellano, "Updating Aboriginal Traditions of Knowledge," in *Indigenous Knowledges in Global Contexts: Multiple Readings of Our World,* eds. G. J. S. Dei, B. L. Hall, and D. G. Rosenberg (Toronto: University of Toronto Press, 2000), 21-36.

[6] Arun Agrawal, "Dismantling the Divide Between Indigenous and Scientific Knowledge," *Development and Change* 26 (1995), 413-439.

[7] Robert Chambers and Michael Howes, "Indigenous Technical Knowledge: Analysis, Implications and Issues," in *Indigenous Knowledge Systems and Development,* eds. D. Brokensha, D. .M. Warren and O. Werner (Washington: University Press of America, 1980), 323-334.

[8] Scott, 309.

[9] Fikret Berkes, *Sacred Ecology: traditional ecological knowledge and management systems* (Philadelphia: Taylor & Francis, 1999), 8.

[10] Claude Levi-Strauss, *Totemism* (Boston: Beacon Press, 1962).

[11] John Bodley, *Anthropology and Contemporary Human Problems* (Menlo Park: Benjamin Cummings Publishing, 1976).

contributions that called for the increased acknowledgement and incorporation of

traditional knowledge as an intrinsically valuable contribution to conservation science.[12,]

[13, 14] In his study of the Mbeere in Kenya, Brokensha documents many instances of "eco-

management" among these communities, concluding that

> anyone who seeks to change the social and economic system of any people
> should first carefully examine existing indigenous knowledge and beliefs
> because…in fact, Mbeere and other folk-belief systems contain much that is
> based on extremely accurate, detailed and thoughtful observations, made over
> many generations. Without this basic "scientific"…the Mbeere would not have
> survived in their harsh and marginal environment.[15]

However, critiques of early efforts to record indigenous knowledge by Arun Agrawal

point out that to legitimize traditional knowledge by drawing parallels between practical

knowledge and scientific norms, only serves to reinforce a false dichotomy between the

processes that inform scientists and those that inform traditional peoples.[16] In his

assumption that myths, folklore, taboos and legends are often "irrational" and that "not

all local beliefs are valid,"[17] Brokensha ignores that the cultural mechanisms used to

connect and interpret received wisdom and experience, are fundamental to the continuity

of knowledge itself. By sifting out only certain components of traditional knowledge that

are viewed as compatible with current scientific paradigms, current efforts to document

and preserve traditional knowledge disregard the rich layers of associated sensory

information, social history, and political context that give this practical wisdom its

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[12] Fikret Berkes, "Fishery resource use in a sub-arctic Indian community," *Human Ecology* 5 (1977): 289-307.
[13] David Brokensha, D. M. Warren & O. Werner (eds), *Indigenous Knowledge Systems and Development* (Washington: University Press of America, 1980).
[14] Evelyn W. Pinkerton, *The non-renewable management of renewable resources in British Columbia: the case for local control* (Vancouver: Society for the Study of Social Problems (SSSP), University of British Columbia, 1981).
[15] David Brokensha and B.W. Riley, "Mbeere Knowledge of their vegetation and its relevance for development: A case study from Kenya," in Brokensha, et al., 113.
[16] Agrawal, "Dismantling the Divide," 413-439.
[17] Brokensha, "Mbeere Knowledge*,*" 113.

particular relevance. Outlining a process he terms *scientisation*, Agrawal notes that efforts to record traditional knowledge systems *ex situ* are "stripping away all the detailed, contextual, applied aspects of knowledge that might be crucial in producing the positive effects claimed for that particular piece of indigenous knowledge."[18] In a parallel process, an emphasis on a simplified and universalized model for knowledge accumulation has wiped from the slate of science the rich cultural history, practical knowledge, religious principles, and mythology that have informed its most fundamental tenets. James Scott reminds us that a significant body of what now belongs to the realm of formal scientific knowledge came about through an iterative process of practice and experience—a type of knowledge he terms *mêtis*.[19]

Though the line between traditional knowledge and scientific knowledge is by no means distinct, a principle conceptual difference separating locally-based knowledge systems from scientific paradigms is that the former is deeply rooted in specific socio-environmental contexts, and does not claim to be universal.[20] Here, it is important to note that the use of the word "traditional" is not meant to imply rigidity or immutability. Rather, I am drawing on Posey and Dutfield's concept of 'tradition' as a "filter through which innovation occurs."[21] Far from being homogenous and static, traditional knowledge is transformed through the constant interplay among individuals within society and their natural surroundings—a process that is unique to each culture. Because

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[18] Arun Agrawal, "Indigenous Knowledge and the Politics of Classification," *International Social Science Journal* 173 (2002): 292.

[19] Scott, 313.

[20] Castellano, 25.

[21] Darrell Posey and Graham Dutfield, "Mind the Gaps: Identifying Commonalities and Divergences Between Indigenous Peoples and Farmers Groups," paper presented at the Global Biodiversity Forum, Buenos Aires, Argentina, November 1996, http://www.gbf.ch/Session_Administration/upload/Posey%20and%20Dutfield.paper.doc (25 March 2005).

the evolution of culture itself is a dynamic, interactive process, knowledge should not be thought of as a static collection of information. On the contrary, "it is fragmented, partially grasped in different ways by different members of a society, and is used (and even invented) strategically and pragmatically."[22] Castellano describes traditional knowledge networks as reflective of "the capabilities, priorities, and value systems of local peoples and communities," emphasizing its nature as a fluid process that tends to be "personal, oral, experiential, holistic, and conveyed in narrative or metaphorical language."[23] Therefore, it is not accurate to refer to a culturally-based knowledge structure as static, but rather as an elastic network of social relationships, and interpretations of those relationships, with both the natural and constructed aspects of the environment. In characterizing the inherent adaptability of what she terms aboriginal knowledge, Castellano directly challenges Chamber's portrayal of traditional knowledge as a "closed system" locked within "an established paradigm of thought."[24] Instead, she emphasizes its openness to a continuous process of reexamination and reframing, contrasting it with closed, written accounts of history that replace the "collective analysis and judgment of a community" with "authority [that is derived from] a particular view and a particular writer."[25] This plays a crucial role in the capacity of communities to endure within highly variable and unpredictable social and ecological matrices. For just as the continued existence of a biological species depends upon a continuous process of evolutionary adaptation to its ecosystem, the long term survival of a culture is

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[22] John Clammer, "Beyond the Cognitive Paradigm," in *Participating in Development: Approaches to Indigenous Knowledge,* eds. P. Sillitoe, A. Bicker and J. Pottier (London and New York: Routledge, 2002), 53.

[23] Castellano, 25.

[24] Chambers and Howes, 325.

[25] Castellano, 31.

fundamentally reliant upon the flexibility of its social institutions to adequately respond to fluctuations in their social, natural and cultural resource bases.

It would be both erroneous and counterproductive to suggest that traditional societies intuitively embrace cultural norms and practices that promote environmental and social well-being. Rousseau's *Dissertation on the Origin and Foundation of The Inequality of Mankind* (1754) depicted idealized interactions among native peoples and their respective environments and served as a conceptual template for the romantic notion that indigenous communities coexisted in "harmony" with nature. Arguing that "it is neither the…understanding nor the restraint of law that hinders them from doing ill; but the peacefulness of their passions, and their ignorance of vice,"[26] Rousseau's pseudo-admiration for the 'purity' of traditional cultures does little to promote respect for and real understanding of indigenous knowledge. Rather, his ideas underscored the patronizing attitude that characterized early interactions between European explorers-*cum*-anthropologists and aboriginal cultures, and informed the justifications for considering the resource-rich lands occupied by these communities as *terra nullius*.[27,28] It is far more honest, and more accurate, to examine indigenous cultures as unique communities that embody widely variable relationships, norms, attitudes, religions, customs and perspectives regarding their respective roles within their environments— some of which have been fraught with both inconsistency and conflict. There are numerous historical accounts of societal collapse that largely stemmed from the

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[26] Jean-Jacque Rousseau, *Dissertation on the Origin and Foundation of The Inequality of Mankind,* translated by G.D.H. Cole, n.d., http://www.marxists.org/reference/subject/philosophy/works/fr/ineq1.htm (29 March 2005).
[27] This term refers to "empty or unowned land and resources."
[28] Darrell Posey, "Upsetting the Sacred Balance," in *Participating in Development,* 30.

inefficient use of their respective natural resource bases, including the Meso-american Mayan culture, Easter Island's civilization, and the ancient Greeks and Romans.[29, 30, 31] Additionally, Shepard Krech has documented numerous instances of environmentally damaging and wasteful practices of many Native American communities, thoroughly debunking the romantic myth of the "ecological Indian." More importantly, he points out that the seductive story of the "noble savage" has a dehumanizing effect on the populations it attempts to categorize, placing the Indian within the same conceptual box as an ecologically benign animal species.[32] In a diatribe against the concept of an "intellectual noble savage," Kent Redford warns that putting the practical knowledge of traditional communities on an ideological pedestal falsifies the histories of a highly diverse and differently constructed set of cultural strategies and, in fact, undermines local agency.[33] These counter-narratives add an important dimension to the debates surrounding the value of incorporating traditional knowledge within conservation policy, a key point that will be revisited later. While it is important not to automatically assign to traditional knowledge an innate propensity towards the harmonious co-existence of humans and nature; it is also important to take note of the longevity of those cultures that have continued to survive and adapt to the dramatic changes that are rapidly reshaping their landscapes. Some of these characteristics undeniably point towards a variety of successful sustainability strategies, and attest to systems of cultural wisdom that are at least as valuable as Western, science-based forms of knowledge.

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[29] Jared Diamond, *Collapse: How Societies Choose to Fail or Succeed* (New York: Penguin Group, 2004).
[30] J. Donald Hughes, *Pan's Travail: Environmental Problems of the Ancient Greeks and Romans* (Baltimore: The Johns Hopkins University Press, 1994).
[31] Clive Ponting, *A Green History of the World: The Environment and the Collapse of Great Civilizations* (New York: Penguin Group, 1991).
[32] Shepard Krech III, *The Ecological Indian* (New York and London: W.W. Norton & Company, 1999).
[33] Kent Redford, "The Ecologically Noble Savage," *Cultural Survival Quarterly* 15, no. 1 (1990): 46-48.

The consistent failure of conservation strategies to truly engage their target communities in way that reaches their core values, spiritual beliefs, and world-views has resulted in the inability of many conservation plans and policies to be effective at the local level. This can be seen as the result of an overall rejection of the very norms that these policies require in order to be effectively integrated into pre-existing social infrastructure. Therefore, a radically different approach is necessary to fully engage the cooperation of local communities in conservation strategy. This approach would involve expanding the boundaries of what is considered 'legitimate' forms of knowledge to include not only scientific expertise and technocratic logic, but the practical and emotional expressions of knowledge embedded in a community's myths, fables, oral traditions, taboos, and spiritual beliefs. But the value of traditional knowledge extends far beyond the utility of some of its specific components that have been recast as inherently scientific. Rather, it is necessary to begin promoting a more nuanced understanding of how contextual knowledge can contribute to solving today's increasingly complex policy issues. The cultural mechanisms for articulating and reproducing this practical information is crucial to both the flexibility and continuity of traditional knowledge, and provides a rationale for my focus on folklore as an entry point for conservation priorities to (re)gain legitimacy in local contexts.

The Power of the Narrative

> *And Jesus was a sailor*
> *When he walked upon the water*
> *And he spent a long time watching*
> *From his lonely wooden tower*
> *And when he knew for certain*
> *Only drowning men could see him*
> *He said "All men will be sailors then*
> *Until the sea shall free them."*
> — Leonard Cohen

Throughout our lives, we listen to stories. Many of us associate the words, "once upon a time…" with warm memories of being lulled to sleep with fairy tales, adventure books, or Bible stories. Far from being forgotten as relics of our childhood, these myths and fables have staying power that is derived from the way that they shaped and reinforced our earliest concepts of how the world works. As adults, we continue to be enthralled by the stories woven into novels, soap operas and neighborhood gossip. However in much of the developed world, stories are no longer considered to be reservoirs of valuable information; rather their role has largely been relegated to a rhetorical device or, worse, an outlet for spreading misinformation. What have replaced the role of the narrative in the consciousness of Western society are the methodologies and logics of science, and the immutability of historical fact. However, much of what we consider to be 'fact' is rooted in the rich metaphors and descriptive narratives that underpin our particular worldviews. Creation myths, evolutionary theories, and societal norms all provide a sort of backdrop that contextualizes the events that shape our day-to-day lives.

Defined as *a story or description of a series of events,*[34] a narrative is a mechanism that allows the *raconteur* to use artistic expression as a tool to articulate abstract concepts in terms that are easily recognized and understood by the target audience. More specifically, Hayden White defines a narrative as a "form of human comprehension that is productive of meaning by its imposition of a certain formal coherence on a virtual chaos of events."[35] By placing a stream of disconnected occurrences within a structured, temporal framework, we are able to link to each other and to society through a shared history and thus, a shared sense of identity.

Just as our surroundings and experiences are woven into our stories, our stories also shape the way we view our interactions with other people and the environment. An ecology student researching grizzly bears in Montana has a vastly different concept of a predator-prey relationship than a Maasai *moran* (warrior) in the savannas of Kenya. The knowledge of an ecology student studying in the United States has likely been informed by a legacy of Disney movies, animal behavior textbooks, field observation, as well as natural history television programs. In contrast, the *moran* has knowledge based on stories told by his elders, cultural rituals and taboos, direct observation, and frequent predator attacks on his family's cattle. The value of each knowledge typology is embedded in the respective cultural context, and would be inadequate if transplanted to the other. Both modes of learning involve empirical evidence, as well as a theoretical matrix in which to frame and interpret the fragmentary and disjointed images that are derived from first-hand experience. This is the role that is played by our hypotheses,

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[34] *Cambridge Dictionary of American English,* s.v. "narrative." 4 July 2002, http://dictionary.cambridge.org/ (22 March 2005).
[35] Hayden White, "The narrativization of real events," in *On Narrative,* ed. W.J.T. Mitchell (Chicago: University of Chicago Press, 1981), 251.

stories, myths, metaphors and fables—all of which can be categorized as different expressions of narrative.

Brunvand defines folklore as the "unrecorded traditions of a people; it includes both the form and content of these traditions and their style or technique of communication from person to person."[36] The power of a folktale or story to conceptualize our experiences rests in the way that the story-teller weaves, almost imperceptibly, cultural knowledge within a series of unfolding events in a way that reinforces a particular morality. This ability to codify contextual knowledge as 'truth' has particular relevance in the policy arena, where narratives are used to garner popular support. Emery Roe identifies several ways in which 'narratives' and 'counter-narratives' are constructed by competing parties to frame debates on divisive policy issues. As situations become more controversial and complex, the art of story-telling assumes an increasingly important role in changing peoples' minds, and becomes the means through which unequal power relations work themselves out.[37] Roe uses the example of Garrett Hardin's 'tragedy of the commons' story to demonstrate how the way a narrative is framed can cause a particular explanation to persist within development discourse, despite its obvious oversimplifications and frequently discredited assumptions.[38]

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[36] Jan Brunvand, *The Study of American Folklore: An Introduction*, 2nd edition (New York: W.W. Norton, 1978).

[37] Emery Roe, *Narrative Policy Analysis: Theory and Practice* (Durham and London: Duke University Press, 1994).

[38] In 1968, Garrett Hardin proposed that inherent self-interest will drive pastoralists who share a common pasture to keep adding extra animals to their herd, despite the increasing negative environmental externalities. Garrett Hardin, "The Tragedy of the Commons," *Science* 162 (1968): 1243-8. See Roe, 35-41, for an analysis of the pervasive power of this narrative in informing received wisdom about the key role of privately owned property in implementing successful conservation and development strategies.

In the effort to remove any explicit traces of 'story' from 'history,' narratives regarding Western scientific norms have recast subjective account with indisputable fact. Rather than acknowledging the inherent subjectivity that colors interpretations of the past, the discourse that informs Western knowledge reinforces the illusion of objectivity—an illusion which underlies the marriage of hegemonic discourse to modern scientific theory.[39] This universalization of knowledge not only reinforces a logic-emotion dichotomy, it informs such hierarchical concepts as human supremacy *vis a vis* nature; males as inherently superior to females; simplicity as an improvement to complexity; and science as more progressive than traditional knowledge. Having worked extensively with Asian coastal communities, Kurien remarks that as positivistic scientific paradigms and associated modernizing schemes further marginalized the pre-existing oral traditions of songs, stories, and proverbs, "a world view bound in moral and religious beliefs, in which humans and nature were closely integrated through knowledge and practice, was replaced with another world view that placed humans, apart from and above, the natural world."[40] It is this pervasive narrative of objectivity and universality that underpins the almost exclusive focus of conservation discourse on the methodologies of science, and the exclusion of more context-relevant modes of knowledge acquisition and transferal.

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[39] Scott, 309-311.

[40] John Kurien, "Traditional Ecological Knowledge and Ecosystem Sustainability: New Meaning to Asian Coastal Proverbs," *Ecological Applications* 8, no. 1 (1998): S2.

The Triumph of Science and the Codification of Knowledge

Science it would seem is not sexless:
she is a man, a father and infected too. — Virginia Woolf

Predating Rousseauian ideas that separated 'civilized man' and nature is the infamous trial of Galileo Galilei in 1632, which can be regarded as one of the defining moments in the history of modern Western civilization. When Galileo boldly refuted the geocentric model endorsed by the Catholic Church and supported instead Copernicus's notion that the earth revolves around the sun, the reaction of the authorities was swift and undeniably aggressive. Charged with heresy, Galileo was sentenced through the Roman Inquisition to life imprisonment at his home in the hills of Florence, Italy. As the narrative goes, the subsequent validation of the theory that the sun is indeed the center of our universe provided the context within which the primacy of rational science over emotional conjecture was established.[41]

Because different societies view their surroundings differently and thus, have distinct methods of internalizing information, methods of narration will vary accordingly. Yet science is imbued with the immutable virtue of rational objectivity, which is used as a lens through which we simultaneously formalize our myths and stories in the notion of the universal, and belittle the competing narratives of other cultures. Therein lies the pervasive strength of science as a cornerstone of, to paraphrase Scott, "high modernist ideology" of the state, which is primarily concerned with "the rational design of social order commensurate with the scientific understanding of natural laws."[42] This preoccupation with scientific rationalism colors the way that our policy-making process

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[41] Albert van Helding, "Galileo and the Inquisition," *The Galileo Project,* 1995. http://galileo.rice.edu/index.html (20 April 2005).
[42] Scott, 4.

unfolds by first providing the dominant narrative with a cloak of legitimacy, and then requiring that counter-narratives be framed in a similar way.

Galileo's repudiation of the geocentric model of the universe, the discovery of the New World, the abolition of slavery, the victory of the Allies in World War II, the crumbling of the Berlin Wall: these all can be characterized as truly pivotal 'moments' in Western history—moments immortalized and underwritten by societal values within our narrative accounts. Though we tend to ascribe to the notion of objectivity in relating historical events, these accounts are deeply embedded in the way our culture views itself and its place in the world. The notion of objectivity itself is rooted in scientific rationalism, a meta-narrative that upholds the virtues of facts and logic, and informs the way Western thought continues to evolve. This has led to a profound gap in understanding between cultures that privilege a scientific perspective and those that base their worldviews largely on contextual knowledge. However, as Donald McCloskey points out, despite its overt adherence to only that which can be empirically proven, the scientific method actually encompasses a "rhetorical tetrad—fact, logic, metaphor, and especially story."[43]

The power of stories to legitimize the implicit worldview represented therein cannot be understated. The highly influential writings of Descartes and his supporters during the Renaissance Period emphasized the rationality of humankind as the foundation of our superiority over nature, which is a concept that underlies the norms and tenets of positivistic science to this day. During the 19th and early part of the 20th century, conservation efforts were still widely informed by a Rousseauian world-view that

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[43] Donald McCloskey, *If You're So Smart: The Narrative of Economic Expertise* (Chicago: University of Chicago Press, 1990), 24.

regarded indigenous peoples as "primitives," who were perfectly compatible with nature. In 1906 for example, few British game-enthusiasts argued to remove the Maasai from the newly established Amboseli Game Reserve in Kenya, due to the widely held belief that the lifestyles of 'the natives' were perfectly compatible with the continued survival of the wildlife.[44] However, with the rich narratives of early ecologists George Perkins Marsh, and later John Muir, quickly came a conceptual shift in park management theory towards a new paradigm—one that sought linkages between conservation efforts and hard-nosed science.[45] In 1916, the U.S. Congress established the National Park Service, declaring that the main purpose of national parks was "to conserve the scenery and the natural and historic objects and the wildlife therein in such manner and by such means as will leave them unimpaired for the enjoyment of future generations."[46] With the birth of this new preservation movement, human activity was deemed inherently incompatible with wildlife survival, and the removal of human presence from national parks was prioritized. The U.S version of a national park became the template used throughout the rest of the world and, with the birth of the ecology movement in the mid-20th century, was justified under the rubric of 'scientifically-sound' management. This is reflected in the case of Amboseli when, in 1947, colonial administrators rechristened the reserve Amboseli National Park and forced the evacuation of the Maasai from large portions of their ancestral lands.[47] This land-grab was conducted in the name of 'wildlife preservation' and justified by pinpointing blame on cattle over-grazing and subsistence hunting, despite

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[44] David Western, "Linking Conservation and Community Aspirations," in *Natural Connections,* 15-52.

[45] Roderick Nash, *American Environmentalism: Readings in Conservation History,* 3rd ed. (New York: McGraw Hill, 1990).

[46] U.S. Congress, The *National Park Service Organic Act (Act of Aug. 25),* 1916, ch. 408, § 1, 39 Stat. 535 91916.

[47] David Western, *In the Dust of Kilimanjaro* (Washington: Island Press, 1997).

the fact that the "only animals exterminated in Maasailand were those killed by whites."[48]

Another case of the top-down exclusionary approach to conservation is exemplified during the creation of Panama's Darien National Park in 1980, when several local Embera populations were forcibly relocated from their traditional hunting and fishing grounds. Following its designation as an International Biosphere Reserve in 1993, park policy was modified to encourage voluntary relocation of select villages, but the plan also prohibited the Embera from continuing integrated, low-impact pig-farming practices, which had formerly comprised a major component of their traditional subsistence strategy.[49] Blinded by their culturally-informed biases, Western conservation policy-makers failed to realize that the forced separation of communities from their homelands would quickly succeed in destroying indigenous peoples' tolerance for targeted wildlife and ecosystems by transforming them from assets to liabilities. Ironically, the preservationist mentality that promoted the exclusion of humans from protected ecosystems has succeeded in destroying the cultural mechanisms of many local communities that had fostered tolerance of and respect for the natural world. Yet this has been the discourse that has provided the rationale for the top-down, exclusionary approach that continues to characterize the conservation strategies of many of the most influential organizations.

In contrast to the contextual interactions that inform practical knowledge, scientific modes of knowledge accumulation profess to explain specific concepts and events in terms of the universal. Historic interactions among nation-states through colonialism,

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[48] Western, *In the Dust of Kilimanjaro,* 48

[49] Amy Daniels, "Indigenous Peoples and Neotropical Forest Conservation: Impacts of Protected Area Systems on Traditional Cultures," *Macalester Environmental Review,* 23 September 2002, 4.

mercantilism, migration, as well as current globalization trends, have facilitated the spread of this paradigm throughout the world; and have helped establish a hierarchical framework upon which scientific modeling was elevated at the expense of more locally-based, practical knowledge systems. This pervasive bias towards models that could explain human behavior and, therefore, predict policy outcomes just about anywhere in the world gave rise to the top-down, technocratic strategies that continue to dominate the agendas of natural resource management policy-makers. Despite the various techniques that have been used to adapt idealized models to diverse local situations, there has been a dogmatic adherence to a single paradigm—one that seeks to realign traditional institutions to better reflect their analogues in the West. What is missing in this picture, however, is the recognition that these pre-existing social institutions are not only often better situated to promote certain desirable ethics and beliefs; they are also frequently so fundamental to the community's sense of identity, that any threat to these structures is perceived as a threat to the community itself.

A Story is worth a Thousand Pictures

> *Wendy…was just slightly disappointed when he admitted that*
> *he came to the nursery window not to see her but to listen to stories.*
> *"You see, I don't know any stories. None of the lost boys knows any stories."*
> *"How perfectly awful," Wendy said.* --Peter Pan, J.M. Barrie

Challenging well-established paradigms is not a straightforward process; most of the time it involves tireless persistence, inhuman patience, and a high degree of flexibility. A fundamental obstacle to weaving new threads into the conservation policy discourse is a

pervasive "intolerance of other people's stories."[50] The tendency to view folklore as primitive and irrelevant to the concerns of modernizing societies obscures the importance of traditional modes of knowledge acquisition in motivating certain behavioral patterns and attitudes of society with regards to their surroundings. This conceptual barrier limits the capacity of conservation planners to engage the imaginations and the deepest priorities of the communities with whom they work.

Like any social movement, Western conservationism is inseparable from the history and cultural norms that fostered its emergence and growth. This leads us to one of the most important dilemmas facing conservationists today—the lack of historical and cultural awareness in their efforts to mold their scientifically-based ecological paradigms into effective policy solutions. Using standard economic indicators and generalized scientific über-concepts, analysts continue to present conservation strategies that fail to take into account the complex socio-historical contexts that characterize each unique situation. Rather than unearthing the fundamental causes of biodiversity loss, these reactive policies tend to fail due to one or both of the following oversights. Firstly, by not opening the discourse to include counter-narratives embodied in contextual knowledge, opportunities are lost for syncretic cooperation between insider and outsider knowledge systems. Secondly, by ignoring the patterns of behavior and thought informed by societal interpretations of local history, culture, and socio-environmental relations, historical patterns of economic and social repression that created the problem in the first place are exacerbated. Both of these results can be attributed to ignorance or disdain within the established networks of conservation planners and policy-makers for alternative forms of

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[50] Roe, 148.

discourse. The following case-studies each illustrate how these oversights translate into patterns of relationships and discourse between pre-existing community institutions and introduced conservation priorities in the area. Then, each associated analysis provides an overview of the relevant history of interactions between dominant scientific paradigms and traditional knowledge systems; and provides an explanation of how the folklore of the local communities reveals a path forward to promoting greater cooperation among conservation community and the populations that are impacted by their agendas.

By privileging alternative approaches to the conventional format of knowledge dissemination, an important step is made towards bridging the conceptual divide that limits communication among holders of traditional and scientific knowledge. Using an innovative approach to reconciling traditional knowledge and conventional management theory, Gail Whitehead shows how ethnographic research, scientific data analysis and academic literary tradition can be integrated together in a compelling semi-fictional narrative. Whitehead explains that her reliance on a narrative style to present her ethnography "is an attempt to creatively convey the many ambiguities and differing perspectives on the value of [traditional knowledge] for management studies."[51] Particularly when she points to McLuhan's reminder that the "choice of the medium, in itself, conveys a message,"[52] Whitehead makes explicit her recognition of the important contributions that alternative modes of knowledge dissemination can make to encouraging paradigmatic change in organizational management theory. The case-studies that follow are taken from my experiences in Tanzania and Nicaragua, and are meant to

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[51] Gail Whiteman, "Why Are We Talking Inside? Reflecting on Traditional Ecological Knowledge (TEK) and Management Research," *Journal of Management Inquiry* 13, no. 3 (2004): 264.
[52] Marshall McLuhan, *The Medium is the Message* (New York: Random House, 1967), paraphrased in Whitehead, 264.

convey the potential implications of traditional knowledge as a resource, in and of itself, to locally-oriented conservation strategies.

Despite the inherent limitations of a written approach, the rich metaphors and didactic parables that typically characterize traditional knowledge systems automatically lend themselves to a narrative presentation, especially since this method relies upon re-creating an appropriate context. Like the opening case study from The Gambia, each of the following narratives is presented in a framework that places an example of localized knowledge within its respective context, making imagery and symbolism as important to the reading as the actual text. Following each case study is an analytical essay that links the symbolism and historical context of each narrative to implications for conservation in those communities. It is hoped that these journeys into the realms of the practical, the emotional, and the sensual will help lay the conceptual groundwork for conservation policies that venture outside the box of scientific rationalism, and embrace the very core of what it means to truly be a part of a community.

Case Study 2

Milk and Blood: Syncretism among the Maasai[53]

When I think of Tanzania, my memories are scented with a rich mixture of woodfire, sweat, cows and earth. The Maasai encampment at Longido was my first encounter with Africa and became forever ingrained in my soul as a sacred place—a place where I was introduced to a way of life more embedded in the surrounding landscape than any I had previously known. When we first arrived to the *boma*,[54] it was drawing close to sunset and the beautiful forms of the acacias and baobabs were silhouetted against a great sea of tawny grasslands. The tiny huts, made of sticks and plastered with cow dung, seemed to blend seamlessly into the background. At several points during our visit, I felt an emotion akin to spiritual rapture wash over me, as if I had been granted a glimpse of another planet. Later, as I was strolling along the bustling market quarter in Arusha, and marveling at the mix of traditionally-clad Maasai *morani*, businessmen in three-piece suits, and the ubiquitous *wazungu*[55] trekkers, my initial delight was replaced by an inexplicable sadness. The simplicity and peace of Longido had been replaced by a fast-paced, complex world that felt just familiar enough to be a little disappointing. It was then that I met Emmanuel—tall, young and clearly Maasai—dressed in a pink collared shirt and holding a well-worn bible. His eyes met mine and he broke into a wide grin as he strolled up to me and held out his hand. "Greetings, my sister. How are you this fine day?" My initial reservations about engaging strangers on the street quickly melted away and turned into a deep desire to hear this man's life story. Within minutes of the ensuing

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[53] All of the words attributed to Emmanuel in the following conversation are direct excerpts from Emmanuel Ole Mollel and Yunus Rafiq, *Eco-wise, Maa-wise: A Statement from a Maasai Warrior* (Unpublished manuscript, Arusha, Tanzania, 1998).
[54] A Maasai settlement, usually composed of a circle of huts surrounding a thorny-fenced cattle enclosure.
[55] Swahili word meaning "white people" (mazungu=singular)

conversation, we decided to sit at a nearby tea shack. He fished a copy of a thin red book from his backpack, called *Eco-Wise, Maa-Wise: A Statement from a Maasai Warrior.* He placed it on the table next to his Bible, and I pulled out my notebook. Three hours later I returned to my hotel, my mind reeling, my spirits uplifted, and my hands clutching a thin red book. As you read a portion of the conversation we had that day, construct in your mind a picture of a busy streetcorner: a businessman hands coins to a woman crouching next to a neatly stacked pile of avocados; a man angrily waving a machete is shooing a skinny yellow dog out of a shop; a colorful *matatu*[56] speeds by in a fanfare of honking, waving and enthusiastic shouting. This is as much a part of life in Tanzania as is the oft-glamorized images of tree-dotted savannas, open-air cooking fires, and red-garbed warriors.

Student: Emmanuel, who are you and who is your family?

Emmanuel: I am Emmanuel Ole Mollel, I was born in Monduli district, in a village called Sambasha in the Northern Ngorongoro crater. Since I was young, I grew in a rich environment of traditional Maasai values. My parents are not Christians, they don't know the Lord Jesus Christ, but they know *Engai*, the most high in the sky, the only true God of the Maasai. Their lives were centered around their cattle (e*ngishuu*) and practicing their old customs and traditions.

Student: Can you tell me more about the history of the Maasai culture?

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[56] The ubiquitous mini-vans that serve as public transportation throughout East Africa. *Matatus* are operated by a driver and a lively assistant, whose job it is to attract passengers by wild gestures, loud advertisements and, occasionally, even physical persuasion!

Emmanuel: We have relied for ages on natural resources; people living around forest became hunters and gatherers, people living around ocean or lakes became fishermen, so their environment shaped them to adopt a particular type of activity. My people have been always in motion to look for more land, greener pastures, water, etc. This mode of life made them rely on livestock and not have rulers or kings, because a king would need a kingdom to rule upon. A young *moran,* one who uses *el-kiloriti*[57] for war, whose diet is raw meat, blood and milk, knows why cattle is so vital for his existence. Because a Maasai has no permanent place to settle, this accelerated pastoralism and also the love of Maa for his environment. Engai gave the Maasai cattle as a gift, so it's not only materialistic, but also a divine gift from the most high in the sky. Almost the whole cow's body is utilized for different activities—the meat for consumption, horns for containers, skin for beds/clothing, fresh dung for making houses, dried dung for fuel, urine for medicine. Cattle is also a prestige, the more cattle, the richer you are and the more respect you have. The cattle portray your name wherever they go for grazing. A lot of songs have come to existence telling the importance of cattle in a Maasai society, such as when cattle are stolen, or about the biggest bull in the herd, or when the cows are late. *Eeh!*[58] It is a sin and a curse for a Maa to till the land because they believe the Earth is the mother that only cattle should feed upon. It's also a sin to burn or make fire especially on the highlands because

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[57] A stimulating herbal drink made from boiling a certain type of root. *Morani* drink this mixture to increase their courage and stamina before going to battle or before a lion-hunt. It is also used as an appetite-stimulant during communal feasts.

[58] A sound made by the narrator of a story as a point of emphasis. This sound is also used by those who are listening to a story to acknowledge agreement with or respect for the narrator.

the Maa believe the spirits of the ancestors live in the highlands. Burning forest is a great sin and it can only be forgiven by sacrifices.

Student: Can you tell me a little more about your customs and traditions, and how they have personally affected your life?

Emmanuel: Me and my people exchanged a lot of information which make me the man I am today. The environment always has a very great effect on the elements it surrounds. Our environments are plains and forest which shaped us to be *engiteng*.[59] Traditions and culture are vital because they tell the history of our people through our economic activities, songs, poems, dances and stories. It also binds us together as a common interest. I still can re-call the day I visited a neighboring village called Ioruvani, where I met some modernized Maasai men who looked different from me as they had already changed their way of living. I asked them, "What are the differences of our ways of worship?" They replied, "We no longer worship the material objects like e*rretet*[60] trees, caves and mountains, but we worship the God who is close to us, who can hear us and the One who can speak to His children." I was amazed by their answer that there is nothing dead in this world; everything has a soul, an energy trapped within it, but because humans have become impure, they have cut the link between them and the nature, so there is no more relationship between man and his environment, hence, no exchange of information. The lack of the younger generation of Maasai to know their culture poses a threat of destruction of their culture. I

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[59] Pastoralists, or "keepers of cattle"
[60] A large member of the *Ficus* (fig) family.

think a community which imports culture is incomplete and vulnerable to changes. I am not indicating that modern technology shouldn't be introduced to the Maasai land, but it should be modified so it co-exists with the host culture. *Eeh!* Change is good, but it shouldn't also take away the good things we already have.

Student: Are many of the younger generation rejecting the old Maasai traditions? How does your community balance the need for change with keeping respect for the old ways?

Emmanuel: We like our culture. It's our running blood, our common cause. It binds us together like a rope, uniformly and one. It's what makes us Maa and not Kikuyu. When a baby is born, it is breast-fed, nourished with traditional food, taught to take care of livestock, to live with the community, and how to communicate with the forces shaping our lives. All this knowledge he is bombarded with puts him in the circle of life. He is not taken to a brick-made school dressed in modern Armani shirts or exposed to new technology, like the internet or computers. School starts at home from *Yeyoo*[61] on how to greet elders, how to help with small activities at home, how to identify different medicines[62] in the bush. For example, if you have been bitten by a snake, it is important to know what medicine to take. Our tradition and culture are like shields which protect us from disintegration and oppression, and also promote love among us. Our culture is very diverse and rich, from the blowing winds to the young woman's gaze—all have a

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[61] Mother
[62] The word for medicine (*olchani*) is the same as the word for tree.

special meaning to us. Our beautiful songs which depict the struggle of Maasai and the nature, they are like books and also like mystic winds. They tell the Maasai history in sweet tunes. They talk of cows and civil wars during the drought. They tell of love and war, good and evil, devil and god, virtue and sin. The knowledge of these times, our history, is like the strong fiber of the sisal plant, knitting us together. The documentation and recording of these songs are very important to preserve and enrich the Maasai culture, and also to enable the coming generation to learn. It will also help them to find some solutions to their problems.

Student: How can we *wazungu* better understand the knowledge and wisdom of the Maasai?

Emmanuel: The Maasai culture and tradition should be given respect and necessary exposure even though they are least educated. Our ways of life are still the same as others have described it, but many people are astonished although we are not educated in schools on things we know in different fields like medicine, astronomy and ecology. A person can be very educated, but he may never achieve the level of education and experience an ordinary Maasai has. Because our knowledge on different fields are applied to everyday life, the *N'ga kwa* and *irmoruak lorkine* stars are used for navigation and agriculture, and the roots and bark of *irmortan* are used for stomach upsets. So it's very practical and not just as a study, but a vital part of everyday life. A Maasai also should take pride in preserving and sharing his culture with the rest of the community. Why should a Maasai have no love with his

culture but the world, with people who have no appreciation of cultural and heritage values? A Maasai does things with intentions because he knows that the culture and traditions will connect him with his family and relatives and they will recognize him as a part of them and a part of the whole community in general. Not every foreign element is ready to go into Maa's life system. The elements have to be modified, studied, assessing their advantages and disadvantages, and then introduced into the system without disturbing the existing culture. Changes have already taken place in the Maasai culture—the 'jungle life' system has faceted the Maasai people to be highly disciplined and has made them that they can survive in the environment without passing threat to it. What we have to think of now is how we can keep our culture strong without further destruction.

Weaving the Threads Together: Constructing a Meta-Narrative

There is an image of East Africa that will always be deeply ingrained in my memory. Upon leaving Nairobi airport for the first time in August of 1998, my eyes were greeted by the astonishing image of a giraffe complacently grazing the top of an acacia tree while a 747 zoomed over its head, wheels extended in preparation for landing. This appealing image functions as an appropriate visual metaphor for the idea of 'dynamic syncretism,' described by Dennis Galvan as a social process that draws from both "newly imposed institutional structures and remembered 'traditional' institutional arrangements," to form "a new, blended, innovative institutional arrangement."[63] Unlike a chimeric hodgepodge

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[63] Dennis Galvan, *The State Must be Our Master of Fire: How Peasants Craft Culturally Sustainable Development in Senegal* (Berkeley: University of California Press, 2004), 283.

of idealized local traditions overlain by top-heavy western superstructures, dynamic syncretism offers a way to enfold aspects of introduced formal institutions into a culture without corrupting the pre-existing normative base. Here, I put Galvan's definition of institutional syncretism side by side with Roe's idea of the overarching metanarrative, which seeks to "embrace, however temporarily, the major oppositions in a controversy, without in the process slighting any of that opposition."[64] Whereas a metanarrative is constructed to provide an adequate baseline for a conservation policy that accommodates divergent worldviews and practices, syncretism is the social process that feeds the development of a metanarrative. Emmanuel's story illustrates the way a dynamic mixture of the old and the new can inform a policy narrative that seeks not to undermine competing worldviews, but to bridge the gaps between different ideologies.

A repeated theme in Emmanuel's narrative is the implicit, and often explicit, recognition of the benefits of introducing foreign ideas into Maasai culture, as long as this does not compromise the strong bonds between the social and environmental elements of his community. Emmanuel stresses that, although his community lacks formal education, Maasai knowledge, as expressed in its songs, beliefs and myths, is necessarily pragmatic and immensely valuable. This is the glue that not only binds human beings to each other, but it also connects community members to their environment, their livelihoods, and their past. Supplanting this tightly interwoven network of understandings, concepts, relationships and values with an imported knowledge base founded on universalized scientific principles would be akin to cutting down a rainforest and replacing it with a plantation monoculture. Consider how we now have come to understand the historical

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[64] Roe, 52.

background of the Maasai and the ways they influenced, and were influenced by, the Ngorongoro region of Tanzania.

From the mid-17th century to late in the 19th century, several largely pastoral tribal groups known collectively as the "Maasai" dominated a large swath of land extending along the central Rift Valley to central Tanzania. Land in this area was segregated ecologically before European colonialization, with the Maasai pastoralists in dry savanna too poor for agriculture; while agricultural Bantu tribes farmed wetter areas above the rift, where tsetse flies kept away the Maasai and their vulnerable cattle.[65] The savannas and woodlands in and around Arusha National Park in northeastern Tanzania have been utilized by the Maasai pastoralists for centuries as a rangeland for their cattle, which efficiently convert the tough, unpalatable (for humans) vegetation to the meat, milk and blood that form the basis of the Maasai diet. These ecosystems also provide a home to a highly diverse array of wildlife including elephant, wildebeest, giraffe, zebra, gazelle, lion and hyena, to name a few. The alkaline lakes and wetlands within Arusha are fed largely by underground streams, and allow both the Maasai herds and wildlife to survive throughout the dry season.[66] The dramatic seasonal fluctuations in water levels and vegetation abundance necessitate the migration of both the Maasai and the wildlife across park boundaries. These migrations, as well as the distinct forage preferences of certain ungulates[67], allow the wildlife to take maximum advantage of the water levels, while preventing over-exploitation of the vegetation. Maasai herders follow similar migratory

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[65] Mukhisa Kituyi, "Becoming Kenyans: Maasai Identity in a Changing Context," in *The World's Savannas: Economic Driving Forces, Ecological Constraints and Policy Options for Sustainable Land Use,* eds. M.D. Young and O.T. Solbrig (Paris & New York: UNESCO, Parthenon Pub. Group, 1993), 121-135.
[66] Deborah Snelson, ed., *Arusha National Park* (Arusha: Tanzania National Parks, 1987).
[67] Ungulates are hoofed mammals, which include gazelle, eland, zebra, giraffe, buffalo and cattle.

routes through the seasons but make much greater use of the forest-edge pastures along the neighboring highlands.[68] Out of a practical necessity, Maasai religion, ethics, economics and community structures have evolved to reflect their intricate knowledge and awareness of the constantly changing relationships between their communities and the resources they depend upon.

The lack of appreciation for the innovation and inherent adaptability of long-lived traditions can be traced to the received wisdom that associates tradition with backwardness and modernity with progress. Several authors have pointed out the importance of the formal and informal institutions that simultaneously shape, and are shaped by, the worldviews of the community. While much of the literature focuses exclusively on poverty alleviation strategies, Adams and Hulme find linkages between community-based conservation models and development paradigms by calling attention to the myriad social processes through which both agendas are simultaneously promoted and implemented internationally.[69] Indeed, the rhetoric of conservation practitioners working in East Africa continues to be dogmatically informed by the legacy of a dominant paradigm that seeks to "reserve places for nature, and to separate humans and other species."[70] This is a worldview that coincides with the logical, science-based model that permeates western thinking, and it serves to legitimize domestic conservation policy that continues to exclude the concerns of the indigenous communities—communities who

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[68] Emmanuel Ole Mollel, personal communication, 24 July 1998.
[69] W. M. Adams and D. Hulme, "Conservation and Communities: Changing Narratives, Policies and Practices in African Conservation," *Community Conservation Research in Africa: Working Papers, No. 4* (1998).
[70] Adams and Hulme, 5.

are still perceived by their national leaders as embarrassing barriers to the realization of 'progress' based on received notions of modernization.

To understand the failure of nominally independent East African states to completely throw off the yoke of European colonial policy, it is important to consider the socio-political context in which the region's governments came to be independent. Having undergone both German and British rule, East Africa has a history that has been profoundly affected by the slave trade, colonial regimes, European ethnocentrism and the manipulative policies derived from neo-imperialism, the repercussions of which continue to affect local communities today. Because the Maasai tended to occupy lands unsuitable for farming (and enjoyed the reputation of being especially fierce fighters), they were at first hardly affected by the land appropriation policies of the British, who initially preferred to collaborate with the Maasai in campaigns to weaken tribes in more desirable areas.[71] However, this quickly changed as the highlands surrounding Kilimanjaro and Mt. Meru were seized to provide land for European farmers, and the Maasai prevented from accessing these crucial dry-season pasturelands.[72] The development of East African states came to be perceived as being reliant solely upon commercial agriculture—from which the British derived the greatest economic benefit—rather than the pastoralism practiced by Maasai 'savages.' Upon independence, therefore, it was the highly successful and anglicized members of the agricultural tribes who acquired the most influential government positions.[73] As a result a Western-oriented mindset continues to manifest itself in the actions of indigenous officials and administrators all too clearly in the

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[71] Robert Maxon, *East Africa: An Introductory History* (Morgantown: West Virginia University Press, 1994), 157-8
[72] Maxon, 166
[73] Maxon, 248.

modern era. The policies that govern most East African parks today are typically based on the same separatist models that govern parks in Europe and the U.S., instead of on indigenous resource-use models that, while certainly not flawless, have proven to be successful for thousands of years. This mentality is reflected in the wording found in a brochure that is distributed to tourists coming to Arusha National Park:

> The policy of the management of parks in Tanzania is to try and preserve natural ecosystems and, wherever possible, not to interfere with the animals and plants within these ecosystem. Park management in Arusha is concerned with four main influences of man on wildlife: fuelwood collection, grazing by domestic livestock, poaching and tourism.[74]

To justify the removal of indigenous tribes from their homelands, the discourse of government officials and conservationists focused the blame for loss of wildlife on over-grazing by cattle and subsistence hunting. East African policy-makers in the postcolonial era continued to exclude the Maasai from their dry-season rangelands, and framed their actions by pointing out scientific studies that linked severe degradation of the acacia woodlands to cattle grazing pressure. Even when these studies were challenged by David Western, who proved that acacia deaths in nearby Amboseli National Park were caused by a combination of rising salt levels in the soil and de-barking by a rising population of elephants, the Kenyan government balked at rescinding its plans to remove the Maasai from the park.[75]

While scientific studies like Western's focus on chipping away the misguided logic that underwrites a problematic narrative, Emmanuel's portrayal of the eco-wise nature of his cattle-oriented culture goes beyond a simple rebuttal by providing an emotionally and

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[74] Snelson, 41.
[75] Western, *In the Dust of Kilimanjaro.*

intellectually appealing alternate narrative. While conservation policy-makers have long recognized the significance of cattle to the Maasai economy, their response has largely been based on the dominant narrative that placed pastoralism squarely in the ranks of a backward, environmentally destructive livelihood. Brockington and Homewood point out the pervasive discourse within both popular and academic literature that characterizes pastoralism as inherently threatening to ecological integrity.[76] In particular, the use of the pastoral lifestyle to exemplify Hardin's inescapable 'tragedy of the commons,' illustrates a narrative that, according to Roe, has "considerable staying power" precisely because it "helps to underwrite and stabilize the assumptions for decision-making."[77] What Emmanuel provides is the framework for a counter-narrative that endeavors to "tell a better story."[78] By putting forth the ideas of recycling, holism and 'eco-ethics' as alternate ways to frame the cattle-oriented livelihood of the Maasai, Emmanuel is not only challenging received wisdom regarding cattle-keeping, he is using terms that bridge the divide between traditional Maasai and western ideologies. In one instance, he places the livelihood strategy of the Maasai in the context of traditional taboos against agriculture, a practice that is considered among some Maasai communities to be akin to "violating one's mother."[79] Yet he also uses scientific knowledge as a way to translate the ecological wisdom embedded in local practices to a largely western audience. For instance, Emmanuel bases his statement that "pastoralism is compatible with National Parks, but agriculture is not," on findings by western researchers studying the impacts of

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[76] Daniel Brockington and Katherine Homewood, "Wildlife, Pastoralists & Science: Debates concerning Mkomazi Game Reserve, Tanzania," in *The Lie of the Land: Challenging Received Wisdom on the African Environment,* eds. M. Leach and R. Mearns (London: The International African Institute, 1996), 91-104.
[77] Roe, 40.
[78] Roe, 40.
[79] Ole Mollel, personal communication, 24 July 1998.

the agricultural practices of the older Mbulu civilization on Ngorongoro Crater.[80] By linking these two worldviews, Emmanuel exemplifies the utility of constructing a powerful and practical metanarrative that will help to better inform conservation policy in Maasai landscapes.

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[80] Ole Mollel, 12.

Case Study 3

The Politics behind Parties: El Baile del Torovenado[81]

Nicaraguans love to throw parties. I had heard this statement before in my travels through Costa Rica and Nicaragua, but I was unprepared for the profound cultural significance that underpinned this statement. My first experience of a Nicaraguan *fiesta patronale* in the Monimbó district of Masaya left an indelible impression on my soul. The vibrant costumes, the tantalizing aroma of *nacatamales*, and the explosions of firecrackers leave sensual echoes that reverberate throughout the body for days after the festivities end. Sitting here at a participatory meeting at the office of the Community Development Council in San Dionisio, my mind is unable to extricate itself from the rhythms of the past weekend's *Torovenado del Pueblo*. Therefore, let me pick up my pen and write for you a picture, and lure you into the dance of the Bull-Deer.

People were everywhere. More and more restaurants and bars were emptying into the streets, until the rapidly growing crowd seemed to move and breathe as one giant organism. Shouts of joy and raucous laughter intermingle with spurts of song, permeating the air with a kind of electricity that produces the dual thrills of anticipation and apprehension. I gazed around at the living, breathing sea of humanity that surrounded us and my eyes immediately began organizing mental scenes like a camera, reducing the chaos into a succession of mental snapshots. Here, a mother knelt down and smoothed a stray hair from the forehead of her dark-eyed little girl. Across the street, a *campesino*

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[81] The following passage is adapted from the experiences of the author while working for Centro Internacional de Agricultura Tropical (CIAT) in San Dionisio, Nicaragua. Additionally, much of the interpretation of the *fiesta* was derived from personal discussions with my supervisor, Pedro Pablo, and other members of the community of San Dionisio.

wearing a dusty fedora raised a murky-looking bottle of home-brewed *chicha* in an unintelligible toast. Past the end of the block, something on the sidewalk had attracted a small group of teenage boys, who crouched in a tense circle. But as the sounds of music and singing were getting louder, my vision began to blur until once again the woman, the child, the man and the boys melted into a continuous flow of assorted color and patterns. I felt myself beginning to sway involuntarily and I could no longer tell if my body was responding instinctively to the primal rhythms of tribal drums, or if I had in fact merged with the pressing throngs of people that pressed on all sides. Suddenly the crowd in front of me parted and I found myself staring at the red-rimmed eyes of a large, white-faced bull mask topped with a pair of gaudily decorated horns. I found myself mesmerized and unable to move as the figure lunged towards me and, just as quickly, darted and whirled away towards the other side of the street. With this exaggerated creature cavorted a variety of colorful costumes, including a lazy-eyed horse, a brightly feathered chicken and a white-faced *gringo* mask wearing an impossibly tall sombrero of colorful paper-mâche. Children screamed with mock horror as the figures lumbered near, and then dissolved into laughter as they twirled away again. Another figure, this one agile and dressed in the soft browns of a deer, darted in and out of the procession amidst cheers and clapping. As I watched the singers and dancers weave through the procession and the surrounding throngs of people, I found myself no longer able to distinguish who was an observer and who was a participant. Minutes, then hours it seemed, passed by as the dancers wove patterns in the street with their gaily adorned bodies. Though I couldn't fully understand what was being said, the words shouted out by those standing on the side seemed to blend seamlessly into the tapestry of the Dance; the syllables punctuating the

melodious flow of the *marimba* instruments and the sinuous movements of the creatures with hidden meanings. I felt waves of pain, sorrow, then joy and renewed hope wash over me. The background faded and I was wrapped up in the dance of the willowy-limbed Deer as it spun circles around the increasingly confused and lumbering Bull, eliciting laughter and shouts of encouragement from both children and adults. Suddenly I found myself jolted back into the present by the sight of a gleeful, red-faced man excitedly beckoning over the heads of the crowd. It was my boss, Pedro Pablo! As I snaked and jostled my way over to where Pedro was standing, my head filled with questions about what I had just witnessed. To my delight, Pedro was just as eager to respond to my excited interrogation as I was to hear his explanations, and I listened intently to his story.

"The people of Monimbó have danced at the Festival of *Torovenado* since the time of my great-great-great grandparents. At that time, when we were slaves to the Spaniards, there was much sorrow, death and disease for the people. We were too few to rise up and drive the Spaniards back to the sea. But like the beans in a simmering stew, our souls were growing fatter and fatter with rage. Yet rather than raise up arms and cause the mass murder of our families, our communities held together and stayed strong for the sake of our children. And we kept the precious memories of our ancestors alive through festivals, song and dance. This is why, every year, we dance the Festival of the Bull-Deer. It is to remind ourselves and our children of the hidden strength in the souls of our people. The Bull dances to remind us of the Spanish overlord—he is prideful and strong, but clumsy and vulgar. With him came the horse, the chicken and the pig to work his farms and feed his kind. But unlike all of these creatures that can be tamed and made to serve the will of man, the Deer dances the dance of our people's independence. Deer is cunning and fast,

and he can always outrun and outsmart Bull. Deer knows the secrets of this land, and where to find powerful magic. One day, Bull will be castrated and turned into an Ox, but Deer will continue to endure when Bull falls. For a long time, we had to wrap our anger in cloaks of many colors, hide our pain in fits of laughter, and tuck our scheming within the folds of joyous dance. Now we continue to honor the gracious bounty of the Virgin Mary and celebrate the strength of our ancestors by dancing the *El Baile del Torovenado* every year. This is why today is a day that we leave whatever it is that we are doing and come together as one. This is why we dance The Dance of the Bull-Deer."

Grounding Conservation Strategies in Folklore

Walking through the streets of Monimbó, the strong undercurrents of cultural pride and fierce independence are palpable, even when overlain by the constant stream of day-to-day activity. Here, you are reminded that Nicaragua is a place that embraces contradiction. In gender relations, the distinctive essence of *machismo* seasons almost every interaction between males and females, yet this is juxtaposed with "*marianismo*" or a profound respect for the role of women as mothers by the male population that borders on worship. In the cultural realm *indigenismo,*[82] while venerated as the lifeblood of Nicaraguan identity, exists side-by-side with a mentality that stigmatizes Indian forms of dress, language and beliefs. These social attitudes have directly affected how members of

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[82] In the use of the word *indigenismo,* I rely upon Les Field's characterization of the term as a heavily romanticized concept that is used from Mexico to Argentina to connote reverence for the pre-Columbian civilizations of Latin America. Field draws from the example of post-revolutionary Mexico, where "indigenismo became official state policy and was implemented by bureaucracies dealing with Indian communities and artisanal production. The policies toward Nicaraguan artisans carried out by the Sandinista Ministry of Culture were directly influenced by the Mexican indigenista bureaucracy." Les Field, "Post-Sandinista Ethnic Identities in Western Nicaragua," *American Anthropologist* 100, no. 2 (1998): 441.

indigenous communities relate to each other and to the world around them, and therefore have important implications for conservation planning in these areas. Underpinning these ideologies are social reconstructions of a long and troubled history that have served as the framework upon which the Nicaraguan Indian has constructed his/her identity. And to understand this process, it is first necessary to contextualize the world in which the Nicaragüense have defined themselves.

Just as in Africa, Latin American national borders have been arbitrarily defined by imperialistic European nations, which systematically disregarded social and ecological realities. The ensuing struggles to maintain control of these artificial colonial empires led to the manipulation of the indigenous communities and the internalization of European stereotypes, leaving present-day Nicaragua with a legacy of political instabilities due to the resulting conflicts between different cultures, as well as ecological instabilities due to the promotion of alien crops and non-indigenous agricultural practices.[83] Geopolitically, Nicaragua is quite literally a nation split in two. As an important strategic locale as well as a potential site for a cross-continental canal, Nicaragua from the very beginning was divided between the interests of Spain and Britain. While Spain relinquished formal control of Nicaragua in 1854, the Atlantic coast remained a British protectorate until 1860, when the British were compelled to sign the First Treaty of Managua and cede ownership of the "Mosquitia Reserve" to Nicaragua.[84] This opened up the region to U.S. economic interests, which quickly transformed the Atlantic Coast into a U.S.-controlled enclave, a policy that essentially remained firmly in place until the Sandinista Revolution

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[83] Roxanne Dunbar Ortiz, "Indigenous Rights and Regional Autonomy in Revolutionary Nicaragua," *Latin American Perspectives* 14, no. 1 (1987): 43-66.

[84] Peter Sollis, "The Atlantic Coast of Nicaragua: Development and Autonomy," *Journal of Latin American Studies* 21, no. 3 (1989): 485.

in 1979.[85] The consequences of the social and cultural schism between the Eastern and Western halves of Nicaragua played an important role in the decision of the revolutionary government of Daniel Ortega to announce its support for Atlantic Coast autonomy in 1984.[86] As a result, the eastern half of the country became relatively isolated from the distinctly different cultural, social, political, economic and environmental trajectories that shaped western Nicaragua—trajectories that served to foster ideologies and strategies among Pacific indigenous communities that were distinct from that of the Atlantic coast Indians.

The significance of Nicaragua's troubled history in inducing the social, economic and environmental difficulties faced by those who are currently promoting long-term natural resource conservation strategies in Nicaragua cannot be understated. The resultant struggles for cultural legitimacy and authenticity are articulated in western Nicaragua through competing discourses, which blur the distinctions between class, ethnicity, belief systems and livelihood strategies. Indigenous identity has been profoundly shaped by a need to assert their presence within a national context that enforces what Jeffrey Gould has termed "the myth of Nicaragua mestiza."[87] Disseminated by both the Somocista and Sandinista regimes, this prevailing myth "narrates the transformation of communities of indigenous peoples into lower-class individuals whose formerly collective ethnic identity

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[85] In 1860, the British were compelled under the First Treaty of Managua to grant independence to the Atlantic Coast, which opened up the area to North American commercial interests. Shortly after President Zelaya reincorporated the so-called "Mosquitia Reserve" in 1894, the U.S. secured its financial hold on the region through military force and soon gained control of 90% of all commercial and productive activities in the region. See Sollis, 485-501.

[86] Much of the motivation for the Sandinistas to grant autonomy to the Atlantic coast stemmed from the need to secure support in this region, which for historical reasons was more likely to back the interests of the United States-led counterrevolution. See Sollis, 481-520, for a more comprehensive analysis of this landmark decision.

[87] Jeffrey Gould, "Vana Ilusión! The Highland Indians and the Myth of Nicaragua Mestiza, 1880-1925," *Hispanic American Historical Review* 73, no. 3 (1993): 393-431.

is replaced by allegiance to a nonethnic, Nicaraguan national identity."[88] Partly as an effort to focus attention on 'Indian-ness' within an political atmosphere that espouses the rhetoric of national uniformity, indigenous resistance movements in western Nicaragua have drawn heavily from specific traditions within a certain cultural identity—such as artisan knowledge, communal land holdings, certain musical traditions, and particular forms of folk-dance.[89] These practices and beliefs form the core of what it means to be Indian in communities that face constant pressure from state propaganda promoting cultural homogenization.

Alfred Schütz has said that "it is impossible to understand human conduct by ignoring its intentions, and it is impossible to understand human intentions by ignoring the settings in which they make sense."[90] It is at this fundamental ideological level that western conservation paradigms have systematically failed to engage the sustained cooperation of traditional peoples of western Nicaragua. In characterizing the limitations of a programmatic approach to policy-making, Czarniawska points out that contemporary organizations tend to overlook the significance of stories, myth and folklore as vehicles by which the most pervasive narratives are disseminated.[91] By disregarding, or even blatantly contradicting, the significance of the cultural institutions that grew out of a legacy of cultural imperialism, conservation interests are unable to effectively align themselves with the most important drivers of societal change.

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[88] Field, "Post-Sandinista Ethnic Identities," 431.
[89] Field, "Post-Sandinista Ethnic Identities," 438-439.
[90] Alfred Schütz, "On Multiple Realities," in *Collected papers I: The Problem of Social Reality* (The Hague: Martinus Nijhoff, 1973), 207-259.
[91] Barbara Czarniawska, *A Narrative Approach to Organization Studies,* vol. 43 of *Qualitative Research Methods* (London: Sage Publications, 1998), 8-9.

At the heart of western Nicaragua's ideological struggles is the town of Masaya, located in western Nicaragua just thirty miles southeast of Managua. The presence of the indigenous *barrio* of Monimbó at its southernmost edge has bestowed upon Masaya its reputation as the "cradle of Nicaraguan folklore." Despite "the absence of linguistic markers and of…clothing, ornamentation, and the like…that serve as the most obvious markers of indigenous ethnicity in Latin America,"[92] Monimbó has long been recognized as a distinctly Indian community within the largely *mestizo* population of Masaya, as well as a center for traditional artisanry and dance.[93] With the advent of the Somoza dictatorship in the 1930's, a new dimension was added to the identity of Monimbó—one that redefined the community as a hotbed of sustained political resistance to the *mestiza* myth that underpinned exclusionary national development strategies. As Pedro Pablo's narrative explains, bitter memories of social exclusion throughout a long history of Spanish and U.S. domination continue to be reinforced by current state policies; and they play a major role in shaping the social institutions that inform how communities react to externally-derived development and conservation strategies. In fact, the recognition of the ability of emotions and shared experiences to galvanize societal cohesion was a huge factor motivating the Sandinistas to lead a revival of traditional art and folk dance during the 1980's.[94] For Monimboseños, folk dancing became a local expression of ideologies and idioms that connect social institutions to emotionally-charged memories through the concept Reed and Foran term "political cultures of opposition."[95] With colorfully

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[92] Les Field, "Constructing Local Identities in a Revolutionary Nation: The Cultural Politics of the Artisan Class in Nicaragua, 1979-90," *American Ethnologist* 22, no. 4 (1995): 789.

[93] Katherine Borland, "Marimba: Dance of the Revolutionaries, Dance of the Folk," *Radical History Review* 84 (2002): 77.

[94] Borland, 86-87.

[95] Jean-Pierre Reed and John Foran, "Political Cultures of Opposition: Exploring Idioms, Ideologies, and Revolutionary Agency in the Case of Nicaragua," *Critical Sociology* 28, no. 3 (2002): 336.

exaggerated masks, elaborately decorated costumes, and aesthetic norms governing movement, folk dancing reflects the duality of traditional knowledge, which embodies aspects of both conformity and innovation. In this sense, the beliefs and worldview of the Monimboseños are continually reinterpreted and reinforced through the danced invocation of the stories and myths that inform their shared sense of identity. On one hand, the allegorical interactions of the Bull and the Deer in the *Torovenado* dance serve to repeatedly recall the fierce emotions that permeated the interactions between the marginalized residents of Monimbó and the Nicaraguan state. But the flexible and interpretive nature of dance also allows for a reciprocal relationship between ideology and institution, where the latter both reacts to and informs the former. Not until the Ministry of Culture attempted to advance its own static *indigenista* propaganda using traditional folk-dance styles did the tenuous links forged between the Sandinista state and the Monimbó community begin to disintegrate.[96] Borland demonstrates that the nationalization of certain dance styles "produced profound dissatisfaction among Masaya dancers who were prevented from participating in the construction of the national dance culture by their marginal social and geographic position."[97] As local authority over Indian history became distorted by an ideology defined by Sandinista elites, "old patterns of class and ethnic privilege, accentuated by center-periphery relations, quickly reemerged."[98] Anthropologist Anthony Stocks has pointed out similar problems with the way conservation mapping exercises have operated in the context of eastern Nicaragua, which often result in initial difficulties in gaining trust among the community members:

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[96] Borland, 91-97.
[97] Borland, 97.
[98] Borland, 97.

> …the first regional mapping of indigenous community locations and "turfs" in the 1990's…was done without the intention of forming a social process of agreement on boundaries between territories or a linked program to carry the claims forward. They were…relatively quick projects that produced maps with many territorial overlaps. While such overlaps often represent areas of shared use or close kinship connections, in both cases the maps were used by unfriendly politicians to support their argument that if the indigenous people themselves cannot agree on their boundaries, the state has little reason to intervene on the side of indigenous land legalization.[99]

Echoing the situation in Nicaragua, complications have arisen in the management of La Amistad Biosphere Reserve in the Talamanca region of Costa Rica and Panama due to suspicion of neo-imperialistic foreign interests by the resident Bribri communities. This has been the result of a long history of state-led acculturation policies, as well as a general failure of conservation planners to step "outside the box" and engage local belief systems towards creating alternative designs for protected areas.[100] Opportunities abound for programmatic conservation approaches to be turned on their heads in the context of Nicaragua. By effectively removing folklore, myth and oral tradition from their definition of utilizable knowledge, conservation planners are disregarding an important factor in the construction of a challenge to the discourse that equates conservation with cultural imperialism. Unlike written dissemination of information, knowledge conveyed through the more plastic media of music, dance and narration is better situated to make the small adjustments necessary to keep its relevance within a constantly shifting social and environmental background.

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[99] Anthony Stocks, "Mapping Dreams in Nicaragua's Bosawas Reserve," *Human Organization* 62, no. 4 (2003): 347.
[100] Daniels, 6-7.

Bridging the Gaps: Re-embedding Conservation within Communities

Culture is like a tree. If the green branches—a people's language,
legends, customs are carelessly chopped off, then the roots that bind
people to their place on the earth and to each other also begin to wither.
The wind and rain and the elements carry the topsoil away; the land
becomes desert. – Mariano López, Tzotzil Indian

We often fail to notice that our observations are always filtered through the lens of our cultural experiences. One's cultural background, with its accompanying systems of ethics, beliefs and knowledge, becomes so much a part of her/his identity that it is arguably impossible for anyone to be truly objective in his/her reasoning. This inherent bias, cultivated in every human being living in a social group, is the source of one's concept of what is "right" and "wrong," and has been a major factor in the shaping and interpretation of human history. Despite numerous examples of successful co-adaptation strategies of indigenous communities within their respective environments, Western beliefs regarding the respective roles of human society and nature have helped to construct the received wisdom that has perpetuated a deeply ingrained narrative about the incompatibility of local populations with biodiversity conservation. Deeply ingrained within scientifically-oriented Euro-Western psyche, is a penchant for simplified models of societal and environmental phenomena that reflect universal truths. The framework of stories, legends, metaphors and theories that support this worldview arose from historical, religious and cultural precedents that persist in the how people in Western society think and behave towards each other and their surroundings. In turn, the playing out of these societal behaviors and beliefs serve to validate the folklore and knowledge systems that shaped them in the first place. It is only through an opening up of the conceptual walls around legitimate knowledge, and the initiation of meaningful dialogue, that our

discourse can be enriched by the counter-narratives embodied within traditional knowledge.

The pervasiveness of a narrative is fundamentally related to whom, and how many, can be convinced of its legitimacy. In characterizing the power differentials among competing policy narratives, Roe demonstrates that "unequal access to information and resources among the key parties to a controversy really does matter when it comes to how that issue is perceived, communicated, and managed in situations of high ambiguity."[101] We see this in the evolution of the conservation movement, which is fraught with the type of divisiveness and complexity that characterizes an intractable policy issue. Traditional societies currently operate with significant disadvantages when it comes to presenting, defending and interpreting their alternative narratives. What is required is that the dominant actors in the conservation community recognize the inherent limitations of their universalist scientific paradigms. Currently missing in the debates surrounding conservation policy-making is the insight that contextually relevant knowledge and appropriate mechanisms of information exchange can offer. While traditional knowledge is gradually becoming accepted as a legitimate contributor to conservation dialogue, it is in danger of becoming decontextualized in the process. As Agrawal, Castellano and others have already pointed out, the processes that ensure the continued existence of this knowledge, including stories, myths, metaphors and folklore have not yet been adopted by conservation planners in formulating their approaches. Worse, some of these approaches serve to undermine traditional systems of knowledge recording and

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[101] Roe, 14.

dissemination by imposing conservation policies that promote "assimilative education, economic dislocation, and government control from an external culture."[102]

One of the primary sources of failure of conservation policy continues to be the pervasive bias against traditional forms of knowledge, both in terms of its value as a counter to dominant policy narratives, and as a potential contributor to positive policy outcomes. Rather than viewing traditional knowledge as a holistic approach to interacting with a community's human and non-human surroundings, compatible aspects of local knowledge systems are often inserted piecemeal into pre-determined conservation protocols. While policy-makers and planners profess to take into account the cultural norms of their target populations, conclusions derived from largely Western, science-based knowledge are privileged when developing their strategies for biodiversity conservation. This not only results in inaccurate assessments of social and environmental priorities for the community in question, but also fundamental flaws in subsequent project design and implementation. The consequences of formulating conservation projects out of the context of the target population range from community indifference towards implementation protocol, to open hostility towards the project and the exacerbation of conflict. This is exemplified in the transformation of Maasai discourse surrounding wildlife after the government enforced separation of Maasai communities from their homelands. Once revered as god's gift to humanity, wildlife was radically re-conceptualized among younger generations as "government cattle," which underpinned

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[102] Castellano, 34.

the protest spearings of lions and elephants that compromised conservation goals in the Amboseli area.[103]

Folklorist Alan Dundes explains that "one of the functions of myth is to provide a sacred precedent for present action," which he compares to the formal citation of legal precedents in western judiciary culture.[104] Elements of symbolism are what link the practical knowledge folded into folklore with the environmental context, social concepts, cultural norms and socio-economic activities that necessarily accompany the application of that knowledge. The use of symbols also provides an important way to ground appropriate action and behavior in the present while leaving the kernels of wisdom represented by those symbols open to further interpretation and elaboration as the entire knowledge system continues evolving. For example, the symbolism of the *ninkinanko* myth has barely altered over many generations, but the knowledge embedded in this story has undergone changes as populations have migrated, the socio-environmental landscape has been transformed, and new insights have developed.[105]

In this way, oral tradition and folklore represent appropriate vehicles for a syncretic approach to conservation planning. Maasai mythology surrounding their relationship to cattle and the land is a deeply ingrained network of symbols that institutionalize certain attitudes and behaviors towards people and the land, many of which directly lead the accumulation and transformation of practical knowledge. The specific knowledge

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[103] Western, *In the Dust of Kilimanjaro,* 47-50.

[104] Alan Dundes, *Interpreting Folklore* (Bloomington: Indiana University Press, 1980): 24.

[105] There is a similar *ninkinanko* myth that protects the trees and wildlife of what is now known as the Makasutu Forest Preserve in the western end of The Gambia. Also Mandinka in origin, this legend has been traced back to the 12th century. At this time, the dragon was believed to be guarding the hidden crown and clothes of King Jatta, a tribal leader that was killed by invading Muslim king, Kombo Silla. Today, the dragon also serves to protect bordering community-run orchards from would-be thieves. See Jason Florio, "The Estate of Things to Come," *Geographical* 73, no. 6 (2001): 40.

pertaining to the land (or traditional ecological knowledge) is now widely recognized to be conducive to both the ecological and social relationships that best foster sustainable conservation strategies in the context of certain African landscapes.[106] While valuable contributions to conservation planning have been made through the use of ethnographic studies, cultural immersion, and genuine participation by a variety of societal informants, folklore is a significant aspect of traditional knowledge that remains undervalued and underutilized. The unobtrusive nature of these traditional modes of knowledge dissemination prevents the type of patronizing relationship that often exists between scientifically-oriented conservation planners and holders of traditional knowledge. This would not only allow for a greater 'fit' among introduced pieces of information and existing local knowledge networks, it would also facilitate a process of co-learning and co-operation between insider and outsider knowledge systems.

Robin Wright maintains that rather than holding on to the fictitious role of an unbiased observer, anthropologists and ethnographers have a responsibility to engage in political struggles for the protection of indigenous rights, lest they unwittingly support a repressive and exploitative social order.[107] Conservation researchers, planners and policy makers not only have a similar duty to prevent the marginalization of the populations with whom they work; they also depend heavily on the sustained partnership of these communities for the ultimate success of their strategies. In many societies that have undergone a history of repression and marginalization from outside interests, this partnership cannot be achieved without engaging people at the deeper, more emotional

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[106] See Adams and Hulme (1998); Brockington and Homewood (1996); Kituyi (1993); Kleymeyer (1994); Leach and Fairhead (2002); Western (1997, 1994)

[107] Robin M. Wright, "Anthropological Presuppositions of Indigenous Advocacy," *Annual Review of Anthropology* 17 (1988): 365-390.

level that forms their concepts of 'outsider.' As seen in the second case study, folk dance represents a foundational pillar of community identity within the community of Monimbó. Whether through ignorance of or indifference toward local traditions, values and beliefs; the image of a conservation policy in this area is highly vulnerable to the 'imperialist' stigma that derives from historical patterns of repression and dominance. An awareness and understanding of importance of these traditional methods of communicating collective memories and beliefs, on the other hand, could greatly aid the conservation community in challenging their perceived role as purveyors of cultural imperialism.

In the first case study, the myth of *ninkinanko* provides a viable alternative to promoting a conservation ethic through a scientific paradigm. The threat presented by streambank erosion is not a concept that is new to a community that has resided by a seasonally fluctuating riverbank for many hundreds of years. Yet in their programmatic efforts to impart scientific knowledge of stream ecology and floodwater management principles to the people of Limbambulu, conservation planners not only spend vast amounts of time and resources in re-articulating a pre-existing conservation ethic, they also ignore the opportunity to promote a form of conservation that is truly grounded in the institutions that govern the attitudes and behavior of the community. In the fast-paced world of economic transactions, trans-global communication and political maneuvering, it takes a significantly longer amount of time to develop an understanding of the rich folklore and cultural traditions that inform a community's understanding of their place in the world. However if the goals of the conservation community are truly to encourage the long-term

success of sustainable resource management strategies, the support of community members that depend on those resources is required.

Conclusion

It does not do to leave a live dragon out of your calculations,
*if you live near him.* -- J. R. R. Tolkien

The influence of dragons on the human imagination is represented in the mythology of almost every culture. In old Celtic legends dragons are malevolent creatures that greedily hoard gold and devour whole villages, while Chinese folklore describes an ancient being that graces human civilization with its timeless wisdom and good luck charms. Interestingly enough, these different versions of dragons closely parallel societal behavioral patterns towards the natural world. On the one hand, the human-nature dichotomy represented in European lore is reflected in our mythologies. Indeed, by subjugating much of nature to our will, it has become safe to let dragons roam throughout our literature, our art and our childhood fantasies. However in traditional Chinese culture, dragons still feature heavily in annual cultural festivals and are revered as mediums between humankind and the gods. Wherever the dragon still exists as a bringer of life-giving water, good luck and wealth, there exists a continuing recognition of the natural world as a fundamental life-support system. Like these more well known dragon myths, the Gambian myth of *ninkinanko* can be seen as a metaphor that connects Mandinka society to the norms that govern sustainable interrelations between humans and nature.

A paper of this length is really not enough to explain the history of a people, or their relationships to their environment, their neighbors, and their livelihoods. But neither is the immense amount of historical tomes, cultural ethnographies, and ecological science

literature that currently adorn the shelves of conservation theorists and practitioners alike. Yet conservation planners continue to draft strategies and implement community-based conservation programs without even being aware of a small fraction of the thick contextual information that simultaneously informs, and is informed by, the day-to-day interactions among people and between people and the land. How is it, therefore, that there exists such a high degree of confidence among outside 'experts' about what ultimately motivates people in those communities? What many policy-makers learn about the community, they get secondhand from books or from a simplified concept like the "tragedy of the commons" narrative that has been spread around as if it were gospel. There is certainly much you can learn from a book and incredible insight can be obtained through general pattern recognition; but without grounding that background information in the reality of the present community within a specific context, one runs the risk of setting up a strategy that is not able to persist because it assume that traditional communities are 'blank slates' to which universal models and scientific institutions can be affixed.

As a highly flexible vehicle for knowledge accumulation, norm articulation and societal transformation, folklore has the potential to present to conservation planners an entry point towards bridging the deepening gaps between their priorities and those of the communities with which they work. Through a process of collective dialogue that embraces rather than simplifies diversity, acknowledging and sharing the various discourses that are hidden within folk knowledge can foster the emergence of a conservation meta-narrative that includes, not excludes, different worldviews. It may never be possible to fully remove the lens of culture. But perhaps, through participating

in more conversations with—and listening to the different viewpoints of—those who peer through different lenses than we do, we can begin the process of learning how to see through the eyes of dragons.
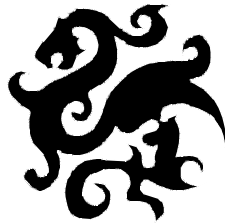
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