Hunting for Ecological Learning

Joel B. Pontius, University of Wyoming, United States; David A. Greenwood, Lakehead University, Canada; Jessica L. Ryan, Laramie, Wyoming, United States; & Eli A. Greenwood, Thunder Bay, Canada

Abstract

Considering (a) the many potential connections between hunting, culture, and environmental thought, (b) how much hunters have contributed to the conservation movement and to the protection of a viable land base, and (c) renewed interest in hunting as part of the wider movement toward eating local, non-industrialized food, we seek to bring hunting out of the margins and into a more visible role as a legitimate focus for environmental learning. To dig beneath the sometimes dismissive stereotypes that often marginalize hunters and hunting, and to explore hunting as a practice of ecological learning, we went straight to the source we went hunting. Through narrative inquiry, this paper explores the ecological learning experienced in the context of a weeklong pronghorn antelope hunt in traditional Cheyenne and Arapahoe hunting territory in central Wyoming. By juxtaposing four voices, we recreate the hunting cycle and make meaning of our experience learning about ourselves, our environment, our food, and the morethan-human world.

Résumé

Compte tenu, a) des nombreux liens potentiels entre la chasse, la culture et la pensée environnementale, b) de la contribution considérable des chasseurs au mouvement environnemental et à la protection d'un habitat naturel durable, et c) du regain d'intérêt pour la chasse au sein du mouvement pour la production alimentaire locale et non industrielle, nous cherchons à sortir la chasse de la marginalité et d'en accroître la visibilité dans le but légitime de l'apprentissage environnemental. Afin de passer outre les stéréotypes parfois méprisants qui marginalisent souvent et les chasseurs et la chasse, et d'étudier l'utilité de la chasse dans la pratique de l'apprentissage écologique, nous sommes allés à la source : nous sommes allés à la chasse, directement. Par une enquête narrative, l'article examine les expériences d'apprentissage écologique vécues lors d'une semaine de chasse à l'antilope d'Amérique en territoire de chasse traditionnel cheyenne et arapahos au Wyoming central. En juxtaposant quatre voix, nous avons recréé le cycle de la chasse et tiré une signification de l'expérience d'apprentissage sur nous-mêmes, notre environnement, notre alimentation et le monde au-delà de l'humain.

Keywords: hunting, ecological learning, ecological literacy, environmental education, food literacy, place-based learning, narrative inquiry

Hunting for Ecological Learning

With humans and other animals, hunting is the original environmental education. To say so acknowledges a reality almost forgotten in modern and postmodern culture. That is, humans coevolved—as both predators and prey—with other animals that also learn (Shepard, 1996). Considering the evolutionary and anthropological role of hunting in human societies, along with the prominent place of hunting in the worldwide conservation movement, it is surprising how little hunters' voices have been heard in the contemporary field of environmental education. In the field, hunting has been largely discussed by those speaking out against it, with a few exceptions such as Asfeldt, Henderson, and Urberg (2009), who position hunting as a critical element of a northern Canada place-conscious curriculum, and reports of hunting in research on significant life experiences (Tanner, 1998). Hunting is also part of a broader interest in traditional ecological knowledge among both Indigenous and non-Indigenous scholars. Among many Indigenous peoples, hunting traditions are inseparable from cultural traditions that connect human beings to other animals and to the larger lifeworld; as Marker (2006) suggests in his educational inquiry into the Makah whale hunt, to neglect hunting among Indigenous groups is to neglect culture.

The Politics of Hunting

Hunting is clearly a controversial topic. It is likely that some readers felt strong emotions for or against the practice upon reading the title of this paper. To briefly frame hunting in its polarity, it has been represented as the essence of domination and the aggressive search for male psychosexual identity (Kheel, 1996), but also as a model of natural connectedness and relatedness between human animals and the land (Nelson, 1998); a moral evil (Regan, 2001), but also a moral good (Cahoone, 2009); a practice that is not environmentally sound (Kretz, 2010), and one that plays a critical role in conserving biodiversity (Petersen, 2000). Perhaps it is because hunting can be a divisive issue, eliciting generalizations and stereotypes, that it is little discussed in contemporary environmental education journals and conferences. Yet like other cultural practices, hunting is poorly understood when discussed in general. Hunting takes form in practice, and draws its meaning from particular people in the context of place, time, and relationship.

It is not only people for or against hunting who have disagreements about the practice. For example, women and men who draw on the literature of ecofeminism might, depending on their relationship to food, other hunters, and wild land, either decry or support the practice of hunting. Writing from one ecofeminist stance, Kheel (1996) understands hunting as a male-dominated search for psychosexual identity, and also as a ritual that serves to prepare humans for war. Kheel defines hunting as "a symbolic attempt to assert mastery and control over the natural world" (p. 39). Cerulli (2010), on the other hand, cites ecofeminist ideals as his impetus for learning to hunt. Cerulli explains how his journey into hunting began with vegetables, as he grew gardens and tried to "keep the wild at bay," applying biological insect controls ("beneficial" insects killing "undesirable" insects in the garden) and living with food losses incurred by whitetail deer and woodchucks. Over time, Cerulli began to perceive the forest as full of diverse wild food that grows on its own accord. On his path to hunting, Cerulli reflects, "I was on the same quest that led me to vegetarianism, the quest for a respectful, holistic way of eating and living in relationship with the world, for right dietary citizenship" (p. 52). Undoubtedly, some hunters embody the characteristics Kheel highlights, and some, Cerulli's motivations.

Hunting has also at times divided environmentalists from one stripe from conservationists of another. However, the values underlying these communities overlap substantially in terms of habitat protection and the importance of the more-than-human world to the health of all. In recent years, hunter-based conservation groups have been among the most successful habitat protection activists on earth (Petersen, 2000). While the everyday economics of "development" and "growth" continue to absorb critical habitat and wild land into the capitalist mode of production, groups such as Ducks Unlimited, Rocky Mountain Elk Foundation, Pheasants Forever, and many others continue to protect habitats and ecosystems from destruction. Ducks Unlimited, for example, supports the management of 6,301,016 acres of wetland habitat under conservation easement in Canada, and a total of 12,693,635 acres of wetland habitat in North America (Ducks Unlimited, 2013). Ducks Unlimited reports that they have influenced 108,569,037 acres of wetland habitat, supporting the overall health of freshwater ecosystems. In 2012, Rocky Mountain Elk Foundation conserved their 6 millionth acre of elk habitat, concentrating largely on critical winter range (Rocky Mountain Elk Foundation, 2013). The actions of elk hunters, in this case, have protected some of the most important elk habitat and wild land in the Northern Rockies from development and fragmentation. The conservation of habitat by hunting groups often makes possible access to wild places by non-hunters and hunters alike, and has proven to be a significant defense against population decline in hunted and non-hunted species. While some critics of hunting might object to land conservation strategies that support hunting, it is difficult to deny the importance of habitat protection to the survival of species (humans included) and ecosystems. Additionally, land conservation by groups associated with the tradition of hunting is unrivalled by environmentalists who take an explicit anti-hunting or animals rights stance toward the issue (Petersen, 2000).

Conversations around hunting also connect with the "question of the animal" (Oakley et al., 2010). Recognizing the trap of anthropocentrism and the difficulty of speaking on the behalf of other animals, here we situate the process of hunting, killing, and eating wild animals as one part of a wider conversation

on the relationship between humans and other animals. Through an exploration of hunting and what it means to living and learning, we are also interested in a "blurring of the lines" between nonhuman and human animal forms. We take in lives to live and they become our bodies; we die and our bodies take on other forms: this is the collective story of life on earth. While we acknowledge that for some animal advocates, hunting or eating meat is morally wrong, we are not primarily interested in expanding the debate over the ethics of eating. Rather, we simply wish to include the voices of hunters in a conversation about environmental education, wild land, food, and connection to the more-thanhuman world.

Hunting for Food as Place-Based Ecological Education

Across North America and elsewhere, hunting is rooted in the family traditions of diverse cultural groups, especially where biological diversity remains part of the landscape, and where people have access to wild land. In such rural communities, whether Indigenous or non-Indigenous, seasonal hunts play a significant role in local culture, learning to hunt remains a powerful initiation into a particular kind of regional ecological consciousness, and hunted animals often represent a major portion of the family diet. We contend that hunting is itself a unique place-based ecological education.

Connecting with rural communities, the authors of this paper are using interest in hunting as a way to root to and deepen local ecological knowledge in formal education systems. Joel and Jess are currently teaching an undergraduate humanities course called "Hunting and Spirituality: Perspectives on Self, Place, Other, and Eating," which concentrates on sustainability issues in modern food systems, explorations of spirituality as relatedness with the more-thanhuman world, place-based cultures and worldviews, and hunting/gathering in the natural history of human experience. Joel is also teaching a course called "The Ecology of the Hunt: Understanding Elk, Mule Deer, Pronghorns, and the Animals who Hunt Them," for local high school students who would otherwise not have a school-based environmental education opportunity in secondary school. The course includes opportunities to meet local natural resource managers, complete habitat improvement projects, and examine the lifestyles of local animals, including humans. These classes are packed with people who want to learn more about the land, and who otherwise find much of the school curriculum abstract and irrelevant to local life.

Although hunters hunt for a variety of reasons, hunting for food to eat and learning from the experience is the subject of our inquiry, not recreational or trophy hunting. The local foods movement continues to grow and has become a popular context for much environmental education. Researchers have shown that school and community gardening and related food programs can provide fresh, healthy, and great tasting foods to local communities and that the process of growing, preparing, marketing, and eating food offers a rich menu of cultural and environmental learning opportunities (Williams & Brown, 2011). For access to healthy, fresh food, many people are going local and opting out of the industrialized food chain. Books and films like *Fast Food Nation* and *Food Inc*. have helped to spread the message that the ecological impact of industrial food production is a cultural, political, ecological, health, and therefore, educational issue. As the local foods movement has grown, demand for local meat has also increased. In his ground-breaking treatise on food, *The Omnivore's Dilemma*, Pollen (2006) reports that large-scale industrialized meat production not only comes with huge social and ecological costs, but has also led to a set of government regulations that severely limit opportunities for small-scale local meat production. In this context—where the demand for local foods (including meat) is growing, and where consumers find their choices to be limited by meatindustry politics—we have begun to see an increasing interest in hunting.

The authors consider hunting as one possible practice, amongst many others, that can lessen the environmental impacts of eating while creating meaningful relationships with food and place (Kerasote, 1993). Collectively, we are a hybrid of past, present, and future eating ecologies. To give the reader perspective on our vacillating eating practices, one of the hunters featured in this paper has returned recently to an exclusively vegan diet for the sake of heart health. Another will assume a seasonal vegetarian diet once the elk and pronghorn from last season's hunts have been consumed. We both honour and participate in vegan, vegetarian, and omnivorous diets; by exploring hunting, we do not intend to advocate for or against the choices of others. The rationales behind our own food choices continue to change as we learn, depending on the places we live, health considerations, and the communities we are involved in. Currently, we buy vegetables from local community supported agriculture programs, grow vegetable gardens each growing season, and purchase eggs from the family down the road.

For the present, we wish to consider the ways in which the practice of hunting is the context of a broad spectrum of ecological learning. To explore the process of hunting, we went straight to the source—we went hunting. The participants in this inquiry are Jessica Ryan, a 35-year-old yoga instructor, David Greenwood, a 46-year-old professor of education, Eli Greenwood, a 12-year-old outdoorsman, and Joel Pontius, a 29-year-old doctoral student studying environmental learning. Jess, Eli, and David were attempting their first kills supported by Joel, an experienced hunter. The group hunted pronghorn antelope in the Shirley Basin, a vast, remote, high desert in traditional Cheyenne and Arapahoe hunting territory in central Wyoming. The basin is home to the largest pronghorn herd on earth and supports critical sage grouse habitat and the strongest populations of black-footed ferrets and swift foxes anywhere. The Basin is also stressed by energy development including large-scale wind farms, uranium mining, and the production of beef cows.

Narrative Method

Abram (1996) writes that there is a

profound association between storytelling and the more-than-human terrain... we are situated in the land in much the same way characters are situated in a story... along with the other animals, the stones, the trees, and the clouds, we ourselves are characters in a story that is visibly unfolding all around us. (p. 163)

Connecting with this notion methodologically, we created a narrative structure of the hunting cycle and an associated image to emplot (Polkinghorne, 1988) our experience and meaning-making. We used the hunting cycle as a base map to write, share, and refine our personal reflections, and as a way to explore our individual and collective learning. We then worked through our stories with Laramie artist Justin Deegan to create a visceral image that invites readers into our experience (Figure 1).

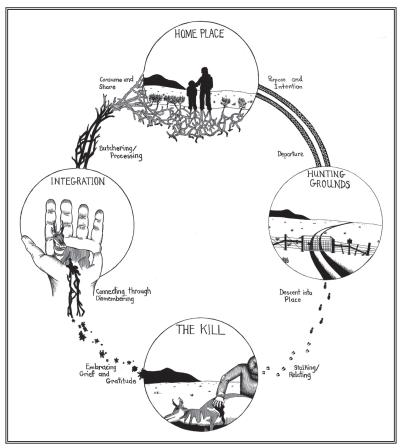


Figure 1. Hunting cycle

Because of our desire to privilege diverse voices over a singular academic voice, the remainder of this article is a narrative collage of the hunting cycle. We selected these excerpts from a much larger set of stories, based on their ability to demonstrate more deeply aspects of the hunting cycle from the perspective of diverse hunters. Through the following narratives, our intention is not to generalize or universalize our experiences, but to share, authentically, our particular experiences of a hunt. However, we do represent an emerging group of people who are hunting as a means of connecting with local, meaningful food. As a form of artsinformed inquiry (Cole & Knowles, 2008), our story contains its own teachings about environmental learning and reaches its own conclusions, while disrupting stereotypes that surround hunting today. The hunting cycle image is also one way we attempt to open up the story of the animals that were killed, without speaking for them. Each section of the hunting cycle begins by naming a "place/setting" and suggests generative themes embedded in our relationship to the hunt. Elements of the hunting cycle serve as headings to add structure and explanatory power to the "collective story" (Richardson, 1990); the reader is encouraged to consult the hunting cycle image often as the story unfolds.

Home Place

Place/Setting: Laramie, Wyoming. Dinner and stories together the night before the hunt in Jess's loft apartment. The scent hanging the room is a mixture of incense, herbs, and meat. On the menu: Blackened pronghorn tenderloin from a young buck Joel recently killed with his bow, roots, tubers, and greens from a local farm, and poached Colorado pears. Everyone watches in awe as Eli eats several steaks.

Purpose and Intention

David: My introduction to cultures of hunting, as for most people, came through the eyes of those who had never experienced it. As a kid in the back seat of our Volkswagen, I would watch my mother wince in disgust as the carcasses flew by on the highway between Madison and Milwaukee. My mom didn't need to tell me how she felt about it. She did, however, offer her opinion one November when she dropped me off at a friend's house for a birthday party. I must have been six because it was Todd Jones, a boy I knew in first grade. We pulled up to his house in our Volkswagen Bug just as a big station wagon arrived with two huge bucks strapped to its roof. I remember feeling like, wow, and my mom just said evenly, "Your father and I are educated people. We are not the kind of people who go out and kill helpless animals." Then Todd and the other boys, whose dads were probably also hunters, ran out of the house to look at the deer. I wanted to join them, but I guess I supposed that I wasn't one of them. I felt like I was missing something, sitting there in the Bug with my mom.

Learning to hunt in my forties, in a way, is a return to face the rituals of denial and abstraction that have surrounded eating my whole life. The hunt I wanted to be

part of was a stalk and a chase that would recreate the ancient rites of the hunt and invite me into everything that hunting has to teach. Since I was a boy I have known without being told that the chase and the kill are— well, sporting, full of excitement and Leopoldian delight (Leopold, 1989). This does not mean that it is fun to kill animals, but that the stalk and the kill excite a deep genetic and ancient cultural energy that comes fully alive in the hunt. What also comes alive is a deep compassion and even sadness and regret for the life taken, for the bloodshed, and for the suffering. Anthropologically, hunting has often been described as a male initiation ritual. There is something troubling today about learning to kill being viewed as an appropriate rite of male initiation. This is a relatively new cultural concern. What I knew was that my son desperately wanted to hunt, and if he was going to hunt, we were going to approach it together with as much conscious masculinity and care as I could model for him. I am attracted, awed, and repelled by this ancient rite encoded in our own bones, muscle, and teeth.

Hunting is a viscerally embodied act that puts you in direct contact with blood, breath, muscle, sinew, and bone, as well as with your spiritual and emotional body. When Joel told me I'd be learning to hunt with a yoga teacher, Jess Ryan, I knew I was being invited into something unique.

Jess: For over a year I questioned whether hunting was for me, but above all, I knew I loved the Shirley Basin. I knew I loved the animals, the rocks, the flora, the smell of the air and how I could see a storm coming from 70 miles away. I knew where the soil changed and would turn to clay as soon as it started to rain. I knew the Milky Way against a black sky without light pollution. The more time I spent on the land, the more I felt separated from its inhabitants. I felt like a foreigner, clearly appreciating this place and the natives, but I had no real need to blend in; to "be" the animal.

As a yoga teacher I put a lot of spiritual weight into the decision to hunt. In the study and spiritual path of yoga there is much adherence to vegetarianism and promoting nonviolence, or the yogic principle of ahimsa. But, yoga literally means, "to yoke or unite." I was constantly contemplating my authentic connection to what I ate, where I lived, how my actions impacted these non-human beings, and how they impacted me. We are all connected and I wanted my connections to be more mindful. Yoga, to me, is not about bending my body or looking a certain way, but learning about myself in the process of the bending. In this way, I view hunting as a yogic process. I'm learning deeply about myself; mind, body, emotions, spirit, as I go through the steps of making my first kill.

Joel: I have lived, as long as I remember, close with the land and its nonhuman animals. My earliest memories consist of catching lizards, snakes, turtles, crawdads, fish, bugs, and others. In my case, the act of catching often led to eating the animal (or at least intention to eat—sometimes my dad would veto my more primal wild food ideas, maybe for the better). The first large mammal I killed was a young male whitetail deer when I was 12, and I have eaten wild animals as part of my diet ever since. By hunting for my food I feel more related to the land: to the animals my family eats, the places I hunt, and the others who connect with my killing, like the ravens. Foraging on the land alongside other animals deepens my experience of a life economy that encompasses all. Abram (2010) refers to this as the "great gift economy", "our membership in the big web of interdependence, as both eater and eaten" (p. 63).

Hunting Grounds

Place/Setting: After a long drive on dirt roads, the hunting party turns down a rutted two-track and enters an orange gate. We enter and close ourselves inside the gate with wild, if degraded, land. What will happen here? In hunting we track the unknown and hope to find it. For Joel and Jess, this marks a return to the hunting grounds; for David and Eli, an introduction. Our bodies' senses begin to take in vast openness of this land. We are on constant alert for prey.

Joel: To enter our pronghorn hunting grounds, David opened an orange metal gate marked "private property" by a weathered sign. The land is not privately owned, but I have considered touching up the paint. The orange gate is literal, but it is also a metaphor I love. You have to open the boundaries of the space and close yourself inside to arrive.

As we pulled into camp, I was anxious. Several weeks earlier I had left the camper in a severe snowstorm. In the meantime, wind gusts of more than 70mph ripped through the Shirley Basin. In my experience, camping stuff stands up to 50mph wind, but at 60mph it starts to give. At 60mph I start to fall apart, too. I was worried that we might find a roofless camper when we arrived or worse, so I was relieved to see the clay-coated camper, not nearly tough enough to withstand a place like this, almost intact. A beef cow had used one of the pull-out beds to scratch its back, breaking off a support, so a quick fix using an old fence post, spare change, and a cooler would have to work.

Descent into Place

David: The morning of our first full day of hunting was clear and cold and frost covered the sagebrush, stubble, and bare ground. In the east, the sun moved up over the mountains some 20 miles distant. Then the entire landscape started to steam and glow. After breakfast when everyone was dressed and ready for hunting, I asked Jess if she would lead us in some pre-hunt yoga.

"Really?" she asked, smiling, as if she thought I might be kidding, "I'd love to." In our camouflage and hard-soled boots, we followed the teacher to a level rounded clearing. Jess took a position in front and invited Joel, Eli, and I to spread out from one another in an arc, two arm-lengths apart and facing her. Then, with her binoculars still haltered around her chest and the one rifle we shared standing at ease on its bipod in the dirt, Jess centered us first in our breath. Together as four hunters we filled our lungs with air, and grounded our feet and vertebrae into the earth. What I had imagined would be a token yoga blessing, Jess made into a slow and deepening awareness of self, other, and place. At one point during our practice when we stood palms forward facing the sun with our eyes closed, I opened mine to witness my twelve-year-old son deep into his own experience of what we were sharing. He was glowing. This was a boy who had a strong urge to shoot animals, and now his initiation into the hunt began—with yoga.

Joel: It was difficult to let go of expectations and control facades in this place, guiding three beginning hunters in what we all hoped would be their initiation into hunting through their first kills, but what could possibly have been all sorts of experiences. I felt a deep sense of responsibility to everyone involved: the people, the pronghorns, and the land. Our yoga practice helped me to trust the place and the process more.

As we pulled ourselves together for our first day of hunting, I focused on the tools we would need. I loaded Shirley, the rifle we shared, with ammunition: lead-free rounds (lead would be poisonous to all involved) that I hand-loaded following my pronghorn hunting recipe. I grabbed game bags, my skinning knife, sharpener, several gallons of water, extra food, and other tools. I have been in enough wild situations in my hunting grounds that I know to be (over) prepared.

Stalking/Relating

Joel: Over the course of several days, we interacted with pronghorn herds as big as 30 and as small as one. Distance is a nimble shifter of shape out in the big, open spaces of the Shirley Basin, so most of our stalks ended with the realization that the animals were beyond our reach. At times, we were sure the pronghorns were untouchable. In a way, they are. They are made of openness, the intensity of the wind and incessant sun; all attributes that help me question my killing, but also powerfully reinforce why I want to be partly made of them.

By the second day, our hunting collective began to meld with the place and each other. Communication became less verbal and more intuitive, and so did our interactions with pronghorns.

Jess: Stalking pronghorns caused me to shift out of my logic/left-sided brain and slip into another state of mind that integrates intuition, felt-sense, and sensitivity to the subtleties of the landscape. Like yoga, when done from a fully integrated place, the act of stalking takes on an equal need for masculine and feminine energies. As integrated hunters, we utilized the feminine qualities of intuition, watching and modulating the breath, the fluid movement of the body, internal awareness, and empathy. Parts of our stalks were very masculine and physical, too: crawling on the ground across a cacti-laden desert, running, crouching, using narrow focus and vision as a predator.

The Kill

Place/Setting: Tracking and stalking through rough country, alert for any movement on the land, scanning distances for shapes of pronghorn gathered in groups. Noticing more and more, where the cactus grows strongest, how depth perception shifts—what seemed like a few hundred metres of open grassland becomes miles when running across on tired legs. Mostly we followed Joel's lead: he knows pronghorn and his instincts have been sharpened by experience. Each hunter would kill; the prey would experience death: the meeting ground of the kill between predator and prey is a sacred space the hunter receives from the hunt. Turning a pronghorn into food is authentic work, carried out with know-how and sharp knives.

Jess: I lost track of time. I had been crawling, running, watching, and now I lay on my belly. My hands are cold from the wind and my palms sore from cactus spines. I'm watching a male pronghorn through my scope. Something about his energy feels older. I feel like I have time to talk to him, to listen. I wait and in those moments I sense it is time. I am ready. I watch him through the scope, lining up a clean shot through the crosshairs. I say a prayer, thank him profusely, and pull the trigger. I continue watching through the scope and I see him lurch forward and fall.

As I approach the buck I kneel down and see him closely for the first time. The sage he was chewing on is still in the corner of his mouth. His eyes were mostly glazed over, but still contained a sense of spirit. I kneel down and send him Reiki, a Japanese form of energy work, again grateful for his beauty, his life, this gift, and pray for peaceful transitions. I sit with him with no sense of time. I am not sure what I felt in this moment. I know I am different. It is not merely about the kill. I am very much in the process of it all.

Joel: We spooked a herd of 25 pronghorn early on the morning of Eli's kill. They ran to the southern fence line, and I wondered if they would cross into private land or turn west and stay on public. If they turned west, I thought the herd might funnel into a landscape-protected water hole for a drink. I had experienced this pattern before.

David: The ravine descended in spirals, about 200 feet elevation from top to bottom. When we reached the floor we stood below another small rise, a bank of earth and rock stretching left to right that held in the watering hole on the other side. Crouching low, Joel led Eli to the foot of the bank. Then they lay down on their bellies and slowly dragged themselves up with their forearms through the cactus and stubble. Not wanting to interfere with their chances, I took a position below and watched them intently for signs. They lay next to each other in the dirt propped up on elbows looking down on the watering hole I hadn't yet seen.

Joel: We nearly made it to the opening without being detected, but the lead doe noticed our shapes and stared cautiously. Stillness is the finest camouflage, so we

stayed as still as we could. In time, the doe and her herd relaxed and dropped out of sight to get a drink. We carefully crawled another 10 metres into a small opening. A young buck settled into a long drink in the opening while others wandered through, but we were hunting for a doe, standing still, broadside to us. As the buck moved on, a doe came from the east.

David: I sat on my heels under the huge blue sky watching them impatiently, envious of the action. After a long stillness, they started to move. I figured the animals had bolted. But then they settled in again, low in the brush and the rocks, and Eli studied whatever he saw through Shirley's scope. I couldn't stand it anymore. I wanted to see.

Eli: Lying on my stomach, I looked through the scope to line up the cross hairs right behind the shoulder. I clicked off the safety, aimed, and pulled the trigger. The pronghorn fell over and splashed in the watering hole. Her legs twitched for a little and then stopped. I felt excited and sad.

David: Rising but bending low, I glanced up to see Joel's left arm encircle Eli around the neck, a gesture of deep compassion and respect from hunter to hunter. I ran up the bank and joined them on my knees. Across the watering hole, a doe was down. It is hard to conjure now, two months after the hunt, the excitement that surrounded this kill. From my warm place by the fire this January morning, the image of blasting a doe through the heart with a high-powered rifle as she drank the only water she might taste for several days—from this place of quiet comfort, the image of killing fills me with empathy and makes me doubt my own role in my son's bloodletting. I had wanted my son to experience the hunt as part of his wider education. Just what was the lesson here?

Joel: David and I stayed at the site of the shot to give Eli space with the doe. David was beaming. As Eli approached the doe, he walked confidently. Through this kill, from my perspective, Eli gained a common story with diverse nonhuman and human predators who have used watering holes to find prey.

Eli: I walked up to the doe and sat with it for a little while. I felt proud that I had just killed my first big game animal.

David: I can't say for sure what it meant to Eli or to me, but watching my 12-yearold son walk to his first kill and kneel down and touch her there in the dirt was a moving experience. While his father and his father's friend looked on from the edge of the sacred space, Eli put his hands on the doe whose body was as warm as his. From our distance I could see him touching her side, probably feeling for the bullet's entry or exit wound. After a time he finished with touching and just kneeled there behind her, facing the watering hole and the line of fire where we waited at the end for his signal. It was about 10 minutes before Eli waved us over. After a while, Joel sent me back to the truck for the game bags. I was grateful to climb back out of the ravine and to readjust my perspective from the close intimacy of the killing ground to the vastness of the Wyoming sky. From the high hill above the watering hole, the dead pronghorn looked small, lying motionless amid cactus and sage. I thought of eating of the Wyoming plains, and it seemed like a big responsibility. Throughout the food chain in the wild, energy conversion is put to use for local purposes. I am forced to ask myself, to what use will I put the energy I have taken from the cycle? Where will I take and direct this energy? What larger purpose does my energy conversion serve? The hunt stirred many such questions, and they were concentrated later in the long hard work of butchering.

Connecting through Dismembering

David: Whatever easy distance rifle, scope, and bullet put between the hunter and the life she takes begins to close when the hunter approaches and sits with the still warm dead animal. The distance closes completely when she takes out her knife and begins cutting and tearing. In the acts of dismembering and butchering, one comes, as Thoreau (1971) suggests we should, face to face with the facts. And in this case the facts are blood, skin, muscle, sinew, and bone—the transformation of the fresh kill into food. Joel practices gutless quartering, a straightforward name for cutting the meaty parts out of the animal without opening its abdomen to remove the organs. Mechanically, the process begins with opening the skin back on a leg with a zipper-like cut, and peeling the hide off a front or back quarter. Most of the meat from quadrupeds comes from the four quarters. Meat is muscle; arms and legs are where mammals concentrate muscle. If gutless quartering is hard to picture, think of your own body. Quartering simply means this: cutting off the arms to include the shoulder muscle, and cutting off the legs to include the buttocks.

Jess: We return to the kill site. I have dissected many animals during my schooling, and I even know how to pick apart the intangible layers of my thoughts and psyche introspectively, but as I look at this pronghorn I have no idea what to do. I want, and need, to do this. I ask Joel to start and explain what he is doing. As he carefully begins cutting into the white and golden coat, explaining along the way, I watch intently. He makes the process look effortless. There is no struggle, like a couple that has danced together for years, it is perfectly orchestrated. I want to replicate what he is doing when it comes time to use my knife, the hunting knife my grandfather gave me when I moved to Wyoming.

David: Our hunting party confronted the process of dismemberment with excitement, empathy, sadness, and gratitude for the animals we killed. My own feelings of empathy included a layer of regret which I felt in my bones with each push and pull of the knife blade. But here I was facing what only a tiny fraction of meat eaters face. Though I felt sadness while dismembering the beautiful animal I had killed, I also felt authentic, like I was at least learning what it really means to eat meat. Eli: Joel showed us how to quarter the antelope in the field so that the antelope's carcass stays where it died on the land. That night we ate some of the back-strap from my antelope for dinner. It was exciting to be eating something that I had killed myself.

Jess: Tentatively, I slide my knife across the skin at the ankle. It is harder to cut through the hide than it looks. I am awkward and have to put effort into something I am, honestly, hoping will be easier. I remember Joel saying, "Living things want to stay together." These words stick with me as we go through the process this evening. The closeness of the organs, the connective tissue, and silver skin all take effort to separate. Dismembering is not always easy or pretty, but it's a practice that has made many aspects of my life more authentic. These words will always resonate in my being as a hunter, a teacher, a human spirit. We all want to stay put together, but we are faceted creatures composed of the most basic as well as the most complicated of parts. If we never dismember them to what level and depth will we experience life?

David: Later in Joel's truck, driving in the dark open highway back to Laramie, Joel broke the silence with a simple summation of our hunt: "That went really well." When I asked what he meant, he repeated, "That went really well. You all killed pronghorn. And they don't always go down so easily." I knew what he meant, and didn't want to discuss the kinds of death we might have faced in our killing. Images of agony and struggle were already there working the shadows of my mind.

Integration

Place/Setting: In the corner of a cluttered garage, at an 8' long workbench/butchering table, the hunters cut the pronghorns' muscles from their leg bones, separate muscle groups, trim and clean the muscles, and wrap them for the freezer in purposive shapes and sizes. Family members and friends stop by to say hello and offer a helping hand. Conversation bounces between butchering how-to's, reflections on the hunt, and other stories. In this place of processing and reflection, the hunting party begins to integrate the animal into the home place.

David: Quartering an animal and removing the back-strap and tenderloin takes knowledge, skill, and work, but it is truly the easy part of butchering. The real work begins with cutting the meat from the front and hind quarters. Turning quarters into cuts of meat like steaks and roasts and stew meat takes a lot of time—more time in my case than it took to stalk and shoot the animals and to remove the meaty sections from the body. I wanted to stop and rest during the many hours bent over the cutting board, but we needed to finish what we started and get the food in the freezer.

Jess: My husband and I learned how to butcher and package the buck. Now, each time I open the freezer I am taken back to the people, the landscape, the animals, the time spent talking with Joel about hunting and our experiences this fall, the way my husband and I bumbled our way through the butchering, and how astonished we are at the beauty of wild meat. Months away from the actual experience, I am taken back to another place each time and the act of hunting has provided this pathway. My return to hunting has made me actively appreciate where my food comes from, the environment that provides it, that effort and death happen with each bite I take, and I acknowledge that more than I ever have. This experience of hunting has brought me back into a sense of connection to place and the energy that fuels all of us. It has brought me into a deeper connection with myself.

Nine months after the hunting trip in Shirley Basin I am eight months pregnant and able to stomach eating meat again after months of continuous nausea. I get a package of pronghorn back-straps out of the freezer and set the white paper bundle in a bowl to thaw on the counter. I haven't touched this animal for months, wondering if he will ever become part of my child. As my husband and I bring it in from the grill and lay the tender pieces on our plate, I know this food.

Before I bring the food to my mouth, I look down at my round belly and I tell my child how I got this food with him in mind; that as I eat this meat he would be part pronghorn and part of this land. I tell my child how grateful we are to this animal, and that he is making us strong and fast.

Notes on Contributors

Joel Pontius is a Doctoral Candidate at the University of Wyoming, studying human foraging relationships with the land and their role in the development of ecological consciousness. He is a passionate experiential educator and naturalist. **Contact:** joelbpontius@gmail.com

David Greenwood is Canada Research Chair of Environmental Education at Lakehead University in Thunder Bay Ontario. His teaching, research, and activism revolve around place-based, environmental, sustainability, and holistic education. **Contact:** greenwood@lakeheadu.ca

Jessica Ryan is Adjunct Faculty at the University of Wyoming, and a consultant, coach, and owner of Our Real Work. Jessica utilizes body-, brain-, and nature-based methodologies to facilitate connecting people to their most authentic roles and work. **Contact:** jess@ourrealwork.com

Eli Greenwood, now 14, is learning to hunt and to become a naturalist in the boreal forest of northwest Ontario, where he homeschools and lives with his family.

References

- Abram, D. (1996). *The spell of the sensuous: Perception and language in a more-than human world.* New York: Vintage Books.
- Abram, D. (2010). Becoming animal: An earthly cosmology. New York: Pantheon Books.
- Asfeldt, M., Henderson, B., & Urberg, I. (2009). Wolves, ptarmigan, and lake trout: Critical elements of a northern Canadian place-conscious pedagogy. *Canadian Journal of Environmental Education*, *14*, 33-41.
- Cahoone, L. (2009). Hunting as a moral good. Environmental Values, 18(1), 67-89.
- Cerulli, T. (2010). Hunting like a vegetarian: Same ethics, different flavors. In N. Kowalsky (Ed.), *Hunting philosophy for everyone: In search of the wild life* (pp. 45-55). West Sussex, UK: Blackwell Publishing.
- Cole, A., & Knowles, J. (2008). Arts-informed research. In J. Knowles & A. Cole (Eds.), *Handbook of the arts in qualitative research* (55-70). Thousand Oaks, CA: Sage Publications.
- Ducks Unlimited. (2013). *Land protection programs*. Retrieved from http://www.ducks.org/ conservation/land-protection
- Kerasote, T. (1993). Bloodties: Nature, culture, and the hunt. New York: Kodansha America.
- Kheel, M. (1996). The killing game: An ecofeminist critique of hunting. *Journal of the Philosophy of Sport, 23,* 30-44.
- Kretz, L. (2010). A shot in the dark: The dubious prospects of environmental hunting. In N. Kowalsky (Ed.), *Hunting philosophy for everyone: In search of the wild life* (pp. 33-44). West Sussex, UK: Blackwell Publishing.
- Leopold, A. (1989). *A sand county almanac, and sketches here and there*. New York: Oxford University Press.
- Marker, M. (2006). After the Makah whale hunt: Indigenous knowledge and limits to multicultural discourse. *Urban Education*, *4*1, 482-505.
- Nelson, R. (1998). Heart and blood: Living with deer in America. New York: Vintage Books.
- Oakley, J., Watson, G., Russell, C., Cutter-Mackenzie, A. Fawcett, L., Kuhl, G., . . . Warkentin, T. (2010). Animal encounters in environmental education research: Responding to the "question of the animal." *Canadian Journal of Environmental Education*, *15*, 86-102.
- Petersen, D. (2000). *Heartsblood: Hunting, spirituality, and wildness in America*. Washington DC: Island Press.
- Polkinghorne, D. (1988). *Narrative knowing and the human sciences*. Albany, NY: State University of New York Press.
- Pollen, M. (2006). The omnivore's dilemma: A natural history of four meals. New York: The Penguin Press.
- Regan, T. (2001). Why hunting and trapping are wrong. In W. Morgan, K. Meier, & A. Schneider (Eds.), *Ethics in sport* (pp. 319-325). Ann Arbor, MI: Sheridan Books.
- Richardson, L. (1990). Writing strategies: Reaching diverse audiences. Thousand Oaks, CA: Sage. Rocky Mountain Elk Foundation. (2013). Land protection. Retrieved from http://www.rmef.org/
 - Conservation/HowWeConserve/LandProtection.aspx
- Shepard, P. (1996). The others: How animals made us human. Washington DC: Island Press.
- Tanner, T. (Ed.). (1998). Significant life experiences [Special issue]. *Environmental Education Research*, 4(4), 369-382, 445-464.
- Thorough, H. D. (1971). Walden. Princeton, NJ: Princeton University Press.
- Williams, D., & Brown, G. (2011). *Learning gardens and sustainability education: Bringing life to schools and schools to life.* New York: Routledge.