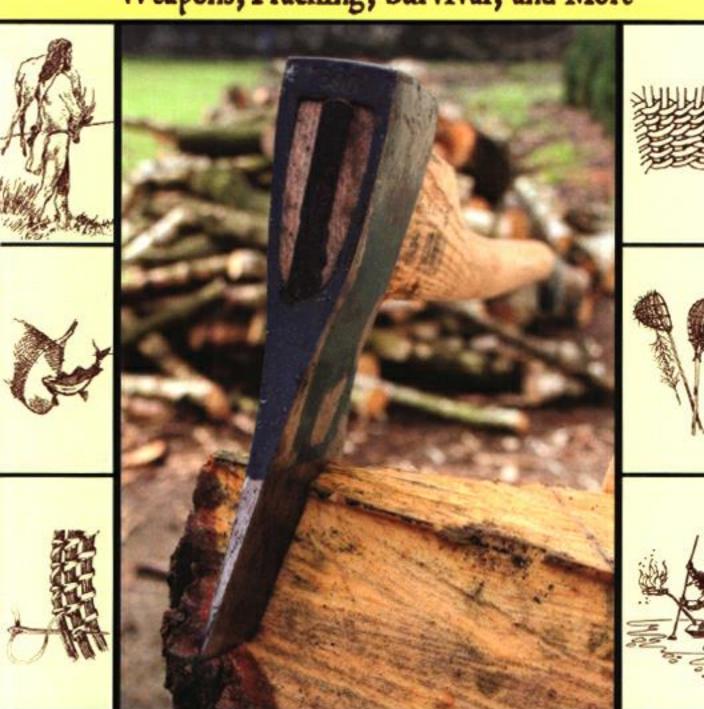
PRIMITIVE SKILLS AND (RAFTS

An Outdoorsman's Guide to Shelters, Tools, Weapons, Tracking, Survival, and More



Compiled by Richard and Linda Jamison

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10987654

Library of Congress Cataloging in-Publication Data Primitive skills and crafts: an outdoorsman's guide to shelters, tools, weapons, tracking, survival, and more / compiled by Richard and Linda Jamison.

p. cm.

Originally published: Woodsmoke. Bountiful, Utah: Horizon, c1997.

LC does not have 1997 edition.

Includes bibliographical references and index.

ISBN-13: 978-1-60239-148-2 (alk. paper)

ISBN-10: 1-60239-148-3 (alk. paper)

1. Wilderness survival. 2. Outdoor life. I. Jamison, Richard L. II.

Jamison, Linda, 1942- III. Wood smoke.

GV200.5.P75 2007

613.6'9-dc22

2007016177

Printed in the United States of America

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Introduction

It has only been in the last few hundred years that we humans have become disconnected with our life force. And as a consequence, our perception of our place in nature has deteriorated to the point that we are systematically destroying our environment and ourselves. Yet, ironically, by taking a step back in time, it is possible to take an immense step forward in understanding.

While we do not believe it is possible to return completely to the old ways, we do believe that once a person experiences the excitement of creating fire by ancient methods, molds a piece of the earth into a functional vessel of beauty, builds shelter using what nature provides, or experiences first-hand any of the life skills of our ancient ancestors, he or she will understand the vital alliance we all have with our past and our environment.

Acknowledgments

Woodsmoke Journal is and has always been a combined effort of many, and so this book is dedicated to our "abo" friends and trail companions—practitioners who have devoted themselves to a lifetime of study, experimenting, and living the old ways, and have generously shared their finding with others. To our contributors and all who fit this description, thank you. You have helped convey understanding and meaning to our lives.

RICHARD AND LINDA JAMISON

Contributors Biographies

Turkka Aaltonen

Turkka is a long-time Woodsmoke associate, survivalist and a published freelance writer in his native Finland. Turkka is the director of the Finnish Survival Guild, which conducts training workshops and expeditions in that country. He has written four books on outdoor subjects and publishes a quarterly booklet titled Survival News, which contains how-to information on primitive and technical outdoor skills.

Donald Fisher

Donald first became interested in aboriginal lifestyles as a student of Paul Hellweg at California State University. The two became friends and have collaborated on many projects during the past fifteen years. Don now teaches primitive skills, including stoneworking, lithics and brain tanning at colleges, universities and museums near his home in Indianapolis, Indiana.

Paul Hellweg

Paul is a past contributor to early Woodsmoke Journal issues as well as the books The Best of Woodsmoke and Primitive Outdoor Skills. He serves as an Assistant Professor on the faculty of California State University Northridge, where he teaches classes in backpacking, mountaineering, wilderness survival and basic flintknapping. An excellent flintknapper, Paul studied under the master, Don Crabtree. Paul is the author of the book Flintknapping, the Art of Making Stone Tools and eight other books including three climbing guides and several reference books.

Linda J. Jamison

Linda has participated in many primitive expeditions, both as a student and as an instructor. She has conducted field trips and lectured on wild plant identification and use at the University of Southern Colorado, University of Colorado, Pikes Peak Community College and to many clubs and organizations during the past twenty years. She was a director of Highland Survival School and editor of Woodsmoke Journal for six years. An English major, Linda currently writes film scripts and proposals in addition to being a published freelance writer of outdoor educational material. She was the executive producer of the Woodsmoke video series.

Richard L. Jamison

Richard is a noted expert who has received national recognition for his skill in primitive craftmanship and knowledge of aboriginal (prehistoric) skills. He is an accomplished, award-winning outdoor photographer (having majored in art with emphasis on photography at Weber State University in Utah) and a published writer. In 1973, Richard produced and filmed a series of outdoor educational films that was used by other instructors in schools throughout the United States and Europe. As director of Anasazi Expeditions, Richard conducted numerous primitive expeditions over the past twenty years, accumulating an impressive "trail time." He was publisher of Woodsmoke Journal for six years and compiled two books which are distributed nationally-The Best of Woodsmoke and Primitive Outdoor Skills. In 1992, he produced and hosted a series of six Woodsmoke outdoor educational videos which are marketed nationally, primarily to schools and libraries. He is currently a production designer/ art director in the motion picture industry, specializing in large-format (IMAX).

Peg Mathewson

Peg is a graduate student of the University of California, Berkeley, majoring in Ethnobotany, Art, and Anthropology of Native America. The daughter of two professors of Anthropology, she has been exposed to her chosen field all her life and has studied with traditional California basket weavers for eight years. Peg teaches primitive skills in the San Francisco area and in Oregon and has attended many primitive expeditions both as a student and instructor. In addition to her skill as a basketmaker, she is an outstanding craftsperson in many areas of the aboriginal lifestyle.

Larry Dean Olsen

Larry is the author of the best-selling book, Outdoor Survival Skills and the originator of the award-winning "480" 30-day survival trek at Brigham Young University. He has been a pioneer in instigating primitive survival courses as an effective rehabilitation program in the United States. Larry has lectured and taught primitive survival throughout the nation and is currently Chairman of the Board of "Anasazi," a program for troubled youth that emphasizes the primitive lifestyle as a means to build self-esteem.

Jim Riggs

Jim has a degree in anthropology and conducted aboriginal life skill courses and workshops for sixteen years at the Malheur Field Station in Oregon. He is a member of the Board of Directors of the Society of Primitive Technology and is a regular contributor to the Bulletin of Primitive Technology. An expert craftsman, he has contributed many replicas to the High Desert Museum in Oregon. Jim is also a talented writer, photographer and illustrator; he is the author of Blue Mountain Buckskin as well as many published magazine articles and was the primitive skills trainer for the popular film Clan of the Cave Bear. Jim currently resides near Wallowa, Oregon.

Steve Watts

Steve directs the Southeastern Native American Studies program at the Schiele Museum of Natural History in Gastonia, North Carolina and is a founding board member of the Society of Primitive Technology. Steve's interests range from Upper Paleolithic Europe to the aboriginal peoples of Africa and the Pacific. He teaches aboriginal skills courses throughout the United States. His replicas of prehistoric tools and weapons are on display or in experimental use at more than a dozen museums in the Southeast and Gulf regions. Steve received his undergraduate degree from Appalachian State University and a master's degree from Duke University.

David Wescott

Dave was a pioneer in primitive outdoor education and is a superb craftsman and seasoned outdoorsman. He was a student of Larry Dean Olsen's early Youth Leadership-480 survival program and earned a degree in Youth Leadership from Brigham Young University. Subsequently, Dave worked with Outward Bound and now owns and operates Boulder Outdoor Survival School (BOSS), a well-respected organization that has been in existence for many years to give people of all ages a chance to develop their self-confidence and outdoor skills. BOSS sponsors the annual "Rabbit Stick" primitive skills conference in Rexburg, Idaho. Dave is the editor of the Bulletin of Primitive Technology and a founding board member of the Society of Primitive Technology.

Tamara Wilder and Steven Edholm

Tamara and Steven have been experimenting with primitive living skills for about 5 years, much of which time was spent living in semi-primitive conditions. This time has given them a clear concept of how people might have lived before modern times. Their main occupations are tanning buckskin using the wet-scrape, brain tan method and instructing others in skills such as brain tanning and uses of the deer, cordage and net

making, firemaking, flintknapping, basketry and plant uses. Tamara and Steven were originally exposed to the art of basketry by Margaret (Peg) Mathewson and have spent countless hours gathering materials and weaving baskets. Their basketwork is featured in an Imax film titled Tresure of the Gods, which is shown in the Zion Canyon Theater near Zion National Park in southern Utah. Each year Tamara and Steven take part in the Rabbit Stick Primitive Skills Conference in addition to teaching courses on the "old ways" for the Santa Cruz Mountain Natural History Association and the Miwok Archeological Preserve of Marin, California.

Ernest Wilkinson

Ernest is an expert on animal behavior and an authority on winter survival techniques. He is a member of the Outdoor Writer's Association and has authored many magazine articles on outdoor subjects as well as a book, Snow Caves for Fun and Survival. Ernie is also a professional wildlife photographer. Until recently, he and his wife, Margaret, raised mountain lions, badgers, wolves and other animals for filming. He was principal photographer for the film Cougar Country, which featured his own mountain lion, Tabby. A series of seven videos have recently been produced using his unique footage of wild animals. Ernie currently works as a taxidermist, government trapper, guide and survival instructor in Monte Vista, Colorado.

Margaret Wilkinson

Margaret is a woman of many talents with an impressive knowledge of the outdoors. She and her husband, Ernest, have lived and worked all their lives in the mountains that surround their home and business in Monte Vista, Colorado. Together, they conduct an annual primitive skills encampment which is attended by people from all over the United States and Europe. Margaret is a wild plant expert and operates a medicinal herb shop and conducts classes and workshops on a variety of outdoor educational subjects. She also designs and sews leather garments for customers throughout the country in conjunction with their taxidermy business.

Our Human Family

Understanding Our Ancient Ancestors

What can a people so removed from our world teach us?

And does it matter that our conception of our ancient ancestors is correct? I think it matters a great deal. We can't even begin to tackle constructively the multiple, interlocking problems threatening our species and our planet today without some grasp of who and what we are, how we got that way and what does or does not work for us.

The same age-old questions have plagued humanity since we were first capable of cognitive thinking: "Who are we, where did we come from and where are we going?" I maintain that some of the answers to those questions lie in our ancient past. By studying who we were, we can learn who we are. In learning about our early cousins—their environment, their moral structure, their lifestyle—we will make genealogical attachments. Then we can take the decisive step toward experiencing that lifestyle, and having experienced it, we will be qualified to speculate on the reasons for their failures and successes and convey those lessons to our modern world.

I have been on the ancient trail. It was a learning experience that changed my life forever. I remember seeing things for the first time-familiar things, but from a different perspective. I saw a fire up close because I was on my knees blowing for all I was worth to turn a small glowing coal to flame. I saw water with my nose buried in a small pool as

I slurped up as much as I could hold to tide me over to the next water source. I saw little creatures swimming in the bottom of those pools. I saw the stars without the interference of city lights and smog. I saw food as something to give me energy and stamina, not simply something to occupy my time and satisfy my cravings. I saw animal life as a lesson instead of an intrusion. I saw relationships in terms of giving and sharing and teaching. I saw life as valuable...all life.

Still we are not, nor will we ever be, a Stone Age people again. I knew a young man whose greatest dream was to "become an Indian." He was an Anglo, but he so admired the natural lifestyle and skills that were a way of life for many Native Americans that he truly believed that if he emulated their lifestyle he would become an Indian. Of course no amount of wanting could have made him an Indian. But he could not conceive of the fact that his own ancestors were an ancient people who also lived their lives in accordance with the laws of nature, long before the inhabitants of this continent.

My own Neolithic ancestors were skilled makers of axes, several types of flint knives, stone tools, utensils of bone and simple forms of pottery for cooking and storage. They lived in squat houses, built with half their structure below the surface of the earth, lined with dry-stone wall construction and a fire pit in the center for warmth and light. In early times they lived primarily in family groups referred to as tribes, headed by a chief who was loyally respected as "the law." They were buried in a crouched position, along with an assortment of weapons and possessions, in pits dug in the earth and lined with stone and either roofed with slabs or covered with heaps of stones. They were Highland Scots.

Had my friend understood the contributions of his own culture, he would have had pride and admiration for his ancestors' achievements. And if he could have understood his relationship to all humanity he might have learned that he is part of the Native American culture through the vast family of humankind. There appears to be a resurgence of people like my friend, people who are driven by the desire to return to their beginnings. This is a good and settling thing. Although some Native Americans are able to learn valuable lessons from their great-grandfathers, for the most part the culture is fast disappearing.

Yet many Native Americans can offer valuable insight into the thoughts and ways of more ancient people. Without their insight there would be only two sources of information as to how early people lived: one provided by archaeologists who dig up the material things that humans made and used; and another from what has been written about present-day tribes, bands, and villages of uncivilized people. However, a Plains Indian medicine bundle viewed simply as an archaeological object

would relate little compared to how much an ethnologist can discover by talking to a living Native American of that heritage.

The clues to what we really want to understand—the way of life and the humanity of our various ancestors—aren't directly preserved, but inferred from the material things that they made. Much of the evidence is missing, and archaeologists often disagree over the meaning of the evidence that has survived.

For instance, a tribe of western Australian aborigines, the Pitjendadjara, carry on a religious and moral life of great intensity, but they make and use so few and such perishable material objects that, were these people introduced to us only through archaeology, we would barely know that they had existed and we would know nothing of their moral life. They make only five tools: a spear, an atlatl, a wooden carrying dish, a stone slab on which to grind food and a digging stick. They perform their rituals to ask for abundance of animal and plant food, and they follow a morality of personal relations with dignity and conscience.¹

Once, my husband Richard and I spent a week in Comb Wash, one of our favorite canyons south of Blanding, Utah. The main purpose of the trip, aside from physical and mental revival, was to collect grey and red clay for pottery. On the first day we each carved a walking stick from carefully selected willows growing near our campsite. We peeled the bark off in a few places to effect a design, and carved our initials and the date on the bare wood. Then the tip was fire-hardened in the ashes of our campfire.

Every day we walked several miles up and down the red and white sandstone canyons looking for likely clay sources. On each excursion we collected new "treasures." Richard found a perfect hammerstone and used it to cleave flakes from some of the large jasper nodules that were abundant in the stream bed. But the sharp edges of the blanks (slender flakes of stone to use for chipping arrowheads) cut his shirt pockets and weighted down his day pack. So that evening I made a sturdy, basket-like carrying sack from yucca leaves. It had a long strap and was designed specifically for collecting rocks.

By hiking the canyons and stream beds I could search for smooth pottery-polishing stones, and I collected many. We also found several deer antlers that had been dropped the year before and brought them back to use for tools.

At the time we collected them, all of these materials were indeed useful items of significant value. In fact, we could hardly wait to show each other our prize of the day: the smoothest polishing stone, or the perfect splinter of flint. And, by the time we were ready to leave the area, we had several containers of clay, pottery (some fired and some in various stages of completion), minerals for paint, sand to use for temper, thin yucca leaves for paint brushes, a bundle of sunflower stalks for atlatl darts, a tin can full of pine pitch for attaching arrow points to darts, a quantity of cedar bark to twist into rope and a few dozen (perfectly straight) dead yucca stalks for hand-drill fires. All this in addition to our walking sticks, the yucca bag, chunks of jasper and a day-pack full of multi-shaped and various-sized polishing stones.

Yet none of these items, so essential in primitive life, are necessary in the modern world; just as many "necessities" of the modern world lose value in the natural world where there are no electric outlets. Primitive people, like the Pitjendadjara, learned to condense their belongings to what was necessary and valuable. It made moving easier, but it also eliminated some of the petty jealousies and hoarding we see manifest in modern societies, where feeling deprived of whatever others have accumulated causes violence, and even killing.

It has been our experience that when materialism in the form of hoarding rears its ugly head on the trail, the students instinctively chastise the guilty party, usually by shunning, to bring him or her into compliance with the moral code of the group.

If we could travel back in time to a Neanderthal settlement of fifty thousand years ago, we would most certainly meet a more hospitable reception and face less danger than a Neanderthal would in any large American city. On the other hand, the culture-shock experienced by Neanderthals transported to the late twentieth century would be violent indeed. They would be horrified by the noise, filth, cruelty, exploitation, alienation and other conditions of modern life, especially as it is lived amidst roads and buildings constructed of dead and spiritless materials inflicted upon us by technology.

I often compare life in the city to a drive with the car windows up. We manage to arrive where we set out to go, but the experience is glazed by the closed window. We need to open our windows, let our hair blow in the breeze, get out and look at what we are passing by, touch it and feel it. Experience life. Many people say that the hardest part of a primitive living experience is coming back to civilization. It's true. I go to the desert to rejuvenate, to become grounded when life in the city becomes too stressful or cluttered, and as I meld back into the modern world it seems that the flaws of our society are glaring.

Our Beginnings

According to current belief, human evolution on this planet covers roughly 15 million years. During that time our bodies and minds were changing drastically, we were evolving, adapting to our environment. Scientists agree that the African savanna was the cradle of early humanity. But what was so special about the African savanna? The landscape was one of rolling woodland, open plains and occasional high mountain ranges. Like an inverted bowl, flat coastal plains rose steeply to an interior plateau between 1,200 and 4,000 feet above sea level to form the highlands. Two million years ago, several species of the genus Homo (man: comprising all manlike creatures that ever walked on their hind legs) existed side-by-side in the lush Garden of Eden that is now Africa, until a shakedown left only a single species. It didn't happen overnight, but it was on this highland plateau that Homo sapiens (thinking man) first appeared more than 250,000 years ago. It is this ancient ancestor with whom we shall attempt to relate.

Then, between 700,000 and 900,000 years ago, the first small bands of modern people migrated north from Africa, together with the many types of animals they hunted. (As Pliny the Elder aptly put it, "Always something new out of Africa.") And it now appears that another evolutionary crisis occurred within the last 60,000 years and that all of us, all five billion of us, are descended from the survivor of that crisis. A statistician somewhere calculated that this primeval Eve was our 10,000th great-grandmother.²

During the last 35,000 or so years before written history, adaptation changed to adaptability. When we began to express and separate our inner and outer worlds through the use of symbols (language), we had adapted, by something that happened in our brain, to limitless adaptability. We could now shape and define our world and communicate knowledge to others of our kind, we could express what we felt, we could project ourselves into tomorrow's situations and we could remember what happened yesterday, and derive lessons from the experience. We could devise tools and thereby improve our situation. We continued to grow and improve as was, and is, human nature. In all this, the key is adaptability.

One of the core things that separates the human world and the animal world is that animals dwell in a kind of instinctive present. By contrast, as a result of our adaptability, we alter history. Alone among all creatures on earth, mankind has a sense of destiny.

The principle of adaptability has taken us from the Old Stone Age to the Computer Age, from silica chips to silicon chips, from crossing the Bering Strait to landing on the moon. As a result, it is no longer our nature to live instinctively. Except for a few scattered pockets of people living primitive lifestyles in isolated areas of the world, that particular phase of our evolution disappeared millenniums ago. That is why it is so important for us, as modern day practitioners of early life skills, to study and re-learn the skills that were an inherent part of the lives of our ancient ancestors.

We cannot walk into the wilderness and expect our DNA to take over and save us from an unfamiliar environment.

Although we cannot observe our ancestors directly, or look for thoughts lost 100,000 years ago, especially when there are no written records, we can use common sense to figure out what kinds of behavior would have been useful or productive to early communities and families. Across the long march of time love and loyalty, trust and sharing, agreement on the rules and a strong sense of belonging are what worked just as they work in modern tribal communities. The greed, exploitation, selfishness, callousness and aggression which propel current movers and shakers would have been suicidal in a tribal context, as they are today, in the long run.

What can a people so removed from our world teach us? And does it matter that our conception of our ancient ancestors is correct? I think it matters a great deal. We can't even begin to tackle constructively the multiple, interlocking problems threatening our species and our planet today without some grasp of who and what we are, how we got that way and what does or does not work for us.

Neanderthal

Let's begin by taking a look at Homo sapiens, the Neanderthal.

Today, we take for granted cultural differences among people in different areas. Every modern human population has its characteristic house style, implements and art. For instance, if you were shown chopsticks, a bottle of Coors beer, and a boomerang and asked to associate one object each with China, Colorado and Australia, you would have no trouble. No such cultural variation is apparent for Neanderthals. Even tools from 40,000 look essentially the same as tools from 100,000 years ago. They lacked innovation. For a people that had no writing or other way of transmitting information and a life expectancy of only thirty-five years, it stands to reason that their technological progress would stagnate. Yet, they were the first people to use fire on a regular, everyday basis. Nearly all Neanderthal caves have small areas of ash and charcoal indicating a simple fireplace.

Neanderthals looked much the same no matter where they came from. Neanderthal women stood about five feet tall, and the men five feet six inches, according to anthropologist Erik Trinkaus of the University of New Mexico. They were heavily built, with large, powerful bones and muscles. Their weight was at least twenty pounds heavier than a modern person of comparable height. Although they walked basically as we do, they moved irregularly—as Trinkaus puts it, "more like a halfback doing broken field running than like a sprinter."

A Neanderthal's handshake would have been bone-crushing. They had big faces, prominent brow ridges and their lower jaws sloped backwards, leaving very little chin. In adult Neanderthals, the front teeth were worn down from using their teeth as a third hand, like a vise. By the time they were in their thirties, their teeth were often worn to the roots.

Cartoons depict a Neanderthal male, club in hand, dragging his female by the hair, an attitude that portrays early man as savage and crude, yet more and more material has come to light suggesting the opposite. As busy as they must have been, Neanderthals seemingly made time for kindness. They placed flowers, such as thistle and hollyhock in graves, indicting a possible belief in a life beyond the present, and they cared for their elderly. One fossil from the Shanidar cave in Iraq was a physical wreck, with a clubfoot and withered arm. Yet, the fellow survived to 30, implying that Neanderthals had a well-developed social conscience and cared for those who probably contributed little to the economy of the group. In fact, many skeletons of older Neanderthals show signs of severe impairment such as withered arms, healed but incapacitating broken bones, tooth loss and severe osteoarthritis. Only care by younger clan members could have enabled the older members of the group to stay alive.3

Hunters and gatherers usually live in small isloated roving bands. In fact, until the rise of civilization, man lived in communities so small that every adult knew everyone else. These communities were intimate and people came to have the same ways of doing things. They mated with and lived almost entirely with others like themselves. They remained in that community and had a strong sense of solidarity. These communities had no writing, but we know about their life because it is the same as most contemporary uncivilized communities.

In a small, intimate community all people were known as individuals. Men and women were seen as persons, not as parts of mechanical operations, the way we see so many of those around us today. Also, the groupings of people within the primitive community depended on status and role, not on mere practical usefulness. There were fathers, mothers, older people and spiritual leaders; each kind of person was accorded

prestige.

The original human society was one of kinship, and cooperation was essential to secure food and shelter and for defense against foes, human and otherwise. But the essential order of society, the glue which held people together, was morality. Each pre-civilized society was held together by largely undeclared but continually realized ethical concepts.

People did the kind of things they did, not because somebody just thought it up, or ordered them to do it, but because it seemed to flow from

the very necessity of existence. The reasons given after the thing was done, in the form of dress or ceremony, asserted the rightness of the choice. We can, with good reason, assume that 50,000 years ago mankind had developed a variety of moral orders, each expressed in some local tradition, and comparable to what we find among aborigines today. Their tradition was made up of an accumulation of experience.

Richard and I, and others who have experienced the aboriginal lifestyle, know that an interesting thing happens when a group of strangers converge and end up relying on each other for life's necessities. Immediately, leaders emerge. But, like Neanderthal, appearances are deceiving—those with innate leadership ability are seldom obvious at first. In modern life, the leader is often the bully or the person who has more of what everyone else wants. Thus, he or she uses it to buy popularity. But bullying techniques, brashness and brute force do not set anyone apart on the trail, except as a bore.

It usually happens as we strike out for our first campsite. Although he or she seldom takes the lead, one of the group will take notice of a straggler and offer encouragement. Once settled into a daily routine, they are often the first to ask questions and to try their hand at new skills. If they fail, they continue relentlessly until they achieve their objective. But most of all, once they have accomplished a thing, they help others, and delight in their excitement. By caring and helpful serving, the new leader inadvertently earns the respect of the majority of the group, and becomes "chief." Other kinds of leaders also emerge. Some are more adept at a particular skill than anyone else, and thus respected for their ability.

Teaching basketry has always been my job on the trail because it is something I enjoy and do reasonably well. I am pleased to think that my contribution adds to the overall success of the experience. But, on one particular trip, I was quickly replaced by a young girl—the most timid of the group. After watching the basket-making demonstration, she collected her materials and retired to a secluded rock overhang. At the evening campfire she emerged with a beautifully crafted piece of art. We were all astounded at her skill and asked if she had received previous training. She had not. As a result of her natural talent she gained the respect of everyone. Her advice was sought instead of mine, and she was drawn into the circle. It was a growing experience for her, and a humbling one for me.

In ancient settlements there were no full-time specialists because in hunter-gatherer communities there simply was not enough food to go around unless every member of the group contributed to the supply. And in the primitive societies of the present day there are rarely full-time specialists. So we can assume that in the early condition of humanity what men did was customarily different from what women did, but what one man did was much like what another man did. There were men with special skills at activities carried on by all men and the same was true of women.

At any one time the members of a primitive community may be doing notably different things: the women looking for edible roots while the men hunt meat; some men out on a hunting party while others at home perform a rite for its success. Yet, all of these activities merge to a purpose and express a view of duty that all share. This life style is attested to in every isolated, undisturbed primitive society we observe today and has been the case on every trip I have attended.

It is interesting, however, that studies of modern hunter-gatherers show that most of a family's calories come from plant food gathered by women. Men catch rats and other small game that they don't mention in their heroic campfire stories. Occasionally they get a large animal, which does indeed contribute significantly to everyone's protein intake, but it's only in the Arctic, where little plant food is available, that big-game becomes the dominant food source. Humans didn't reach the Arctic until around 30,000 years ago.⁴

I personally doubt that hunting was the driving force behind early societies. For most of our history we were not mighty hunters. In fact, it was the hunting-gathering way of life that allowed us to evolve over hundreds of thousands of years. In this, women were partners and their gathering was more dependable than the men's hunting, making their contribution vital.

Still, the mystique of "Man the Hunter" is so rooted in us that it is hard to abandon our belief in its long-standing importance. Consequently, on our modern-day abo treks, although everyone is instructed in all of the life skills, when it comes to actually functioning as a cohesive unit, the men set traps and clean and skin the animals (stuff I don't want to,do anyway), while the women collect plants and make pottery. We build our own shelter, often cooperatively, collect bark for bedding, cook collectively and clean up our own areas. If someone happens to make extra ash cakes, he might offer to trade for cordage or some other item of perceived similar value. Pottery is a big commodity for trading and can exact a fish or rabbit or sleeping mat in exchange. Everyone shares.

The Big Merge

During a relatively short span of about 100,000 years, Neanderthals spread across Europe, the Middle East and western and central Asia. Their cousins, other Homo sapiens, were found as far away as China and South Africa.

Some magic element was added about 60,000 years ago that pro-

duced innovative, fully modern people who proceeded to spread westward into Europe, quickly supplanting the Neanderthals. Presumably, they also spread east into Asia and Indonesia, displacing the earlier people there, about whom we know little.

Anthropologists disagree about what happened when early modern humans met Neanderthals. As recently as 35,000 years ago there were still Neanderthals in western Europe. But when the anatomically modern people appeared in Europe, suddenly so did sculpture, musical instruments, lamps, trade, and innovation. Within a few thousand years the Neanderthals were gone.

In one theory, modern humans stormed into Europe about 40,000 years ago and either beat Neanderthals to scarce resources or actually exterminated them. And a new kind of genetic analysis shows that no Neanderthal mitochondrial genes, which reside outside cell nuclei, remain in modern humans.

That genetic work remains controversial and archeological findings in caves in Qafzeh near Nazareth, Israel and Kebara, near Mount Carmel, show both Neanderthals and early modern humans living together peacefully. For thousands of generations the Neanderthals match (either by originality or imitation) their more modern cousins advance for advance. Perhaps they intermarried, the best of each merging to produce the hybrid who would eventually conquer the planet.⁵

By contrast, Neanderthals who remained isolated in western Europe apparently reached a dead end. Some researchers speculate that they were technologically and socially backward. Perhaps they didn't have as fine a division of labor, or maybe they had more babies and could not move on when climate changes sent herds of animals (food) in search of better weather. Or perhaps Neanderthals were simply unable to keep a fire burning when they moved. Any of these factors could have given early modern humans enough of an edge to leave Neanderthals in the evolutionary dust.

Some scientists feel that environmental changes caused the demise of Neanderthal; however, Neanderthals actually thrived during the Ice Age. It is more likely that they met the same fate as other cultures when a numerous people with more advanced technology invade the lands of a much less numerous people with less advanced technology: for instance, the displacement that occurred when European colonists invaded North America and Australia or when the Bantus invaded lands of the southern African Bushmen.

How is this different from what we read about in our newspapers every day? Someone once said that a society that is unwilling to learn from

EXPERT ADVICE ON ESSENTIAL OUTDOOR SKILLS

For experienced wilderness adventurers looking for time-saving tips, and beginners looking for life-saving advice, this guidebook is essential reading. From craftsmen, artisans, archaeologists, anthropologists, and outdoorsmen come skills passed down through the centuries: fire making, camp cooking, basket weaving, pottery making, animal tracking. Now anyone can make glue from the yucca plant or make a juniper-bark berry basket. The expertise herein will amaze and educate. Whether you want to experience life the way Native Americans did, or are looking for a fascinating outdoor activity for a summer afternoon, this handbook of life skills is as useful as it is fun.

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Skyhorse Publishing, Inc. New York, New York www.skyhorsepublishing.com

Cover design by Adam Bozarth Printed in the United States of America

