Introduction

A diverse landscape unfolds as the eagle glides along on her first southward passage. Golden aspen leaves quake in the sun-wrought breeze. At length, the eagle's wings catch invisible thermals and she soars into the sky. Then she rushes again headlong down another windswept ridge. Now gold gives way to orange and russet with her passage over scrub oak. A kaleidoscope of autumn colors unfolds to her view. So it is for me: a vast maze of memories rushes through my mind: I sit, pen in hand, trying to capture a few of the most precious (and sometimes most costly) remembrances. For decades, my mind has never entirely rested because of the obligation I felt to pass along the treasures I have found in the world's literature and in my own experiences. Experiences that were, it seemed, loaned to me on condition that I share them with you the reader of this book.

There has never been a time when I was not enthralled by eagles. Beginning in my teens, I have traveled over much of the golden eagle's vast range and have climbed into many nests of various species of eagles for five decades in many regions of this planet we call Earth. As the title suggests, this book is an invitation to come with me and explore the eagle's world, to travel to far-off lands and see worlds more real than anything delivered by any electronic device.

This work is a collection of favorite writings by many authors, so it tells not one story, but many. Unfortunately, many of the invited accounts are very short. Eagle researchers tend typically to be terse, having been bruised and battered into this mold by reviewers and editors. They wrote less, so I wrote more. I accept full responsibility for the choice of accounts included. Many of the foreign authors know English only as a second (or third) language. To my thinking, a huge part of the flavor, quaintness, and attraction of any firsthand chronicle lies in the unique speech patterns of the narrator. These pages provide a sample of the wit, wisdom, and wanderings of many who hold the eagle dear, and a few who wish all eagles were dead. Sometimes your spirit will soar like the eagle gliding along that windswept ridge. At other times, that sick, helpless feeling akin to suppressed nausea wells up inside as you read of those who love to kill eagles and all other wild creatures that eat sheep.

The eagle has little in common with birds of other avian orders. It is most often a dashing predator and, with a penetrating

OPPOSITE: *Golden eagle country.* Illustration: Robert Katona.

Golden eagle nest cliff atop a high ridge in central Mongolia. Eaglet lies in shade of nestside birch sapling in foreground.

grip unlike anything in the mammalian world, it is the nemesis and bane of mammal and bird up to its own size and often far beyond. On the other hand, it sometimes ignominiously waddles around in open fields sating itself on insects. In addition, although it will sometimes attack prey fifty times its size, it can, when the wind is contrary, be routed by a four-ounce kestrel.

The "outdoor ethic" of many who study eagles and who train eagles is decidedly out of step with the hands-off policies of many in government conservation agencies today. Like the agency personnel, I hate the habitat destruction and unsustainable wildlife harvests that characterize our age. However, I believe that the way for the citizenry to develop a deep appreciation for things wild and places wild is not to build a wall between man and nature,

but to build a bridge to be crossed by all who are willing to accept the invitation of butterfly and thistle down to follow them into the natural world. I know that many agency personnel secretly share my view about walls and bridges.

In this volume, I place the eagle within reach. From these pages, I hope that even would-be enemies of eagles will today come to know the great bird for what she is and will tomorrow lower their weapons unfired. To those who are new to eagles, this book will be a lantern along a pathway into a strange and compelling world. To those who already love the natural world, I offer a feast.

Let me caution you, however. Just as it would be a mistake to consume all of the food intended for a month at one sitting, so it is with these accounts. Each account stands alone and should be read and pondered. I give the above caution knowing full well that many—perhaps all—will be lured by one compelling story to proceed quickly to the next and the next.

Welcome to the realm of the golden eagle. May you never escape its grasp.

Adult female golden eagle.
Painting: Vadim Gorbatov.

Chapter 1

The Allure of the Eagle

No hill scenery, however grand, is completely satisfying to the bird lover if the eagle is absent.

— Seton Gordon[1]

To extrapolate from several of the stories in this chapter, a mountain, a glen, a tree, or even a rock quarry, though it be but a scar on the landscape, is healed by the presence of the owl, the falcon, and most of all by the nest of an eagle. I have seen this, felt this, hundreds of times as I have traversed this man-trammeled world. If the eagle is there, the area is somehow made whole. And when the area is itself still pristine, the presence of an eagle makes it a shrine.

Each story in this section illustrates the influence eagle adventures have on people. For my part, from early childhood I was drawn to eagles, goldens in particular: the bright yellows of toe and cere; the pale blue and horn colors of the bill; the diverse, often fiery, flecking of the eagle iris; the orange, buff, and yellowish lanceolate feathers of the nape, which give the golden its name and which blend together in a smooth and flowing harmony as though fresh from the brush of a Renaissance master. Beyond all else, the many varied patterns in the primaries and rectrices fascinated, captivated me: a hundred shades of brown, deep sepia, cream, and white are swirled together to create an endless array of patterns. Having examined the plumage of hundreds of golden eagles, I say with certitude that each feather is unique.[2] Like the billowing shapes in a thunderhead portending a summer storm, the clouded and marbled patterns of an eagle feather will never be repeated again. Even the same follicle does not, cannot, duplicate the same pattern from year to year.

Many years ago, to teach my children of the value of their own peculiar personality, I photocopied a single eagle feather, then spread perhaps fifty feathers in front of them and timed how long it took each child, using the photocopy, to find its match. Even though none of my kids had taken a fancy to eagle feathers, each child required but a few seconds to identify, with certitude, the copied pattern. Perhaps the primary qualifying characteristic

Adult female golden eagle.
Photograph: Gary Leppart.

The marbled patterns in these feathers, all produced by a single tail follicle (R2) of an adult female golden eagle, are each unique.

The color patterns in this rectrix are unlike those in any other eagle feather.

of things that humans view as precious is rarity. What woman would not be mortified if, at the masquerade, she discovered another wearing her identical gown? No golden eagle wears the same dress as any other; each eagle and each feather on each eagle is unique. We cherish each child the more because there is not one like him or her on earth. So also, each flight feather of a golden eagle is precious. There never has been and never will be another pattern exactly like it.

My love for the golden runs deep. As a child I was drawn into its world, and wondered what secrets might be revealed. Yet, when a big nestling golden finally fell into my hands, I did not selfishly tether her to the earth. As soon as she could fly, I set her free. Then after initial training to fist and lure, I began taking her to the slopes of various hills and mountains. I watched in awe as she progressed in handling the wind. A few years later when another eagle, Vicious, came to me, I soon had her on the wing. Both birds, even when very hungry, would journey far into the sky before returning to the proffered fist for a small morsel of flesh. Then, when this was consumed, they would lift off and soar again.

I remember that day, more than thirty years ago, with Vicious atop the cliff-crested south rim of Brown Canyon in the Baboquivari Mountains just north of the Mexican border. On other days, Vicious was often looking for the chance to draw blood, but this day she allowed me to enter her realm—as it were, to fly with her along that gale-swept escarpment.

There, alone on the mountain with no one else to see, a wondrous thing happened. Cares slipped away; there was only a man, an eagle, and the wind. We three were bound in an intricate ballet; the eagle touched lightly on my arm and, with wings half furled, hanging in the rushing air, she lifted her living perch upward, then clawed at the leather in left-right grasping motions before releasing my arm and rising vertically into the ether. I leaned forward into the gale, my weight partly borne by the cool blast, my companion a silhouette just above my shoulder.

The human transformed; he was no longer the stingy provider of too little food; he became a fellow eagle, and together, with both of us in the grasp of the wind, we played along that lonely ridge. Now the eagle unfurled her sails and shot up and back behind the ridge, but it was only a playful trick, for the great wings were again furled and the eagle dipped earthward. Rushing past me, she burst over the cliff rim ahead, then, in the full force of the tempest, she tilted upward and was hurled back over the ridge behind me. She dipped forward, stopped her retreat, and shot past me. Again and again she repeated this aerobatic maneuver. Time after time, she passed near my shoulder, the wind roaring through her sails: her extended talons sometimes slapped lightly at my proffered arm, but I offered no food, for none was sought. It was only a game, and on this day, like no day before or since, the wind, the eagle, and the man became one. A lifetime will pass before this day is forgotten: from this day forward, the man understood what it was to be an eagle in the wind.

The first two chapters of this book reveal how some of us,

Creature of the wind, Eagleford, in flight, Mt. Jumbo, Missoula, Montana. Photograph: Joel Varney.

although we walk many different paths in many distant lands, have one thing in common: a bond with eagles. With this chapter, I open the door to a realm where people tread lightly and take care to give way to the great bird that, although ruler of the sky, is fragile and shy: if we come too loudly or too often, she fades into the shadow.

> *The eagle's cry…was a fanfare for me – an invitation, which sounded: Come…follow me…and I will show you what it means to live…to live as an eagle!*
>
> —F. W. Remmler[3]

1.1 Even in Death | David H. Ellis

…some individuals have an emotion far stronger than affection for an eagle. This type of relationship permeates one's being; it is glorious; one's life is colored by the eagle.

—Fran Hamerstrom[4]

Golden eagle diorama.
Photograph: Denver Museum of Nature and Science.

As I peer into the shadows of the past, I find images etched, as with an iron pen, in the recesses of my mind. Although some of these images are more than a half century old, they are little dimmed by time: the first wild eagle I saw closely, the first eagle feather I found, my first climb to an eagle nest. These and a few other images have crept now and again from the shadows prompting me, urging me, to assemble this volume.

My first inspiration for studying eagles came from looking at four dead ones. Although I was but a small child when I first saw the diorama of the golden eagle at the Denver Museum of

Natural History,[a] these birds drew me into the life of the eagle. The female in the display stands on the nest with two huge downies; these three are focused on an adult perched nearby with lagomorph prey. The lilt of each head, the slight lifting of the wings, the intent gaze, all speak of a fierce vitality. Within me they created an intense yearning: I must know every inch of that great bird from its glossy black claws, to its beautifully patterned tail, to its golden head. In fact, decades later, after graduating from college, I only had two professional goals. The first was to understand this magnificent bird.

That museum display is world class: I have never seen that diorama, and several others in the same museum, exceeded. Even though I eventually became intimately acquainted with golden eagle anatomy and behavior through my doctoral research,[5] there is still very little in that diorama that I find incorrect (well, the "adult" female is actually an immature).

Another wraith from the past is a certain photo that Charles Eric Palmar published in *National Geographic* in 1954.[6] It is of a Scottish golden, wings and tail fanned to the full, sweeping up to its nest, a mound of fine-stemmed heather. I have looked at that photo again and again through the years, studying the patterns of light and dark in these broad quills. The feathers contain a veiled history of the bird over perhaps four years. Each quill and plume records the nutritional history of the bird during the period of that feather's growth. Unlike the feathers of most other birds, as the feathers of the eagle fade in the sun, erode in the storms, or scrape against rough vegetation and stones as it struggles with prey, they become more beautiful.

a Now called the Denver Museum of Nature and Science.

An adult female with a twig in her bill arriving at her eyrie in Scotland. Photograph: Charles Eric Palmar.

Very much can be learned from examining eagle plumage. The matching positions of the fault bars (three series of transverse streaks on the basal third of each feather) reveal that the feathers were growing simultaneously, but that the left feather was 1.5 days (15 mm) advanced in growth over the right. The bars reflect three periods, each two or three days in length, when stress resulted in imperfect growth.

Juvenile golden eagle in gliding flight.

They bleach and wear in characteristic ways, and the mosaic of fresh, dark contours, mixed with the pale remnants of contours produced in previous years, presents a slowly transmogrifying collage. Next year the eagle will look quite different: with another season's molt, the kaleidoscope of lights and darks will have forever changed. The time would come when I would study these patterns of light and dark in eagle feathers in great depth.[7,8]

Another image peeks from the shadows. Though it was half a century ago, I see it as if it were yesterday: a juvenile golden eagle winging its way south across rolling, snow-covered hills on the High Plains twenty miles east of the front range of the Rocky Mountains north of Denver, Colorado. I don't remember what time of day, the month, or even the year. I just recall a boy in his mid-teens hiking north into the face of a winter wind, rifle in hand, when suddenly an eagle appeared. It was very low, struggling a bit to control the flow of air under its sails, and coming fast with the bitter wind at its tail. Although I was fully exposed to the eagle's view, I froze in hopes it would continue uninterrupted in my direction. This was a very dangerous era for eagles, so many shot, so many poisoned, so many reasons for the eagle to flee, yet it continued south, passing it seemed within thirty feet of me. Without a trace of fear, it looked into my eye. In that instant, a primeval fire was kindled. Its bent pinions, taloned feet tucked beneath its rectrices, the white patches in wing and tail, the flaxen hackles, the cold pale eye; all so new to me, yet all somehow familiar. I could not wrench my gaze from that eagle; my eyes, watering in the cold, followed it south till it disappeared behind the far ridge. If it was not certain before that day, it was decided then: one day I would follow the eagle and learn its secrets.

Of course, the museum eagles were already dead, and, with the intervening decades, I can state with some certainty that the eagle photographed by Palmar has returned to the earth. My juvenile near Denver is also, I suppose, long dead. Only I am left alive, but through the medium of these pages, the memories persist, even in death.

1.2 Scarred Landscapes and Golden Eagle Nests | Dwight G. Smith

The horned lark is a ubiquitous resident of the plains and cold deserts also inhabited by golden eagles in North America and Eurasia. Illustration: Robert Katona.

In the fall of 1966, when I first glimpsed my chosen study area, the Thorpe Hills, in the eastern Great Basin Desert of central Utah, I thought that I had stepped into a dead landscape. A pale, watery sun shone down on an expanse of brown desert scrub that covered the broad valleys right up to the hills that jagged upward into the sky a dozen miles away. Even the green colors of matchweed and rabbitbrush were muted and almost hidden amongst the dry browns and blacks of sagebrush and saltbush. Behind me, junipers and pinyon pine splashed dull green blotches as they regimented up the hills to top out on the high ridges, but this too added to my feelings of dread as I looked upon this depressing scene. Only the harsh croaking of a distant raven reminded me that this was a world of living animals as well as an expanse of seemingly dead vegetation. Later I would come to love this desert scenery and its solitude, but at that moment it seemed like a land that time had forgotten.

Here and there the landscape was disturbed and disfigured as well as dull. From Five Mile Pass southward, tilted mineshafts and derelict structures scarred and pitted the valleys. Scattered amongst the hills that stretched northward and southward were huge quarries, all long abandoned. They stood as silent reminders that a hundred years prior humans had stalked the hills and valleys in search of minerals. Everything of value had long ago been extracted from the pits, quarries, and mines. The dilapidated buildings and rusting machinery that remained were frozen in mid-motion the moment they stopped being productive.

My place in this landscape was as part of a small cadre of graduate students determined to study the ecology of raptors in this area of the eastern Great Basin. This vast expanse of desert supported a large wintering and diverse breeding population of

Great horned owl, pale morph, adult.

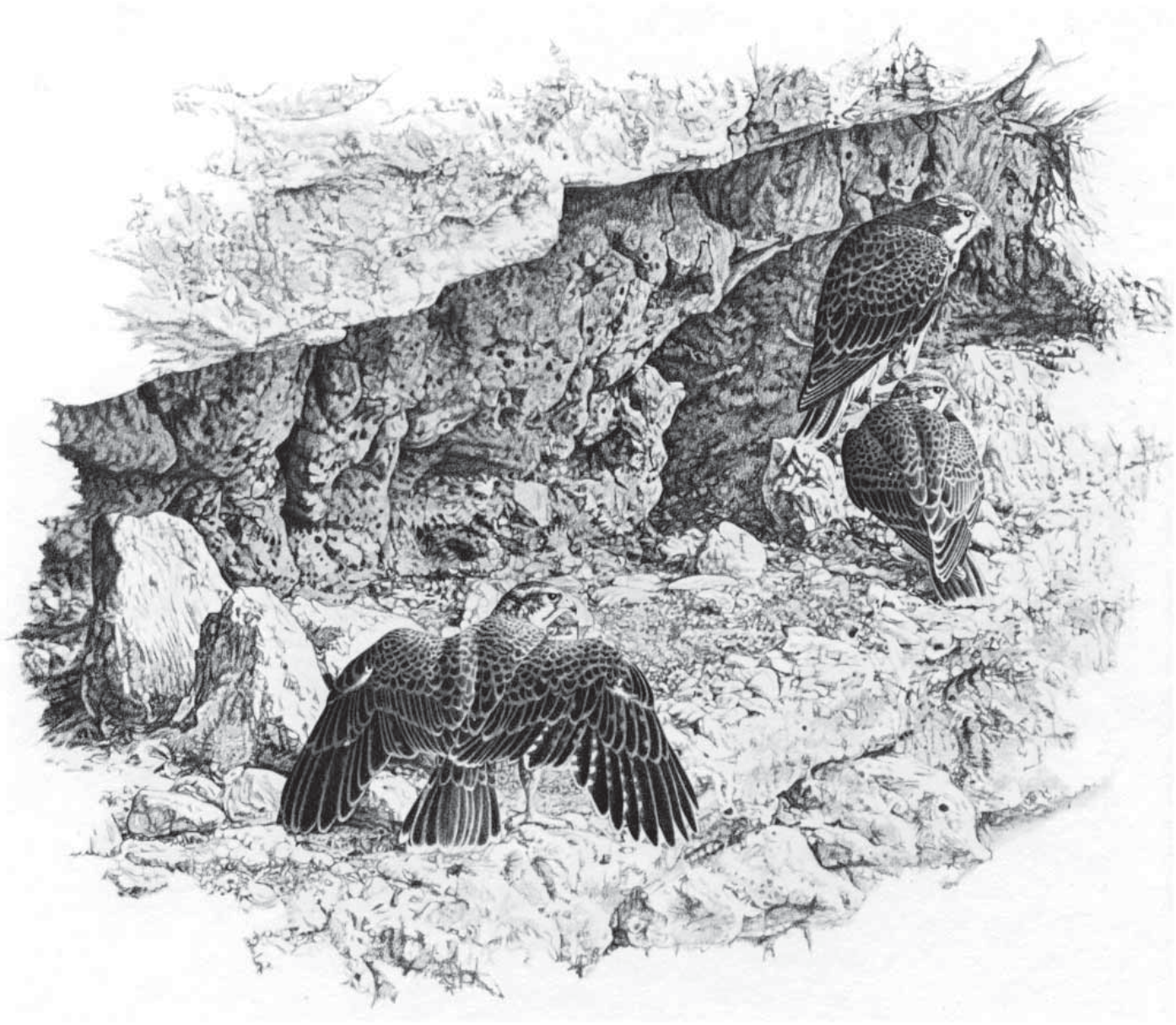
raptors, and we were the first to study their ecology and behavior. Our group was formed and guided under the general direction of Dr. Joseph R. Murphy of Brigham Young University. We were all young and enthusiastic workers, often spending many hours in the field helping one another find nests and record observations. In the winter months, we focused on bald eagles and rough-legged hawks and the main food base, the black-tailed jackrabbit. Spring and summer months were a frenzy of activity as we located nests and recorded behavior and food habits. Friendships, forged in the field while we worked together, lasted a lifetime.

The initial focus of our ecological studies was on bald eagles, golden eagles, and ferruginous hawks. I ended up studying great horned owls, a species that no one else wanted. Very quickly this owl proved to be a difficult species to study. The first and most formidable task was to find their well-hidden nests that were invariably placed in little niches or caves among the hills and rock outcrops, or atop old hawk, raven, or magpie nests. Hours, then days, and finally months were spent trekking across the desert and up the hills in search of nests or sign.

I worked a deal with other graduate students; many days they would drop me off at first light at Five Mile Pass (the north end of my study area), then pick me up in the fading light at Ten Mile Pass or Twelve Mile Pass. Five or even seven miles seems a short hike, but it proved anything but, as each hike involved climbing up and down the hills and ridges to follow the fragmented cliff lines, carefully checking every crevice and every ledge for great horned owls. In the days and weeks to follow, I would hike the cliff lines and rock outcrops, first throughout the western hills, then in the high interior, and finally on the eastern slopes of the north-south running range. Each stand of pinion pine or juniper also had to be carefully checked for hidden nests, even to the point of walking a mile or so to climb a solitary tree perched on a headland, lest it conceal a nest hidden among the greenery.

The immense amount of physical labor involved in the study had one positive feature, although it took me awhile to recognize it as such. Because every part of the landscape had to be carefully traversed not once but many times during the breeding season, I soon found that I was discovering all the eagle, hawk, harrier, and falcon nests in the study area as well as great horned owl nests. These were carefully documented on maps and charts and their particulars noted. Even before the end of that long first nesting season—from January into August—I noticed that my data began to resemble another, and justifiably far more famous, study by the Craighead brothers in Michigan, who had documented wintering and nesting populations of raptors in Michigan woodlots. The brothers had published their work in the now classic, *Hawks, Owls, and Wildlife*,[9] and a copy of this book became my guidebook and inspiration.

I soon took note that the biggest scars on the landscape were also the most productive. Almost every year, the giant quarry at Ten Mile Pass held a nesting pair of golden eagles and a pair of ravens. A nearby smaller quarry with a 100-foot-sheer wall held a pair of prairie falcons, nesting securely in a crevice along a narrow



Fledgling prairie falcons. Illustration: Robert Katona.

ledge, and a pair of great horned owls hidden within a shallow cave at the other end of the quarry. These quarry-nesting raptors often hopped from one quarry to another in subsequent years. The large quarry might hold a golden eagle and a great horned owl nest one year and a red-tailed hawk and a raven nest in the following year. Although the game of hop, skip, and jump continued from year to year, each of the quarries—even the smallest—proved to be beacons that attracted raptor nesting pairs. Scars on the landscape or otherwise, their sheer walls, niches, crevices, caves, and ledges obviously satisfied the habitat selection needs of the raptors.

Surprisingly, golden eagle pairs proved to be among the most adaptable raptors in choice of nest sites, exploiting a remarkably wide range of habitat features. At the start of each nesting season, each pair maintained several nests within their territory. The pair

that nested in the giant Ten Mile Pass quarry, for example, constructed another nest on a 20-foot ledge a mile to the north and a third placed on a more precipitous 45-foot cliff just about a mile to the east, hidden behind a ridge of hills. Another eagle pair that nested on the highest rock outcrop overlooking the northern and eastern flank of the hills constructed a series of nests on small cliff lines less than a hundred feet above the valley floor to the west. Typically, the pairs started each nesting season by repairing and decorating several of these nests before choosing which would be the nest site during that breeding season. Evidence suggested that prey abundance and disturbance factors helped determine the actual choice of nest site for that breeding season.

My study was finished in four years, but I was able to revisit the study area each year for another dozen nesting seasons. Finally, my duties as chairman of my department at the University of Southern Connecticut restricted my westward travels until the late summer, long after the nesting season was over.

After a decade-long hiatus, I was able once again to visit my old study area in early spring. I spent a few hours each day over the period of a week hiking the hills, looking for the nests that I knew would be there and, sure enough, they were. Great horned owls and ravens were nesting in the same cliff line and sometimes even in the same niche that they had occupied 40 years ago. Ferruginous hawks were still nesting among the scattered knolls or on low cliff lines. The highest and sheerest cliffs were still home to red-tailed hawks and golden eagles. I was excited and gratified to see these birds still claiming and holding territories across the familiar landscape. Undoubtedly many of these pairs represented the kids and grandkids of the raptors I had studied and admired many years before. I even tipped my cap to a pair of great horned owls that had taken up residence in the first raptor nest I ever discovered—taking extravagant care, of course, that no one saw me talking to a pile of rocks.

As I searched across the hills and valleys, I took note that many of the old scars on the landscape had disappeared. The deep quarry cuts at Five Mile Pass, which once held great horned owl and red-tailed hawk nests, had been filled. The big ore bunkers, within which a pair of sparrow hawks (which is what we called the American kestrel in those days) had raised their young, were also long gone without a single trace remaining. My biggest disappointment came when I attempted to revisit the quarries that had provided nesting sites for golden eagles and other raptors. Much to my surprise, the quarries had been reopened and were once again being worked for their minerals. In response to my inquiry, I was told that new extraction and processing techniques had made them profitable again. The golden eagles, it seemed, had been forced to nest elsewhere.

It was a late February morning, a light snow was scudding across the landscape—and I was depressed. The "No Trespassing" signs that flanked the quarry entrance discouraged entry. Still, as I turned to leave, I was rewarded with a glimmer of hope for the future. A lone golden eagle was flying overhead; he is checking the status of his old nest site in the quarry, I thought. Sure enough,

the eagle banked sharply over the disfigured landscape beneath him. He screamed once into the wind, and then turned and flew northward on his way to inspect a low rock outcrop on the edge of the triangular plateau a mile away. No doubt he instinctively knew that time was on his side, and that in some future spring (as measured in golden eagle time) he and his mate or their descendants will once again claim their rightful nesting sites amongst the sheer cliffs of the old quarries.

Golden eagle suspended, kitelike, gliding in place.

EDITOR'S NOTE:

Professor Smith is among the most published raptor biologists in the world. It was my good fortune to be at Brigham Young University in 1966 when Dwight arrived to work on his Master of Science degree. Among my treasure trove of favorite memories are those exhilarating days searching the Thorpe Hills and environs, sometimes with Dwight. My creaky bones recall how in the early days of his study he and I quite literally ran from cliff to cliff, almost in a foot race, to find the nests. To recover from each bout of bounding through the sagebrush, we slowed our pace as we searched the potholes and ledges for nests and sign, then we were off again at a lope to the next cliff.

Dwight has since that time traveled with me to European Russia, eastern Siberia, northern Alaska, southern Africa, and Venezuela, as well as to various places in the United States. I suspect none of our collaboration (including a score of joint publications) would have occurred without those heady days spent together forty years ago.

Wisdom would probably have me end Dwight's story here, but another subplot begs to be exposed. On one of Dwight's jaunts, a graduate student named Lyn Clayton came along to visit the project. Now Lyn was slender and looked fit, but when Dwight and I took off running, Lyn would have been wise to have immediately flagged down the drop-off vehicle and spent the day in the car. Once the van drove away, Lyn had little choice but to do his best trying to keep up. Dwight would occasionally look back and see Lyn stumbling through the sage, but it was clear to me that this was going to be one of the worst days in Lyn's life. Call it sadistic, call it cruel and unusual, but there is something deep down inside that makes it fun for young guys to inflict "harmless" torture on fellow students.

Lyn studied herons, and nestling herons vomit on people. I would love to tell you how Lyn and the herons exacted their playful revenge, but that is a story for another day.

1.3 Two Feathers of the Alps | Einhard Bezzel

Like Bezzel's "Two Feathers," the adult female at the Buffalo Jump eyrie was uniquely marked. She had two rectrices missing and two that flared widely (as seen here and on pp. 11 and 341) when she spread her tail.

Our small team has been involved in a population study of the golden eagle here in the Northern Alps of Germany for more than eighteen years. So I have many stories on the bird and its fascinating behavior.

This is the "life history" of a female with an abnormal wing (with two inner primaries [the longest wing feathers] that stick together, probably due to a small injury of the hand bones). Therefore, this bird could be traced now for sixteen years. It was paired with several males but has not been lucky in having offspring during its life so far. It switched from territory to territory in different years and seems to be very clever. In our area, we have quite a lot of "surplus" eagles that are stragglers between occupied territories all their life. The female managed in several years to get a new partner with a territory; in other years it remained among the stragglers, for which only the suboptimal hunting grounds are left. The reproductive rate in our population is very low (possibly a density dependent effect [an effect of too many eagles in the region], but also surely due to an overall food shortage). So it is not unusual that lifetime reproduction of a pair or an individual is

zero. In every case, the first year of a new partnership was unsuccessful in our population.

Perhaps the strategy of the female changing partners and territories was "wrong." However, the bird survived even very severe conditions, which the eagles do not experience in the winters with much snow. In the unusually high proportion of mild winters of the last decade, there are extremely few dead and weakened chamois, which form the bulk of the eagles' diet during winter. Anyway, the obviously experienced female was not successful in being paired for several years with one male, which is essential for rearing offspring. The female has survived this last winter and it is looking now at the beginning of the breeding season for a new chance. So the story has an open, perhaps a happy, ending sometime.

EDITOR'S NOTE:

Dr. Bezzel's observations emphasize the value in using unusual features, even defects, in identifying individual eagles through time. Also, his work reveals the importance of studying a species long-term and in many settings.

Recently fledged juvenile, northwest Siberia, 1991. A surprising number of golden eagles (perhaps all juvenile birds) have at least a few flaws in their feathers. Most flaws reflect a brief period of physiological (but not always nutritional) stress during feather growth. In this recently fledged eaglet, a most unusual bar of depigmentation (and, on many feathers, deformation) in most or all contour feathers resulted in this "fish scale" pattern in the plumage.

1.4 The Myth Begins | Al Harmata

Gorged eagles can sometimes be captured by charging them on foot. This subadult male was flushed from a marmot, run down, and then given a satellite-monitored radio, central Mongolia, 1995.

The air was filled with green tracers and I immediately recognized the whooshes and explosions as incoming 75-mm recoilless rifle fire. In the next instant, I was flat on my back, gazing at the mangled mass where my left foot and lower leg had been just a micro second earlier, ears ringing from the 75 round that hit me in the foot. As I rolled to my right to scream "Medic!!" at the top of my unaffected lungs, I was aware that my left arm did not follow. In that instant (on 25 August 1967) in the Central Highlands of South Vietnam, I lost two limbs in a red mist and my life changed forever.

Now I submit the former not to evoke pity, sympathy, or to whine "I'm a victim" which is so in vogue today. Quite the contrary. That incident allowed me to pursue rewarding interests that were previously foreign and totally unavailable to a lower middle class draftee from New Jersey. Eventually, it allowed golden eagles to become a dominant force in my life; an agent of enjoyment, travel, education, and enrichment few seldom experience. I mention it only as context for the following incident.

It was near 1300 hrs on a hot afternoon in 1983 about 25 miles southwest of Kemmerer, Uinta County, Wyoming. I had been contracted by the local Bureau of Land Management (BLM) District to capture and radio-tag resident golden eagles potentially affected by construction and use of a road used to haul sulphur from "sweetening" plants on the Bear River Divide to U.S. Highway 189. I was riding with a young biological technician not much older than I was when wounded fifteen years prior. We drove along an elongated, flat plateau bounded by deep ravines and lushly covered with bunch grasses and big sagebrush. He was orienting me on the local area, and I was looking for promising trap sites and potential nontarget species in the area (corvids, buteos, coyotes, badgers) and enjoying the chauffeuring.

The heat was oppressive despite being only mid-June. Nary a wisp of wind; heat waves shimmered off the big sage and the dirt road as it stretched upwards to the Bear River Divide about five miles to the west. As we bounced along the two-track, I suddenly yelled, "Stop the truck. STOP THE TRUCK!" The young tech was a little suspicious of my mental stability prior to our excursion, and his countenance indicated my outburst further supported his suspicions. Paraphrasing Jimmy Buffett in "God's Own Drunk"…"That's when he first saw the [eagle]." Even before the wheels skidded to a halt, the crazed "Nam vet" was out the door, hopping through the big sage toward the eagle, only twenty yards away.

Al Harmata releasing a large golden eagle.
Photograph: Adam McMahon.

Each feather, like each person, is unique. Two feathers produced by the same follicle, but in different years, have divergent color patterns.

Now "hopping" needs a little explanation. Although my leg was traumatically severed below the knee by the North Vietnamese, shrapnel and gangrene required revisions above the knee by Army surgeons in Japan. Contrary to what's seen on ESPN and other hype media, most above-the-knee amputees cannot run. This is partially because the Department of Veterans Affairs will not purchase prosthetic equipment that allows the wearer to run, but is not guaranteed by the manufacturer. And manufacturers don't seem to guarantee the high tech stuff for amputees over 150 pounds. So at six feet, five inches and 245 pounds, I was restricted to hopping for ambulation faster than a walk. Looks stupid, but it's effective.

As I hopped through the grass and between the five- to seven-foot-high big sage plants, I heard him yell, "You…you…you c-c-can't catch that eagle," in a more questioning rather than declarative tone. Apparently his suspicions about my mental stability were confirmed as I disappeared in the sage, seemingly skipping as a school kid, empty sleeve flapping in the induced breeze. Now I admit, however, I must have seemed delusional about my physical ability, too.

His expression was classic as I emerged from the brush in less than a minute with a fire-eyed, healthy, wild golden eagle cradled in my arm! I could have driven one of those sulphur haul trucks into his gaping mouth. My mental stability was no longer in question. And, the legend began! "Here we hire this guy with one leg and one arm to catch eagles and he goes out and does it by hand!" Of course, I perpetuated the myth for awhile.

So how did I do it? Upon spotting the bird climbing atop a two-foot sage plant as we approached, I noticed it had an immense crop, there was no wind, and it was a female. In a split second, I synthesized the data: overweight (bulging crop, large female), no lift (lack of wind/dead calm), confined space (between large brush), and no propulsion (the supple sage branch would dissipate push-off, leg energy). As a result, I screamed to myself, "EVEN I CAN CATCH THAT BIRD BY RUNNING IT DOWN!" And I did.

EDITOR'S NOTE:

We, in the eagle research community, recognize the Harmonster (as he sometimes signs his letters) not only for his massive size and booming voice, but more importantly for his dedication to eagle, falcon, and hawk conservation over four decades. He has trapped and banded over 1,000 eagles and has radio-tracked nearly 150 raptors. He also applied Marine Surveillance Radar to bird migration. From his headquarters at Montana State University, he has led many studies related to raptor conservation in man-altered environments in the western U.S. and Canada. After major injuries, so many would have given up; not so Dr. Al. Al's story was written for this book, but a form of it was published in another book while awaiting publication here.[10]