CHAPTER 1

THE GREAT PLAINS

The land is great.
When man travels on it
he will never reach land’s end;
But because there is a prize offered
To test a man to go as far as he dares,
He goes because he wants to discover
his limits.
That wind, that wind
Shakes my tipi, shakes my tipi
And sings a song to me.
And sings a song to me.

—Kiowa Gomda Dawgyah (“Wind Songs”)
as sung by Sallie Hokeah Bointy (Boyd
1981:18, 19)

THE PLAINS LANDSCAPE

Knowledge of the environment must be the basis for any discussion of Plains Indian culture. In Plains landforms, weather, animals, and plants, we see the origins of Indian adaptive regimes and material culture, migration patterns and tools, and hunting practice and house styles; and it is not too much to say that language, cognition, and religious symbolism—elements often included under the term “worldview”—are also influenced by natural surroundings.

The early Plains anthropologist Clark Wissler (1870–1947) noted that culture “approaches geographical boundaries with its hat in its hand.” Recognizing the influence of geography or environment on culture requires caution, however. It would be a mistake to accept the notion that surroundings strictly determine the cultural development and customs of a people, when humans show great adaptability and their prior customs can exist under new circumstances. Another pitfall is the concept that certain people have a unique relationship to nature that is the product of some exclusive mystical or spiritual disposition. It is possible to appreciate Indian knowledge and respect for nature without regarding their sensitivities as superhuman. Like any environment, the Plains region presents a distinct set of opportunities and limits to the humans who encounter it. Exploring the physical characteristics of the region is a good way to start understanding its inhabitants.

Where and what are the Plains? There have been several attempts to determine the boundaries of the region in geographic and ecological terms.
A good starting point is the outline offered by the historian Walter Prescott Webb in his classic work *The Great Plains* (1981; orig. 1931). Webb tells us that a plains environment has three characteristics: it is a comparatively level surface of great extent, it is unforested, and its rainfall is not sufficient for ordinary intensive agriculture. In North America, a level surface extends for the most part between the Appalachian and Rocky Mountains. The unforested area of the continent, though, is mostly west of the Mississippi. It begins at the timber line, an artificial boundary where deep woods yield to brush and grass, running on the east generally between the 94th and 98th meridians (east Texas and Oklahoma, western Missouri and Minnesota) but veering east to the 87th meridian around 40°N, or the area around Iowa and Illinois. Discounting the timber of the Rocky Mountains, this unforested zone extends west to the Sierras and Coast ranges of California, Oregon, and Washington. The dry zone of the continent extends from the 20-inch rainfall line, the so-called “humid line” running roughly along the 98th meridian, again west to the Pacific ranges excepting the Rockies.

The area where all three key characteristics come together—the dry, untimbered, level land between the 98th meridian and the Rockies—is known as the Great Plains. The wetter untimbered level land east of the 98th meridian is also of interest as a zone showing related Indian cultural adaptations; this area is referred to as the Central Plains, Central Lowland, or simply the Prairie. Both the Great Plains and the Prairie are considered in this book (see Map 1.1). Elevation as well as moisture distinguishes the Great Plains from the Prairie, with the Lowland rising no more than 1,500–2,000 feet above sea level and the Great Plains rising from this elevation to around 5,500 feet at the foot of the Rockies. Thus, another name for Great Plains is “High Plains.” Transition between Lowlands and High Plains is gradual, but abrupt between the Plains and Rocky Mountains.

The entire Great Plains grassland region is bounded on the north by the boreal forests and lakes of subarctic Canada, and the conventional boundary on the south is the Rio Grande.

The most noticeable difference between the Great Plains and Prairie is in the kinds of grasses that are dominant in the groundcover under natural conditions. Short-grass species are characteristic in the Plains. Short grasses often form a mat of intertwined roots, though this sod gives way to separate tufts or “bunch grass” toward the drier west. Blue grama and various other types of grama and buffalo grasses are common, along with little bluestem, western wheatgrass, galleta, needle-and-thread grass, mesquite grass, and three-awn grass. The Prairie, by contrast, contains taller grasses, some growing to 6 feet or more by autumn: big bluestem, little bluestem, Indian grass, switch grass, and needle grass. Dense sod develops in the moister east, and a square yard of Prairie turf contains literally miles of tangled roots. The transition between tall and short grasses is actually gradual, and many ecologists see at the heart of the mid-continental grasslands a mixed-grass zone featuring the medium-sized little bluestem plus shorter species. The main grass types in any area coexist with one another and several others in a number of patterns depending on local conditions. Tall-grass outliers have been found far to the west, while rivers, pond areas, and sand hills harbor atypical communities. Each grass community has its own character as well because of the particular forbs (broad-leaved weeds and wildflowers) that it hosts.

One of the reasons tall grass thrives toward the east is that the soil is deeper and richer there. Mid-continental soils lay on a foundation of marine rock sheets which are uplifted to varying degrees and which generally slant toward the east. One can see in road cuts in central Texas, for example, thick limestone beds chock full of oceanic fossils, mere inches below the topsoil. At a macro level,
been re-cut in a continuous process. In addition, till left by Ice Age glaciers is found in parts of Montana and the Dakotas, and silts from the Appalachians have been washed westward onto the eastern Prairie. Wind and local runoff further distribute the soils, and they are enhanced
with decaying plant matter. These workings have combined to produce a relatively barren Great Plains and a Prairie region with some of the richest dirt on the planet.

The western soils based on soluble limestone drain quickly and dry out, though water may be held deep below. Sedimentary sandstone, siltstone, shale, and gypsum all occur in formations on a local and regional scale. There are also remnants of ancient volcanic activity—granite, quartzite, rhyolite—on the High Plains. Huge deposits of soft coal of various grades underlie sections of the Dakotas, Montana, Wyoming, Colorado, and New Mexico. Oil and natural gas are widespread, with important producing areas around Williston, North Dakota, Denver, and the Permian Basin of West Texas. Metals are absent, with one important exception: gold is mined in southwestern South Dakota, and its discovery there in the 1870s sparked U.S. government efforts to seize the area from Native peoples. The Homestake Mine near Deadwood is the site of the greatest known U.S. gold reserves.

Toward the west, in the shadows of the Rockies, where erosive forces are greatest, and in other transitional areas the land surface is heavily scarred, with solitary hills and plateaus, large canyons, and narrower ravines that are known regionally as “arroyos,” “gulches,” or “draws.” An old saying of the Comancheros, the Hispanic traders in the Texas Panhandle, had it that “There are mountains below the Plains,” describing the effect of coming to the edge of a large canyon like Palo Duro and seeing within it a range of hills whose crests were below the horizon. Areas of monumental erosion such as those occurring
FIGURE 1.2 Tall-grass prairie in Minnesota.

FIGURE 1.3 Badlands in South Dakota.
where one geologic zone gives way to another are often termed “badlands” or “breaks.”

Weather works on the landforms and soil, and works with these features to determine the course of life. The meteorological forces shaping the Plains are among the most remarkable anywhere. Webb noted long ago that the wind blows harder and more constantly on the Plains than any place in the United States except for some Pacific Coast areas. Winds prevail from the west with average hourly speeds of as much as 10–14 miles per hour (mph), comparable to the Outer Banks of the North Carolina shore and twice the rate found in the intermontane west. The winds are of high velocity, with special erosive power resulting from the abrasive sediments they carry.

The wind is everywhere, and the humming telephone wires and waving grass can be more ominous than comforting for those who know the power of its aberrant forms. The chinook is a warm, dry wind plunging from the east slopes of the Rockies at 70–100 mph that can raise the temperature by 40°F within a day. The chinook may moderate harsh winter conditions, exposing grass for hungry grazing animals, but the rapid thawing of snow and flash flooding can be dangerous as well as helpful. Polar air masses descending in winter toward the southern Plains, called “northerns,” cause temperatures to plummet rapidly. Blizzards, intense snowstorms characterized by snowdrifts and sub-zero temperatures, are another winter weather hazard. During drought the wind blows yellow and then black with dust, producing “rollers” or enormous clouds that inundate and sandblast the landscape. Dust storms are most prevalent after spotty rainfall has promoted the buildup of loose sediments. Dust carried by a Great Plains storm can be deposited 1,800 miles away.

The most dramatic windstorms are the tornados. These whirlwinds occur mainly in the spring and summer, in the imaginary 500-mile-wide

FIGURE 1.4 A huge wall of dust races in front of a supercell thunderstorm in Farmers Country, Texas.
corridor called “tornado alley,” running from Texas to the Dakotas or Illinois, depending on the yearly pattern. Southwestern Oklahoma sees the greatest frequency. Winds rotating to form the tornado funnel reach speeds of 100–300 mph. The funnel can be very capricious in the way it does damage, removing the roof from a house without upsetting the breakfast dishes, imploding the house next door, and missing the next house altogether. Most tornados run briefly across open lands, but about 20 every year do significant damage to communities. In their artwork and stories, the Kiowas still vividly recall the twister that flattened much of Snyder, Oklahoma, on May 10, 1905, claiming at least 97 lives. Three tornadoes that dropped from the sky near Wichita Falls, Texas, on April 10, 1979 cut paths as much as a mile wide and 60 miles long, killing 56 people, injuring 1,916, and causing losses for 7,759 families. Prior to dense Euro-American settlement, tornados would not have exacted such a heavy toll, but they must still have appeared awesome to Plains inhabitants. Even their smaller cousins, the dust devils that arise in the midday sun, are often regarded as dangerous spirits in traditional Indian belief.

Winter on the Plains in general is bitterly cold, producing some of the continent’s lowest temperatures, as low as –60°F. An old saying on the Plains is that there is nothing between Texas and the North Pole but some barbed wire. There is no relief to block the descent of polar air masses or large bodies of water to moderate continental cooling. The daily average temperature in January is between 0°F in the Canadian provinces to 50°F in Texas. Summers are also extreme, with daily average temperatures in July ranging from 60°F in Canada to 85°F in Texas and record highs of 120°F. The normal absence of cloud cover allows radiational cooling at night, and low humidity (except in Texas) also helps make the heat tolerable. But the overall picture is one of wide seasonal variation in temperature. North Dakota experienced the record high and record low in a single year, 1936, and has a greater spread of monthly average temperatures (89.5°F) than any state but Alaska.

Dryness is the most critical Great Plains weather characteristic, as understood by the Anglo settlers who called the region “the Great American Desert.” Rainfall ranges between 24 and 16 inches annually (for comparison, 128 inches is the heaviest annual rainfall in North America, occurring in the Pacific Northwest). The effects of low rainfall are magnified because a good part of the yearly rain total may come in only a few storms. Also, high wind speeds and little cloud cover in the region mean a high rate of evaporation, so the effective moisture is even less than the rainfall rate might suggest.

Dryness promoted the wildfires that roared over the grasslands periodically in former times, blackening sometimes thousands of square miles. Pioneers describe the blast of superheated air, choking smoke, and a rain of blazing tinder that could trap anyone trying to outrun the inferno. Normally started by lightning or a stray campfire spark, prairie fires were sometimes also intentionally set by Indians to flush out the enemy during battle (a legend common to several tribes tells of the “Black Legs” or “Burned Thighs,” warriors who bravely withstood such a blaze). Whatever the cause, fire was an integral factor in the balanced succession of plant and animal species and, at least to some extent, responsible for the continuing dominance of grasses in the landscape. Flames cleared the weakened sod-bound grasses and killed off saplings intruding into the prairies from the forest margins. New grass would sprout from protected roots and rhizomes. Prairie dogs, mice, and rats, with their underground refuges and food supplies, then took the lead in reclaiming the land for animal life. Scientists now realize that burned prairie produces twice the biomass of unburned grassland.

Trees and shrubs nevertheless make their stands along streams and sheltered scarp. Aspen and ponderosa pine intrude from the west in the
hills of the northern Plains. The juniper known as red cedar is common in uplands and overgrazed areas, and pinion is found along with cedar on the volcanic mesas. Post oak, blackjack oak, and mesquite are common in the south. Chokecherry, sand plum, and haw are among several shrubs that provide edible fruit. Willow, elm, ash, walnut, and hackberry are common floodplain species, along with the cottonwood, which is the archetypal Plains tree. In some Indian languages “tree” and “cottonwood” are simply the same word.

Rivers of the Plains rise in or toward the Rockies (see Map 1.2). They have several characteristic features. Since they flow over low gradients, they tend to meander and clog with their own silt; they often become “braided,” with multiple channels crisscrossing over the sediments. The soft banks are liable to cave in, taking along entire trees that are carried downstream as driftwood. Sometimes huge logjams develop, and these can divert the flow to create lakes, swamps, and floodplain. The Great Raft was a solid entanglement of cottonwood, cedar, and cypress logs, 30–40 feet deep, which in 1806 stretched for nearly 100 miles along the Red River in northwest Louisiana. Quicksand is found on the Arkansas River, as trader Josiah Gregg noted in 1844, and along many other streambeds. The sands and gravels forming a Plains riverbed may be 40–60 feet deep, with water flowing through them even when the surface is dry, and travelers have long known it is possible to find water by digging in a “dry” riverbed. And indeed, rivers can run dry for part or much of the year, especially in the south, although flash flooding is also common. In all, the rivers are unpredictable, periodically difficult to cross, and generally not good for shipping or as sources of drinking water.

Looking from north to south, major rivers include the Saskatchewan, Qu’Appelle–Assiniboine, Red River of the North, the Missouri, Yellowstone, Cheyenne, Niobrara, Platte, Republican, Kansas, Arkansas, Cimarron, Canadian, Red, Brazos, Colorado, Guadalupe, Pecos, and Rio Grande. The Saskatchewan, Assiniboine, and Red of the North drain into Lake Winnipeg and Hudson Bay; otherwise, Plains rivers drain into the Gulf of Mexico, either through the Mississippi–Missouri system or, in Texas, directly. One effect of this arrangement is that riparian zones extend like fingers westward into the Plains, hosting grasses, trees, and animal life more characteristic of areas to the east. These river corridors are also friendlier to agriculture, and so have been especially important as avenues of human occupation.

Perhaps the most important water on the Plains is underground. The High Plains aquifer system made up of the Ogallala, Arikaree, and Brule formations underlies about 174,000 square miles from lower South Dakota far into the Texas

**FIGURE 1.5** Platte River, Nebraska.
MAP 1.2 Plains Natural Features and Landmarks.
Panhandle. This system supplies about one-third of all the groundwater used for irrigation in the United States. The draw rate on the aquifers was low until after World War II but has increased as much as sevenfold since that time, outstripping the rate of recharge by precipitation. Formerly, the water table was high enough that the aquifers would discharge from the ground at the eastern edge of the High Plains, but numerous seeps and paradisaic springs that would have marked the landscape in Indian days are now vanished. Modern Indian populations are among those vulnerable to projected declines in irrigated Plains land.

Ironically, given the dryness, the Great Plains and Prairie are frequently likened to a sea. The vast rolling ground, waving motion of the taller grasses, immense sky, steady wind, and sense of openness and vulnerability all contribute to this picture. Josiah Gregg and many others remarked on the oceanic vistas. The covered wagons that carried settlers west became known as prairie schooners. Many observers have commented on what a visual environment the open country is, a place where, as on the sea, the sense of sight is paramount. Yet in order to understand human adaptations to the Plains, it is best to move past the image of a uniform ocean of grass and appreciate the diversity of environments and the landmarks presented in the lands under consideration. Oklahoma alone has been divided into nine distinct natural regions on the basis of geology and vegetation. And if “sea” is apt image in one sense, then “islands” are bound to be significant.

The anomalous features that today are valued for their scenery have long served as ecological islands, hosting unusual plant and animal species and providing shelter for human groups. There are countless small sites, such as buttes, knolls, and springs, that were and are of interest to Indian people; here it will do to mention, in order from north to south, a number of larger features that give variety to the Plains landscape (see Map 1.2).

The north has several isolated low mountains appearing in belts or singly, such as the Cypress Hills straddling the border in southern Alberta and Saskatchewan, Wood Mountain in southern Saskatchewan, the Bear Paw Mountains in Montana, and Turtle Mountain on the North Dakota–Manitoba border. These hills were formed by ancient volcanic activity or uplifting and they rise a few thousand feet above the plains. The general area of plains and hills covering the western Dakotas and eastern Montana is known as the Missouri Plateau. Peaks reaching over 7,000 feet occur in the Black Hills of southwestern South Dakota and nearby areas of Wyoming. The Black Hills catch rain and thus feature heavy pine forest and many streams; the hills figure in the history of several tribes as a refuge and sacred place and are the location of the major gold deposits previously mentioned. Around the Black Hills to the east, south, and west is an area of heavily eroded clay beds cut into beautiful shapes, part of which is now protected as the Badlands National Monument. Sand hills and dunes cover about 24,000 square miles of northern and west-central Nebraska, and less extensive dune areas are also found in southern Saskatchewan, central Wyoming, northeast Colorado, and central Kansas.

Mesas of resilient volcanic rock such as Black Mesa and Raton Mesa mark the country where Colorado, New Mexico, Texas, and Oklahoma join. Oklahoma also contains the distinctive Antelope Hills area and two Plains mountain ranges of note: the Wichitas, with isolated peaks rising up to 1,000 feet over the plains, and Arbuckles, with peaks to 400 feet. These eroded ancient granite and limestone systems are the oldest on the Plains, deriving from the same geologic events and predating the Rockies. Further east, in eastern Kansas and northeast Oklahoma, the Flint Hills present a low ridge running north to south for 220 miles. The shore of an ancient ocean became the soil base for a band of dense oak
thickets called the Cross Timbers, 5–30 miles wide and running north–south for 400 miles through Oklahoma and into north-central Texas.

The Llano Estacado or Staked Plains is a remarkably bare and flat region in the Texas Panhandle and eastern New Mexico. Escarpments bounding the Staked Plains on the west and east may have given rise to the name, which suggests palisade walls, although an improbable legend says that Coronado marked his path across the treeless wastes with sticks. Seasonal ponds called playas dot the Plains in this region. To the southeast lies the Edwards Plateau of central Texas, featuring limestone uplands with little overlaying soil. The Edwards is treated as part of the Great Plains, but has more relief, more trees, and milder winters than the rest of the region; it was a significant foraging area for prehistoric peoples and a retreat for horse Indians and their herds. The Edwards Plateau gives way to the coastal plains at the Balcones Escarpment.

These many subregions have hosted a fascinating variety of wild animals. Aside from the bison, which will be discussed separately because of its central role in Indian life, five other ungulates populated the Plains. The wapiti or American elk formerly was abundant as far south as the Red River. Two deer species occupied the region—the mule deer of the west extending its range into the High Plains in the northwest and Oklahoma/Texas panhandles and the smaller whitetail deer of the eastern forests covering the whole area. The huge numbers of pronghorn in former days rivaled those of the buffalo. This “American antelope-goat” (Antilocarpa americana) was found throughout the region. With an ability to graze on the coarsest plants and its great speed (it is the fastest of all American mammals, reaching speeds of 55 mph), the pronghorn was well suited to its surroundings. All four animals were essential in supporting human life, providing meat and skins, and were nearly eradicated by 1900. Since then, whitetail deer have returned in great numbers, mule deer have retreated to upland areas, pronghorns have made a moderate comeback, and elk persisted in the north and were reintroduced to reserves in Oklahoma. A race of bighorn sheep also grazed in the grasslands and hills of the Dakotas and western Nebraska, but by the start of the twentieth century hunters and livestock diseases killed it off.

Wolves were the main animal predators on the Plains. The gray wolf depended on small game for some of its diet, but also worked in packs to isolate and attack the weak members of bison, deer, elk, and pronghorn herds. When the packs turned to domestic stock, the American wolf felt full bore a legacy of hatred that was part of Euro-American culture, and commercial wolfers cleared the Plains states of the animals with their rifles, traps, and strychnine between 1865 and 1895. The wolf’s smaller, adaptable relative, the coyote, remains resilient despite similar bounty campaigns and has even spread beyond the Plains in recent decades. Other large carnivores that were present on the Plains had more restricted habitats. The black bear and the larger, more aggressive grizzly were most common in forested bottomlands and broken country. Mountain lions, favoring remote, high areas, were probably never plentiful; now they are protected in most areas and are making a comeback on the western and southern Plains fringes. More usual, but seldom seen, are bobcats. Jaguars and ocelots occasionally ranged north into the Southern Plains in earlier times.

Several small animals are notable either because of their unusual character or because they have been important to humans. The badger is a small but tough carnivore burrowing on the open Plains, where it preys on prairie dogs and other ground squirrels. Prairie dog “towns” or burrow systems attract a great number of other species, and their eradication by farmers has altered the animal life of the Plains and caused the near extinction of one prairie-dog predator, the black-footed ferret. Red, gray, and swift
foxes remain, along with raccoons, ringtails, and three kinds of skunk: striped, spotted, and hog-nosed. Beaver, muskrat, otter, and mink are common around water. Cottontails and jackrabbits are plentiful, and there are many mouse and rat species such as the hispid cotton rat and prairie vole. Josiah Gregg reported in 1844 that rattlesnakes were “proverbially abundant upon all these prairies.” States in the region have inventoried from 50 to 135 fish species, a surprising variety for arid country and just one example of how Plains animal life can be complex beyond expectation.

Bird life on the Plains is diverse and of special interest because of the use of feathers and bird forms in Indian symbolism. The whooping crane lingers on the verge of extinction, the 130 or so remaining wild ones migrating over the Plains between the Canadian bogs where they breed and wintering grounds on the Texas coast. At 5 feet tall with a 7 1⁄2-foot wingspan, the whooper is the tallest North American bird. The great blue heron and sandhill crane are among the more common waders, sharing the prairie potholes and river margins with various ducks and geese. Ground-dwelling prairie chickens and grouse hold courtship rituals at “booming grounds” where the males pose, strut, hop, fan their feathers, and drum the air with rapid wing beats. Turkey vultures, and black vultures in the south, wheel in the sky looking for carrion. The burrowing owl is a daytime hunter of mice, lizards, and grasshoppers; larger nocturnal owls are also common. Other birds of prey include several kinds of hawks, such as the Swainson’s and ferruginous hawks, which are primarily Plains species, and the bald and golden eagles, the latter considered the preeminent animal in Indian belief.

Plains animal life of earlier days was bound to capture the imagination. Josiah Gregg wrote of the animals as “companions” who constituted “the society of the traveler” crossing the lonely grasslands. Lewis and Clark were less genial in describing the first of their chronic encounters with awesome grizzly bears. Their expedition also named the prairie dog as such because of its bark, but it is of course a marmot. This tendency of Plains animals to wind up with misleading names was noted by Webb, who notes “buffalo” for bison, “jackrabbit” (from “jackass rabbit”) for a large hare, and “antelope” for the pronghorn; we could add “horned toad” for the squat lizard, and others. In these names, we see how pioneers from the east struggled to make the strange familiar. Indians were far more familiar, but equally fascinated, by these life forms.

Animals no longer furnish quite so much companionship, for the present mid-continental landscape shows dramatic alterations, most in the name of intensive agriculture and ranching. Native grasses have been either eliminated or eaten short. In particular, less than 1 percent of the original tall-grass prairie vegetation remains, mostly in small, isolated patches. The only larger tract left is a strip 2 × 50 miles long in the Flint Hills of Kansas and Oklahoma. As a functioning ecosystem, the tall-grass prairie is extinct. Much of the Cross Timbers foliage has also been cleared away. Fire is kept under control. Rivers are channeled and impounded, and the water table drawn down, to water towns and fields. Rock outcrops have been quarried flat for building stone and road material.

Today, the landscape might be best understood as a mosaic of agricultural land use patterns. Spring wheat, planted in spring and harvested in the fall, is planted in the Dakotas; winter wheat, planted in fall and harvested in late spring, dominates from south Nebraska to the Texas Panhandle. Barley is raised in the wheat areas too. In the eastern part of the former grasslands the main crop is corn grown to feed cattle and hogs. South of this “corn belt” is a “cotton belt.” Alfalfa for livestock feed is grown under irrigation in the drier west, and the driest areas are given over to pasturing cattle, sheep, and goats. Other important crops include flax and sugar beets in the north and peanuts in the south.
Despite the often high productivity of farms on the Plains, it remains questionable whether agriculture is really sustainable there. The region has always been subject to sharp boom and bust cycles. Economic downturns hit in the 1890s, the Dust Bowl 1930s, and the 1980s, an era of foreclosures and “Farm Aid” benefit concerts. In the past century many Plains towns have lost more than 50 percent of their population; entire counties have been virtually abandoned; bank failures, poverty rates, and dependence on federal subsidies have increased. Regardless of some recent upturns, many analysts think there is an inevitable trend toward the failure of agriculture and depopulation of the Plains.

Two Rutgers University social scientists, Frank and Deborah Popper, a land-use planner and geographer, respectively, have recommended a radical solution: abandon farming and the market towns that support it and let the Plains revert to their natural state. In their controversial “Buffalo Commons” concept, sections of 10 states would compose an enormous nature preserve managed by the federal government. Bison, elk, and wolves would be restocked; wildlife and solitude would be the commodities in a mixed-use economy of recreation, tourism, and retirement. The reintroduction of wildlife is not a purely romantic gesture, but a matter of efficiency. Bison, for example, have a slightly more efficient digestion rate than cattle and can live on coarser plants. The fate of American Indians under this plan is not clear, but it is suggested that they might receive parts of the new commons in payment for tribal land claims or at least enjoy preference of employment as stewards and guides. While it remains doubtful that all of the Plains agricultural infrastructure will be undone purposefully, there are in fact already many small experiments throughout the Plains in reversion. These include preserved areas of vegetation such as the national grasslands (reclaimed from farmlands abandoned during the Dust Bowl), protected Indian sacred sites, and reintroduced buffalo herds.

THE PLAINS CULTURE AREA

The Plains constitutes a particular cultural setting as well as a distinctive natural environment. It is one of the major culture areas that anthropologists recognize in North America. “[A] culture area is a geographical area within the boundaries of which similar cultures or life styles are found” (Howard 1975:22). More technically, “[c]ulture areas are geographical territories in which characteristic culture patterns are recognizable through repeated associations of specific traits and, usually, through one or more modes of subsistence that are related to the particular environment” (Ehrich and Henderson 1968:563).

A complete listing of North American culture areas might look like this (there are multiple variants of this scheme but all are similar):

**Woodlands:** Southern Maine and Ontario to Florida, westward to the Mississippi and eastern Texas. This region encompasses coastal plains and swamps, the Piedmont, Appalachian Mountains, Great Lakes region, and easternmost tall-grass prairies, but the overarching factor is forested land, in contrast to open grasslands or desert. It is often subdivided into Northeastern and Southeastern areas.

**Plains:** The dry, short-grass High Plains extending west of the 98th meridian to the Rocky Mountains. This area runs from the southern Prairie Provinces of Canada (Manitoba, Saskatchewan, and Alberta) southward to Texas and is wider in the north than in the south. This area sometimes also includes the tall-grass prairies east of the High Plains—in Minnesota, Iowa, and Missouri—which are otherwise assigned to the Woodlands area.

**Basin and Plateau:** Includes the Rocky Mountains and neighboring ranges and intermountain deserts. The Great Basin includes most of Utah, Nevada, western Colorado, western Wyoming, southern Idaho, and southeastern
California. The Plateau covers most of Idaho, western Montana, eastern Oregon and Washington, and interior British Columbia. These two are often treated as separate areas.

**Southwest:** Corresponds to the Chihuahuan and Sonoran deserts in New Mexico and Arizona and closely adjacent parts of Utah, Colorado, Texas, and Mexico.

**California:** Corresponds to the modern state excepting the extreme northwest and southeast. Landforms include the Sierras and Coast Ranges, Central Valley, northern lava fields, and coasts.

**Northwest Coast:** A long narrow culture area between the coastal mountain ranges and shores, plus islands, extending from northern California through Oregon, Washington, British Columbia, and the Alaskan Panhandle.

**Subarctic:** The lands spanning the north of the continent from Northern Maine and Newfoundland to interior Alaska, composed of coniferous forests, bogs, lakes, and taiga, and excepting the Arctic coast.

**Arctic:** The strip of land 100–200 miles wide, and islands, along the coast of the Arctic Ocean from Labrador to Alaska.

Each of these areas has a characteristic (if easily oversimplified) array of Native American cultural adaptations. For example, the temperate Woodlands features a mixture of forest hunting and gardening of corn, beans, and squash in cleared plots, villages of wigwams and longhouses (pole frame, bark-covered dwellings), pottery, birch or hickory bark canoes and containers, soft-soled moccasins, and so on. The dry, rugged Great Basin area necessitated dependence on rabbits and seeds, residence in small mobile groups for much of the year, baskets but virtually no pottery. The rainy Northwest Coast is an area of large rectangular timber and plank houses, totem poles, long ocean-going dugout canoes, abundant salmon, and whale hunting.

The Plains culture area is customarily distinguished by the following traits:

- dependence on bison hunting
- lack of agriculture
- limited use of gathered foods
- nomadism
- dependence on the horse for riding and traction
- dogs for traction
- travois (wood frame for dragging possessions)
- tipi (moveable skin dwelling)
- general lack of boats and fishing
- lack of or only simple pottery and weaving
- bison skin and deerskin clothing
- highly developed work in skins and rawhide
- little work in wood, stone, or bone
- beadwork
- geometrical art
- bilateral descent (tracing ancestors and relatives through both mother and father)
- band-level social organization
- warfare
- sodalities (men’s and women’s clubs)
- Sun Dance (major religious ceremony)
- sign language
- platform burials

These traits pertain to the High Plains subarea specifically. Since this volume includes populations living east of the High Plains in its definition of the Plains culture area, the following traits relevant to those groups are also noted:

- corn horticulture
- semi-permanent settlements
- horses, dogs, and travois
- occasional bison hunts
- symbiotic relations with High Plains nomads
- massive sod houses (north) or large grass houses (south)
- tipi used for hunting trips
- hand-molded pottery
- some fishing
• large calendrical ceremonies
• elaborate celestial mythology
• clan social structure

Although this book is entirely predicated on the existence of the Plains culture area, it is important to question the validity and utility of this construct. We should consider the history of the idea and the pros and cons of its application in understanding Native peoples.

The culture area concept grew out of two related intellectual trends: the rise of scientific classification and the development of modern museums. An early museum was apt to look like an eccentric person’s attic—a hodgepodge of curiosities with little apparent rhyme or reason. The emerging standards of science, however, required above all else classification, the grouping of items according to similarities and differences. The first published classifications of North American tribes circa 1830–1880, such as Albert Gallatin’s Synopsis of Indian Tribes (Gallatin 1973; orig. 1836), grouped them according to shared linguistic backgrounds, though this procedure did not yield a distinct Plains area. Then, during the latter nineteenth century major museums such as the Peabody Museum in Cambridge, Massachusetts, the American Museum of Natural History in New York, the Smithsonian Institution in Washington, D.C., and the Columbian Exhibition (1893 Chicago World’s Fair) began grouping objects in exhibits according to didactic themes, such as item type, patterns of evolution in technology development, geographic origin, or linguistic stock of the makers. Principal advocates of organized exhibits in the United States were Otis T. Mason (1838–1908) of the Smithsonian; Clark Wissler and Pliny Earl Goddard (1869–1928); and Franz Boas (1858–1942), all associated with the American Museum. Each of these scholar-curators was interested in what Mason called the “Influences of Environment upon Human Industries or Arts” (Mason 1896), and soon the dominant rationale for display became the correlation of environmental region and material culture. The idea of culture areas such as the Woodlands and Plains stemmed most directly from this practice of grouping material objects to suggest consistent environmental conditions and patterned cultural adaptations to those conditions.

As anthropologists, historians, and other researchers tried to make sense of the large variety of Indian cultural practices, they found comfort in this classificatory framework. The Plains culture area, among others, became the subject of much attention and attempts at refinement. When patterned variations became apparent within the proposed areas, the areas were subdivided to reflect them. Wissler sought a center for Plains Indian culture from which the archetypal traits diffused, and he defined a core High Plains area with two secondary areas to the east and one to the west. Alfred Kroeber (1876–1960) was more exacting, proposing eight subareas with names like “Northern Plains,” “Central Prairie,” and “Red River.” Kroeber, however, noted the inadequacy of such categories and suggested that the best approach would be a color map showing the intensity and shadings of the definitional culture. These early efforts focused on environments and material items when weighing the similarities and differences between tribes. George Peter Murdock (1897–1985) looked instead for clusters of social and linguistic traits and proposed seven major subareas that differed from prior classifications and produced a less unified image of the Plains. Harold E. Driver (b. 1907) and associates sought statistical correlations among 35 groups previously identified as “Plains” tribes, using an index of similarity called the phi coefficient. A phi coefficient of 1 between two tribes would mean they were identical, and lesser numbers indicated degree of difference. Across all 35 tribes Murdock found a phi coefficient of .35. This was about the same degree of difference evident across all of North America, suggesting a weak case for internal
consistency in the Plains culture area. Driver did, however, find higher coefficients, in the .50s and .60s, within four proposed subareas: the (High) Plains, Prairie, Northeastern Canadian Plains, and Shoshonean area west of the High Plains.

The culture area approach does offer benefits for study. It simplifies our learning about numerous, diverse cultural groups. One can gain a good degree of knowledge about Native people of the Plains by learning the general features of the culture area, without having to study every tribe and every ceremony. And culture areas illustrate the broad patterns of human adaptation to particular environments.

There are, however, also many drawbacks to a reliance on culture areas. The basic problem is that the areas are ultimately arbitrary. The term “area” suggests a fixed and bounded territory, but culture areas are theoretical constructs with no strict borders. Disagreement can occur not only about the centers and boundaries of areas, but about which cultural traits should be considered essential in defining them. The choice of diagnostic traits determines the apparent degree of similarity between tribes. Thus, there is never a single indisputable scheme of culture areas, but rather different possibilities that claim researchers’ allegiance. Adherence to one or another scheme may cause researchers to overlook, ignore, or misinterpret information that does not readily fit with expectations. Another problem is that culture areas are static concepts that assume long stability of populations and cultural practices and do not reveal processes of culture change. Furthermore, they are asynchronous. North American culture areas generally refer to the time of early Indian–white contact, and since this time was different across the continent, the areas taken together do not form a simultaneous picture; even within the Plains area, contact times varied significantly. A final and perhaps obvious weakness is that the standard culture areas tell us very little about the realities of contemporary Indian life.

Anthropologist James H. Howard (1925–1982) mounted the most cogent criticism of the culture area approach. Howard, who worked among several Plains tribes, called the approach “a foul deed,” perpetrated upon Indian people by members of the anthropological profession. Though useful as a crude rule of thumb, Howard wrote, culture areas had become so pervasive in general discussions, in textbooks and grade school instruction, that non-Indians and even many Indians alike had come to believe that Native cultures were fixed in these rigid categories. This rigidity contradicted what Indian people knew from their own tribal traditions about the continuous mixing and blending of cultures. The insistence of non-Indians on fixed categories can cause stress for living members of Indian cultures, such as the contemporary man of a Woodlands tribe who was reproached for wearing a Plains-style feather war bonnet because it was not from his own culture area. Also, Howard noted, because they are based on the presence of particular traits, culture areas amount to a set of requirements such that tribal groups having numerous prescribed traits are proper members of the area while those with fewer traits are considered “marginal” and hence less authentic or worthy of consideration.

The culture area concept therefore must be used advisedly, though it is both convenient and so ingrained as to be unavoidable. In defining the member tribes of the Plains area, this work follows the practice set forth in the Handbook of North American Indians (Sturtevant 2001). It includes social units of both the High Plains and Prairie. Discussions will also occasionally include other groups that ventured onto or influenced the Plains area, especially the Shoshones and Utes centered just west of the High Plains who are often assigned to the Great Basin culture area, the Apache groups living southwest of the High Plains, and the Caddos living just southeast of the Plains in Texas and Louisiana, frequently considered a Southeast Woodlands group. The area and tribes covered in this volume are shown in Map 1.3. The dynamic origins of these social units are explored in the next chapter.
MAP 1.3 Plains Culture Area with Neighboring Tribes.
character of the Great Plains. The region encouraged development of a human adaptive regime involving bison hunting, horsemanship, and other traits related to a mobile lifestyle. In eastern parts of the region, gardening and fixed villages were also possible. Indians of the region are said to belong to the Plains culture area. The idea of the Plains as a uniform cultural area is helpful to learning but must be used carefully so as not to mask significant variation.

**QUESTIONS FOR REVIEW**

1. What factors have traditionally been used to define the Great Plains as a natural area? How does each factor mesh with the others to produce a workable definition?
2. Describe the natural features of the Great Plains, including climate and weather, anomalous surface features, and plant and animal life, that have contributed to the region’s distinctive character.
3. What are the characteristic traits of the Plains culture area? How does this area differ from adjacent ones? What traits are associated with the Prairie rather than the High Plains?
4. Explain the origin of the culture area concept, and comment on the strengths and weaknesses of this concept.