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CHAPTER ONE

GLIMPSES THROUGH

THE LOOKING GLASS

When Christopher Columbus first slogged ashore on October 12, 1492, on either the Caribbean island of San Salvador or Samana Cay, he was met by Arawak-speaking people who called themselves Taino and who apparently made an excellent first impression. "They are affectionate people," Columbus reported, "and without covetousness and apt for anything, which I certify." He went on to write, "I believe there is no better people or land in the world. They love their neighbors as themselves and have the sweetest speech in the world and gentle, and are always smiling." Not knowing who these seemingly happy-go-lucky folk were, Columbus imagined them to be Asians—perhaps Hindus or Spice Islanders. Yet, despite his boosterism, he was disappointed to find these natives less advanced than he expected of Asians. In fact, the Tainos were fairly sophisticated agriculturalists living in villages of a thousand or more, each with up to fifty round, conical-roofed houses of wood and thatch ringed around a plaza and presided over by a chieftain. The villages were organized into district chiefdoms; two social strata, nobles and commoners, existed; and local artisans worked in wood, ceramics, weaving, and other crafts, including gold imported from mainland South America. Even so, they were hardly what might be expected by someone who had read about Marco Polo's travels to the Orient.

Soon the neighbor-loving Tainos made it plain that their particular

neighbors, known as Caribs and located to the south in what we call the Virgin Islands, were cannibals bent on wiping out the Tainos. Here we have an early version of two of the longest-running stereotypes about the native peoples of America—the noble savage and the bloodthirsty barbarian. Before many more years passed, both the Tainos and the Caribs (who were probably innocent of cannibalism) were largely extinct, victims of European diseases, the vicissitudes of Spanish enslavement, and outright murder. But untold millions of other native peoples awaited the Europeans in the New World, and once it became clear that this was not Asia, the questions soon arose: Who the hell are these people, where did they come from, and when did they get here? Even after the passage of more than five hundred years, the answers to these simple questions remain somewhat imprecise.

Early on, some Europeans wondered if the native populations of the New World were actually people—humans, as Europeans defined the word. This was in spite of the fact that by 1510 Cortés had encountered the Aztec empire and entered its capital, Tenochtitlán, a vast city grander and more beautiful, by accounts, than anything in contemporary Europe. The Spanish thus had an early realization of the breadth of cultural diversity to be found in the New World, but even the Aztecs, with their own version of high society, did not fit well into the pigeonholes of European preconceptions. And it was only a few years after the Spanish arrival that even the Aztecs and Incas were reduced to peonage, their civilizations effectively razed.

At the time, maps of much of the world outside Europe still reported that “there be monsters here,” and stories abounded of creatures on distant shores who were part human, part animal. Unicorns could still appear to those whose lives had been perfectly meritorious, and as late as the next century an English adventurer, Martin Frobisher, would return from an Arctic voyage with tales of gold and with the single horn of what he believed to be a sea unicorn (an object we know as a narwhal tusk), which he presented to Queen Elizabeth. Coming upon the shores of America, one might imagine, then, that creatures with so little by way of the trappings of civilization were people, yes, but people without souls, just as animals were without souls.

Paracelsus, the brilliant sixteenth-century Swiss physician who is often thought of as the father of chemical medicine, believed that the aboriginal

Americans were not “of the posterity of Adam and Eve” but had been created separately and were without souls. The matter would continue to be debated for the remainder of the century by Spanish philosophers and papal theologians. Generally speaking, the men of the Church took the most benign view of the Indians, believing that the pope’s benevolent sway should be extended over the natives’ lives in order to save their souls. (At the outset, Columbus commented that the Arawaks’ easygoing nature made them excellent candidates for enslavement, and the Spanish colonists saw them all as little more than useful chattels.) Some theologians cited Aristotle’s *Politics* to the effect that many people were born to be ruled over, and the Native Americans, having no “written laws, but barbaric institutions and customs,” were among them—meaning that they could be enslaved or killed in order to bring them to Christ (in the afterlife). People on the ground, however, typically took an even less benign view. Amerigo Vespucci, sailing for the Portuguese, found the natives of South America to be hardly more than brutes, as well as worshippers of the Devil, given to cannibalism and other amoralities. Later a Dominican missionary, Tomás Ortiz, perhaps by way of explaining the difficulty of his holy task, wrote the following description:

On the mainland they eat human flesh. They are more given to sodomy than any other nation. There is no justice among them. They go naked. They have no respect either for love or for virginity. They are stupid and silly. They have no respect for truth, save when it is to their advantage. . . . Most hostile to religion, dishonest, abject, and vile, in their judgements they keep no faith or law. . . . I may therefore affirm that God has never created a race more full of vice and composed without the least mixture of kindness or culture. . . . We here speak of those whom we know by experience. Especially the father, Pedro de Córdoba, who has sent me these facts in writing. . . . the Indians are more stupid than asses and refuse to improve in anything.

Depressingly enough, sentiments very much like these were heard throughout the ensuing centuries, even to the present. On the other hand, the Native Americans had their early champions as well, none more vigor-

ous and devoted than the Spanish Fray Bartolomé de Las Casas, who argued eloquently for the rights of the natives. He claimed that the pope had no temporal or coercive power over the native populations, that the gospel should be preached to them but only peacefully, and that the conquistadors' claims on the Indians' land and persons were illegal. He saw all people, including the Native Americans, as humans in various stages of cultural development and thought the natives of the New World were probably quite ancient. Las Casas had a good deal of influence on the powers back home, as did another cleric, the Dominican Bernardino de Minaya. Minaya deserted Pizarro in disgust and went to Rome to persuade Pope Paul III to issue a papal bull in 1537 that rejected the idea of Indians as mere brutes and declared them capable and desirous of embracing the Catholic faith. Not only that, the bull proclaimed, even those Native Americans who chose not to follow Christ were not to be enslaved or have their property taken. This was too much. Bristling with secular outrage, Emperor Charles ordered all copies of the bull confiscated and prevailed on the pope to rescind the bull altogether. For his efforts Minaya was thrown into jail by the head of his order.

Even as late as 1590, one sympathetic Spanish Jesuit missionary in Peru, José de Acosta, felt the need to denounce the "common opinion" that the natives of the New World were mere brutes without reason. They were barbarians—meaning non-Christian—to be sure, and de Acosta attempted to put all barbarians into one of three categories. First were peoples such as the Japanese and Chinese, who had permanent governments, cities, commerce, and writing. This class of barbarians was to be proselytized to and converted to Christianity *without force*. Second were those such as the Aztecs and Incas, who were without writing but enjoyed permanent governments and recognizably religious ceremonies. If such peoples—so far from what he called "right reason"—were not put under Christian rule and *ordered* to become Christian, they probably could not be converted and thus would remain barbarians. The third class of barbarians was free-roaming savages, without government, laws, or fixed settlements. They were the people of whom Aristotle had spoken—who deserved to be enslaved—and, like the Caribs, they needed to be forced to accept Christianity or suffer the consequences. Of course, this all led to a philosophical conundrum: If an illiterate barbarian—a savage, say—were converted to

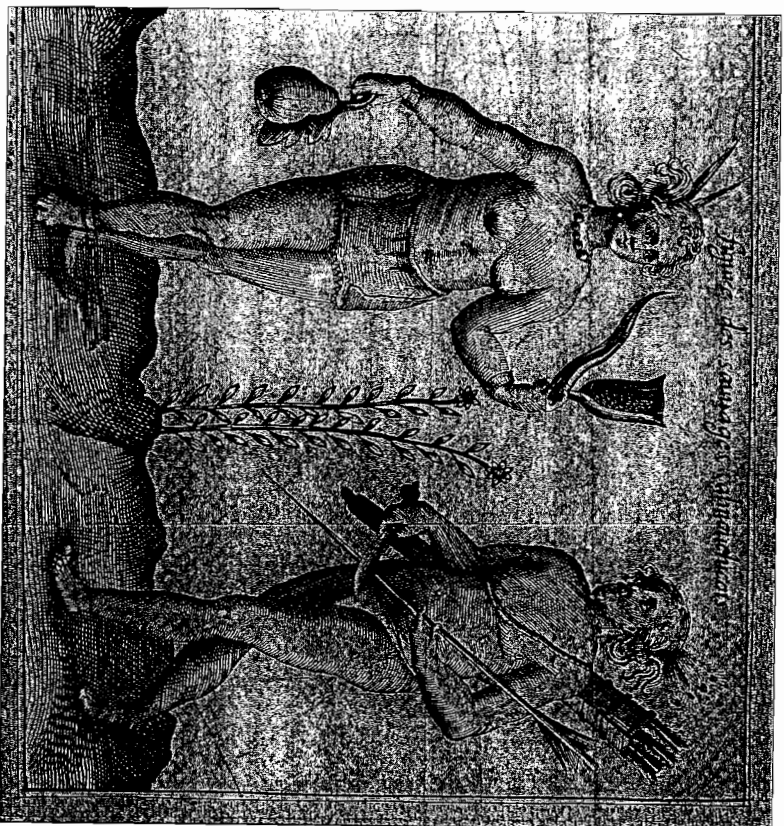
the Cross, was he still a barbarian? Could there be such a thing as a Christian barbarian?

Interestingly, many of the early European explorers and adventurers noticed the similarity in appearance between the Indians and Asians. De Acosta took this a step further, suggesting that the Americas had been populated by a slow overland migration from Asia, perhaps as early as two thousand years before the arrival of the Spaniards. This was an astonishing insight, considering that no European had even come close to the Bering Sea or had any notion of the configuration of the lands to the north. Indeed, on maps of the time, the whole area from northeast Asia to the Urals was called simply Tary. By 1648, the Englishman Thomas Gage had posited the Bering Strait area as the region crossed by Mongolian-type people—a path that would become a certainty only in the next century, when Vitus Bering, a Dane sailing in behalf of the Russian czar, discovered the strait that bears his name.

As for the early Spanish soldiers and settlers, if they intended to enslave the native people of the New World whenever they were needed (and that was indeed their intent), and if they sought justification (which they rarely did), Aristotle's pronouncement about people born to be subjugated was moral balm. Even more convenient was the word of Saint Augustine, who, in the fifth century, had first enunciated the Christian notion of a just war: one waged to right an injustice or wrong by another nation, one such wrong being (by implication) not being Christian. Any refusal by the barbarians of the New World to let a missionary preach or to let a Spaniard "sojourn" among them could now be construed as sufficient cause to launch a just attack.

To sojourn meant to trade, in fact, and the right of men to do commerce anywhere in the world was soon added to the mandate to promulgate the Cross as a justification for war shared by all the European nations in the New World. When Native Americans stood in the way of what we now think of as free trade, they became mere impediments to be shoved aside or eliminated. This was especially true of the British colonists, who had little interest in converting the natives to their own versions of Christianity. With a few notable exceptions, such as William Penn and, to an extent, the clergyman Roger Williams, the British were mainly intent on taking over as much land as they could and removing the aboriginal inhabitants from it as quickly as possible.

Even the French—many of whom were (like the Spanish) given to intermarrying with the natives and (unlike the Spanish) adapting to their ways—initially had trouble even seeing them accurately. One of the earliest representations of American natives appeared among the decorations on a French map of 1613, an engraving based on drawings by Samuel de Champlain himself. Along with such identifiable local fruits as hickory



*An early French rendering of Native Americans from a drawing prepared by Samuel de Champlain.*

nuts, plums, and summer squash is a “savage” couple evidently from Nova Scotia, then called Acadia. They both have feathers in their hair and earrings; the man holds a knife and an arrow in his hands, while the woman holds an ear of corn and a squash (neither was grown aboriginally in Nova Scotia). She wears only a loincloth and he what looks for all the world like

a Speedo bathing suit. Both have wavy blond hair, European facial features, and the muscular calves and delicate feet of Renaissance art.

Most Europeans, whether botanists, artists, or philosophers, tried to fit all the astounding, new finds from the New World into the classical schemes that informed the Renaissance—which, as art historian Hugh Honour has pointed out, were largely “wish-fulfillment dreams” of an Arcadian past that had never existed. For reasons not hard to imagine, early reports about the so-called Indians dwelled on the widespread nudity and what Europeans believed to be free love. (It was not uncommon for Europeans to be offered the use of women when they first arrived, as part of the gift giving typical of many American native cultures.) Those practices, plus the apparent absence of property and laws among the natives, reminded Europeans of their own imagined Golden Age. Even in the nineteenth century, European artists would still represent the New World allegorically as a naked woman wearing little but feathers.

Of course, there was the other side of all this: to begin with, the widespread reports of cannibalism, always a disruptive note in your classic Golden Age fantasy. Indeed, early on, Europeans developed a schizoid sense of America, most of them seeing its wonders only through the eyes of naturalists and other travelers (and in some cases through observing a few savages brought back to European courts as exotic talking booty).

Of all the continents coming under European scrutiny, North and South America were seen as probably the last to be inhabited and the last created—as the poet John Donne put it, “that unripe side of earth.” There the mammal population had degenerated, as did Europeans who stayed too long. Some compared the natives to the fabled European wild men of the woods; in reports from the New World, Shakespeare found an inspiration for Caliban. The philosopher Thomas Hobbes was speaking about Native Americans when he wrote his famous dictum about the uncivilized, savage life being “solitary, poor, nasty, brutish and short.”

Given even an artist’s incapacity to see these people, it is no wonder that philosophers back home happily spun a bundle of assumptions and what today we would call stereotypes into grand theories about the aboriginal Americans, such overarching schemes as “the noble savage” and the “treacherous and murdering savage,” both of which still haunt Native

Americans, although the terms are a bit different today. We no longer have Rousseau's innocent, Edenic noble savage, given to purity of feeling as opposed to the degraded world of reason (which was a wondrous bit of condescension, no matter that it helped power the French Revolution). Instead, we have today's ecosaints, a race of people instinctually attuned to abiding on the land without leaving even the trace of a moccasin print, a race so spiritual that virtually every New Ager has linked up with a native shaman from one past life or another. On the other hand, gone are the no-good, bloodthirsty "redskins" who once marauded innocent sodbusters and did battle with John Wayne's blue-coated cavalry; we now have the no-good Indian incapable of a full day's work in his tribe's Mafia-controlled casino and instead typically found in a sodden stupor in the gutter of some squalid off-reservation town like Gallup, New Mexico. One of the greatest difficulties throughout the centuries and still today has been to look upon the Native Americans not as ciphers or metaphors for one or another fantasy but, first and finally, as human beings.

It is little wonder, then, that when white Americans came across the most monumental works of the original inhabitants of North America, they assumed them to be the product of some other, master race long since vanished: the mound builders. For by then, whatever gossamer notions about Native Americans (or libels) the Europeans back home were spinning, most settlers on the frontiers of the New World took a dim view of the native peoples they encountered. Everyone from the lost tribes of Israel to escapes from Atlantis would be invoked to explain the mysterious monuments the colonists (and later U.S. citizens) found all over the landscape once they pushed their way across the Appalachians. There is nothing like lost civilizations and vanished races to stir the imagination.

#### THE MOUND BUILDERS

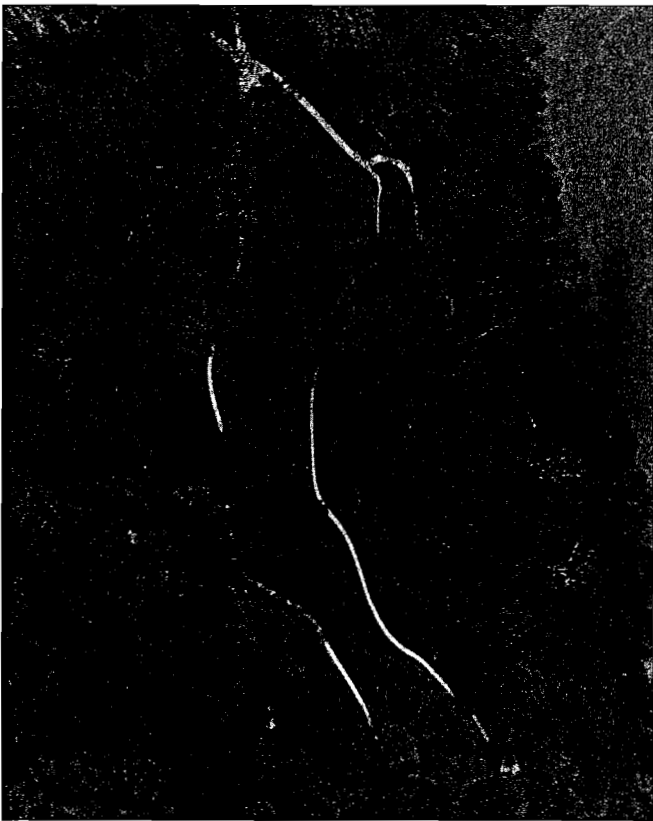
From western New York State to Nebraska, from the Great Lakes to the Gulf of Mexico, the land was once littered with mounds, many of them enormous in height and extent. The largest were flat-topped like the pyramids of Central America, and they all would have necessitated huge crowds of workers. They were built of vast tonnages of dirt, many with as-



*Reconstruction of Cahokia at its apogee, ca. A.D. 1150,  
by William R. Iseninger.*

tonishingly precise angles, some in the form of a perfect circle. In what would become East Saint Louis, a huge metropolis seemed once to have existed along the Mississippi, in a place called Cahokia. It was some five square miles in area, with a hundred mounds grouped around central plazas. Most spectacular of the Cahokia mounds was what came to be called Monk's Mound: covering sixteen acres, it was the largest single earthenwork ever built by prehistoric people in North America. A temple evidently once sat atop this mound, one hundred feet above the surrounding area and visible to the entire population. It has been estimated that this one mound called for the quarrying and piling up of more than 21 million square feet of dirt. Estimates of the resident population ran in the tens of thousands, though current estimates suggest something far less—perhaps five thousand in Cahokia's heyday, which is still a big place if one is accustomed only to the stereotype of the Native American as living in small bands of hunter-gatherers wandering around in the woods or riding over the plains. (In fact, at the time of European discovery, most natives, by far, were village or town-dwelling agriculturalists who also hunted and gathered resources from the surrounding countryside.)

The greatest concentration of mounds was in America's continental heart—Ohio, Illinois, Indiana, and Missouri. *Ten thousand* had been built in the Ohio Valley alone. Some were in the form of animals and one, the Great Serpent Mound in Adams County, Ohio, is a snake nearly a quarter



*An aerial view of the Great Serpent Mound, Adams County, Ohio.*

of a mile long, its five-foot-high body writhing southward from a coiled tail, its gaping mouth in midgulp of an oval burial mound. It is the largest representation of a snake anywhere in the world.

Effigy mounds, such as the Great Serpent, typically had no mortuary purpose, but virtually all others were found to be the sites of burials, some astonishingly elaborate, the graves of what were clearly great leaders, filled with all manner of valuables from copper neckpieces and stone carvings to freshwater pearls in the thousands, and in some cases, especially in the southern mounds, the corpses of family members and retainers sacrificed to accompany the leader on his journey—or hers; some of the prominent people of these societies were apparently women. In sheer quantity, and in

the size of many of them, the earthen mounds nearly equaled the monumental structures of Mexico. Eighteenth- and nineteenth-century antiquarians and patriot boosters of North America could rejoice. Here were achievements to rival the antiquities of Europe and the grandeur of the ancient worlds of Egypt and the Middle East.

Well, almost.

At the very least, ancient North America was not an embarrassingly depauperate place with nothing to suggest its own glorious and mysterious past. For here certainly—and well to the north of the Aztec and Mayan ruins—was the work of a populous, highly civilized race, people with a means of making accurate measurements, people with elaborate religious ceremonies . . . and people who definitely could not have been the ancestors of the relatively few pathetic, seminomadic, unambitious, ignorant, often drunk savages who now—as the newcomers saw it—lived in this region. Once the French were run out of the area in the so-called French and Indian War that ended in 1763, the British view of native peoples predominated: contemporary natives were clearly incapable of the sheer sustained labor of hauling so much dirt, much less some of the complex architectural detailing of the mounds. Nor did they have any current traditions about mound construction. When asked by British colonists, the Cherokees in western North Carolina whose villages were built on mounds had essentially shrugged and said the mounds had already been present when the Cherokees had arrived.

A fourth kind of mound appeared to be defensive in nature, and it was soon assumed that the race of master builders, whoever they were, had eventually succumbed to attacks by hordes of savages (probably coming from the north and ancestral to the American Indians), just as Rome had fallen to the swarming barbarian Huns and Visigoths. Noting a particular geographic progression (or regression)—relatively small effigy mounds in the north, conical burial mounds in the middle, and large flat burial mounds and temple platforms in the south—some would wonder if the original mound builders had moved from north to south with ever-increasing sophistication, eventually reaching Mexico, where they had discovered the use of stone for construction. Others would see Mexican master builders moving north, losing sophistication along the way. And

still others would choose the builders from an astounding array of candidates from all over the world. The ancient human art of conjuring up astonishing tales from the sparsest of information was happily under way.

By the time of the American Revolution, plenty of opinions existed about the mounds and their builders. The naturalist William Bartram (son of the naturalist John Bartram) made a long trek through the South and concluded, rightly, that some mounds were contemporary while others were older, even relatively ancient. Some, he thought, were temple mounds like those he saw still in use. In 1787, an Ohio traveler, Benjamin Smith Barton, suggested that the mounds had been built by Danes who had moved on to Mexico, but a decade later he changed his mind, saying that most of the mounds had probably been the work of ancestral Indians, who, he said, might well have arrived about 6,000 years ago, a time that fit well enough with most generally accepted notions of the age of the earth in the late eighteenth century.

It should be pointed out that at the end of the eighteenth century in Europe and America, there was no such thing as the field we call archaeology. No formal method of investigating ancient sites was known, and no way of judging findings accurately existed. People who were interested in “antiquities” were what we would today call amateurs or hobbyists. At the time, the Bible, for most people, represented a true and precise history—and chronology—of humanity and the world. There was no intellectual concept by which those whom we think of as early humans could be understood. There was no sense of the extreme age of the world and very little notion of the nature of life besides the immutability of species as they had been created by God, all at once, in the manner described in the Book of Genesis. With the publication of Lyell’s book between 1830 and 1833 came the distinct (and heretical) possibility that the Bible did *not* represent the actual chronology of the world, that the Book of Genesis should be seen more as poetry than as fact. But the European world was also on the edge of industrialization, and by the end of the 1850s it was presented with the ideas of Thomas Malthus, the first look at a human of the ice age (a gent called Neanderthal), and the astonishing revelations of Charles Darwin. With the earth’s age extended radically far into the past and Darwin’s theory of natural selection (published in 1859) to explain the mechanism of what some naturalists, including Darwin’s grandfather, had earlier

begun to see as evolutionary processes in nature, the entire world was new. Until such concepts were in place, there was really no hypothetical framework in which such (to us) commonplace occurrences as cultural change over time could be perceived, much less analyzed. And certainly there was no methodology by which an antiquarian could examine the archaeological record and test one hypothesis or another. In short, no means of scientific reasoning existed for examining the ancient, prehistoric past. That is why Thomas Jefferson appears in this context, as in so many others, as an astonishingly astute and, in this case, precocious observer.

Jefferson had heard most of the available theories about who had built the mounds, and in his systematic way, in 1784, he dug out a small, twelve-foot-high mound on his property near the Rivanna River in his native Virginia. He uncovered successive layers of burials, each separated by layers of gravel and stone. From this, he concluded rightly that they had been the work of the present Indians’ ancestors. When the burials had occurred, however, “was a matter of doubt.” Historians of science have said that this was “the first scientific excavation in the history of archaeology” and that it anticipated the methods of modern archaeology by more than a century. In other words, Jefferson was, however distantly, one of the fathers of modern archaeology (a field that benefited, like most others, from multiple sittings), just as it has been said that for his careful reporting of native lifestyles Fray Bartolomé de Las Casas was a “father” of ethnography.

In any event, Jefferson’s pioneering methodology—the first excavation designed not to recover artifacts but to solve an archaeological question—was sufficiently ahead of his time that it had virtually no real impact on subsequent work for at least another century. Nor, it seems, did his circular written ten or so years later to the other members of the American Philosophical Society, newly formed in the young nation’s intellectual capital, Philadelphia. In it he called for accurate surveys of the mounds and their contents by way of cross-section trenching, tree-ring counts, the measuring of the length, breadth, and height of walls, and the recording of the nature of any stonework. (It could be argued that it was not Philadelphia but Jefferson’s estate that was the nation’s intellectual capital.)

In particular, Jefferson’s levelheaded approach to the mound builders did not resonate in the mind of the American public. Other notables of his time entertained more far-out possibilities: Ben Franklin, for example,

thought that the mounds might be the work of de Soto and his expedition through the South in the 1540s. Others, including DeWitt Clinton, governor of New York, picked the Vikings, holding that a band had arrived at some point and made their mound-building way south and west, eventually reaching Mexico, where they turned into the Toltecs. Others, hearing a Delaware Indian epic from myth time, concluded that the mounds had to have been the work of the Cherokees, whether they remembered building the mounds or not.

Many of the notables of the new nation formed the American Antiquarian Society in Boston in 1812, modeled on European versions, and in 1820 it published its first *Transaction*, which included a long piece entitled “Description of the Antiquities Discovered in the State of Ohio and Other Western States.” The author was Caleb Atwater, postmaster of Circleville, a village in Ohio. Atwater had grown up among the Ohio mounds, and Circleville, founded in 1806, was laid out around two large mounds. Seeing such structures beginning to disappear under the increasing onslaught of settlers bent on clearing land for farms, he trekked throughout the state, mapping and describing many of its mounds. Here and there he found bits and scraps of metal, copper items, and while he reported these finds soberly and scoffed at other reporters who took off on great flights of fancy based on looking at one or two mounds, he inadvertently gave comfort to those who wished to exaggerate or spin romantic yarns. Some later writers would take his reports of a few metal objects and turn them into proof of a high civilization capable of significant metallurgical feats. (In fact, in a few places in the upper Midwest, native copper occurred in large natural globs that were cold-worked into decorative pieces and traded widely.)

Atwater was an assiduous amateur. He carefully described the mounds he encountered and attempted to sort American antiquities into three kinds: materials made by the natives, those of European origin that had been traded to the aboriginals, and those of the lost race of mound builders, who, he postulated, had to have been far more sophisticated than the ancestors of the living Native Americans. Who had they been?

Like all deeply religious Westerners, Atwater believed that all humanity had originated from Noah’s landing at Mount Ararat, spreading from there. He believed as well that savage Asian hunters had come across the

Bering Strait and became the American Indians but that, prior to their arrival, gentle shepherds and farmers had emigrated to North America by the same route, after trekking through eastern Asia and Siberia from India. Atwater found a three-headed ceramic pot in a Tennessee mound that he took to represent the three main Hindu gods—“Brahma, Vishnoo, and Siva.” Probably, he guessed, the mound builders had migrated here via Alaska as early as “the days of Abraham and Lot” and worked their way slowly south, increasing in sophistication and winding up in Mexico.

While his explanation of the mounds was wide of the mark, his survey was methodical and sober and is still of value, and for this work he was called by some the first American archaeologist. But of course, the area of interest that would one day become archaeology was still a long way from casting off the attractions of myth and grappling with fact. Indeed, it would not be until well after the Civil War that anything approaching a scientific archaeology would begin to come into being. Several other sciences—in particular, geology—would have to reach a certain maturity first.

Making up the dates, routes, and identities of the mound builders soon became a minor industry; poets and novelists leapt in, playing on the popular fantasies of the time. The first fictional account of the mound builders’ downfall saw the light of day as early as 1795. Later, Sarah Hale, a New Hampshire poet, portrayed the master builders as the descendants of two peripatetic, star-crossed Phoenician lovers. In 1832, in a poem titled “The Plains,” the dreary New England poet William Cullen Bryant wrote of the “race, that long has passed away” who had built the mounds, heaping up dirt on their dead till . . .

*The red man came—*

*The roaming hunter tribes, warlike and fierce,*

*And the mound-builders vanished from the earth.*

*The solitude of centuries untold*

*Has settled where they dwell . . .*

And so on.

Oddly prescient, though not for any reasoning we would today think of as scientific, an 1839 novel by Cornelius Mathews, *Behemoth: A Legend of the Mound-Builders*, had woolly mammoths alive at the same time as the



mound people. (Their coexistence would be a much-gnawed bone of contention in scientific circles in the decades to come.) In what seems for all the world like the forerunner of the Godzilla movies, Mathews pictured an ancient North America full of cities that were almost destroyed by a particularly enormous woolly mammoth called Behemoth, civilization being saved at the eleventh hour by a hero who figured out how to kill the monster.

In the 1830s, Josiah Priest, a forerunner of Immanuel Velikovsky, created a wondrous tale of utter nonsense, calling it by the learned-sounding title *American Antiquities and Discoveries in the West*. It sold a huge number of copies for its time, some 22,000. Priest had the continent from the Rockies to the Alleghenies populated by many millions, with large clashing armies reminiscent of Alexander the Great's, battle horns sounding, banners aflutter—an epic predecessor of the Cecil B. De Mille approach to the past. Some of the mounds, Priest said, had been built prior to the biblical Deluge, and North America was where Noah's Ark had come to rest once the waters subsided. That the mounds were not the work of mere Indians was obvious to Priest, though he could not choose who the mound builders were from an extensive list of candidates he reviewed, including Egyptians, Greeks, Israelites, Scandinavians, Scots, Chinese, and Polynesians.

One contemporary of Priest's who was fascinated by such tales was Joseph Smith, who grew up near Palmyra, New York, and later, in a nearby cave, allegedly came upon the golden tablets that, once transcribed, became the Book of Mormon. The Book of Mormon describes several ancient diasporas of people from the Middle East to North America, including one in about 600 B.C.: just before Jerusalem was destroyed by the Babylonians, some Jews crossed the ocean to North America and began building great cities on top of mounds. Then a split occurred, creating the Nephites (the good guys) and the Lamanties (who became dirty and wild). God punished these godless savages, turning their skin a dark red. But then the Nephites themselves became corrupted, and, to punish them, God let the Lamanties overrun the Nephite mound cities. In the year A.D. 401, near Palmyra, the last of the Nephites bit the dust but one: a priest named Mormon lived long enough to write all this history down on golden tablets. Until well into the second half of the twentieth century, Mormon missionaries explained to Native Americans (and blacks) that if they joined the Church of Latter-Day Saints, their skin would gradually lighten.

Even with perfervid American imaginations at their most creative, more systematic observations were beginning to be made. By 1845, the geologist and explorer Henry Rowe Schoolcraft had made himself expert in Native American languages and folklore and would later be considered a major figure in the earliest beginnings of American anthropology. Before his work on the mounds, he was already a man of many accomplishments, which included finding the source of the Mississippi River in Itasca Lake, Minnesota, and serving as the superintendent of Indian affairs in Michigan, where he married an Ojibway woman (and signed a treaty by which the Ojibways ceded most of northern Michigan to the United States).

Finding some stone tubes in mounds along the Ohio River, Schoolcraft concluded that the mound builders might have been early astronomers and were perhaps of a race different from the Indians of the time. But six years later, in 1851, when he began publishing his six-volume work, *Historical and Statistical Information Respecting the History, Condition, and Prospects of the Indian Tribes of the United States*, he wrote, "There is little to sustain the belief that these ancient works are due to tribes of more fixed and exalted traits of civilization, far less to a people of an expatriated type of civilization, of either an Asiatic or European origin, as several popular writers very vaguely, and with little severity of investigation, imagined." (Later, Schoolcraft produced *Algic Researches*, which became the basis of Longfellow's poem *The Song of Hiawatha*, which wrenched the historical character Hiawatha out of the Iroquois country and plopped him into the Great Lakes.)

Meanwhile, more than a decade before Schoolcraft's first volume appeared, a doctor (whom some suggest as being the father of American *physical* anthropology), Samuel G. Morton of Philadelphia, had amassed a substantial collection of skulls from around the world, including some from native Ohio tribes and some from the mounds. From a systematic analysis that consisted of making ten detailed measurements of each skull, he determined that the mound builders and modern Native Americans were all of the same race. Like Jefferson's and William Barram's earlier observations, Morton's findings were easily ignored by believers in a separate, "higher" race. After all, Morton's opinion was based on a mere eight mound-builder skulls, an awfully small sample, and who (it was asked)

was to say that they weren't in fact modern Indian skulls that had inadvertently been buried in old mounds?

No less a force than the Smithsonian Institution, in nearly its first public act, played into the hands of the "higher race" believers. Schoolcraft, along with former Treasury secretary and then linguist and ethnographer Albert Gallatin and others at the recently founded American Ethnological Society, decided in 1845 that a full-scale survey of the mounds was called for. Gallatin and later-to-be-U.S.-president William Henry Harrison disagreed with Schoolcraft on the identity of the mound builders, seeing them as a "lost race." By way of resolving the issue, as well as cataloguing and preserving the now fast-vanishing mounds, the society eventually hired a journalist and politician for the job, Ephraim George Squier of Chillicothe, Ohio. With a fellow townsman and physician, Edwin H. Davis, Squier proceeded to open some two hundred mounds and about a hundred earthwork enclosures between 1845 and 1847, surveying them and creating excellent contour maps of them as well.

Squier tried to put a date on the mounds; at Fort Hill in Highland County, Ohio, he counted the rings on a huge old chestnut tree that grew on top of the mound, counting some four hundred, and estimated the mound's age at perhaps a thousand years. (Squier was not the first to use tree-ring dating. In 1788, the minister Manasseh Cutler used the growth rings of trees to arrive at the conclusion that a mound under study in Marietta, Ohio, dated at least as far back as the fourteenth century and maybe earlier, evidently becoming the first student of prehistory ever to use this dating technique, now called dendrochronology—another of archaeology's countless sires.)

Squier prepared a three-hundred-page manuscript, the publication of which was well beyond the funds of the fledgling American Ethnological Society. So he applied to the newly founded Smithsonian Institution, brought into existence in August 1846 thanks to a \$500,000 bequest from James Smithson, an obscure British mineralogist and the bastard son of the Duke of Northumberland, to the United States to create "an establishment for the increase & diffusion of knowledge among men."

The Smithsonian's first leader, Secretary Joseph Henry, a renowned physicist, had planned a publication series but not necessarily on Indians.

In fact, even as the now-famous Smithsonian "castle," designed by Romantic architect James Renwick, was getting under way, it was not at all clear what such an institution should be—a museum, a library, an observatory, a university? Anyway, once Henry was presented with Squier's work, he agreed to make it the Smithsonian's first publication in the series known as *Smithsonian Contributions to Knowledge*. Called *Ancient Monuments of the Mississippi Valley*, the 1848 volume instantly became a key-stone of American archaeology; still valuable as a record of the mounds as they appeared in 1847 (and no longer do, many having been lost to one or another depredation, mostly cleared away by farming).

Describing those mounds that had clearly served as fortifications, Squier said they showed a great deal of military sophistication, "a degree of knowledge much superior to that known to have been possessed by the hunter tribes of North America." Going on to discuss what he took to be sacred enclosures, he called attention to the engineering skills needed to build circular structures a mile in circumference, octagons, and other intricate forms.

As to who had built the vast flat-topped temple and burial mounds in the South, Squier had little to say, but of the burial mounds of the Ohio Valley, he asserted, noting the sophisticated pottery found in many of them, that it far exceeded "anything of which the existing tribes of Indians are known to be capable." The copper and other ornaments found in the mounds were, once again, superior to the "clumsy and ungraceful" work of the existing tribes, so the mound builders must have been a more civilized race than the American Indians. He concluded his report by stating that the mound builders had surely been very numerous, in the millions, and of necessity had been agriculturalists—a conclusion that Albert Gallatin had reached earlier. Who they had been and where they had gone, however, were admittedly beyond Squier's ability to answer.

Squier would go on to a diplomatic career in Honduras and Peru, where, in his spare time, he explored and wrote up numerous prehistoric sites and antiquities. In 1856, less than a decade after Squier's work on the North American mounds appeared, Samuel F. Haven, the librarian of the American Antiquarian Society, wrote the eighth of the *Smithsonian Contributions* (since Squier's, three others had been devoted at least in part to

the mounds). This bulletin, based on a review of the relevant literature about the mounds rather than on-site inspection, expressed the view that the North American mounds were really not all that advanced compared to the magnificent structures of Mexico and farther south. They were unaccompanied by roads, bridges, stone structures, signs of metallurgy or astronomy—in short, no signs of an extraordinary civilization, nothing that the natives wouldn't have been perfectly equal to. By denigrating the mounds themselves (however accurately), Haven could damn the Native Americans with faint praise. Yes, he was saying, the Indians' ancestors had built the mounds, but what of it?

Even with its change of heart, the Smithsonian's impact on the public view of the mound builders remained slight. A self-proclaimed trader with Indians, William Pidgeon, soon published a long and allegedly historical account of the mound builders, based on information he received from an elderly native named De-coo-dah, who explained that he was descended from an ancient race known as the Elk People (who were perhaps of Danish extraction). It was the Elk People who had built the northern mounds, De-coo-dah said, while Mexicans had built the southern ones. The two groups had met midway, fought, and exhausted each other to the point that they had been easy prey to the hordes of red Indians swarming out of Asia. Not until 1886 were Pidgeon and his Elk People fully discredited, by a surveyor named T. H. Lewis, who, among other things, proved that Pidgeon had failed to visit most of the sites he had written about. Lewis referred to De-coo-dah and all the rest as "modern myths, which have never had any objective existence; and that, consequently, the ancient history of the volume is of no more account than that of the Lost Tribes in the Book of Mormon."

Never mind. Popular accounts still held the American fancy after the years of the American Civil War and would continue to do so well into the twentieth century, while scientific archaeology was in the process of being born. Then as now, Americans felt free to make of science whatever they wished, picking and choosing which findings they liked and rejecting others. In the same vein, modern-day Creationists reject evolution and, with it, most of physics and chemistry but have their biological myopia healed using surgical lasers, which could not have come into being without the

science they so righteously reject. From accepted science combined with what we call pseudoscience, people felt free, then as now, to come up with whatever explanations they desired. In any event, the cons of geological time that had been postulated by Lyell and made popular in the work of Charles Darwin came as good news to many of those who wanted to believe in a higher race of mound builders: it provided a conveniently long period of time that could have elapsed between the end of the lost race and the arrival of the red man. At the same time, skeletons were turning up from places such as Egypt that were clearly at least 2,500 years old—and they were almost perfectly preserved. The fact that the skeletons found in the North American mounds were typically in a state of considerable decay also suggested that they were very ancient indeed—older than the pharaohs!—particularly to people unmindful of the effects of moisture on corpses.

A prominent scientist of the time added fuel to the fires in the hearts of the proponents of separate races. In 1873, J. W. Foster, president of the Chicago Academy of Sciences, published *Prehistoric Races of the United States of America*, in which he took note of the discovery in Germany of "the remains of Neanderthals—those heavy-browed prehumans (so it was thought)—and the long periods he believed would have been necessary for human evolution to have taken place. He wrote, "The Indian possesses a reformation of skull which clearly separates him from the prehistoric 'Mound Builder.'" This was the opposite conclusion from that of Dr. Morton of Philadelphia three decades or so earlier. On the other hand, while Morton believed that the ancestors of the contemporary Indians were the "mound builders, the Indians were, in Morton's view, nonetheless of a lesser race of men. In this period many people of a scientific bent believed that humanity had originated once—as in the biblical tale—and may well have subsequently degenerated into several races. This was called monogenism. Others—and Morton was among them—believed in polygenism, meaning that the several races had originated independently and were separate and, by implication, some were lesser species. Polygenism made it all the easier to justify slavery and other racial practices (just as making one's national adversaries seem less than human makes it easier on the mind to kill them: in World War II, for example, the Japanese were widely represented in the

United States as vicious little bucktoothed killer monkeys). In a condemnation that echoes that of Father Ortiz three *centuries* earlier and was in keeping with the polygenist view of humanity, the Chicago scientist Foster wrote rather gratuitously of the Indian:

His character, since first known to the white man, has been signaled by treachery and cruelty. He repels all efforts to raise him from his degraded position: and whilst he has not the moral nature to adopt the virtues of civilization, his brutal instincts lead him to welcome its vices. He was never known voluntarily to engage in an enterprise requiring methodical labor. . . . To suppose that such a race threw up the strong lines of circumvallation and the symmetrical mounds which crown so many of our river-terraces, is as preposterous, almost, as to suppose they built the pyramids of Egypt.

Then, in a peculiar leap, Foster went on to assert that the mound builders had had skulls similar to those called Neanderthal, meaning that they had been of “a low intellectual organization, little removed from that of the idiot.” Most of the mound builders, he explained, had been “mild, inoffensive” people who had placidly and unquestioningly built the mounds under the direction of a postulated handful of Svengalis (whose superior skulls had not been preserved—or found—and so were not available for inspection). So dim-witted were these people that they would have easily fallen prey to “treacherous” and “degraded” Indians once they appeared on the scene.

If is, of course, easy and amusing to look back on the suggestions, theories, and certainties of earlier times and to ridicule them from the convenient advantage of simply having come along later, when more information and better techniques are available. Anyone who does so, however, deserves to be treated similarly by people who are yet to follow and who, in turn, will benefit from even greater information and even more sophisticated techniques for obtaining and analyzing it. Even so, Foster’s “idiot savant” theory of the mound builders does seem to have been stretching that day’s scientific reasoning to the point of bursting—and soon enough an especially tough-minded contemporary man of science would say so.

It is worth remembering as well that during the time white Americans were looking for answers about the mounds and the mound builders, they were also busily showing Native Americans out of their way—by treaty, purchase, deception, and, whenever needed, brute force—in order to achieve America’s Manifest Destiny, which was to see white settlers on the land from sea to shining sea. Demonizing the native populations made it all the easier to displace them or eliminate them. By the time (1880) that the notion of an ancient race of mound builders came under serious and sustained attack by the slowly advancing practice of archaeology, the only real resistance to white Manifest Destiny that remained came from a few hundred Chiricahua Apaches who were busily raiding white settlers (and Mexicans) in Arizona while holding off about one-quarter of the U.S. Army. All the other tribes were either extinct or living uneasily on reservations of one sort or another. But in 1886, when Geronimo and his band of about fifty men, women, and children surrendered to the cavalry and were packed off to prison camp, it was still necessary for most Americans who thought about them at all to make out Indians as lesser beings—certainly not “us.”

One American who didn’t hold that view was John Wesley Powell, the one-armed Civil War veteran who led the first successful expedition down the Colorado River through the Grand Canyon in 1869, and who became late-nineteenth-century America’s most important scientist. He was in effect the creator and director of both the U.S. Geological Survey and the Bureau of American Ethnology (the latter being part of the Smithsonian Institution). Among other things, these two agencies put the U.S. government solidly into the business of science, from which position it became the world’s most generous scientific patron.

Powell was a largely self-taught naturalist who became especially expert in geology and Indian linguistics during his several expeditions into the American Southwest. As a boy he had spent a good deal of time poking around the mounds in the Midwest, where he had been raised the son of a farmer and itinerant Methodist preacher. By 1881, though, when he had grown to be the government’s leading science administrator, he was increasingly interested in prehistory. Instead he recognized that the cultures of present-day Native Americans were rapidly disappearing, and he determined to document them before they were completely gone. (This was a



*John Wesley Powell (right) with an unidentified Native American woman.*

perception widely shared at the time—even, sadly, by most of the tribes themselves.)

In the first publication of the Bureau of Ethnology, Powell devoured only 8 of 638 pages to the mounds, saying—correctly, we now know—that they had clearly been the work of the ancestors of modern tribes, and that most likely they had come from several different stocks and worked at sev-

eral different times. The next year Congress demanded that Powell devote one-fifth (\$5,000) of his next appropriation to the mound builders. Powell grumbled but complied, appointing a botanist and geologist, Cyrus Thomas, to head a division of the bureau given over to the mounds. In the Bureau of Ethnography's second annual report in 1882, Powell returned to the topic, attacking "false statements" and "absurdities" in the accounts of so-called mound experts, along with the "garbling and perversion of the lower class of writers." Earlier researchers, he wrote, "were swept by blind zeal into serious errors even when they were not imposed upon by frauds and forgeries."

Some of those "earlier researchers" were still at work, among them the members of the Davenport, Iowa, Academy of Sciences, who prided themselves on their archaeological expertise. A squabble soon broke out when the Bureau of Ethnography's second annual report suggested that the academicians of Davenport had fallen prey to a hoax when they had held up some effigies as elephantine, thus "proving" that the mound builders had coexisted with the mammoths. (Among the artifacts turning up from the mounds from time to time were also "tablets" inscribed with one or another form of ancient script, such as one found in Newark, Ohio, by a man who had already convinced himself that the mound builders were Hebrews. On this tablet, found in 1860, appeared what was billed as a likeness of Moses along with his name and, on the flip side, the ten commandments. The town of Newark was something of a center for the manufacture of fake artifacts for the tourist trade.) In Davenport, the locals accused the Smithsonian, with its overwhelming influence, of intellectual tyranny in the field of archaeology, an accusation that wasn't yet true but would prove so in a few more decades.

Then, in 1882, a book appeared that had been written by a lieutenant governor of Minnesota and eight-year member of Congress who had also run for the office of vice president of the United States. The book reached a great deal more people than any report from the Smithsonian before or since. Its author was Ignatius T. Donnelly and its title *Atlantis: The Antediluvian World*. It asserted that Plato's report of the existence of the mid-Atlantic continent of Atlantis was not fable but historical fact. Atlantis, Donnelly wrote, had been the site of the Garden of Eden and then the first civilization, a mighty nation some of whose people had gone on to become

the royal lineages of all the other nations through history. And when Atlantis had sunk, disappearing forever under the waves thanks to a titanic earthquake, some Atlanteans had escaped and made their way to Central America, where they had become Toltecs and Aztecs (the linguistic connection between the words Aztlán and Atlantis was too obvious, he suggested, to be a coincidence). They had then moved north, becoming the mound builders of North America, building mounds as they had always done all over the world. They had withdrawn to Mexico, Donnelly asserted, before 231 A.D., having been attacked by hostile people from the north. In fact, Donnelly threw everything into his account but Jung's racial memory: virtually every minor myth, legend, tall tale, and hoax ever mentioned about the mounds was added to this astonishing stew.

The book was wildly successful. It remains in print to this day, available in both hardcover and paperback from dot-com bookstores, one of the revered reference works of the Age of Aquarius. And of course there are plenty of such people who prefer to believe that the pyramids of Egypt, the Nazca lines of Peru, and other monumental creations were the work not of ancient humans but of aliens arriving in spaceships—a bizarre permutation of racism, to be sure. And even among the nonloonies today, some people still believe that the mounds were the products of another vanished aboriginal race—but not the Native Americans.

While Donnelly's book was becoming a publishing sensation, Cyrus Thomas was directing a sizable staff of assistants who were extensively surveying the existing mounds. In a photographic portrait of Thomas, we see a handsome, prosperous-looking white-haired man with an aquiline nose, a generous brow with an eyebrow raised in skeptical inquiry, and a ferocious, doubling frown so intense as to wrinkle his broad and impressive jaw. (It is said that much portrait photography of this era showed rather ferocious-looking people, mainly because they had to hold their expressions for several seconds. But even discounting that, Thomas was clearly not a man to be trifled with.) Initially, he had been of the separate-race school, but the data pouring in over nearly a decade convinced him otherwise: Not only had the mounds been the work of ancestral Indians, but, he believed, different tribal groups had built different mounds. His report, an enormous work of chiefly descriptive material published by the bureau in 1894, once and for all put to rest—for professionals at least—the

lost-race theory. Also, it has been said to mark (you guessed it) “the birth of modern American archaeology.”

#### THE STATE OF THE ART

Indeed by this time, near the turn of the century, there were such people as professional archaeologists—which is to say, people who, unlike amateurs and hobbyists, were paid to do archaeological work on at least a part-time basis. Their work was sponsored by scientific societies, museums, the government, and universities, and by the end of the nineteenth century, a few American universities were training people in a more systematic kind of archaeology. This had become possible thanks to many developments—in particular the development of geology as a science and the early understandings of the great depth of time during which the earth had existed and people had lived upon it. Darwin's insights into evolution arose in part as a result of geological developments and would soon open up great vistas in the studies of early humans. These were not, of course, merely academic matters, since they flew in the face of most theological views of the world. It was for many a shocking, wrenching time. These developments originated mostly in Europe and came to American shores later, but with no less force. These developments, to be described in the next chapters, had a profound influence on American notions of who the first Americans might have been and when they might have arrived.

At the turn of the twentieth century, archaeology per se was still in what one of its historians calls the “Classificatory-Descriptive Period,” meaning mostly cataloguing and mapping such things as the works of the mound builders and sorting such things as pottery into geographical types. No one at this point had much of a handle on such factors as chronology or any way of probing such a question. In fact, many think that truly modern American archaeology emerged from the womb far to the south in Latin America, where archaeologists trained in Europe had begun to create methods that would permit an understanding of the sequences of prehistory. The leader—

modern American archaeology's real sire—was Max Uhle, a German.

Uhle began his academic studies in philology but switched to archaeology, then took a job as a curator in the Dresden Mu-

seum. There, in the early 1890s, the young Uhle developed a commanding knowledge of Inca and earlier Peruvian pottery as well as sculptural style—from artifacts and photographs that had been brought back by travelers and early antiquarian expeditions. I feel a certain distant kinship to Uhle, having also started out my archaeological career not in the field but in a host of museums.

When Uhle did get out into the field in Peru and elsewhere along the western coast of South America, he took note of small changes in the artifacts in differing strata and became one of the first archaeologists to make a case for gradual, cumulative cultural change over time. Well ahead of his contemporaries anywhere else in the Western Hemisphere, he developed in the early 1900s an areawide chronology of cultures in Peru that is still in use, albeit highly modified, almost a century later. Uhle wrote, “In Americanist studies, the first thing that had to be done was to introduce the idea of time, to get people to admit that the types [like pottery types and therefore cultures] could change over time.”

In fact, one of his earliest efforts to chronicle this sort of microchange in culture came not in South America but when, in the first years of the twentieth century, he took some time to excavate the Emeryville shell mound in California’s San Francisco Bay. There, excavating stratum by stratum, he noted not only the difference in artifacts from the top and bottom strata but also the continuity among the strata, which he took to represent about a thousand years of habitation and cultural development. At the time, however, one of the grand panjandrums of American anthropology, Alfred L. Kroeber of the University of California, did not approve of Uhle’s notion of small, cumulative changes in a culture, preferring to find significance only in huge changes brought on by major technological innovations.

Kroeber was well meaning enough, but most of his archaeological notions have not held up very well. He believed that Indian cultures throughout North America had changed very little over prehistoric time, even changing little with the arrival of Europeans. From this idea of cultural stasis, Kroeber postulated that there had never been very many Native Americans, perhaps some 3 million all told from coast to coast. This meant, among other things, that the European diseases introduced upon contact had had relatively little effect either culturally or demographically.

We now know that diseases such as smallpox, to which the aboriginals had little or no resistance, were utterly devastating, killing off as much as 90 percent of many tribes, especially those that lived in close quarters such as large towns or even small villages. These diseases evidently raced ahead of European contact into the interior, scrambling many native cultures like so many eggs. It is medically possible that the widespread cause of such death was not the primary diseases, such as smallpox and measles, but secondary infections, such as pneumonia, lack of nourishment (both food and water), general terror, and, with large numbers of a given population infected simultaneously, lack of healthy individuals to care for the sick or work in the fields to bring in food.

Certainly, the Aztec empire fell to Cortés and his relative handful of troops in a matter of days not so much because of superior European arms but primarily because the population of Tenochtitlán was reduced to about *one-tenth* by smallpox before Cortés returned to conquer it. By 1650, the Mexican population had been reduced to one-tenth its precontact size. To the north, descendants of the great mound-building cultures of the American Southeast, which had been thriving before de Soto’s excursion in the early 1540s, virtually disappeared before the onslaught of the European pathogens he had inadvertently brought—his only inadvertent violence. Today even conservative estimates of the pre-Columbian population of what is now the United States suggest that at least 11 million native people were here in about 1500, if not twice that many. By 1900, only some 500,000 Native North Americans remained, disease and its aftereffects having accounted for infinitely more deaths over that period than the U.S. Cavalry could ever claim.

The question here about the size of the pre-Columbian Indian population is not merely an academic matter, of course, but also a question of how great the devastation of native populations (in real numbers) by the arrival of Europeans was, as well as a matter of intent. The fewer killed off, the less blame, and this disputatious matter remains with us today. The broad field of anthropology, and even what would seem to be a somewhat less urgent arena, archaeology, has rarely avoided being hauled into the political realm.

In any event, not until North American archaeologists began to use Uhleian methods in the American Southwest would they begin to catch up

with the sophistication of the European-trained archaeologists in Latin America and develop proper (and lasting) chronologies of past cultures. While all this was going on, North Americans continued to invent their own brand of archaeology with little reference to the techniques of the Europeans or those working in South America. This odd provincialism on the part of North Americans continues to this day in many quarters—and I would soon run afoul of it, as several of my colleagues have recently.

To summarize, it is fair to say, however, that if North American archaeology was “born” with Cyrus Thomas’s myth-shattering report on the mound builders in 1894, it was still in an almost purely descriptive stage. It had neither the conceptual nor methodological tools to answer most questions one might reasonably ask of the deep American past and the hemisphere’s first inhabitants. Perhaps the most intractable question of all at the turn of the century had to do with time. When did the mound builders do their work? When did the first Americans arrive here? Already before the end of the nineteenth century, American antiquarians and professional archaeologists alike—not to be outdone by their European counterparts—were scouring the countryside looking for “our” own Ice Age people. Years later, Clovis Man would prove to have lived at the end of the Ice Age, when the glaciers had been receding northward. When my crew and I came up with our pre-Clovis dates at Meadowcroft, it meant that someone had been in southwestern Pennsylvania when the glacier was only about a hundred miles away.

In the early 1970s, we prehistorians had collectively come a long way from the early guesses about the mound builders. It wasn’t all that much earlier, after all, that the adolescent science of geology had determined that such a thing as an ice age had actually existed, much less Ice Age people.

## CHAPTER TWO

### THE GLACIER’S EDGE

For a long time—no one knows how long—people in the Alps and probably in other mountainous areas in the northern part of the globe were aware of strange features of the land such as house-sized boulders made of nonlocal rock sitting on the ground like uninvited guests, huge natural amphitheatres carved out of rock, and polished rocks with grooves and striations all running in the same direction. To those who wondered about such features, Noah’s biblical flood could be invoked as the cause—and, indeed, was so invoked well into the nineteenth century. The great waters had moved the boulders, scoured out the amphitheatres, and pushed angular rock over rock to create the grooves. The biblical version of history was a powerful vise on the minds of people in both Europe and America.

Generally, it was taken as a matter of certainty that the earth and everything including the life-forms on it had experienced Genesis all at once, about six thousand years earlier, the date having been established by James Ussher, Archbishop of Armagh, Primate of All Ireland, and vice-chancellor of Trinity College, Dublin, who determined the date of creation as October 23, 4004 B.C. (a Sunday), by counting all of the Bible’s begats backward to the beginning of all things. Shortly after Ussher’s date was announced, Dr. John Lightfoot (another vice-chancellor of Trinity College) further pinpointed the moment of Creation to nine o’clock in the morning. There was at the time practically no concept of the earth’s antiquity and