Arrows and Atlatls

CHAPTER THREE

Burila was 5'9" and 10,675 years old. Nellis Burkhart found her in a gravel quarry near Buhl on a brisk January morning in 1989. Sifting rock and sand through a rock crusher's screen for the highway department, foreman Burkhart spotted a bone. He headed back to the bank where the front-end loader had last dug and discovered more bones stuck in the fragile bar, with others loose in the dirt displaced by the loader. The next day, Burkhart's wife, Loretta, showed some of these bones to her colleague at Buhl Middle School, science teacher Marvin Barosovsky. He said they were human, and Loretta Burkhart called the Herrett Museum in Twin Falls the next morning.
The Buhl highway department crew handed off the loose bones they had collected to archaeologists from the Herrett Museum and the Idaho State Historical Society. The scientists saw they had to move fast. The Bonneville Flood gravel bar where Buhla lay had begun to collapse as the soil on top thawed in the winter sun. Also, Buhla was drawing an interested crowd. Ducking boulders and frozen dirt chunks, the excavators pulled a mandible, cranium, ribs, and vertebrae from the crumbling quarry face, then screened the dirt at the base for other bones and artifacts. It fell to state archaeologist Tom Green to enforce Idaho's 1984 Graves Protection Act by notifying the Fort Hall Shoshone-Bannock Tribal Council. Buhla was discovered on their traditional territory, and Green needed Sho-Ban permission for radiocarbon dating.
Buhla is one of the most complete and best-preserved Paleo-Indian skeletons ever recovered in North or South America. Her features resemble American Indian or East Asian people. She lived in a hunter-gatherer society when the receding glaciers of the last Ice Age made a cool, wet environment. Bison, elephants, and camels shared the Snake River Plain. Between 17 and 21 years old when she died, Buhla appeared healthy except for 15 episodes of arrested growth that affected her development, probably from stresses like seasonal lack of food or illness. She ate mostly deer, elk, bison, and small game animals, and occasionally the anadromous fish that returned from the ocean to spawn in the Snake River. Her people processed these meats into pemmican and made tailored leather clothes from hides. Someone buried Buhla with a brand new obsidian stemmed point under her head, an unused bone needle with a fine eye, a notched bone ornament, and a badger's baculum.

Buhla’s bones and artifacts reveal detailed information about the people who lived in Idaho 12,000 years ago or longer. Paleoindian sites nearby on the Snake River Plain at Wilson Butte Cave, the Simon cache, the Wasden site, and Kelvin’s Cave are some of the best evidence archaeologists have of a remarkable human migration. “This is an old burial,” said geologist Bruce Cochrane, a grave even older than the carbon dating suggests. According to Cochrane, the method used tends to give young dates. He placed Buhla shortly after the Bonneville Flood, between 13,900 and 16,700 years ago. Archaeologists still work to establish which century people first arrived in the area. A few recoveries from rock shelters and caves, a few scraps of bone, stone, and charcoal may support a Pre-Archaic age of 14,000 to 15,000 years ago, dates certainly known elsewhere in the Americas. However, most regional archaeologists are more comfortable with evidence that dates from 3,000 to 4,000 years younger. A number of recoveries from southern Idaho, eastern Oregon, and western Utah place native people in a variety of settings between 11,000 and 10,000 years B.P. (before the present).

While the Snake River Plain’s Native Americans might best be described as expert hunters of desert big game, small game, and fowl, their cultural history is far more complicated. They were also accomplished gatherers and collectors of dozens of edible and medicinal plants, insects, and pollens. And they developed into perhaps the greatest of all fishermen within the Great Basin culture area. The exact makeup of the local food economy, the design of the various living and food procurement structures, and particularly the character of the tools saw both dramatic change and subtle developments over time. Shifts also occurred in exactly where the locals and their visitors chose to reside on the terrain. The moister, cooler climate between 11,500 and 7,500 B.P. makes it difficult to predict where the archaeological evidence of that age might occur. Many ancient remains seem to correlate to higher terraces, extinct bogs/marshes, ephemeral streams, small springs, and to now-changed vegetation margins/zones. Today’s riverside landscape usually proves to be misleading when trying to predict the presence of ancient camp or ambush sites.
The earliest recognized local evidence represents a variant of the Clovis culture. These people made several types of large "fluted" projectile points, known as Clovis points, and other beautifully crafted stone and bone tools. Their most common food association was mammoth. The Simon collection, one of the best-known Clovis collections in America, was unearthed on Camas Prairie. The Clovis culture's chronological successor, the Folsom culture, had its own characteristic fluted point and a strong preference for big-game hunting, especially the giant bison. Isolated Clovis spear points have already been found in the desert and on an elevated river terrace near Twin Falls. Several isolated Folsom points have also been found in the desert to the south and on river terraces located downstream near the western edge of the Snake River Plain. The best evidence for either a Clovis or a Folsom occupation in the vicinity comes from just a few miles upstream near Crystal Springs, where construction work exposed a classic Clovis point and other fluted and nonfluted points among stone and bone tools. Late Clovis or early Folsom vintage people apparently used an upper terrace as a temporary campsite. Interestingly, the span of time from Clovis to Folsom marks the approximate era that many of the megafauna species such as mastodon, ground sloth, and horse went extinct. Archaeological evidence does not exist to implicate humans as the cause of such extinctions, but they may have added to other environmental pressures.

Far more common than Clovis and Folsom materials, stemmed spear points may have first derived from the Clovis culture. Or, the Clovis/Folsom and stemmed spear manufacturers may represent two contemporary but independent cultural traditions. People using stemmed spear tips inhabited small campsites and retouching stations in great numbers in the high desert country located just south of the Hagerman Fossil Beds. Their spear tips might indicate hunting or scouting of big game, perhaps as the prey entered the river valley for water or shelter.

The Archaic started shortly after 8,000 B.P. and saw settlement patterns expanded to include rock shelters, open camps, and various task-specific sites. The construction of thatched pit houses...
Before hunting for robes & hides
Range of the two great herds in 1870
Range of the southern herd in 1875
Range of the northern herd in 1880

Stanley Mix, an artist with the 1855 Pacific Railroad Survey, captured the last of the northern herd. "On the western plain," said historian Wayne Gard, "the buffalo and the Indian were linked as closely as they would be later on a nickel coin." Inset: monstrous Bison latifrons roamed a colder, wetter Idaho during the late Pleistocene.
demonstrates a noticeable move toward winter sedentism in the river valley. Elaborate cemeteries occurred with masses of grave goods on the far-western Snake River Plain between 5,900 and 3,400 B.P., but this complex pattern does not seem to have spread to the Middle Snake. Some of the caves found in the lava beds just south and east of Hagerman Valley indicate that Archaic Period people possessed a remarkably diverse tool kit, including chipped stone cutting, scraping, and piercing items, basketry, cordage, bone needles, antler ice picks, and various ground stone tools. They preferred camping on the north side of the river valley and successfully hunted mountain sheep, deer, bison, and elk with the aid of an ingenious spear thrower, the atlatl.

A study of petroglyphs and pictographs conducted along this segment of the Snake River and in the desert just to the south suggests that petroglyphs emerged with hunting blinds, about 3,000 years ago or slightly earlier. Recent archaeological data from central to eastern Idaho and from eastern Oregon also suggest that the ancestors of the ethnographic Shoshone entered the area during the middle portion of the Archaic, about 4,000 to 3,500 B.P. Earlier suggestions had Shoshone entering the area 8,000 years ago or only about 1,000 years ago.

The absence of fishing tackle and salmon remains during most of the Archaic is puzzling. Salmon were plentiful enough to be taken in Hells Canyon by 7,190 to 7,250 years ago, and they provided some of the food base at Givens Hot Springs near Marsing by 4,200 years ago. However, salmon are not documented until far later elsewhere in the region.

During the Late Period 1,500 to 2,000 years ago, an exceptional technology emerged: the bow and arrow. The atlatl (spear thrower) had allowed hunters to hit a large target from thirty to fifty feet with considerable accuracy; the bow and arrow effectively doubled that range. The emergence of arrow points in the archaeological record marks a dramatic increase in the capability to select targets and successfully procure meat. Other hallmarks of the Late Period include flowerpot-shaped pottery, cache/storage pits (some stone and stone slab lined), small wickiup huts, and numerous types of other tools and decorative items.

A large petroglyph site located just a few miles upstream from the Hagerman Monument marks a popular big-game killing site from 2,000 to 808 B.P. Another petroglyph site located on the north side of Upper Salmon Falls may evidence a Shoshone ritual related to bringing or celebrating a year's first run of salmon at this major spearfishing site. Early in this
period, rock alignments—walls and blinds—start to occur on steep-sided peninsulas jutting out from the north canyon rim of Hagerman Valley. About 1,000 years ago, north-side fishing sites emerged near falls and rapids. By 600 to 700 years ago, dentalium shell from the coast evidenced this vicinity's participation in a vast trade network. Stone-gathering forays and subsistence trips taken to and from the south mountains should have often brought families near the Hagerman Fossil Beds on a major "ethnographic"-era trail leading north-south along the rim of Salmon Falls Creek.

The Snake River Shoshone fishing communities, already well established in the Hagerman Valley area about 700 years ago, often referred to themselves in contact with whites as Neme or Nievi, meaning "we the people." Talking of their past, they also described
themselves as the Agaiduka or Akaitikka (Salmon Eaters) and Pia agaidika (Big Salmon Eaters). Actually, the local Shoshone could select from hundreds of edible foods including insects, plants, mussels, birds, fish, and game. They learned to eat anything, but most of the time they did not have to. They liked to camp in places where they could take significant amounts and combinations of their favorite foods. Their houses showed more variety in shape than is typically attributed to Shoshone houses, probably due to seasonal use and the difficulty in procuring timber.

Just as their houses were not necessarily permanent, so were the local communities marked by considerable flexibility in the comings and goings of families—to visit, to live with relatives, or just to find different or better food. Like all the other Shoshone, the Snake River Shoshone followed a traditional "subsistence round," one in which they moved seasonally from one food resource zone to another. The ethnographic Hagerman Valley people preferred to seek food in traditional ranges of fifty to one hundred square miles, from the river valley to the higher peaks of the mountains. They liked to winter in the river valley to be near winter food caches of salmon, plant foods, and insects. Most major encampments were situated on the north side of the river (now Gooding County) near the best fishing places with little risk of getting isolated by high water. That location also put them on the path of the big move to a social gathering at the Camas Prairie root grounds that took place in late June or July.

A camp could range from a family to an extended family-sized group of up to twenty to thirty-five individuals. When local economic conditions permitted, the
Shoshone consolidated camps in clusters scattered from Sinking Canyon to below Bliss Hill. These so-called villages were loosely directed by a knowledgeable headman to efficiently harvest fish. This could involve harvesting at one of the early season spearfishing sites but more often involved a later season weir, dam, or basket-trap site that needed considerably lower water levels to be productive.

Hagerman Valley groups did not make exclusive claims or try to defend all local resources, but neither did they accord each other free and equal use. The early spear fisheries and lower-water fisheries, which required the construction and maintenance of weirs and scaffolding, were often restricted until the occupying people had filled their winter food caches. On the other hand, the people readily shared less productive fisheries.

Despite seasonal and periodic shortages in the Hagerman area's fish runs, natives enjoyed a reasonably good life. Shoshone kin from the south came to the valley to trade, socialize, and fish. Visitors to the Upper and Lower Salmon Falls included the Humboldt Shoshone communities known as Twoqivi yuyugi (Root Jelly Eaters), Tossawi (White Knives), Wongagadu yuyugi (Pine Sitters), and Kiuyiduka (Bitterroot Eaters), all of whom traveled to the headwaters of the Bruneau and Salmon Falls Creek as part of their seasonal round. Other visitors included the Grouse Creek and Goose Creek groups known as Tukad Ka (Pine Nut Eaters) and the Tutwanait (Below or Beyond People).

During exceptional seasons, it may have been possible for a Shoshone family to survive comfortably in Hagerman Valley for nine months or more of the subsistence year. Besides salmon, other native fish should have been available to such skilled fishermen as the local Shoshone, as well as big game for protein, tools, and clothes. The people could ambush deer in the desert to the south of the Hagerman Fossil Beds, and winter storms might have occasionally brought large herds of mountain sheep, antelope, and possibly even bison and elk down to the bluff rim. Small animals like rabbits and marmots presented trapping and encounter hunting opportunities, as did waterfowl and other game birds. Some of the hardest evidence to recover
relates to the supposed gathering and collecting of seeds, roots, leaves, berries, insects, eggs, larvae, reptiles, and mussels. The “gathered and collected” were often a principal focus for the Snake River Shoshone while they waited for the first anadromous fish to arrive.

The exploitation of salmon, however, is clearly fundamental to a more exact determination of the date and extent of the Shoshone ethnographic pattern. Historically, their technology included spears, harpoons, jiggling hooks, hand nets, dams, weirs, and basket traps. Such a varied technology obviously developed over time; relic collections from Upper and Lower Salmon Falls show considerable variety in fishing harpoons and fish spear tips.

The first fish available to local Shoshone were the steelhead that came in March or April. Chinook followed in May and June, with a big run usually in September and October. If the first of the runs seemed poor, groups and families might start “up-country” or move up or down the river. Most Hagerman Valley Shoshone families went away from the river valley at midsummer anyway. They returned in time for the fall fish runs, bringing with them raw material for tools and food taken from the up-country. They boiled the meat of large animals in baskets or in clay pots, and dried or broiled it in strips. They roasted smaller animals whole in fires or earth ovens and dried or pulverized them on a metate, a flat grinding stone. Small animal bones and fish bones were sometimes ground and added to soup or flour. They ate many of the fish fresh; others went into gruel, or were air dried and stored in grass-lined cache pits.
ate vegetables raw, boiled, poached, or dried and sometimes ground them into flour for cakes that might also include ground bone, fish meat, reptile meat, and even insects.

With the arrival of the horse, presumably from Spanish conquistador stock between 1650 and 1700, the Shoshone bands based on the eastern fringe of the Snake River Plain expanded their settlement/subsistence possibilities to include joining their Eastern Shoshone kin in bison hunting and raiding on the northern plains. Around 1700, a group of about 600 Northern Paiute from the area of western Idaho/eastern Oregon joined the newly horseed Shoshone. Those people became known as the Bannock. In just a few years, mounted bands from the east probably visited relatives at the fisheries of Hagerman Valley. The Sho-Ban horsemen were often shadowed by their enemies, specifically the Blackfoot, who further strained the area's food animal resources and probably also captured some of the locals for slaves.

By the mid-1750s, their inability to find a good trading partner for firearms had placed the mounted Shoshone at a serious disadvantage since their enemies had amassed a great deal of firepower. Between 1750 and 1811, the mounted Shoshone came into conflict with some of the plateau groups located north and west of the Snake River Plain. Visiting equestrians probably controlled some of the peripheral salmon fisheries in this area by 1800. Also, marriage alliances and old friendships would have brought families of horsemen visiting their pedestrian friends. The Hagerman Valley fishermen continued to live without horses until the mid-1840s, quite content with their traditional lifestyle.
Mining, farming, ranching, and the collecting of artifacts have destroyed many archaeological sites. Some may now be covered by the Lower Salmon Falls Reservoir. Scientists have located fewer than 25 graves in all of the Americas older than 8,500 years, most revealing only bone and artifact fragments. Buhla's recovery caused much excitement. State archaeologist Tom Green first estimated her age at 5,000 to 8,000 years. The Sho-Ban Tribal Council at Fort Hall agreed to more scientific tests.

Buhla's bone samples—part of her right humerus and a piece of rib—went to the University of California, Riverside, in 1989 but sat in limbo due to internal problems at the facility. Meanwhile, the rest of her skeleton and the artifacts were cleaned and cataloged in Boise, then sent to the Idaho State Museum of Natural History in Pocatello. The Sho-Ban requested they not be displayed there. Almost two years passed before the Idaho State Historical Society retrieved the bone samples from California and went to a commercial laboratory for carbon dating. When it finally came, the amazing date of 10,675 years plus or minus 95 made Buhla possibly the oldest skeleton on two continents. Green hoped the Sho-Ban would agree to a more thorough study, but their patience was exhausted. Elders attributed deaths on the reservation to Buhla's disturbed spirit. They wanted her reburied immediately. On an overcast December day in 1992, Green turned Buhla's skeleton and artifacts over to the Fort Hall reservation near Pocatello.

"It's a spiritual fiction to believe anyone is related to a skeleton that old," said Clement Meighan of the American Committee for the Preservation of Archaeological Collections. "Repatriation is a loaded and improper term because it implies that you're giving something back to people who own it. They don't own it and never did." But tribal attorney Janet Wolfley battled the idea that science should hold sway over native traditions. "The whole policy of digging up graves and using them finally needs to be stopped," she stated. "It's time that science gives way to people's beliefs." Jim Woods, archaeologist and director of the Herrett Museum, thought the reburial necessary—"the repayment of a long-standing political and social debt."

Buhla offered the promise of an early window on the genetic relationships between people and the settlement of a continent. According to Clement Meighan, "Idaho really blew it." According to Nellis Burkhart, "It's kind of sacred, too, this is a human grave you're dealing with."