PUBLIC ARCHAEOLOGY OF THE WEISER RIVER BASIN, ADAMS AND WASHINGTON COUNTIES, WEST CENTRAL IDAHO

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by

Dakota E. Wallen

Major Professor: Robert Lee Sappington, Ph.D.

Committee Members: Mark Warner, Ph.D.; Adam Sowards, Ph.D.

Department Administrator: Mark Warner, Ph.D.

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AUTHORIZATION TO SUBMIT THESIS

This thesis of Dakota E. Wallen, submitted for the degree of Master of Arts, with a Major in Anthropology and titled "Public Archaeology of the Weiser River Basin, Adams and Washington Counties, West Central Idaho," has been reviewed in final form. Permission, as indicated by the signatures and dates below, is now granted to submit final copies to the College of Graduate Studies for approval.

Major Professor: _____Date: _____
Robert Lee Sappington, Ph.D.

Committee Members: _____Date: _____
Mark Warner, Ph.D.

_____Date: _____
Adam Sowards, Ph.D.

Department Administrator: _____Date: _____
Mark Warner, Ph.D.

ABSTRACT

In 2009 the Adams County Historic Preservation Commission and the Idaho State Historical Society developed a program to survey archaeological sites located on private lands in Adams County. The program has continued every year between 2009 and 2015 and will continue further. In 2014 the program expanded to include Washington County, effectively creating a system of surveying private lands throughout the Weiser River Basin. Since the project's initiation 43 archaeological sites have been recorded. No absolute dates have been acquired, but the material culture likely represents habitation from ca. 12,000 years before present through historic times. Obsidian artifacts found at the sites were collected and 42 have been successfully sourced. The majority (81%) come from Timber Butte, and 19% represent five sources in central and eastern Oregon. Collaboration with local landowners and the interested public to identify sites has led to an effective and educational cultural resources program worth expanding.

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DEDICATION

To my family who have always shown great interest and support in my archaeological endeavors. And to my best friend and wife, Harper. Adventure is out there!

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CHAPTER 1: INTRODUCTION

In recent years there has been an abundance of archaeological work done on federal lands due to national laws governing the protection of cultural resources. This work has created a bias in what is understood from the archaeological record. Archaeological work is done almost exclusively on federal lands, and often excavation and research is governed by salvage work and generally has a very limited timeline and funding.

There are many problems with this model of archaeological research. One of which is the fact that many, if not the majority, of archaeological sites are located (known or unknown) on private land holdings. Max Pavesic noted in 1979 that "many private land holdings house antiquities of important scientific value and the remains are in jeopardy of being destroyed or disrupted by modern land use practices. The prime habitation settings of yesteryear too often directly correspond with modern settlement patterns" (Pavesic 1979:2). Following this logic it becomes clear that private land holdings have enormous archaeological research potential.

In portions of the western United States this notion is of little importance because literally millions of acres of land are under federal jurisdiction. However, many of the areas that were used by Native Americans as habitation settings are the same as locations currently inhabited or ideal for habitation. A region where this is of particular importance is the Weiser River Basin in western Idaho which is composed almost entirely of private land holdings. As a result of the lack of public lands in the Weiser River Basin, very little is known about the prehistory of the area. The Weiser River Basin is of great cultural and archaeological importance due to shared use by multiple groups of both the Columbia Plateau and Great Basin culture areas. This region is also noted for significant cultural complexes such as the

Midvale Complex and the Western Idaho Archaic Burial Complex, unique to the greater region, which will be discussed in more detail further in this text. However, archaeologically very little work has been done in the area that could help build a more comprehensive understanding of the prehistory (and even history) of the region. This is primarily due to the fact that most of the Weiser River Basin is privately owned and most archaeology is federally funded and construction project driven. Recent investigations in the Weiser River Basin in Adams and Washington counties, Idaho, have revealed vast data potential on private lands.

In 2009 Adams County Certified Local Government (CLG) and the Idaho State Historical Society (ISHS) initiated a pilot program to survey and record archaeological sites on private lands in Adams County. Adams County was the first and only county in the state of Idaho to have a program for systematic archaeological survey on private lands. Adams County employed Jerry Jerrems to conduct archaeological surveys on private lands in 2009 and surveys continuing the initiative were conducted the following year (Jerrems 2009, 2010). Robert Lee Sappington took over the project in 2011, producing one report a year, until 2014 when the author joined the project and continued through 2015 (Sappington 2011, 2012, 2013; Sappington and Wallen 2014a, 2014b, 2015). The surveys were funded by grants arranged by the Adams County Historic Preservation Commission (ACHPC) and the Idaho State Historical Society (ISHS). The goal of these surveys was specifically to identify and record prehistoric sites located on private landholdings (Sappington 2011, 2012, 2013, Sappington and Wallen 2014a, 2014b, 2015). The process has been beneficial in a number of ways: first, it assists the State Historic Preservation Office (SHPO) by informing them of site locations in the state. Second, it provides an opportunity to instruct the public about a wide

range of topics such as regional prehistory, geology, and archaeological methods. And finally, it provides research opportunities for archaeologists (Sappington and Wallen 2015).

These small grants have greatly expanded the understanding of regional prehistory and the results presented here show that that this work is both worthwhile and in need of expansion. Archaeology, by its very definition is more than locating and recording sites, but actually studying those sites and sharing finds with the public. So often archaeological sites are identified and little comes of that information aside from location data. Analysis or simple testing of these sites, and publication of reports no matter how small, can greatly impact the understanding of the prehistory of a region. This text demonstrates what sort of analysis can be done with minimal testing and funding. The author was able to determine general temporal site distributions based on artifact types recovered as well as connect sites to regional complexes and determine trends in obsidian conveyance in the Weiser River Basin. This work not only benefits archaeologists but the public who are interested and involved in the process. The people of both Adams and Washington counties have demonstrated a fervor for knowledge that is gained through this project and by all means it should be continued and expanded, both within the counties and to other counties in the state.

CHAPTER 2: NATURAL SETTING

GEOGRAPHIC LOCATION

The Weiser River Basin is located in Adams and Washington counties in west central Idaho (Figure 2.1). The Weiser River flows southward out of Adams and Washington counties in western Idaho and empties into the Snake River near the town of Weiser, Idaho. The communities of Tamarack, Evergreen, Fruitvale, Council, Mesa, Indian Valley, Cambridge, Midvale and Weiser are all located within the Weiser River Basin.

Figure 2.1. Map showing the geographic location of the Weiser River Basin in western Idaho. The Weiser River Basin is located within the boundaries of the red box. Adapted from: (www.maptechnica.com/img/carousel/ref_usst_2.jpg).

The project area is bounded by Hells Canyon to the west, and Idaho's West Mountains, which serve as the primary headwaters of the Weiser River, on the east. Along Hells Canyon are Cuddy Mountain and Sturgill Peak which mark the western edge of the Weiser River Basin. The northern extent of the area is near New Meadows, Idaho, and descends southward out of the mountains of central Idaho to the rangeland surrounding Weiser. The region is composed of a mixture of forests, range, and agricultural lands. As one travels south the forests become scarcer and rangeland is broken up by agricultural plots that dominate the region.

The Weiser River was named after a member of the Lewis and Clark Corps of Discovery. The Corps of Discovery never actually traveled along the Weiser River, but after the expedition Peter Weiser came to the area while working as a fur trapper and he sent a map to William Clark who was creating a chart of the Northwest. The map included the area of what is now the Weiser River and Clark accordingly named the river after Peter Weiser (Corless 1990:6; Fisk 2001:7). Other locations in the area are named for the prevalence of Native Americans in the Weiser River Basin, notably the Towns of Council and Indian Valley (Figure 2.2). Council was named for its proximity to a location where Native Americans gathered in great numbers and held "council" which was likely trade negotiations and festivities. Indian Valley was so named due to the permanent winter villages of Nez Perce and Weiser Shoshone that inhabited the area during the era of early Euro-American settlement (Corless 1990:57).

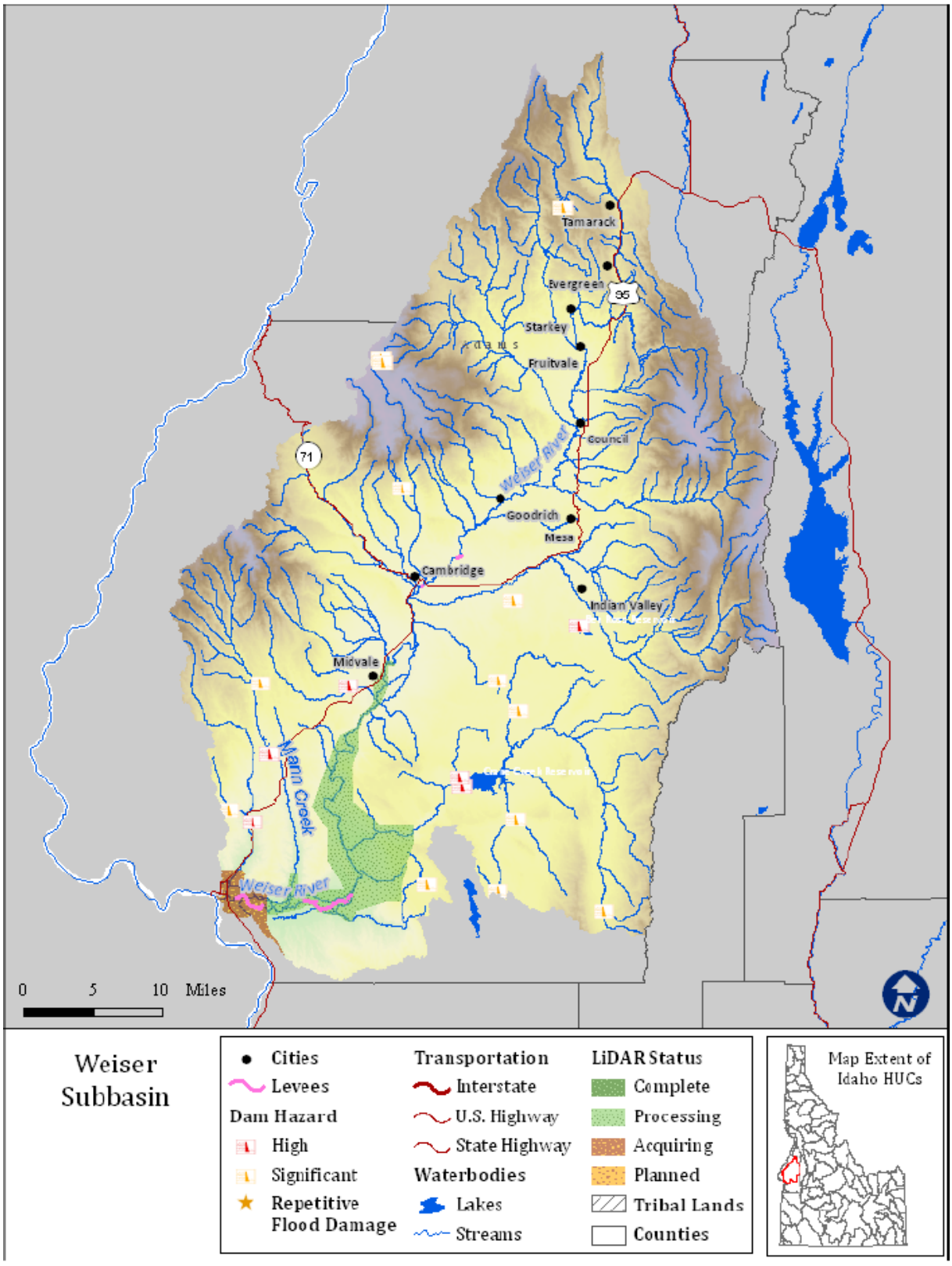

Figure 2.2. Map showing the exact boundaries of the Weiser River Basin (Idaho Department of Water Resources 2012:5).

GEOLOGY

An understanding of the geologic processes that shaped the Weiser River Basin is important to comprehension of the prehistory of the area because of the bearing that those processes have on the cultural resources used from the Paleo-Indian era to protohistoric times. The geological formations in the Weiser Basin created knappable stone in the form of fine grained basalts and cryptocrystalline silicates as well as nearby rhyolitic flows of obsidian (Ruebelmann 1973; Reid 2015). These basalts, cryptocrystalline silicates and obsidians were favored for tool manufacture by regional Native American groups such as the Nez Perce, Northern Shoshone and Northern Paiute (D'Azevedo 1986; Walker 1998; Reid 2015). Regional fine grained basalt quarries make up what is referred to as the Midvale Complex, named after the type sites found near the highway rest area on Midvale Hill (Warren, Wilkinson and Pavesic 1971).

The geology of the Weiser River Basin is very diverse in the mountainous areas, but generally uniform in the Weiser River Valley. This can be explained by the diverse geomorphic processes that built the landforms that exist there today. During the Triassic Period the Weiser River Basin was the west coast of the North American continent. On the west side of the Weiser River Basin lies Sturgill Peak and Cuddy Mountain which separate the valley from Hells Canyon. These peaks were at one time volcanic islands in the Pacific Ocean and are considered part of the same formation of Pacific islands as the Seven Devils Mountains which belong to the Seven Devils Volcanic Rocks (Alt and Hyndman 1989:166-168). These islands collided with the North American plate at a subduction zone similar to that which exists at the modern day coastal mountains and Cascade Range along the Northwest Coast of the United States and Canada. The subduction zone created mountains

which formed from the impact with the North American plate, and from the igneous processes that occurred from the friction of the Pacific plate sliding underneath the North American plate. The West Mountains, ironically east of the study area, for instance are composed primarily of igneous basalt and metamorphic rocks such as gneiss and schist that formed from the extreme heat and pressure of the colliding tectonic plates (Alt and Hyndman 1989:167).

The extreme heat also created large pools of magma deep under the surface of the earth slightly further inland. These pools of magma either occasionally erupted to the surface forming extrusive igneous rocks such as the obsidian found at Timber Butte or slowly cooled intrusively in chambers forming granite. This slow cooling is obviously prevalent throughout the majority of central Idaho in what is referred to as the Idaho Batholith. The Idaho Batholith is in actually two separate batholiths that formed during the Cretaceous Period. The Atlanta Batholith, which lies east of the Weiser River Basin, formed 50 million years before the Bitterroot Batholith which lies more to the Northeast of the Weiser Basin. Granites from the Atlanta Batholith are visible in the upper reaches of the West Mountains where the metamorphic rocks covering the cooled magma chamber gradually eroded away until the granites were visible (Alt and Hyndman 1989:93-103).

At about 17 million years ago a large meteorite collided with the Earth in southeastern Oregon. This cataclysmic event triggered extreme seismic activity and initiated a series of basalt flows that flooded the region. One of the regions flooded by these basalts is referred to as the Weiser embayment and it coincides with the modern Weiser River Basin. The region was first buried in the basalt lava flows of the Imnaha basalts. The Imnaha basalts are believed to be the earliest of the lava flows that initiated from the meteorite collision and flooded the region between 16 and 17 million years ago. In the Weiser embayment at least 19

layers of Imnaha basalts covered the river valley to depths of up to 3,000 feet of basalt in some locations (Alt and Hyndman 1989:168-171).

The Imnaha basalt flows were followed by the much more extensive Grande Ronde basalts which erupted and flooded the majority of the Northern Columbia Plateau between 15 and 16 million years ago. The Grande Ronde flows are believed to have melted their way north through fissures and flowed out over the surface in some locations such as the Weiser River Basin where they flooded over the top of the older Imnaha basalt flows (Alt and Hyndman 168-170). The final basalts to flood the Weiser River Basin are referred to as the Weiser basalts. These flows erupted from local volcanoes and were substantially less voluminous and were likely much more viscous. The Weiser basalts did not travel as far and many formed into small "rubbly masses of basalt" or even formed ash (Alt and Hyndman 1989:170-171).

Scattered throughout the Weiser River Basin are located sedimentary rock formations that were not entirely buried or destroyed by the pervasive basalt flows. Some of these pockets of sedimentary deposits have even revealed silicified wood and fossils (Alt and Hyndman 1989:166). Many landowners in around both Cambridge in Washington County and in Indian Valley in Adams County to the north showed the author collections of silicified wood they had found in the area, some of which was siliceous enough in nature that it would have been a good source material for flintknapping.

TOPOGRAPHY

The Weiser River Basin gradually decreases in elevation from north to south. The highest points are located along the West Mountain range which reaches its zenith at Tripod

Peak which is 8086 feet (2464 meters) above sea level. On the west side of the basin, Cuddy Mountain (7867 feet/2398 meters), Rush Peak (7634 feet/2327 meters), and Sturgill Peak (7589 feet/2313 meters) are highly visible and loom above the valley that has formed between the peaks on the west and the West Mountains on the east. The valley floor of course decreases in elevation substantially as it moves south to where the Weiser River empties into the Snake River. At the Tamarack lumber mill located west of New Meadows the Weiser River is at an elevation of 4120 feet (1256 meters) above sea level, but by the time the river makes it south to Council the elevation is only at 2927 feet (892 meters). After the Weiser River enters the Council Valley the elevation drops at a more or less consistent rate. At Cambridge the elevation of the valley is 2661 feet (811 meters) and by the time the Weiser River empties into the Snake River at the town of Weiser the elevation is 2123 feet (647 meters) above sea level.

ENVIRONMENT

The climate of the Weiser River Basin is varied in direct correlation to elevation. The higher locations, in the north, are much cooler and moister than the locations in the south. The northern reaches of the Weiser River are located in an area predominantly composed of coniferous forests and alpine meadows. Following the river south the trees become increasingly less dense and slowly break up into sagebrush and grasslands near Council, Idaho, where trees only grow in proximity to water or at higher elevations. The further south one travels the more arid the climate becomes. At Cambridge the area is almost entirely sage desert and grasslands and by the time one reaches Weiser the climate is almost desert.

Bailey describes these traits in *Descriptions of the Ecoregions of the United States* (1995). The northern portion of the Weiser Basin is located in the Alpine Meadow climatic

area and as one moves to lower elevation, in this case in a southerly direction one comes into the Coniferous Forest climate. Council Valley then belongs in the Middle Rocky Mountain Steppe. The province changes from the Middle Rocky Mountain Steppe-Coniferous Forest-Alpine Meadow climate zone into the Intermountain Semi-desert Province. This transition begins to occur between Cambridge and Weiser (Bailey 1995).

The Western Regional Climate Center has compiled information collected from weather stations for more than 100 years and has produced extensive data about the climate from stations located in or in close proximity to the Weiser River Basin (Table 2.1).

Table 2.1: Data from Weather Stations Located in or near the Weiser River Basin

Weather Station	Average Max Temperature and Month (Fahrenheit/Celsius)	Average Min Temperature and Month (Fahrenheit/Celsius)	Average Annual Precipitation (inches/cm)	Wettest Month
New Meadows	(84.2/29)-July	(8.3/-13.17)-January	25.5/64.77	December
Council	(90.5/32.50)-July	(15.7/-9.06)-January	24.46/62.13	January
Mesa	(90.1/32.28)-July	(15.3/-9.27)-January	21.11/53.62	January
Cambridge	(92.9/33.83)-July	(13.5/-10.28)-January	19.88/50.50	December
Weiser	(94.1/34.50)-July	(18.4/-7.56)-January	11.61/29.49	January

Source: Western Regional Climate Center 2016.

These data clearly show the change in climate from north to south. Moving from New Meadows to Weiser the average maximum temperature generally increases and the average precipitation drastically decreases. New Meadows is located outside of the Weiser River Basin proper, however it is within three miles of the divide between the Weiser River Basin and the Little Salmon River Basin, making it the most representative location for the northern portions of the Weiser Basin. The climate of New Meadows is more representative of the

northern, and higher elevation portions of the Weiser River Basin than any other location recorded. The northern and higher elevation areas of the region belong to the Alpine Meadow and Coniferous Forest zones. The data from the New Meadows locality represent something in between the two ecoregions. The data from Council, Mesa and Cambridge are more consistent with the Middle Rocky Mountain Steppe. Finally the data from Weiser, both at the lowest latitude and the lowest elevation, are consistent with the Intermountain Semidesert climate (Bailey 1995). It should be noted that there are a lack of data representing the area between Cambridge and Weiser, which is a vast track of steppe and semidesert which would be also be useful data for environmental research of the area (Western Regional Climate Center 2016).

The vegetation in the Weiser River Basin is characteristic of each of the aforementioned ecoregions. The vegetation changes drastically between the northern and higher elevations and the lowest locations in the south. In the northern and high elevations the vegetation is consistent with a coniferous forest. The high altitude locations include trees such as alpine fir (*Abies lasiocarpa*), Engelman spruce (*Picea engelmannii*) and western larch (*Larix occidentalis*). Moving to lower elevations the forest transitions to one dominated by ponderosa pine (*Pinus ponderosa*) and Rocky Mountain Douglas-Fir (*Pseudotsuga menziesii*). The understory in the forested regions is composed of shrubs including huckleberry (*Vaccinium globulare*), ocean spray (*Holodiscus discolor*), serviceberry (*Amelanchier alnifolia*), and snowberry (*Symphoricarpos albus*). Moving out of the coniferous forests the vegetation gradually changes to one representing a steppe climate. Shrubs are dominated by sagebrush (*Artemisia tridentata*) and rabbitbrush (*Ericameria nauseosa*) which grow across the entire region. Tree species growing in the more arid zones include black cottonwood

(*Populus trichocarpa*) and black hawthorn (*Crataegus douglasii*) and are limited to locations in close proximity to water such as along springs or rivers. Grasses growing in the area include cheatgrass (*Bromus tectorum*), Idaho fescue (*Festuca idahoensis*), western fescue (*Festuca occidentalis*) and bluebunch wheatgrass (*Agropyron spicatum*). Some of the more culturally important forbs growing in the area include camas (*Camassia quamash)* and arrow leaf balsamroot (*Balsamorhiza sagittata*), both of which grow in abundance. The region has been heavily affected by the rapid growth of invasive species including rush skeleton weed (*Chondrilla juncea*) and spotted knapweed (*Centaurea maculosa*) (Patterson, Neiman, and Tonn 1985).

A wide variety of fauna also inhabit the region. Mammals include, but are certainly not limited to, mule deer (*Odocoileus hemionus*), elk (*Cervus canadensis*), black bear (*Ursus americanus*), gray wolf (*Canis lupus*), coyote (*Canis latrans*), bobcat (*Felis rufus*), cougar (*Felis concolor*), beaver (*Castor canadensis*), porcupine (*Erethizon dorsatum*), badger (*Taxidea taxus*), raccoon (*Procyon lotor*), skunk (*Mephitis* spp.), ground squirrel (*Spermophilus* spp.), and jackrabbit (*Lepus* spp.). The Weiser River is home to fish including rainbow trout (*Oncorhynchus mykiss*), cutthroat trout (*Oncorhunchsu clarki*) and mountain suckers (*Catostomus platyrhynchus*). Before dams were built the Weiser River drainage also had runs of anadromous fish such as Chinook salmon (*Onchorynchus tshawytscha*) and steelhead trout (*Oncorhynchus mykiss*). Freshwater mussels (*Margaretifera margaretifera*, *Gonidea angulata*) are also present in the Weiser River.

The Weiser River Basin is an ideal location for human habitation, especially to hunter-gatherer groups due to the ease in access to a wide variety of resources in the area. The Weiser River Basin covers an array of biomes which allows for diversity in plant and animal

life as well as climatic conditions. This would have been very important to native people living in the area. A wide array of edible and otherwise useful resources are available in the Weiser River Basin. Camas and balsamroot for example are both edible roots that were a staple to native diets, especially for the Nez Perce and the Northern Shoshone (Fowler 1986; Murphy and Murphy 1986; Hunn et al. 1998). At higher elevations other useful plants are available such as bitterroot (*Lewisia rediviva*), and mountain huckleberry which is prevalent in the more forested areas. This is not the place to discuss the plethora of plants and animals used by Native Americans in the area, however, it should suffice to say that a wide variety of the resources used on the Columbia Plateau, and the Great Basin are available in the Weiser River Basin.

The geomorphology of the Weiser River is culturally important due to the river's impact on subsistence. The Weiser River is home to a great assortment of riverine resources such as multiple species of trout, freshwater mussels, mountain suckers, and at one time anadromous fish such as salmon and steelhead. The Weiser River is also at no point particularly wide or deep, so the collection of anadromous fish during seasonal runs would have been relatively easy with a net, lance or gaff. Local farmers relate historical information about their ancestors, who lived in the region before construction of hydroelectric dams, going to the creeks with pitchforks and collecting enough fish to feed the family for quite some time (Harrington 2015). Mammalian resources are also quite varied which would have provided a variety of available meat sources throughout the year, ranging from elk and deer to jackrabbits. The presence of numerous rivers and streams also means that waterfowl would have also been at least seasonally present, and likely would have been utilized by the native populations as well. The variety of resources in the Weiser River Basin makes it a clear

choice for habitation and extensive use by prehistoric inhabitants. The area is well known ethnographically for its high concentrations of camas, which is a staple in the diet of Columbia Plateau Native Americans, and also utilized by Tribes of the extreme northern Great Basin (Hughes and Pavesic 2009:117).

The combination of the wide variety of floral and faunal resources and the geographical composition of the area make it ideal for at least seasonal habitation. The geological composition of the area has allowed for ease in access to sedimentary chert materials and igneous fine grained basalts frequently used in the making of flaked stone tools. Rhyolitic tuff in the form of obsidian is also available with only a short trek east to the Timber Butte obsidian source (Reid 2015). The blend of floral, faunal, and geologic resources made the region ideal for indigenous habitation.

CHAPTER 3: PREVIOUS ARCHAEOLOGICAL INVESTIGATIONS

As opposed to most other river drainages in the West, the Weiser River Basin has been subjected to relatively little archaeological work. This is due in part to the fact that hydroelectric dams have not been constructed on the Weiser River, only small irrigation dams. Construction of hydroelectric dams fueled much of the early archaeological work done in the United States as people worked to preserve as many cultural resources as possible before they were indefinitely flooded (Lohse and Sprague 1998:17-28). This took place on both public and private lands as the government acquired land holdings that were to be flooded (Lohse and Sprague 1998:17-28). The fact that no dams have been built is quite a blessing for the archaeology of the Weiser River Basin. Sites that would have been lost, or excavated hurriedly and with older, less detail oriented methods, are still available for discovery and in the event of funding, careful excavation to learn more about the past.

The other reason that so little archaeological work has been done in the Weiser River Basin is that most of it is privately owned, and has been since settlers moved into the area. Federal protection of cultural resources was initiated with the Antiquities Act of 1906 and since that time progressively more and more legislation has been enacted to protect archaeological resources on federal lands. Mandated archaeological survey in the form of cultural resource management has become more and more common, and more specifically defined in legislation since 1935 (Lohse and Sprague 1998). This trend has led to a preponderance of archaeological research carried out only on public lands. As a result natural forests, highways and areas with public works projects, such as dams, have had systemic survey and analysis of cultural resources in the area (Lohse and Sprague 1998). Private lands are of course not held to these standards and because the majority of the Weiser River Basin is

privately owned, little archaeological work has been done, primarily due to lack of obligation and/or funding.

What little archaeological work that has been carried out in and around the Weiser River Basin has been very fruitful. Cultural resource management work that was conducted in relation to highway work along U.S. Highway 95 which travels north-south through the project area identified a cultural complex, known as the Midvale Complex (Dort 1964; Warren et al. 1971). This complex is one of acquisition of fine grained basalts that are ideal for the manufacture of stone tools.

The Midvale Complex was first identified in 1962 during salvage archaeology operations conducted in preparation for development of U.S. Highway 95 through the Weiser River Basin, including the Middle Valley, home of Midvale. In the 1960s, at the geographical landmark of Midvale Hill archaeologists recorded ten sites which did not appear to belong to any known cultural affiliates of either the Columbia Plateau or Great Basin areas (Dort 1964; Warren et al. 1971). The sites, 10WN4 through 10WN13, are areas centered on the procurement of fine grained basalt, a material ideal for stone tool manufacture. The sites represent a range of occupation ranging from regular habitation to occasional encampment to strictly quarry locations (Warren et al. 1971). Although the sites are referred to as quarry sites, there is little evidence to suggest that any actual quarrying took place. The sites are composed of locations where knappable fine grained basalts are accessible in stone outcroppings. At the quarry sites little has been found aside from scrapers, debitage suggestive of early stage reduction (Whittaker 1996), picks and an occasional formed tool such as projectile points (Warren et al. 1971).

The site within the complex which proved to have archaeological remains the most suggestive of long term habitation was site 10WN4. The site's assemblage is dominated by basalt artifacts from the nearby sources and artifacts include projectile points, perforators, drills, picks and ground stone tools such as pestles. The diversity of artifact types suggests that the site was used as a habitation setting during lithic procurement (Warren et al. 1971). The presence of groundstone artifacts such as pestles suggests that the site was used as a location where edible floral processing also took place, possibly breaking up hard foods such as the roots or seeds from plants that occur in the area, for example, arrowleaf balsamroot and camas.

Another location that exhibits trademarks indicative of the Midvale Complex sites is the Mesa Hill site which was also discovered during highway construction salvage work. The Mesa Hill Site was first identified by George Ruebelmann and Joseph Moore in 1970 during a survey for proposed highway work on U.S. Highway 95 between Council and Indian Valley, Idaho. The site was identified by a few basalt artifacts and lithic debitage in the vicinity of the Middle Fork of the Weiser River at the base of Mesa Hill. In 1971 test pits were excavated to determine the boundaries of the site as well as the stratigraphic distribution. In 1972 Max Pavesic led an archaeological excavation of the site. The excavation was conducted as a salvage project because the site was located in the area of potential effect for highway construction (Ruebelmann 1973:2). Excavation of the site revealed that out of 30,885 culturally associated materials only 1,724 (4.3%) were actually formed tools with the rest being lithic debitage (Ruebelmann 1973:65). This disproportionate amount of debitage made it quite clear to Ruebelmann that the site was a lithic workshop. Of the cultural materials excavated 97% were of fine-grained basalt (Ruebelmann 1973:65). Evidence suggests that the

people who once occupied the Mesa Hill site were using it as a location for lithic reduction, in which nearby source material was gathered and then bifaces or utilizable flakes were made for easier transport (Ruebelmann 1973).

In essence the Mesa Hill locality is very similar to the sites associated with the Midvale Complex. Mesa Hill is located nearly 30 miles north east of the area associated with the Midvale Complex. Despite the distance, the site could be considered a part of that complex. No definitive dates have been assigned to the Mesa Hill site due to the lack of organic material excavated. However the artifacts recovered from the site are dominated by those representative of the Cascade culture, namely lanceolate projectile points and bifaces with an emphasis on basalt (Leonhardy and Rice 1970:9). This means that the Mesa Hill site was likely in use sometime between 8,000 and 4,000 years BP (during the early Archaic). This puts it temporally in the same situation as the Midvale Complex sites, which are dominated by Cascade style artifacts and lack absolute dates.

In 1964 and 1965 Alfred W. Bowers conducted extensive surveys of Washington County, however little data came of it. Bowers's reports provide site location information, but very little else in the way of pertinent details about the sites (Bowers 1967). Bowers did not have regional chronologies or other means of providing good temporal controls over the data recovered during his survey and therefore very little was able to be dated. He recorded 116 sites in his survey of Washington County and excavated the Spangler site (10WN30). The Spangler site is now inundated by Mann Creek Reservoir. Bowers was able to date a cultural component at 600 years BP and he noted that cultural deposits extended far below this component, suggesting even more antiquity (Knudson and Pfaff 1979:101-103). Despite the lack of reliable dates recovered from the region, Bowers did note the prevalence of artifacts,

especially bifaces, made from fine grained basalts (Bowers 1967). This data adds to the knowledge known about the Midvale and Mesa Hill sites which were local quarries of fine-grained basalts.

In 1978 and 1979 Max Pavesic received funding to conduct a public archaeology project in the region (Pavesic 1979). This in turn led to interviewing locals about archaeology and Native Americans in the area as well as archival research. The research although not specifically stated as such, very clearly focused on identifying sites and collections associated with the Western Idaho Archaic Burial Complex. One of the primary goals of the project was to locate archaeological sites with potential for study in the future. However, the majority of sites that showed research potential were located in planted fields and were therefore not excavated. Instead Pavesic organized a retesting of the Braden Site, an important location belonging to the Western Idaho Archaic Burial Complex which was originally excavated by archaeologists from Boise State College in 1967. The results, not surprisingly, were positive and more human remains were recovered, including specular hematite crystals associated with re-interred remains (Pavesic 1979).

The other portion of the project was to conduct extensive archaeological surveys on private lands. Permission was granted to survey the Swain Ranch property located in a foothill setting east of Weiser. The ranch totals 7,000 acres but only one small portion of that was surveyed, and with impressive results. Numerous campsites, lithic scatters, cairns and rock alignments, as well as a shallow rock shelter, and various cryptocrystalline silicate source locations were identified. As many as 60 sites were identified in this initial survey. The project was also successful in that a great number of other landowners took interest and volunteered their own property for survey (Pavesic 1979:9-11). This sentiment proves to still

be common in the area today, as people in essence, flock to have an archaeologist visit their land and analyze their sites every time the author visits the area.

The most recent archaeological work in the area is the central topic of this text. In 2009 Jerry Jerrems began archaeological survey of private lands located in Adams County as part of fulfillment of grant requirements for a grant coordinated between the Adams County Historic Preservation Commission and the Idaho State Historical Society (Jerrems 2009). The project was aimed at recording archaeological sites in Adams County located on private lands, with an emphasis on prehistoric sites. The project was a mild success and Jerrems continued the survey the following field season (Jerrems 2010). In 2011 Robert Lee Sappington took over the project and worked with the Adams County Historic Preservation Commission (ACHPC) to record sites on private lands in Adams County (Sappington 2011). Sappington has since continued the work and added more sites and learned more about the prehistory of the Weiser River Basin every year (Sappington 2012, 2013). In 2014 the author started the surveys in Adams County under Sappington's supervision (Sappington and Wallen 2014a). Also in 2014 the project expanded to also include the recording of sites on private lands in neighboring Washington County (Sappington and Wallen 2014b).

CHAPTER 4: CULTURAL HISTORY

CULTURAL HISTORY

The prehistory of the region likely extends back to as many as 13,500 years before present (BP) and is more or less continuous through modern times. Artifacts have been found in the Weiser River Basin that correspond to the Paleo-Indian (13,500 to 8,000 years BP), the early Archaic (8,000 to 4,000 years BP), the middle Archaic (4,000 to 2,000 years BP), the late Archaic (2,000 to 250 years BP), and the ethnohistoric to modern (250 years BP to present) periods. The known culture history of the Weiser River Basin covers approximately 12,000 years, covering phases ranging from the Clovis subperiod to historic contact (Butler 1986; Ames et al. 1998). Artifacts representing the Clovis subperiod, dated to approximately 12,000 years BP have been identified adjacent to the Weiser River Basin in Hells Canyon near Copper Creek to the west as well as at Cascade Reservoir just across the West Mountains to the east. The Folsom subperiod characterized by a technology associated with the hunting of extinct bison, has also recently shown up in the archaeological record for the Weiser River Basin. The Folsom subperiod is believed to have developed directly from Clovis technology and dates from approximately 11,000 to 9,000 years BP. The subsequent Windust phase, which dates to 11,000 years BP, is also represented in the study area, as evidenced by the artifacts recovered at the Hetrick site located near Weiser (Rudolph 1995).

The most distinctive occupation period represented in the Weiser River Basin, and western Idaho for that matter, is during the early to middle Archaic when the Western Idaho Archaic Burial Complex (WIABC) was in practice throughout the region (Pavesic 1985; Green et al. 1986; Plew 2008). The WIABC is dated to ca. 6,000 to 4,000 years BP and

consists of multiple burials, often with oversized grave goods made from exotic materials. The artifacts most generally comparable to the WIABC belong to the Cascade culture, which dates from 8,000 to 4,000 years BP. Some of the key sites associated with the WIABC include the Braden and Galloway sites, located in and near Weiser, as well as the DeMoss burial locality located just outside of New Meadows in northern Adams County (Plew 2008:90-94).

Although the Cascade phase is quite evident in the region, sites including artifacts generally associated with the late Archaic and late prehistoric phases are increasingly common in comparison to earlier phases. This is probably tied to the increasing population in the area as well as the diversification of resources utilized as people expanded their diet and resource base over time.

CULTURAL OCCUPATION

The Weiser River Basin is located in a geologically, geographically, ecologically, and culturally diverse area. The Weiser River Basin is located in a sort of intermountain transition zone between the southeastern Columbia Plateau culture area and the northern Great Basin culture area. The Weiser Basin is far enough to the extremes of the Columbia Plateau cultural area that there is clear evidence of culture sharing or even changes in occupation between Columbia Plateau and Great Basin cultures. The Weiser River Basin is considered to be part of the territory of the Northern Shoshone (Steward 1938:172; Murphy and Murphy 1986) as well as the Nez Perce (Walker 1998). The Northern Shoshone are associated with the northernmost reaches of the Great Basin culture area whereas the Nez Perce are associated with the southeastern Columbia Plateau culture area. Due to the overlap of major culture areas and tribes the Weiser River basin has a high potential for diversity in terms of cultural

resources (Hughes and Pavesic 2009:117). The limited archaeological work done in the area to date corroborates this supposition (Bowers 1967; Jerrems 2009, 2010; Sappington 2011, 2012, 2013; Sappington and Wallen 2014a, 2014b, 2015).

Ethnographically the area of the Weiser and Payette River Basins, making up this intermountain transition zone in western Idaho, has been occupied by multiple tribes. The area was at one time occupied by the Northern Paiute, who had a village located along the lower portion of the Payette River. The Northern Paiute were not known to venture into the mountains in the area but tended to remain at the lower elevations along the river valleys that were much more temperate and had plenty of resources (Corless 1990:3). The area is also known to have been occupied by the Nez Perce of the southeastern Columbia Plateau. The Nez Perce claim occupation of a village near the town of Council, Idaho (Corless 1990). Although the Nez Perce and Northern Shoshone are known to have at times been adversaries, the Nez Perce and the group of Northern Shoshone known as the Weiser Shoshone were on relatively good terms. This goes as far as the Weiser Shoshone and several bands of the Nez Perce having frequent trade relationships and intermarriage (Corless 1990:5). This is not to say that there were not conflicts between the groups, but more to argue that the conflict between the tribes is often exaggerated (Corless 1990:5).

The best represented culture in the area is the Weiser Shoshone, who permanently occupied the Payette and Weiser River drainages. Fittingly they also bear the title, Weiser Shoshone referring to their presence in the area of the Weiser River. The Weiser Shoshone are considered a branch of the Northern Mountain Shoshone, also known as the Sheep-eaters. This term was self-assigned because at the time of Euro-American contact the Shoshone referred to themselves by their diet. The Mountain Shoshone, especially the Weiser Shoshone

referred to themselves as the *tukedeka* or sheep-eaters (Corless 1990:5). This referred to their general hunting of bighorn sheep in Hells Canyon and along the Middle Fork of the Salmon River (Corless 1990:5). The Weiser Shoshone are also occasionally known as the *wobiaqvideka* or the driftwood salmon-eaters (Corless 1990:5).

The Weiser Shoshone were different from the greater population of Shoshone in a number of ways. First, they occupied an area that had great numbers of fish, including seasonal runs of anadromous fish such as salmon (Murphy and Murphy 1986). This allowed the Weiser Shoshone to occasionally occupy semi-permanent villages, a feat not possible for most other groups of Shoshone which were forced to constantly move following bighorn sheep, pronghorn, or bison populations and seasonal floral resources. The Weiser Shoshone also did not form territorial and political organizations. They chose to remain as loosely affiliated families and small groups (Corless 1990:6-7). The seasonal round of the Weiser Shoshone allowed for regular contact with the Nez Perce which occupied permanent winter villages and subsisted in a much different manner, focused on root crops and fish resources more than hunting as the Shoshone and other Great Basin cultures to the south did. The connection with the Nez Perce initiated a trade relationship that greatly impacted the Weiser Shoshone and very likely effected their subsistence and culture (Corless 1990:7). The Weiser River Basin in turn became an area of relative peace and trade gatherings between the Great Basin cultures and those of the Columbia Plateau (Corless 1990:5). For example, Corless wrote that in 1871 “eighty three Weisers were permanently located in Indian Valley. They played host to many visiting Indians, sharing their pastures and valley with the bands” (Corless 1990:61). This does not mean that the area was free of conflict, but there is little

reason to doubt the account and the area was likely a center of peaceable relations between tribes, at least during the ethnohistoric period.

COLUMBIA PLATEAU

The Columbia Plateau culture area corresponds roughly with the general drainage area of the Columbia and Fraser rivers. This area is bounded by the Cascade Mountain Range on the west, the Canadian Rockies in the north, the Rocky Mountains to the east, and the Blue Mountains and Snake River Plain to the south (Walker 1998). Although the Snake River is a major tributary of the Columbia River with its upper reaches extending from Hells Canyon to its headwaters, it is culturally considered part of the Great Basin culture area. This is due to the continuity of tribal occupation in the area and the material culture that resembles more the lifestyle of Great Basin peoples. Some of the more significant geologic features of the Columbia Plateau include the Fraser and Thompson plateaus as well as the Okanogan Highlands in the north, the extensive Columbia basalt flows throughout the central and southern portions, the Scablands formed by the cataclysmic floods that scoured the central and western plateau, and the numerous mountains that break up the region including the Selkirks, Wallowas, Seven Devils, Bitterroots, and Salmon River mountains. The Columbia Plateau can be divided into three key areas. These include the northern area which is mountainous and heavily forested, the central and western area which is semi-arid to arid steppe, and the south and eastern region which is made up primarily of tributaries of the Snake River such as the Clearwater and Salmon River basins (Walker 1998).

The Columbia Plateau has many different language groups within it but the most dominant are the Sahaptin and Salishan language groups. The northern Plateau is dominated by the Salishan (Coeur D'Alene, Kalispel, Spokane) language group whereas the central and southern plateau is dominated by Sahaptin (Nez Perce, Yakama) speaking peoples (Kinkade et al. 1998).

Culturally the Columbia Plateau is bordered by the Northwest Coast culture area to the west, the Subarctic culture area to the north, the Great Plains to the east and the Great Basin to the south. The Plateau culture area is distinct from the surrounding culture areas by a number of factors, the differences most relevant to this work are those between the Plateau and the Great Basin culture areas. The biggest cultural differences between the Great Basin and the Columbia Plateau are the subsistence patterns of each area. Although both regions are hunter gatherer communities, they subsist on differing varieties of food and game that vary either in species or location based on the geography of the respective regions. The Columbia Plateau is noted for its hunter gatherer communities that center primarily on riverine locations and diets, at least since the middle Archaic, with emphasis on harvesting anadromous fish become increasingly important in the late Archaic (Chatters and Pokotylo 1998:76). The runs of anadromous fish were significant events that drew many tribes together at large fisheries such as Celilo or Kettle Falls. The other primary staple to the Plateau diet was root crops, especially camas (Walker 1998:3). Also of note in contrast to neighboring cultural areas is the fact that the people of the Columbia Plateau did not utilize pottery (Conn and Schlick 1998).

GREAT BASIN

The Great Basin was first given its name by John C. Frémont who, while exploring the region for the headwaters of a river believed to empty into the San Francisco Bay area, discovered that the region in fact had no outlet (D'Azevedo 1986:1). All rivers in the Great Basin do not empty into any ocean. It was later determined that this geographic area also corresponded to a greater cultural area, however the culture area extends slightly out of the Great Basin proper into the Owyhees and Snake River Plain of modern day southern Idaho, which in fact drains to the Columbia River and Pacific Ocean respectively. The Great Basin is bounded by the Sierra Nevada on the west and the Rocky Mountains on the east. The northern reaches of the Great Basin extend to the Blue Mountains of Oregon and the Salmon River Mountains of central Idaho. To the south, the region is not so much bounded by mountains as it is by another ecological zone, the American Southwest. The Great Basin is geographically made up of a series of north-south trending mountain ranges separated by wide valleys or basins. This geologic feature is known as basin and range landscape (D'Azevedo 1986).

The cultures of the Great Basin and the Columbia Plateau differ in a number of ways which in turn means great diversity in material culture found in the Weiser River Basin, where the two culture areas overlap. The Columbia Plateau culture area can be distinguished by: settlement along rivers, a diverse subsistence base founded on anadromous fish, hunting of large and small game and a staple of root crops such as camas, complex fishing technology similar to and likely related to that employed by tribes along the Northwest Coast, different tribes utilizing the same resource areas at the same time of year, and institutionalized trading partnerships and regional trade fairs (Walker 1998:3). One of these trade fair locations was in the Council Valley (Corless 1990; Fisk 2000).

The Great Basin on the other hand does not have access to external flowing rivers which in turn means that there are significantly fewer fish resources, and no anadromous fish. The exception to this is in southwest Idaho and southeastern Oregon where the Snake River and its tributaries allowed seasonal runs of anadromous fish. As a result the Great Basin tribes did not focus their diet on fish resources. The lack of riverine environments in the Great Basin also means that settlement was not focused along rivers as it is in the Plateau. In the Great Basin settlement was not permanent due to the constant changing of availability of game and plant resources. Most tribes frequently moved following game such as pronghorn, desert bighorns and in the eastern Great Basin, bison. Their diet is focused primarily on seeds such as Colorado Piñon (*Pinus edulis*), honey mesquite (*Prosopis juliflora*) and screwbean (*Prosopis pubescens*) (Liljeblad 1957, 1972; Thomas, Pendleton and Capannari 1986:265-68; Fagan 2005:269). However, they also dug roots of many plants and are even known to have conducted drives in which they captured great numbers of grasshoppers and Mormon crickets (*Anabrus simplex*) to eat (Fowler 1986:88-91). Finds from caves like Lovelock Cave, including decoys of ducks, suggest that in antiquity migratory waterfowl was likely an important portion of their diet (Elston 1986:144-147). Since the early Archaic the Great Basin has grown progressively more arid and the lakes dried up, however seasonal wetlands and the location along major north-south flyways has allowed for the surprising continuation of the hunting of migratory waterfowl (Fowler 1986:82-87).

Another notable distinction in the Great Basin is that the territories of different bands and tribes correspond to general locations of resources. In other words there are generally not enough resources in the Great Basin for multiple groups to simultaneously harvest in the same area. Possibly the most definitive difference between the Great Basin and the Columbia

Plateau culture areas in the transitional zones is the presence or absence of pottery. The Great Basin tribes utilized pottery whereas the Columbia Plateau tribes did not. Plateau tribes instead utilized baskets for tasks that would generally be carried out using pottery (Conn and Schlick 1998:600). Peoples of both the Great Basin and Plateau cultural areas had highly developed basketry skills and made abundant use of the basket in their daily lives (Fowler and Dawson 1986; Conn and Schlick 1998).

The general trends of the Great Basin are not entirely relevant in southern Idaho. Southern Idaho is dominated by the Snake River Plain and numerous tributaries of the Snake River. This means that fishery resources were available along these waterways and some locations such as along the Salmon River and the middle Snake River up to Shoshone Falls. In the more northern reaches of the Great Basin, such as along the Rocky Mountains north of the Snake River Plain and in locations such as the Payette and Weiser River basins there is considerably more moisture and as a result root crops such as camas thrive allowing for more stability in subsistence than in the rest of the Great Basin (Butler 1986).

CHRONOLOGIES

The diverse cultural and ecological nature of the Weiser River Basin makes it difficult to apply cultural chronologies to the study area. Numerous chronologies have been developed in the surrounding areas that can be applied to the Weiser River Basin but not to as acute accuracy. The material culture of the Weiser River Basin will not necessarily comply with the surrounding cultural chronologies because of the presence of multiple tribes utilizing the area simultaneously. It is also important to note that culture generally changes in response to the

environment. If the Weiser River Basin were to present relatively homogenous environmental conditions over any period of time the creation of a cultural chronology for the area would be a simple endeavor. However, as the reader is now well aware, the Weiser River Basin is anything but environmentally homogenous, representing a wide array of microclimates related to the geographical composition of the region (Corn 2006:35).

Another difficulty that arises in the attempt to assign a cultural chronology to the Weiser River Basin is determining which cultural area chronologies apply most effectively. Both the Plateau and the Great Basin have chronologies that are at least partially represented in the Weiser River Basin. To date there are no cultural chronologies developed for areas within the transition zone such as the Payette or Weiser River basins (Corn 2006:35-37). These areas cover a considerable area and contain extensive archaeological remains, some of which appear to be unique to western Idaho (Wilkinson et al. 1971; Butler 1980; Harten 1980; Pavesic 1985, 1992, 2007; Green et al. 1986; Pavesic et a. 1993; Hughes and Pavesic 2009). From the southeastern Plateau the famed Leonhardy and Rice cultural chronology of the Lower Snake River (Leonhardy and Rice 1970) certainly could apply to at least portions of the area, however the phases represented along the Lower Snake River most certainly differ from those present in the Weiser River Basin. There are a number of other nearby chronologies for the Plateau that could also potentially be applied to the area (Sappington 1994; Reid and Gallison 1996; Ames et al. 1998; Roll and Hackenberger 1998). The Great Basin has a great number of varying cultural chronologies that could also be at least partially applied to the Weiser River Basin (Butler 1986; Cressman 1986; Jennings 1968, 1986). Some of the chronologies are more localized (Meatte 1990) and a few have attempted to combine data from more than one cultural area (Ringe and Holmer 1987; Lohse 1994; Plew 2008). One

that seems to be of value to this research is Plew's chronology of the Snake River Plain (Plew 2008:22). The confusion related to determining which cultural chronology best represents the Weiser River Basin of course could be solved simply by creating a cultural chronology of the Weiser River Basin. This would be an endeavor that would greatly improve the understanding of the prehistory of region, but will require considerable time and funding to conduct methodical excavations in the area.

For the purposes of this text the author has adopted and modified a version of Plew's chronology for the Snake River Plain (Plew 2008:22) to the sequences represented in the Weiser River Basin. The cultural phases that will be listed here are the Paleo-Indian period, the early Archaic, the middle Archaic, the late Archaic and the Ethnohistoric period. The Paleo-Indian period ranges from the oldest dates in the region ca. 13,000 years BP to approximately 8,000 years BP. Although no finds have a date of 13,000 years in the project area, it is becoming more and more likely that they will be found so this date is used as a sort of place holder. The subsequent early Archaic ranges from 8,000 years BP to 4,000 years BP and is followed by the middle Archaic dating from roughly 4,000 years BP to around 2,000 years BP. The late Archaic is represented from 2,000 years BP to about 250 years BP. The final phase, the Ethnohistoric period ranges from 250 years BP to modern times (Figure 4.1).

Dates BP	Leonhardy and Rice 1970	Sappington 1994	Ames et al. 1998	Lohse 1994	Meatte 1990	Plew 2000	Wallen 2016
200	Numipu	Kooskia Phase	Early Modern	Historic	Equestrian Period	Proto-Transition	Ethno-historic
300			Period III	Archaic		Late Archaic	Late Archaic
500	Piq'unin				Semi-Sedentary Foraging		
700		Late Prehistoric Period					
1,000	Harder						
1,500							
2,000						Middle Archaic	Middle Archaic
2,500							
3,000	Tucannon						
3,500		Middle Prehistoric Period					
4,000			Period II				
4,500					Broad Spectrum Foragers		Early Archaic
5,000						Early Archaic	
5,500	Late Cascade						
6,000							
6,500		Early Prehistoric Period					
7,000			Period IB				
7,500	Early Cascade			Paleo-Indian			
8,000						Plano	Paleo-Indian
8,500							
9,000							
9,500	Windust					Folsom	
10,000							
10,500							
11,000							
11,500			Period IA			Clovis	
12,000							
12,500							
13,000							

Figure 4.1. Comparison of selected cultural chronologies for the Southern Plateau and Northern Great Basin. The jagged line demarcates the eruption of Mount Mazama circa 7,700 years BP, which drastically changed the environment of most of the Northwest (USGS 2013).

PALEO-INDIAN PERIOD (CA. 13,000 TO 8,000 YEARS BP)

The Paleo-Indian period starts with the oldest known cultural resources in the region. For the Weiser River Basin, this is the Clovis fluted point tradition associated with the hunting of extinct megafauna. Clovis points have not been definitively identified within the Weiser River Basin but have been identified nearby. This is not to say that it is the earliest cultural representation in the area, simply that it is the oldest known. The Paleo-Indian period encompasses the Clovis, Folsom, Plano, and Windust traditions. Of these the Clovis, Folsom and Windust traditions are known to be represented in the study area (Rudolph 1995; Sappington 2011, 2012, 2013; Sappington and Wallen 2014a, 2014b, 2015). The Clovis fluted point tradition is generally dated from approximately 12,500 to 11,000 years BP (Plew 2000:21-24). The Folsom tradition has been linked to the hunting of an extinct form of bison, *Bison antiquus* and is a fluted projectile point technology believed to be a descendant of the Clovis tradition. The Folsom tradition is associated with dates ranging from circa 11,000 to 10,000 years BP (Plew 2008:21-24). The subsequent Plano or Haskett tradition is generally noted for its large oblong lanceolate projectile points (D'Azevedo 1986; Plew 2008). It will not be discussed in further detail here because it is not yet represented in the study area. The Windust tradition is one of stemmed projectile points belonging to the Western Stemmed tradition. Windust points have been dated to a time frame ca. 11,000 to 8,000 years BP (Leonhardy and Rice 1970; Sappington 1994; Rudolph 1995). However, recent research at sites such as Paisley Caves and Coopers Ferry suggests that the Western Stemmed tradition, including Windust points may be pre-Clovis in origin (Smith 2014; Gossard 2015). The evidence in the study area places the Windust Phase later than Clovis and therefore this text will treat it as such (Rudolph 1995).

The Paleo-Indian period is represented on numerous occasions in the area. Clovis style projectile points have been discovered at Copper Creek in Hells Canyon (Reid et al. 2008), closely neighboring the Weiser River Basin as well as along Lake Cascade (Peterson 1998), just across the West Mountains from the study area. Both of these sites are within the range of a day hike from the Weiser River Basin. The Clovis tradition is associated with the hunting of Pleistocene megafauna such as Columbian mammoths or mastodons, and is a nationwide cultural trademark variably dated to between ca. 13,000 and 12,000 years BP to 10,000 years BP (Plew 2008; Butler 1986; Ames et. al 1998). The Council Valley Museum has a point that appears to be Clovis in origin. The provenience of the projectile point located in the museum is unknown, however it is believed to belong to the general area. The founder of the Council Valley Museum, Bill Winkler, reportedly paid local children a nickel for every arrowhead that they brought him, so it is doubtful that the artifact came from much further than the Council Valley (Fisk 2000).

The subsequent Folsom tradition (11,000 to 9,000 years BP) is also represented in the Weiser River Basin. This is of great interest for a number of reasons. First being that very few Folsom projectile points have been found in the Northwest. Second the Folsom tradition is closely tied to the hunting of bison (*Bison antiquus*), an extinct form of megafauna. The occasional discovery of bison remains in archaeological contexts in the region helps build to the understanding of the ancient distribution of this genus (Butler 1978; Moe 1982; Titmus and Woods 1986). Although the presence of Folsom points does not conclusively prove that bison inhabited the region, it does as least leave the suspicion that they may have.

Very little is known about Folsom in the area because no artifacts have ever been recovered in stratigraphic context in the area, only as isolated finds. However, recent finds

may change that understanding. Alfred W. Bowers reported the discovery of a midsection of a Folsom point during an archaeological survey near Crane Creek Reservoir in Washington County in 1967 (Bowers 1967). The point was reported as being in the vicinity of Ant Butte, which is located about a mile south of Crane Creek. Bowers noted that the point was an isolated surface find with little context (Knudson and Pfaff 1979). In 2014 at a public meeting at the Cambridge Public Library about the archaeological survey of the Weiser River Basin, constituents were invited to bring artifacts that they had found for identification by the State Historic Preservation Officer, Ken Reid, and the author. One such artifact was a very beautifully crafted fluted Folsom point. The discoverer of the artifact was able to show Ken Reid the location where it was found along Crane Creek in Washington County and documentation of the point has now been generated (Reid 2014). The fact that this other Folsom point was found in relative proximity to the previous find suggests that with further research the finds may not be as isolated as was previously believed.

Following the Folsom period the Windust Phase dating from circa. 11,000 to 8,000 years BP appears in the Weiser River Basin. The Windust Phase is most noted as belonging to the Western Stemmed Tradition, which recent work is arguing may in fact be older than Clovis (Smith 2014; Gossard 2015). However, evidence of Windust materials in the Weiser River Basin does not yet support this theory. The Windust phase is best represented in the Weiser River Basin at the Hetrick Site which dates to approximately 11,000 years BP (Rudolph 1995).

EARLY ARCHAIC (CA. 8,000 TO 4,000 YEARS BP)

During the Archaic period there was considerable diversification in artifacts recovered from sites. This is likely in part to the diversification of diet of the people based on

environmental changes. The Early Archaic marks the transition from a subsistence pattern based on following herds of Pleistocene megafauna to an emphasis on hunting medium-sized mammals with the use an atlatl and gathering root crops as a staple of their diet (Plew 2008). The most ubiquitous of cultural markers from the early Archaic period is the Cascade culture. Artifacts belonging to the Cascade culture are readily identifiable at many sites located in the Weiser River Basin (Warren et al. 1971; Ruebelmann 1973; Jerrems 2009, 2010; Sappington 2011, 2012, 2013; Sappington and Wallen 2014a, 2014b, 2015).

The Cascade Phase was identified by Leonhardy and Rice on the Lower Snake River as being present from approximately 8,000 years BP to ca. 4,000 years BP (Leonhardy and Rice 1970:23). Cascade lanceolate projectile points and bifaces found in the Weiser River Basin likely belong to this time frame as well. The author chose to use the early, middle, and late Archaic however because of the diversity of artifacts found in the area. The Cascade Phase signifies that the majority of artifacts would belong to this cultural representation however, being influenced by the Great Basin and the Plateau it is likely that varied cultural phases from different groups of people are represented simultaneously in the area. This however cannot be definitively determined without further research and excavation.

The Cascade artifact assemblage includes primarily lanceolate projectile points, however after the eruption of Mount Mazama circa. 7,700 years BP large Bitterroot side-notched projectile points begin to appear (Leonhardy and Rice 1970; Sappington 1994, USGS 2013). Both large side-notched and lanceolate projectile points are found in the Weiser River Basin, however there is a lack of excavated context and absolute dating methods to confirm these date ranges. Other artifacts associated with the Cascade assemblage include edge ground cobbles and pestles, which imply a transition towards the use of more plant foods for

subsistence (Leonhardy and Rice 1970:9). Of particular importance in the area is that populations associated with Cascade artifacts tended to favor fine-grained basalt material over cryptocrystalline silicates, despite their availability (Leonhardy and Rice 1970). This is of great interest due to the abundance of fine-grained basalts found in the Weiser River Basin especially at locations such as Midvale Hill and Mesa Hill (Warren, Wilkinson, and Pavesic 1971; Ruebelmann 1973). The most distinctive factor of the Cascade cultural phase in the Weiser River Basin is the Western Idaho Archaic Burial Complex.

THE WESTERN IDAHO ARCHAIC BURIAL COMPLEX

The Western Idaho Archaic Burial Complex (WIABC) was identified by Max Pavesic in the early 1980s after his study of numerous private collections of artifacts and sites. The Braden Site excavated by B. Robert Butler was an early indication of the presence of a significant burial complex in western Idaho, ranging from roughly the town of Weiser northward to present-day New Meadows. Further research has revealed that individuals discovered cemeteries and artifacts throughout the region from the Snake River to the Salmon River in western Idaho since settlers first arrived in the region, especially in the Weiser area. The most iconic site of the western Idaho Archaic Burial Complex is DeMoss (10AM193) located near New Meadows, Idaho. At DeMoss only a small spring was excavated but the remains of at least 60 individuals surfaced as well as upwards of 400 well-formed or even complete artifacts (Green et al. 1986; Pavesic et al. 1993; Hughes and Pavesic 2009). The complex is unique to western Idaho, and shares possible, but not yet proven links with Northeastern Woodland traditions due to similarities in lithic technology, most notably

turkey-tail style projectile points (Wilkinson et al. 1971; Butler 1980; Harten 1980; Pavesic 1985, 1992, 2007; Green et a. 1986; Pavesic et al. 1993; Hughes and Pavesic 2009).

Sites and Collections

There are eight collections of artifacts and/or burial locations directly linked to the Western Idaho Archaic Burial Complex (Figure 4.2). The sites identified as part of the Complex include: Rosenberger, Olds Ferry Dunes (10WN557), Hoff, Galloway Street, Braden, Rocky Canyon, Emmett East, and DeMoss (10AM193). Some collections associated with the Western Idaho Archaic Burial Complex have been separated from their original provenience. These include, the Waterhouse Collection and a collection that was housed at the Intermountain Cultural Center. The Waterhouse Collection was donated to the Idaho Historical Society in the 1920s by a collector from Weiser. The Intermountain Cultural Center collection has been identified as being a portion of the Braden Site that was removed prior to formal excavation.

The Rosenberger site is located along the Payette River near New Plymouth, Idaho, where seven burials were located approximately 60 centimeters below the surface within an area of approximately three meters in diameter. The osteological remains were highly fragmented; the bodies were not articulated, and associated artifacts were scattered throughout the burials. These artifacts include more than 120 flaked stone artifacts made of exotic siliceous materials and obsidian. A good number of the artifacts are represented in “a variety of turkey-tail forms” (Pavesic 1985:61). Some of the artifacts exhibit red ochre stain on one

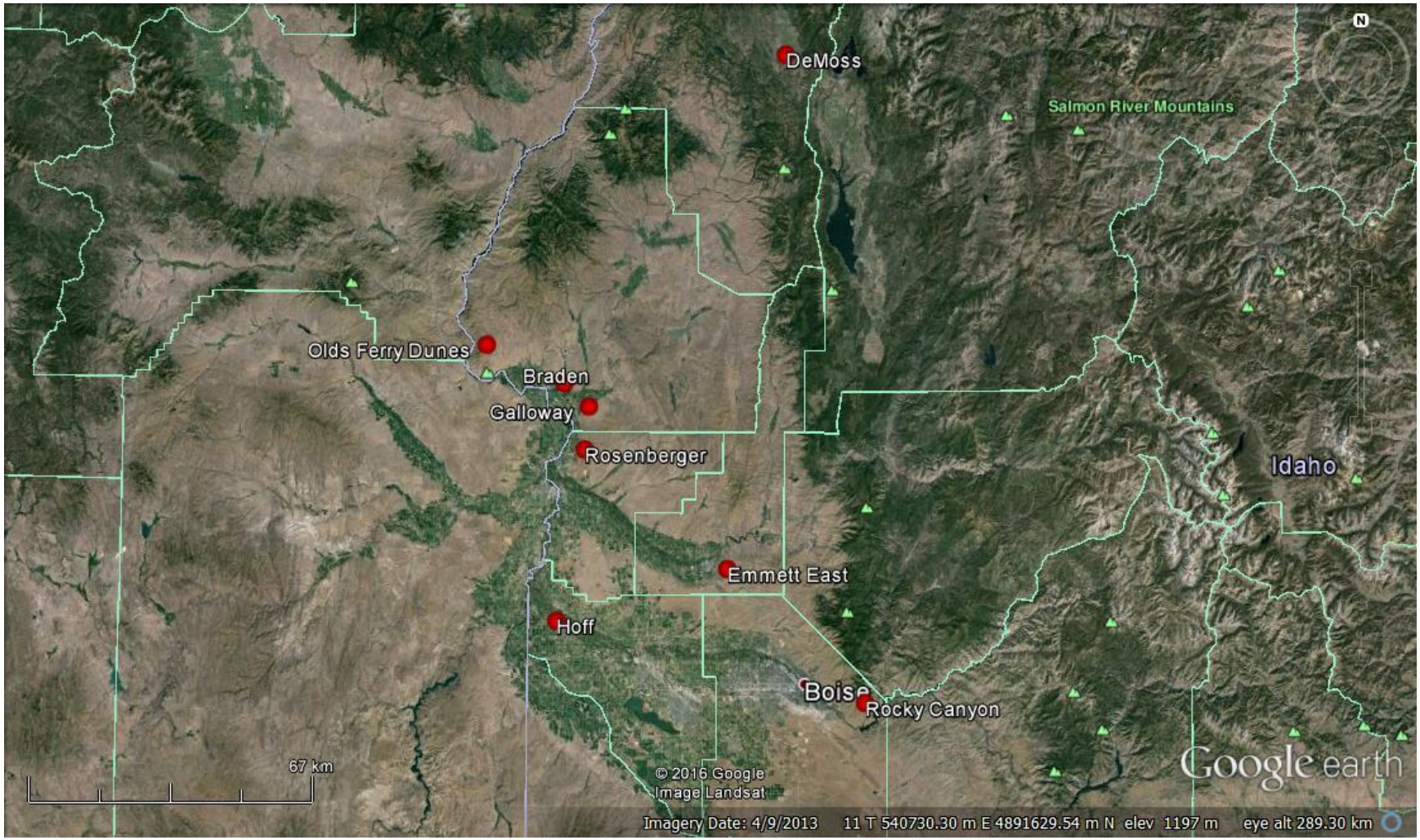

Figure 4.2. Google Earth satellite imagery demarcating the location of sites determined to belong to the Western Idaho Archaic Burial Complex.

side of the artifact suggesting that they were laid flat in the burial and were then covered in a dusting of red ochre (Pavesic 1985).

The Olds Ferry Dunes site (10WN557) is located along the Snake River about 20 kilometers northwest of Weiser, Idaho. The National Guard was testing heavy equipment on the dune features when they incidentally uncovered a substantial number of artifacts associated with burials. Of note were 105 obsidian bifaces and blanks, five complete pipes and a pipe fragment, numerous shell beads, an obsidian side-notched point, two obsidian corner-notched points, as well as various lithic tools such as knives, scrapers and drills. The site is unique because of the high number of pipes and shell beads, uncommon in the area. Red ochre was apparent during excavation and some artifacts have a carbonate stain indicating burial for a significant period of time. The human remains found at the site appear to have been cremated. Five human teeth were recovered as well as small pieces of charred long bones (Pavesic 1985:61).

The Hoff site was discovered near Middleton, Idaho, during leveling for agricultural purposes. Although a large area was disturbed artifacts were only recovered from an area about a meter in diameter. A long bone fragment that was assumed to be human was recovered as well as a tabular siltstone burial blade 42.5 centimeters long and a large pointed-bottom mortar of dense granitic material, siltstone blades, turkey-tail blades made of obsidian and siltstone, and four large side-notched points, one being more than 18 centimeters in length (Pavesic 1985:63).

The Galloway Street Site is located in the City of Weiser. It was labeled as a cemetery in old newspaper accounts and people recovered artifacts from the area for several years between 1909 and 1913. In 1913 it was reported that during the construction of a sewer line

and water line several skulls were uncovered which were supposedly arranged in a circle with their heads all together in the center, in the fashion of a pinwheel. This was never verified during archaeological investigation. The site is atop of a sandy hill and was a considerably sized cemetery with numerous burials (Pavesic 1985:63)

Another large cemetery location is at the Braden site, located 3.2 kilometers south of Weiser. The Braden site is known for numerous burials and was looted as well as methodically excavated for more than 70 years after its discovery in 1908. Finds at the site during formal excavations include two canine burials as well as numerous human burials. Artifacts include large cache blades, turkey-tail points, large side-notched projectile points, numerous obsidian blanks and performs, and many other tools such as abraders and antler hafts (Butler 1980:120-123). Red ochre was found in high concentrations as well as bone and shell beads, and hematite crystals. Charred human remains found at the site also suggest cremation. The osteological remains and artifacts recovered from the Braden site suggest that there is a correlation between adult males and burial in large grave lots. One child was also recovered at the Braden site with a high concentration of artifacts.

In total the remains of four children were recovered from the Braden site (Harten 1980:131-136). The site included singular flexed inhumations, mass graves as well as cremations which makes the site unique in its variety of burial customs (Pavesic 1985:64-65). The site also showed evidence of later indigenous disturbance. Some disarticulated bones showed evidence of erosional wear on exterior surfaces suggesting exposure to the elements. Of these bones, the crania also display red ochre staining on interior surfaces, an impossibility unless the flesh and organs were already biodegraded. This points to the likelihood that

disinterred remains were being ceremonially reburied. The remains were not articulated and suggest reburial (Pavesic 1985:65).

The Rocky Canyon site is located at the top of a steep talus slope overlooking Cottonwood Creek, six kilometers northeast of Boise. More than 200 artifacts have been recovered from the Rocky Canyon site. The artifacts include at least one turkey-tail point as well as a cache of ovate obsidian bifaces and some siliceous bifaces (Pavesic 1985: 65).

The Emmett East site is located along the Payette River 8.5 kilometers northeast of Emmett. The collection includes 22 artifacts including a large excurvate turkey-tail point and large cache bifaces of obsidian and basalt discovered by schoolboys in the 1970s (Pavesic 1985:65).

The Waterhouse collection was donated to the Idaho Historical Society in the 1920s by a collector from Weiser and reportedly contains specimens from both the Galloway Street site and the Braden site. The collection includes thirteen turkey-tail points as well as numerous cache bifaces (Pavesic 1985: 65-66).

The Intermountain Cultural Center in Weiser also had a collection of 54 knapped artifacts including several large turkey-tail and cache blades, stemmed points and cores. Many of the siliceous artifacts show evidence of red ochre staining. Oral interviews as well as research on the location have identified the specimens as being recovered from the Braden site (Pavesic 1979, 1985: 66).

Overall there are a few other scattered indications of the Western Idaho Archaic Burial Complex such as a few scattered flexed inhumations and singular turkey-tail points recovered at the Weiser Bridge and in a slough along the Snake River near the Braden site (Pavesic

1985: 67). One turkey-tail projectile point was also recovered from Adams County in 2013 by Sappington at site 10AM676 (Sappington 2013). Test excavations were also conducted at the Big Creek Knoll site (10AM578) located in the Meadows Valley. This site likely also belongs to the WIABC due to its proximity to the DeMoss site and the fact that several turkey-tail projectile points were excavated from the site (Jerrems 2009). In 2009 Jerrems also noted that a large turkey-tail biface was recovered from the Raney Obsidian Biface site (10AM252) (Jerrems 2009). These isolated finds although they do not conclusively represent the WIABC due to the lack of identified burials, do suggest at least contemporary occupation or a relationship to the complex.

The most recent discovery that conclusively represents the burial complex is the DeMoss site, located on a private ranch near the town of New Meadows, Idaho. The site was discovered when a spring started flowing and human remains, cache blades and turkey-tail points began to emerge from the spring. Only an area of about one meter was excavated but in that area several skulls and various human remains were recovered along with hundreds of cache-blades and turkey-tail points. The minimum number of individuals represented at the site was calculated as 60 individuals represented in the remains that surfaced from the small excavation (Pavesic 1993: 3). The fragmentary nature of many of the bones suggests that they underwent considerable surface weathering before they were buried (Roll and Hackenberger 1998:129). The presence of large side-notched points and leaf-shaped bifaces make it clear that the burial complex belonged to the Cascade culture (Walker 1998:129). The DeMoss site is the most artifact-rich assemblage from the Western Idaho Archaic Burial Complex and although only a very small area was excavated, there are very likely a considerable number of burials and artifacts still located in the vicinity (Green et al. 1986:31-33).

Characteristics of the Western Idaho Archaic Burial Complex

The Western Idaho Archaic Burial Complex is defined loosely by a number of characteristics. In *Cache Blades and Turkey-tails* Pavesic implies that any large ovate blanks or preforms, and especially turkey-tail points, are an indicator of the complex (Pavesic 1985). This however may be flawed because a number of artifacts have been found in caches or alone with no evidence of being associated with a burial. It is more likely that the artifacts were made in the same time period but are not necessarily burial goods. It is also possible that these finds were being produced for a burial but never made it to their destination or were deemed otherwise unworthy. The presence of these artifacts may be a good indicator that a burial is in the vicinity but they cannot be relied upon or assumed to be part of the complex without any human remains.

The complex can be more effectively identified by the presence of multiple interments, primarily in a flexed position, with associated artifacts. The burials are most commonly located atop high sandy hills or other high or sandy locations. The most defining and common artifacts related to the Western Idaho Archaic Burial Complex are large cache blades and caches of obsidian blanks or preforms. The most indicative items associated with the burial complex are large turkey-tail points. On the other hand, side-notched Bitterroot projectile points and *Olivella* shell beads are also commonly found in association with the burials. Red ochre is also a good indicator of the complex and many artifacts and remains from the complex are stained from the liberal use of red ochre, which is widely available in the Weiser River Basin such as at the Gould site (10AM687) (Jerrems 2009). Red ochre was used in many burials even in the ethnohistoric period, so red ochre alone cannot be relied on to indicate the complex (Sprague 1967). Many of the lithic materials associated with the

burials came from exotic sources, but many of the basalt artifacts likely came from prevalent local sources (Walker 1998:75).

Pipes were identified as part of the complex with their prevalence at the Olds Ferry Dunes (10WN557) location. The pipes are both stemmed and tubular and show great craftsmanship. Another very interesting trademark is displayed at the Braden site where hematite crystals were found in association with burials, which was unique up until that point. The significance of this find is that it is evidence of non-utilitarian objects being placed as grave goods. Also unique to the Braden site was the presence of canid burials evidenced by two canine skulls and several post-cranial canine remains (Yohe and Pavesic 2000:93). Mass burials as well as cremations and flexed inhumations were present at the Braden site. This means that the presence of diverse or varied inhumation positions could be another identifying factor in the WIABC.

The presence of dog burials during this period is unique in the region. The occurrence of dogs in burials along with humans suggests that the animals were treated with some sort of respect. The animals may have been pets like modern individuals have or they may have been cared for more as work animals; either way their presence in the burials at the Braden site clearly shows that these dogs were not eaten and had some relative significance to be buried along with the human remains. The dog burials from the Braden site were located within one of the mass graves and two dogs could be clearly identified, one being considerably larger than the other (Yohe and Pavesic 2000:96-98).

Also among the attributes of the Western Idaho Archaic Burial Complex are Cascade points and polished or groundstone gorgets such as those recovered from the DeMoss site (10AM193) (Pavesic 1992:289). Another interesting note is that the presence of hematite

crystals, such as those discovered at the Braden site, appear to be restricted to only those burials that show evidence of being reinterred. The hematite crystals were recovered along-side of remains that showed signs of surface weathering and red ochre staining only on the interior surface of the bones. This suggests that there was some sort of ceremonial signficance of hematite tied to the re-interment of remains that had surfaced (Plew 2008:75).

Lithics

General lithic studies have been conducted on the artifacts recovered at sites within the Western Idaho Archaic Burial Complex by Max Pavesic. The uniqueness of the lithics lies in the turkey-tail points. The point style is most commonly affiliated with the Great Lakes and upper Midwest area of the Northeast Woodlands. The points in the Midwest are most commonly made of flint from Harrison County, Indiana (Brose et al. 1985:28-36). The turkey-tail points in Northeast Woodland locations are also clearly connected to burial proveniences. The turkey-tail points are therefore very unique in their presence in western Idaho because they are not found at any other location in the West. As of yet, no connections have been definitively made between the turkey-tail points of the Midwest and those in west Idaho. Therefore the points are named based on their morphology and not on any connection to the points found in the Midwest (Pavesic 1985).

At this time there is no proof of a connection between the turkey-tail points of western Idaho and those found in the Northeast Woodlands or Midwest, but one can certainly surmise a relationship based on the similarity in technology and time frame of use. The question remains whether the two points developed independently or if there was in fact a trade or cultural connection between the two regions.

The Western Idaho Archaic Burial Complex shares more than just turkey-tail points with the northern Midwest and the Great Lakes area. Pavesic noted that "a shared set of cultural parameters exist. They include Penney's 1) burials not associated with settlements, 2) preferred burial locations, 3) ritual treatment of the dead, and 4) distinctive kinds of artifacts" (Pavesic 1992:289-290). From this Pavesic also concludes that the mortuary practices in western Idaho must be viewed from a more continental perspective. Not only is there shared technological adaptations but there is also a shared "common ideological denominator, some 6,000 to 1,000 years ago" (Pavesic 1992:290).

Although some of the artifacts belonging to the Western Idaho Archaic Burial Complex are clearly exotic, the majority of the artifacts come from local sources. The majority of obsidian artifacts come from the Timber Butte source, located in the area of WIABC sites. Many of the fine grained basalt artifacts also come from the nearby quarries at Mesa Hill and Midvale Hill (Walker 1998:129; Hughes and Pavesic 2009:120-121).

Implications of the Western Idaho Archaic Burial Complex to the Weiser River Basin

The Western Idaho Archaic Burial Complex was in practice during the late early-middle subperiod of Plateau prehistory, which corresponds to the early Archaic in this instance (Walker 1998:75). The sites have been dated using obsidian hydration and radiocarbon to gather dates that range from circa 6,000 to 4,000 years BP. However some scattered dates continue until 3,500 years before present (Walker 1998:129). The Western Idaho Archaic Burial Complex appears to have at its peak between 4,500 and 4,000 years BP (Pavesic 1985:61-66).

Study of the Western Idaho Archaic Burial Complex has been extremely limited. This is partially due to the fact that all of the identified and associated sites are located on private lands (Wilkinson et al. 1971; Butler 1980; Harten 1980; Pavesic 1985, 1992, 2007; Green et al. 1986; Pavesic et al. 1993). As a result, excavation was limited and considerable looting had taken place before methodical excavations were undertaken. The potential for finding other sites that belong to the complex is very high but federal regulation such as the Native American Graves Protection and Repatriation Act (NAGPRA), or simply one's own conscience, restrict the kind of research that can be conducted on the remains. Continued archaeological survey in the Weiser River Basin will both help to identify sites that could potentially belong to the complex and to better protect those burial locations.

The Western Idaho Archaic Burial Complex is a very unique complex for the region. The sites suggest the sharing of technological adaptations as well as shared ideological concepts with Native American groups as far away as the Northeast Woodlands in the northern Midwest and the Great Lakes regions. The Burial Complex traits that are shared between these two groups and especially the presence of turkey-tail points are evidence of these connections. To further prove these connections however sourcing studies should be conducted on siliceous and obsidian artifacts such as turkey-tail points that have been recovered in western Idaho as well as in the Eastern Woodlands.

The Burial complex can be identified by the location of multiple burials, primarily flexed but also mass graves, cremations and canine burials concentrated in high sandy locations. Red ochre shows up at all the identified burials and was applied liberally. The artifacts associated with remains include: Cascade points, large bitterroot side-notched points, large blanks and preforms primarily of obsidian or fine grained basalt, turkey-tail points often

made of exotic siliceous materials, ground stone gorgets, pipes, shell and bone beads, and hematite crystals in the case of reburials (Butler 1980; Harten 1980; Pavesic 1985, 1992, 2007; Green et al. 1986; Pavesic et al. 1992; Hughes and Pavesic 2009).

MIDDLE ARCHAIC (CA. 4,000 TO 2,000 YEARS BP)

The middle Archaic is associated with dates from circa 4,000 to 2,000 years before present. The middle Archaic is distinguished from the early Archaic in that the diversity of artifacts again increases. Artifacts associated with the middle Archaic include Humboldt series projectile points, recognizable by their distinctive concave base. Gatecliff style shouldered projectile points as well as Elko corner-notched projectile points are also identifiable as belonging primarily to the middle Archaic period. Artifacts that first appeared in the early Archaic also persist into the middle Archaic, namely Bitterroot side-notched points. The most distinctive identified cultural complex during the middle Archaic in the area is the Midvale Complex. Early reports suggest that the Midvale Complex belonged to the middle Archaic period, which is where it is presented here. However, the Midvale Complex likely extends back to the early Archaic, but was at its peak during the middle Archaic time frame based on the artifacts recovered at the sites (Ruebelmann 1971; Warren, Wilkinson, and Pavesic 1971).

THE MIDVALE COMPLEX

No definitive dates can be assigned to the Midvale Complex due to the lack of organic materials found at the sites. The sediments were also particularly shallow which meant there was little stratigraphy that could suggest the relative dates of the sites. Due to these constraints the Midvale Complex is placed temporally based on artifact styles in a cultural

chronology. The most common distinctive artifact found at Midvale Complex sites is the Bitterroot side-notched point. The Bitterroot side-notched point first appears in the region soon after the eruption of Mount Mazama in Oregon, approximately 7,700 years BP (Leonhardy and Rice 1970, Sappington 1994; USGS 2013). The points are commonly found in contexts dating between 7,000 and 2,000 years BP, placing them in the early to middle Archaic periods. Warren, Wilkinson, and Pavesic (1971:53) assigned a date range for the Midvale Complex sites between 4,500 years BP and 2,000 years BP.

Instead of assigning a date range that aligned itself with existing chronologies, Warren, Wilkinson, and Pavesic chose a date that was a sort of compromise. They chose a date, apparently at random, towards the second half of when Bitterroot side-notched points were utilized (Warren, Wilkinson, and Pavesic 1971). A more practical approach suggests that based on the archaeological assemblages of the Midvale sites they were likely in use sometime between 7,000 and 2,000 years BP (Ruebelmann 1973; Jennings 1986:117). This of course does not mean that they were not in use before or after these dates, but rather assigns a date with artifact styles that have previously been dated at other locations based on the available evidence at the sites.

This wide date range does support the presence of Cascade style artifacts in the area. The Cascade toolkit includes the Bitterroot side-notched projectile point as well as lanceolate projectile points and bifaces, made with an emphasis in the use of fine-grained basalt (Leonhardy and Rice 1970). The simple fact that basalt seems to be the material of choice to the Cascade culture points to the plausible use of the Midvale Complex sites for a lengthy amount of time, possibly starting as far back as the beginning of the Early Archaic period, some 8,000 years BP. Artifacts belonging to the Cascade culture and even stemmed projectile

points belonging to the earlier Windust culture, made of fine-grained basalts have been found throughout the region and suggest that Midvale Complex sites, or at least yet unidentified sources of similar morphology were utilized in the area for a considerable amount of time (Rudolph 1995; Hughes and Pavesic 2009). It is not unreasonable to suggest that the Midvale Complex was in use at least between 7,000 and 2,000 years ago, despite previous claims made on the matter (Warren, Wilkinson, Pavesic 1971:52).

The Midvale Complex identified a number of sources of fine grained basalt used for the manufacture of tools. Tools made from Midvale basalt or similar materials found in other locations in the area are commonly found throughout the region. Most archaeological assemblages found in the Weiser River Basin are dominated by basalt debitage (Sappington 2011, 2012, 2013; Sappington and Wallen 2014a, 2014b, 2015). Since the 1960s a few other locations have been identified as possibly belonging to the Midvale Complex as well, one of these sites is the Mesa Hill location.

Similar to the Midvale Hill sites the Mesa Hill site (10AM2) was discovered during construction of U.S. Highway 95 in 1972 (Ruebelmann 1973). The site is located between the towns of Cambridge and Council, at the location titled Mesa Hill. Mesa was once a booming orchard community but has long since withered into little more than a couple of rural homes (Fisk 2000). The Mesa Hill site was a lithic quarry location for fine grained basalts, very similar to the Midvale Hill sites. Artifacts recovered from the site are similar to those found in the Midvale Complex again, dominated by the fine grained basalts (Dort 1964; Warren, Wilkinson, and Pavesic 1971; Ruebelmann 1973). The site has a preponderance of lithic debitage suggestive of early stage reduction. In other words people were coming to the site to gather stones, which they broke into bifaces or more manageable cores of stone which were

more useful and easier to carry around than large cobbles of stone (Ruebelmann 1973; Crabtree 1982).

The Mesa Hill site is an important quarry site for the region. Excavations and survey at the site revealed thousands of minimally worked materials scattering the ground. The site is an outcropping of knappable fine grained basalt (Ruebelmann 1973). Basalt from the Mesa Hill quarry since its discovery has been identified throughout western Idaho (Roll and Hackenberger 1998:129).

Although the Midvale Complex and the Mesa Hill sites are all considered lithic quarry locations, it should be noted that knappable basalt can be found throughout the Weiser River Basin. This is due in part to the nature of the basalt flows, which tend to flood a large area in layers. Cobbles of knappable basalt can be picked up in just about any stream and are commonly found in piles of stone tossed out of fields by farmers (Sappington 2011, 2012).

LATE ARCHAIC (CA. 2000 TO 250 YEARS BP)

The late Archaic period is here defined as circa 2,000 to 250 years BP. The late Archaic period extends from the end of the middle Archaic to the time just before Euro-American contact in the region. The end of the late Archaic more or less corresponds to the arrival of the horse and equestrian tradition. Late Archaic artifacts are very common in the area and the majority of sites in the area include a late archaic component, easily identified by the presence of Desert side-notched, or other small projectile points. The Desert side-notched projectile point dates from around 1,500 years BP to historic contact (Jennings 1986). The biggest change in technology that occurred during the late Archaic was the expansion of use of the bow and arrow.

Sites with components belonging to the late archaic and late prehistoric periods are quite common and small projectile points associated with the use of the bow and arrow are found at nearly all locations that have been recorded since the beginning of the project (Jerrems 2009, 2010; Sappington 2011, 2012, 2013; Sappington and Wallen 2013, 2014a, 2014b, 2015).

ETHNOHISTORIC PERIOD (CA. 250 YEARS BP TO MODERN TIMES)

The ethonohistoric period in terms of this research encompasses the time period surrounding contact between Native Americans in the area and Euro-Americans. This period therefore includes artifacts that are also part of the late Archaic and also historic artifacts, used either by Native Americans, or Euro-Americans in the area. The ethnohistoric period is so named because the lifestyles represented in it are more or less the same as that which were recorded in ethnographic accounts of the indigenous people in the area. Sites belonging to the historic period were not the focus of the research and so little will be mentioned on them here. Historic artifacts were recorded at many locations where settlement patterns of Euro-Americans and Native Americans clearly overlapped. To identify artifacts as belonging to the ethnohistoric period is rather difficult, without controlled excavation to better identify what stratigraphic layer artifacts belong to it, it is hard to determine which artifacts were used at the same time as, or before Euro-American implements.

CHAPTER 5: RESEARCH DESIGN AND METHODS

RESEARCH DESIGN

One of the main goals of the Adams County Historical Preservation Commission and the Idaho State Historical Society is to identify and record archaeological sites. This allows for quick reference and more effective efforts to protect data that could be lost or destroyed by a multitude of factors such as development, agricultural practices and looting or collection. In accordance with this goal, archaeological survey of both Adams and Washington County by the author was directed by the public in the area.

Sites that were recorded as part of the project between 2009 and 2015 were exclusively locations that landowners gave express permission to identify and record as sites located on their private property (Jerrems 2009, 2010; Sappington 2011, 2012, 2013; Sappington and Wallen 2014a, 2014b, 2015). Out of respect and for privacy reasons individuals who were involved in this project are not always named. In some cases the individuals are referred to as artifact collector, landowner, or volunteer in respect of individual privacy. Another determining factor that saved time and money available to the project was that sites recorded were most often locations that were already known by the landowner and or other locals and the author was taken directly to the area where artifacts had been found. This allowed the author to assess the site size and what artifacts were present rapidly without the extra time of literally wandering across the landscape hoping to come across a site.

This method of identifying sites is extremely effective, especially since every time one goes into the field sites are found. However, this does mean that a good number of sites that

could potentially be located on the same piece of property have not necessarily been identified or recorded. This sort of systematic survey of vast properties would require significantly more time and funding, and is not practical in the area unless greater resources are made available or destructive work is to be undertaken such as road building or new development of agricultural properties.

Artifacts found at each site and the site location were used to determine what type of site was at each location, these include campsites, lithic retooling workshops, villages or food processing sites. These determinations however are based on the little evidence that was apparent on the surface and the site description of each site may change as more is learned about each location. All of the sites were then categorized by the general timeframe of occupation; Paleo-Indian, early Archaic, middle Archaic, late Archaic, and the ethnohistoric period. No absolute dates have been acquired from the study area so this is also based on artifact typology and how they fit within regional chronologies.

All obsidian that was encountered while surveying site areas was collected for potential sourcing. All prehistoric artifacts, aside from lithic debitage, were also collected for analysis and to prevent further loss of data from each site (Sappington 2011, 2012, 2013; Sappington and Wallen 2014a, 2014b, 2015). Collected artifacts are either returned to the appropriate landowner or have been donated to the Council Valley Museum, where they are stored.

METHODS

The general procedure undertaken for each site recorded is as follows. A member of the Adams County Historic Preservation Commission would take the author to a site where

they would either meet up with the landowner or simply go to the location having prior permission to do so. All who were present would then begin walking transects across the area and put pin flags next to all artifacts, including debitage. This method helped define the approximate site boundaries. After finishing the intensive survey, all of the artifacts were identified and recorded. Diagnostic artifacts such as projectile points, bifaces, and scrapers, as well as any obsidian was collected. These artifacts were collected both for analysis and to help prevent the further loss of site information.

Shovel tests and test units were excavated at a few sites that demonstrated potential for significant stratigraphy. These sites include the Wassard site (10AM656), Lower Harrington site (10AM702), the Holmes site (10AM679), the East Nelson (10AM696), and the Gould Corral (10AM697). Excavation helped to determine both the depth of cultural deposits, and important for this area, if cultural deposits extended below the plow depth, which is approximately 30 centimeters in most locations. When excavation was conducted it was excavated in arbitrary ten centimeter levels and all of the matrix was screened for artifacts through one-eighth inch screen mesh. During 2015 excavations ten centimeter levels were started after removal of the sod layer from the ground surface.

Much of the soil in the area was very hard-packed after approximately 20 centimeters below the surface. This made screening and excavation exceptionally difficult. Many of the levels had to be broken out using a bar. While screening small dirt clods had to be continuously broken up with a trowel, rock or even hammer to reveal artifacts housed within them, an activity reminiscent of cracking geodes. It is likely that some small artifacts or debitage were missed due to the nature of the soil removal processes and the hardness of the soil.

CHAPTER 6: RESULTS

Since receiving grant money to conduct surveys on private lands more than 50 archaeological sites were visited and or tested and a total of 43 newly identified sites were recorded in Adams and Washington counties. Of these sites, 40 are located in Adams County and the other three and one isolate are located in Washington County (Jerrems 2009, 2010; Sappington 2011, 2012, 2013; Sappington and Wallen 2014, 2015) (Figure 6.1). The sheer number of identified sites is a testament to the effectiveness of the project. By working with amateurs and locals a great number of sites that are already well known locally can be recorded and kept in state records so that more information can be gathered from the sites.

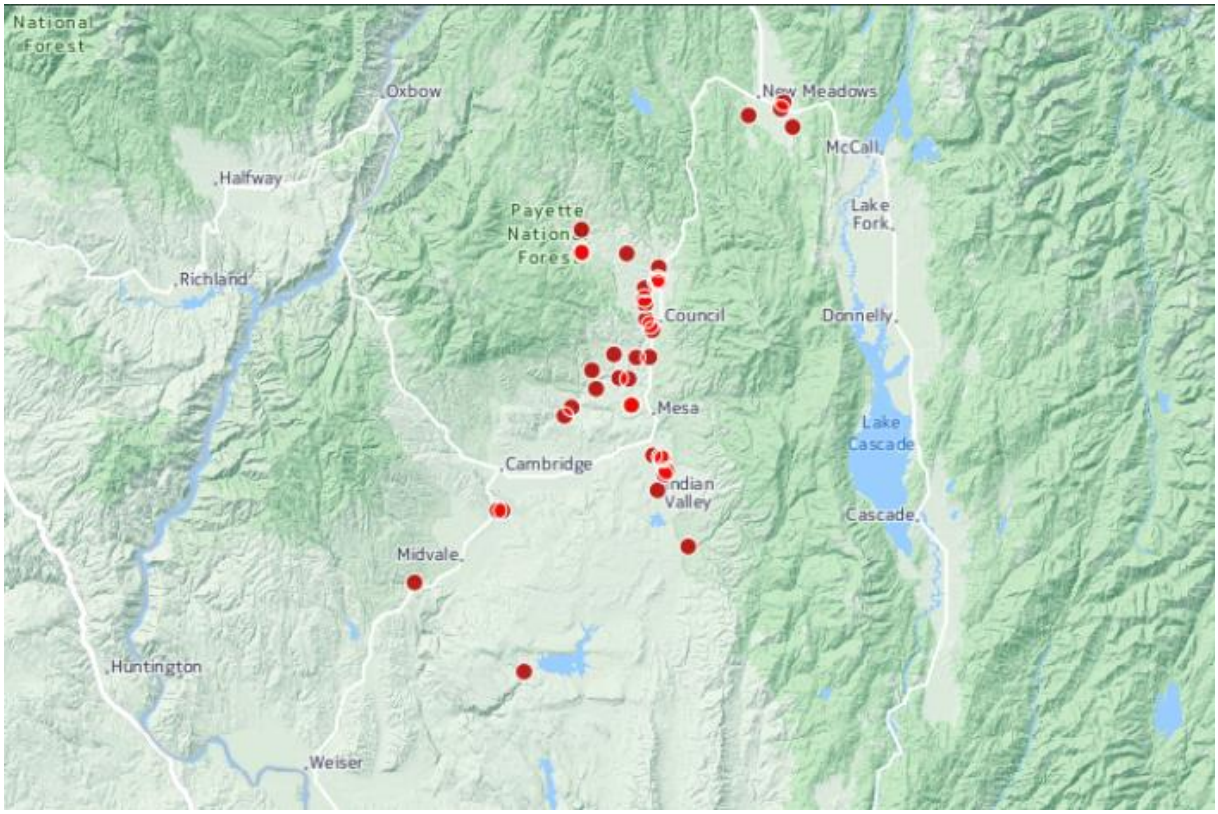

Figure 6.1. Map showing the location of all the sites identified in Adams and Washington counties for the Adams County Historic Preservation Commission, Washington County Historic Preservation Commission and the Idaho State Historical Society (base map from cartodb.com).

The following section includes a brief description of each site, listed in chronological order of their recording, starting with 2009 and ending with 2015. In 2009 Jerry Jerrems initiated archaeological survey for the Adams County Historic Preservation Commission. That year he recorded three sites that had not previously been on record with the Idaho State Historic Preservation Office (SHPO). These three sites were respectively titled the Gould site (10AM687), the Shumway site (10AM686) and the Old Meadows site (10AM688).

The Gould site (10AM687) was discovered during excavation of an irrigation ditch. At approximately 70 centimeters below the ground surface a large concave base biface was discovered in the side of the irrigation ditch. This artifact appears to be a Humboldt style projectile point nearly 15 centimeters in length. In the same location on the opposite side of the irrigation ditch a concentration of fire affected stones was evident in what appeared to be an earth oven. The site is located along a volcanic plug composed of hard oxidized red ochre and accordingly was likely a quarry location for red ochre (Jerrems 2009).

The Shumway site (10AM686) is located in an alfalfa field on a terrace just above the Weiser River, approximately four miles north of Council. The site was identified by the local landowner, Dan Shumway who possesses an extensive collection of artifacts that have been recovered from the field. According to Shumway the site centers on a large cache of projectile points that was recovered from a spring there prior to 1972. Shumway still owns many of the artifacts but also donated many to the Council Valley Museum (Jerrems 2009).

The Old Meadows site (10AM688) is located just outside the town of Meadows, Idaho. It is located outside of the Weiser River Basin, but still within Adams County, and still only about five miles outside of the Weiser River Basin proper. The site is located on a terrace

above the headwaters of the Little Salmon River. The site consists of a lithic scatter and numerous middle to late Archaic artifacts (Jerrems 2009).

In 2010 Jerrems recorded eight sites located in Adams County. These sites were the Daniels site (10AM655), the Wassard site (10AM656), the Hoxie site (10AM657), the Jackson Creek site (10AM21), the Johnson Creek site (10AM658), site 10AM659, site 10AM660, and the Madison Knoll site (10AM661).

The Daniels site (10AM655) is located on a stream terrace on the north bank of the Weiser River. The site includes many hopper mortars and pestles, suggesting that the site was a seasonal semi-permanent residence location. Numerous flaked stone artifacts and debitage was also recovered from the site. The site is currently a cultivated field and the Daniels family regularly collects new artifacts that surface every year after tillage. Jerrems suggests that the site has considerable stratigraphy due to the abundance of artifacts that literally crop up every year and due to the fact that at least a meter of seasonal flood deposits visible on the cut bank of the Weiser River (Jerrems 2010).

The Wassard site (10AM656) represents a likely prehistoric camp near the confluence of the Weiser River and the Middle Fork of the Weiser River. The site includes multiple locations with high concentrations of artifacts, in the primary locus the sedimentation visibly extends 2.5 meters below the surface, suggesting a high probably of extensive site stratigraphy and cultural deposits located at great depths. Prior to recording the site numerous ground stone artifacts were recovered from the site including pestles, hopper mortars, bowl mortars and flaked stone artifacts. The surrounding hillsides have outcroppings of knappable basalt which was likely “quarried.” The abundance of groundstone artifacts and camas at the site suggest that the location was a camas preparation site. Also of note at the Wassard site

(10AM656) is the presence of dark carbon layers and mollusk shells in the cut-bank of the Weiser River; they currently only represent ecofacts but further research may tie them into cultural occupation such as house pit floors (Jerrems 2010). In 2011 Sappington revisited the site and excavated a test unit to help ascertain the depth of cultural deposits at the site. The excavation revealed artifacts to a depth of 110 centimeters below the surface. A post hole was dug in the center of the unit starting at 120 centimeters below the surface and extended to a depth of 172 centimeters below the surface where cobbles covered the floor of the post hole (Table 6.1) (Sappington 2011).

The Hoxie site (10AM657) also represents a campsite for seasonal processing of camas. This is believed due to the number of groundstone implements that have been found at the site. Similar to many sites in the area, numerous pieces of debitage and flaked stone tools were found at the site, located in an agricultural field along the Weiser River (Jerrems 2010).

The Jackson Creek site (10AM21) is located near the mouth of a small canyon where Jackson Creek and an unnamed creek converge. The site is composed of an extensive lithic scatter made up of basalt, obsidian and chert flakes. Jerrems speculates that the location may have been an ideal place for ambushing game coming out of or entering the canyon, as well as a campsite on the way to higher elevation hunting and gathering locations (Jerrems 2010).

Table 6.1: Description and distribution of all cultural material excavated from the Wassard site (10AM656), August 2011

Level/Depth Below Surface	Results	Comments
Surface	1 basalt biface fragment (0.0.1) and 4 basalt flakes (0.0.2) observed along the river bank	Collected
1/0 – 10 cm	1 .22 cartridge (1.1.1)	Found in screen
2/10 – 20 cm	1 obsidian flake (1.2.1) and 1 basalt flake (1.2.2)	Found in screen
3/20 – 30 cm	1 basalt flake (1.3.1)	Found in screen
4/30 – 40 cm	1 basalt flake (1.4.1)	Found in screen
5/40 – 50 cm	Nothing found	
6/50 – 60 cm	3 basalt flakes (1.6.1)	Found in screen
7/60 – 70 cm	4 basalt flakes (1.7.1)	Found in screen
8/70 – 80 cm	Nothing found	
9/80 – 90 cm	Corner-notched project point (1.9.1) and 2 basalt flakes (1.9.2)	Found in screen
10/90 – 100 cm	7 basalt flakes (1.10.1)	Found in screen
11/100 – 110 cm	1 basalt flake (1.11.1)	Found in screen
12/110 – 120 cm	Nothing found	
13/120 – 130 cm	Nothing found	Begin post hole
14/130 – 140 cm	Nothing found	Continue post hole
15/140 – 150 cm	Nothing found	Continue post hole
16/150 – 160 cm	Nothing found	Continue post hole
17/160 – 170 cm	Nothing found	Continue post hole
18/170 – 180 cm	Nothing found	End of excavation; cobbles across floor at 172 cm BS

Source: Sappington 2011:9.

The Johnson Creek site (10AM658) is a lithic scatter of basalt cores and flakes located near the confluence of Johnson Creek and Little Johnson Creek. The site is small in comparison to many of the other sites recorded and likely represents a lithic retooling locale (Jerrems 2010).

Site 10AM659 is located in an agricultural field along Cottonwood Creek a few miles south of Council. Jerrems noted that Dave Hoxie (a local amateur archaeologist) described the site as “a camp site with an interesting array of artifacts including a ‘Dalton Point,’ a red

ochre crystal with geometric scratches and other ‘old projectile points” (Jerrems 2010) This description suggests that the site is likely very old and has considerable stratigraphy. Flaked and groundstone artifacts regularly surface after seasonal plowing. Jerrems also noted that the entirety of Cottonwood Creek shows evidence of extensive prehistoric occupation (Jerrems 2010).

10AM660, also known as the Ross Ranch site, is located in the Meadows Valley, south-south-west of the town of New Meadows. This means that the site is located about two miles outside of the Weiser River Basin. The site seems to focus around a spring outlet where numerous artifacts have been recovered, including a large biface of basalt, very similar to those recovered from the nearby Demoss site (Jerrems 2010).

The final site recorded by Jerrems in 2010 was the Madison Knoll site (10AM661), which is also located in the Meadows Valley. The Madison Knoll site (10AM661) is located on the summit of a knoll overlooking the Meadows Valley. The site extends from the knoll to the surrounding flatlands and has a variety of artifacts and features. Features include a cairn located on the top of the knoll, two large pit features and a pit with a collapsed timber infrastructure. Artifacts include debitage, flaked and ground stone artifacts (Jerrems 2010).

In 2011 Robert Lee Sappington took over the responsibility of archaeological survey for the Adams County Historic Preservation Commission and he identified five sites in Adams County. These include sites: 10AM668, 10AM667, 10AM669, 10AM670, and the Ridge Road site (10AM666). Both sites 10AM668 and 10AM667 are located on the property of Jim Peterson. Site 10AM668 is located on a rocky hillside overlooking the Weiser River. The site includes lithic debitage and small projectile points but was damaged by looters who

had dug holes while looking for arrowheads. Site 10AM667 is near a cattle loading chute and is considered an isolate based on the single basalt core found at the site (Sappington 2011).

Site 10AM669 is located along a dirt roadbed near a cattle loading chute in Indian Valley. The site includes lithic debitage and a basalt biface. All of the artifacts were found in the roadbed and likely surfaced from erosion and road traffic. 10AM670 was located further along the same road and consists of debitage and a distal biface fragment exposed in a similar manner to 10AM669 (Sappington 2011).

The Ridge Road site (10AM666) is located along a spring northwest of Fruitvale, Idaho, where lithic debitage and cores were found. In the past numerous projectile points had been found in the vicinity including a large reworked obsidian projectile point that was found by Dale Fisk earlier in the year (Sappington 2011). In 2014 Dale Fisk and the author visited an area downstream from the Ridge Road site (10AM666) and found a considerable number of basalt flakes and cores and a small basalt corner-notched point along the stream below the spring, expanding the known site area (Sappington and Wallen 2014).

In 2012 Sappington identified 11 potential sites in Adams County. These sites include site 10AM704, G13, G15, D41, 10AM702 (Lower Harrington), Upper Harrington (10AM705), Fraser site (10AM703), D26, Impulse site, R18, G003. Site 10AM704 is a lithic scatter of basalt, obsidian, and chert debitage located on a terrace on the hillside above the Weiser River northwest of the Council Airstrip. Site G13 is similar in that it is also represented by a scatter of lithic debitage along the Weiser River. Site G15 was identified by the presence of large basalt flakes found on the Banks of the Weiser River. Sappington also noted an abundance of camas growing at the site, suggesting cultural significance of the area. Site D41 was also represented by a scattering of lithic debitage (Sappington 2012).

The Lower Harrington Site (10AM702) is located in an alfalfa field near the confluence of Hornet Creek and North Hornet Creek in Adams County. Numerous pieces of debitage and flaked stone tools, as well as fire affected rock, were found at the site. The landowner, Robert Harrington, and his family have been picking up artifacts from the site for a number of years and shared them with Sappington and the author. Ten post holes were dug at the site to help determine depth and distribution of cultural deposits. The post holes generally extended no more than 120 centimeters below the surface before digging was stopped by rocks (Sappington 2012).

The Upper Harrington site (10AM705) is located just up Hornet Creek from the Lower Harrington site (10AM702). Artifacts found at the site include a lithic scatter of debitage, flaked stone artifacts, and a grooved cobble, located on a stream terrace (Sappington 2012).

The Fraser site (10AM703) is located between the Council Airstrip and the Weiser River, north of Council. The site is a scattering of lithic tools located on a rise above the floodplain of the Weiser River. The site also includes a considerable amount of historic debris such as glass and tin can fragments as well as an old truck body and seed drill (Sappington 2012). These historic artifacts attest to the likely disruption of the site from historic activities, however they also attest to the idea that this portion of the site has not been subjected to seasonal plowing and cultivation. Farmers tend not to abandon their equipment in their active crops (Sappington 2012).

Site D26 is a marked by little more than a smattering of debitage. The site is located in proximity to the confluence of Hornet Creek with the Weiser River. The Impulse site located up Hornet Creek from D26 was identified in a plowed field by the presence of lithic debitage, a basalt core and numerous pieces of fire affected rock. Site R18 in Indian Valley was similar

to that of D26 in that it was identified by a few pieces of lithic debitage and two basalt cores. Site G003 is also a lithic scatter of debitage but also has a number of water worn basalt artifacts (Sappington 2012).

In 2013 Sappington identified six sites located in Adams County. These sites were 10AM675, 10AM676, 10AM677, 10AM678, the Holmes site (10AM679), and 10AM680. Site 10AM675 was determined based on a collection of artifacts owned by a local collector. The site dimensions, stratigraphy and extent are unknown because the field the site is located in was being harvested at the time of the survey. The artifacts in the individual's collection were primarily small corner and side-notched projectile points suggesting a late Archaic to historic occupation of the site (Sappington 2013).

Site 10AM676 is located in Indian Valley on a slight rise above the surrounding floodplain. The site appears to have been a lithic workshop because several basalt cores and bifaces, as well as debitage were recovered from the site. The most significant find at site 10AM676 is a large side-notched, or possibly turkey-tail style basalt projectile point, which suggests that the site belongs to the Cascade culture, possibly coinciding temporally with the Western Idaho Archaic Burial Complex (Sappington 2013). Site 10AM677 was also likely a lithic workshop which was determined by the abundance of lithic debitage and the presence of an end-battered cobble found at the site (Sappington 2013).

Site 10AM678 is a site located in the Meadows Valley that had previously been identified by local amateur archaeologists as SaR-18. No artifacts were noted at the time of the survey however artifacts were collected from the site in the past which are housed at the Council Valley Museum. These artifacts included numerous projectile points and bifaces,

however most are fragmentary and do not provide any temporal markers to determine the age of the site (Sappington 2013).

The Holmes site (10AM679), is a large site located in Indian Valley where numerous pestles and large Cascade style artifacts had been recovered in the past. At the time of survey extensive scattering of lithic debitage was evident. Pestles and fragmentary projectile points were also recovered at the site. The most interesting find was a very large obsidian biface (Sappington 2013), which has since been sourced to the nearby Timber Butte obsidian source (Skinner 2015) (Appendix). In 2014 the author excavated a test unit to help determine if the cultural deposits extended below the plow line at the site. The unit was excavated to 50 centimeters below the surface and it was evident by the stratigraphy visible in the sidewall that the plow line extended to approximately 30 centimeters below the surface and that lithic debitage was still prevalent in the unit (Table 6.2) (Sappington and Wallen 2014a). In 2015, two postholes were excavated at the site to help determine the overall depth and distribution of the site. The postholes revealed that cultural deposits extended to 54 centimeters below the surface in one location where the soil became sterile clay. The soil also changed to sterile clay in the second unit but this was at a depth of 77 cm below the surface (Tables 6.3 and 6.4) (Sappington and Wallen 2015).

Table 6.2: Description and distribution of all cultural material recovered from Unit 1 at the Holmes site (10AM679), August 2014

Level/Depth Below Surface	Results	Comments
1/0 – 10 cm	Debitage (n = 275) including chert (n = 18), basalt (n = 173), and obsidian (n=84), as well as red ochre (n = 6). Historic items (n = 14) including 8 glass fragments, 1 ceramic fragment, 2 wire nails, 1 square nail, 1 plastic button fragment, and 1 unidentified nonferrous metal fragment.	Found in screen
2/10 – 20 cm	Debitage (n = 235) including chert (n = 21), basalt (n = 165), and obsidian (n = 490, as well as red ochre (n = 1). Historic items (n = 11) including 8 glass fragments, 2 ceramic, and 1 copper button.	Found in screen
3/20 – 30 cm	Debitage (n = 296) including chert (n = 33), basalt (n = 178), and obsidian (n = 85), as well as red ochre (n = 3). Historic items (n = 11) including 2 glass fragments, 3 ceramic fragments, 1 wire nail, and 5 cut nails.	Found in screen
4/30 – 40 cm	Debitage (n = 257) including chert (n=2), basalt (n = 225), and obsidian (n = 30).	Found in screen
5/40 – 50 cm	Debitage (n = 57) including chert (n = 7) and basalt (n = 50).	Found in screen

Source: Sappington and Wallen 2014a:16.

Table 6.3: Results of 2015 Shovel Test Unit 1 at the Holmes site (10AM679), July 2015.

Level/depth below surface (bs)	Artifacts	Comments
0/0-4 cm bs	36 debitage flakes: 9 basalt, 20 obsidian, 1 chert	Artifacts found in screen
1/4-14 cm bs	75 debitage flakes: 42 basalt, 27 obsidian, 6 chert 2 basalt modified flake tools	Artifacts found in screen
2/14-24 cm bs	57 debitage flakes: 32 basalt, 23 obsidian, 2 chert 1 obsidian biface fragment	Artifacts found in screen
3/24-34 cm bs	50 debitage flakes: 31 basalt, 15 obsidian, 4 chert	Artifacts found in screen
4/34-44cm bs	17 debitage flakes: 14 basalt, 2 obsidian, 1 chert	Artifacts found in screen
5/44-54 cm bs	4 debitage flakes: 3 basalt, 1 obsidian	Artifacts found in screen
6/54-64 cm bs	Culturally sterile	

Source: Sappington and Wallen 2015:6.

Table 6.4: Results of Shovel Test Unit 2 at the Holmes site (10AM679), July 2015.

Level/depth below surface (bs)	Artifacts	Comments
0/0-7cm bs	13 debitage flakes: 9 basalt, 3 obsidian, 1 chert	Artifacts found in screen
1/7-17cm bs	30 debitage flakes: 17 basalt, 10 obsidian, 3 chert 2 colorless glass fragments 2 cut nails	Artifacts found in screen
2/17-27cm bs	32 debitage flakes: 18 basalt, 12 obsidian, 2 chert 4 colorless glass fragments 2 cut nails 1 wire cut nail	Artifacts found in screen
3/27-37cm bs	32 debitage flakes: 18 basalt, 9 obsidian, 5 chert 2 flat iron fragments	Artifacts found in screen
4/37-47cm bs	20 debitage flakes: 6 basalt, 13 obsidian, 1 chert	Artifacts found in screen
5/47-57cm bs	8 debitage flakes: 2 basalt, 4 obsidian, 1 chert, 1 (possible) quartz crystal	Artifacts found in screen
6/57-67cm bs	17 debitage flakes: 14 basalt, 3 obsidian	Artifacts found in screen
7/67-77cm bs	7 debitage flakes: 5 basalt, 2 chert	Artifacts found in screen
8/77-85cm bs	Culturally sterile	

Source: Sappington and Wallen 2015:7.

Site 10AM680 is located several hundred meters from 10AM679 on the same piece of property. No artifacts were noted at the time of survey, however, the land owning family's collection of artifacts recovered from the site includes a considerable number of pestles and a stone bowl mortar suggesting that the location was likely a seasonal village or campsite where root crops such as camas or balsamroot were processed.

In 2014 and 2015 archaeological survey of Adams and Washington counties was conducted by the author and results were compiled under the supervision of and with the assistance of Sappington. In 2014 the author recorded five sites located in Adams County,

10AM693 (Bacon Creek Knob), 10AM694, 10AM695, 10AM696 and 10AM697 as well as three sites located in Washington County, 10WN864, 10WN865 and 10WN866 (Sappington and Wallen 2014a, 2014b).

The Bacon Creek Knob site (10AM693) is located on a small knob overlooking agricultural fields on the flood plain near the confluence of Bacon Creek and the Weiser River. The site is composed of a lithic scatter on the top of the hill, which was likely a strategic vantage point. Basalt and obsidian debitage was found at the site as well as a small corner-notched basalt projectile point indicative of the late archaic to historic period. The lower portions of the knob were scattered with pulverized historic glass and the presence of a semi-subterranean foundation were also noted. The historic presence suggests that the site may have been disturbed by the farmers who once lived in close proximity to the site and undoubtedly collected artifacts from the location (Sappington and Wallen 2014a).

One location was visited in Adams County in 2014 that was not formally designated as a site. Ted and Irene Hargrin shared a large and well-crafted Windust style point with the author and pointed out the location on the ridge above their home where the point was recovered. Further survey by the author and Dale Fisk found no other artifacts that could identify the location as more than an isolated find. This location is worth mentioning however because the projectile point style is identifiable as Windust and is therefore potentially of significant antiquity (Sappington and Wallen 2014).

10AM694 and 10AM695 are also located along Bacon Creek, a few miles upstream from Bacon Creek Knob. 10AM694 is located on a terrace above Bacon Creek that showed evidence of historic structures and farming. The site had obviously been plowed historically and was scattered with artifacts dating in range from the early 1900s to approximately 1950.

The area also was scattered with numerous prehistoric artifacts including hundreds of flakes of debitage, three basalt cores, three biface fragments, a basalt projectile point fragment, and two large hopper mortars. The site likely has moderate stratigraphy because it is evident that the site was plowed historically, suggesting that the soil is not shallow and rocky. Site 10AM695 is located a couple hundred meters upstream and on the opposite side of Bacon Creek from 10AM694. Site 10AM695 is represented by an extensive lithic scatter composed of nearly 100 flakes of exclusively basalt debitage.

Sites 10AM696 and 10AM697 are located on the Nelson property, a few miles north of Council. The property once belonged to Bill Winkler, well known as one of the founders of Council. Site 10AM696 is also known as the East Nelson site and is located in an irrigated hay field. The site is composed of an extensive lithic scatter including hundreds of pieces of debitage, several basalt cores, two biface fragments, an obsidian projectile point fragment and a complete stemmed basalt projectile point (Sappington and Wallen 2014). The stemmed projectile point, similar to Windust points, suggests that the site may have considerable antiquity (Leonhardy and Rice 1970; Sappington 1994; Rudolph 1995). The author revisited the site in 2015 and excavated six post holes at the site to try and determine the depth and distribution of the site (Sappington and Wallen 2015). The results of those test holes are shown in Table 6.5.

Site 10AM697, also known as the Gould Corral site, is a lithic scatter located near the historic Gould Corral on the Winkler Homestead, what is now the Nelson property. Basalt debitage was identified in an irrigation ditch that cut across the site as well as a fragment of a basalt biface (Sappington and Wallen 2014). In 2015 the author revisited the site and excavated four post holes. The results of those excavations are presented here in Table 6.6. A

test unit was excavated at the site near Shovel Test 4 the same year. The test unit was dug to 80 centimeters below the surface where the excavation was stopped by rocks covering the floor of the unit (Table 6.7).

Table 6.5: Results of Shovel Test Units excavated at the East Nelson site (10AM696), July 2015.

Unit	Artifacts	Depth Excavated	Depth artifacts stopped	Comments
Test Hole 1	27 debitage flakes: 17 basalt, 7 obsidian, 3 chert	60 cm	50 cm	Artifacts found in screen
Test Hole 2	6 debitage flakes: 6 basalt	50 cm	30 cm	Artifacts found in screen
Test Hole 3	37 debitage flakes: 26 basalt, 10 obsidian, 1 chert	65 cm	55 cm	Artifacts found in screen
Test Hole 4	5 debitage flakes: 4 basalt, 1 chert	50 cm	25 cm	Artifacts found in screen
Test Hole 5	23 debitage flakes: 19 basalt, 4 chert	55 cm	45 cm	Artifacts found in screen
Test Hole 6	6 debitage flakes: 5 basalt, 1 chert. 1 basalt projectile point fragment (tip)	60 cm	45 cm	Artifacts found in screen Stopped by rocks

Source: Sappington and Wallen 2015:9.

Table 6.6: Results of shovel tests at the Old Gould Corral (10AM697), July 2015.

Unit	Artifacts	Depth excavated	Depth artifacts stopped	Comments
Shovel Test 1	13 debitage flakes: 13 basalt	50 centimeters	40 centimeters	Artifacts found in screen
Shovel Test 2	32 debitage flakes: 26 basalt, 5 obsidian, 1 chert	60 centimeters	50 centimeters	Artifacts found in screen
Shovel Test 3	4 debitage flakes: 4 basalt	15 centimeters	15 centimeters	Artifacts found in screen Stopped by rocks
Shovel Test 4	38 debitage flakes: 26 basalt, 9 obsidian, 3 chert 1 basalt Cascade point	75 centimeters	65 centimeters	Cascade Point found at 43 centimeters below surface Other artifacts found in screen

Source: Sappington and Wallen 2015:11.

Table 6.7: Results of the excavation of Test Unit 1 at the Old Gould Corral (10AM697), July 2015.

Level/depth below datum (bd)	Artifacts	Comments
0/0-10 cm bd	282 debitage flakes: 236 basalt, 25 obsidian, 21 chert 1 chert lanceolate projectile point 1 fragment colorless glass 1 lock washer	Lanceolate projectile point 10cmbd Other artifacts found in screen
1/10-20 cm bd	261 debitage flakes: 208 basalt, 27 obsidian, 25 chert, 1 Salmon River greenstone 3 pieces of charcoal	Charcoal from 15cmbd in SE corner Other artifacts found in screen
2/20-30 cm bd	271 debitage flakes: 225 basalt, 28 obsidian, 18 chert 1 piece red ochre 1 Salmon River Greenstone drill fragment tip 1 basalt biface midsection	Drill fragment 28cmbd Other artifacts found in screen
3/30-40 cm bd	232 debitage flakes: 206 basalt, 19 obsidian, 7 chert 1 basalt projectile point base 1 core/pick	Projectile point base found 34cmbd Fire-cracked rock present in SW corner
4/40-50 cm bd	246 debitage flakes: 212 basalt, 24 obsidian, 10 chert 1 basalt Cascade point 1 basalt Cascade point fragment	Fire-cracked rock present in SE corner and SW corner Other artifacts found in screen
5/50-60 cm bd	76 debitage flakes: 59 basalt, 8 obsidian, 9 chert 1 piece of charcoal	Artifacts found in screen
6/60-70 cm bd	40 debitage flakes: 32 basalt, 5 obsidian, 3 chert Rodent: 6 cranial fragments, 1 molar, 1 vertebra, 1 humerus, 1 scapula	Krotovina in NW corner of unit (where rodent remains were found) Artifacts found in screen
7/70-80 cm bd	5 debitage flakes: 4 basalt, 1 obsidian	All artifacts found in krotovina in center of unit Stopped by rocks

Source: Sappington and Wallen 2015:14.

Site 10WN864 is located in Washington County, on Midvale Hill west of the rest area. The site is located adjacent to a scree field on the steep slope dropping down to Sage Creek. The site is composed of a small lithic scatter of basalt and chert (Sappington and Wallen 2014b).

Site 10WN865 and 10WN866 are located on the property of Alan and Varina Pickett South of Cambridge, Idaho. Site 10WN865 is made up of a scattering of flakes of basalt and chert debitage along Dixie Creek as well as a small well-formed stemmed point indicative of the late Archaic (Sappington and Wallen 2014b). Site 10WN866 is composed of a small lithic scatter located on a hill above Dixie Creek near a barn and feed location for cattle. The site was noted in the Pickett family's oral history as once being the location of tipi rings. There was no evidence of the tipi rings at the time of survey however, because the grandfather had placed the feed troughs for the cattle in the rings and they have since either been buried in manure or destroyed. It was noted however that a few river cobbles were found in the area of the supposed tipi rings, suggesting that the stones were carried there for some reason in the past, possibly for the tipi rings (Sappington and Wallen 2014b).

In 2015 the author recorded one site in Adams County, 10AM706 also known as the Dunham site. The site was identified by a large scatter of lithic artifacts. The site is noteworthy because the majority of artifacts were of obsidian. Survey of the site revealed an obsidian projectile point, an obsidian projectile point fragment, one pestle, a hammerstone and an edge battered cobble. A total of 725 flakes of debitage were noted of which 407 were obsidian (56%), 264 were basalt (36.5%) and 54 were of chert (7.5%) (Sappington and Wallen 2015).

OBSIDIAN SOURCING

In 2015 the author sent 32 obsidian artifacts recovered from various sites in Adams County to Northwest Research Obsidian Studies Laboratory (NROSL) in Corvallis, Oregon, for sourcing. The samples were analyzed for trace elements nondestructively using a Thermo Noran QuanX-EC energy dispersive X-ray fuorescence (EDXRF) spectrometer (Skinner 2015:1). Of these 32 artifacts, 31 were able to be sourced and one was too small of a sample to give a definite reading of trace minerals (Skinner 2015:1). Not surprisingly the majority of samples sent for obsidian sourcing were traced to the nearby Timber Butte source, however some artifacts did come from sources further away in Oregon (Appendix)(Skinner 2015:2-3).

The majority of obsidian artifacts submitted were sourced to the Timber Butte source. The one piece of obsidian debitage recovered from the Bacon Creek Knob (10AM693) proved to be Timber Butte obsidian. One piece of obsidian debitage recovered from 10AM694 (East Bacon Creek) was also sourced to Timber Butte. A finely serrated projectile point tip and a decortication flake, both found at the East Nelson site (10AM696) were also attributed to the Timber Butte source. Some sites proved to represent exclusively Timber Butte obsidian from the samples submitted. For example, all five pieces of debitage that were sent for sourcing from the Fraser site (10AM703) were sourced to Timber Butte. All three pieces of debitage sent from site 10AM704 also proved to be of Timber Butte obsidian (Skinner 2015:A1-A3).

From the Wassard site (10AM656) an obsidian corner-notched projectile point recovered from the test unit excavated by Sappington in 2011 was sourced. The point was recovered in Unit 1, Level 9 which was 80 to 90 cm below the surface (Sappington 2011). Sourcing by Northwest Research Obsidian Studies Laboratory (NROSL) traced the obsidian

to the Gregory Creek obsidian source located in central eastern Oregon (Skinner 2015:A1-A3).

From the Lower Harrington Site (10AM702) a projectile point fragment, a side-notched projectile point, a core, and a biface or preform fragment were all sourced to Timber Butte. However, one preform (0.0.140) from the site was sourced to the Indian Creek source located near the same latitude but in Oregon (Skinner 2015:A1-A3).

The results from the Upper Harrington site (10AM705) were probably the most interesting of the samples that were sent for sourcing. Of the seven artifacts sent from the Upper Harrington site (10AM705) five pieces of debitage were not surprisingly sourced to Timber Butte (Skinner 2015). A preform found at the site was sourced to the Indian Creek source, which is almost as close as Timber Butte to the site but the terrain makes the Indian Creek source much more difficult to access, being located across rivers and mountains in eastern Oregon. One piece of debitage was sourced to the Beatys Butte source located in central southern Oregon (Skinner 2015:2-3). This find is unique in that no Beatys Butte obsidian has ever been identified in Idaho by Northwest Research Obsidian Studies Laboratory (NROSL) until this sample was sent (Skinner 2015b). The Beaty's Butte source is also located a considerable distance from the project area.

From the Holmes site four artifacts were sent for sourcing. These included the large biface discovered by Sappington in 2013, a projectile point base, a projectile point tip found on the surface by the author in 2014, and a preform fragment excavated from Test Unit 1, level 2, 14-24 centimeters below the surface in 2015 (Sappington and Wallen 2014). Of these samples the biface, preform fragment, and projectile point tip were all from the Timber Butte

source (Skinner 2015:A1-A3). The projectile point base, however, was sourced to the Indian Creek location (Skinner 2015A1-A3).

Two artifacts found in 2015 at the Dunham site (10AM706) were submitted for sourcing. These artifacts were a biface fragment and a side-notched projectile point. The biface fragment was sourced to the Timber Butte source and the side-notched projectile point was sourced to Whitewater Ridge located in east central Oregon (Skinner 2015).

In 2009 Jerrems also submitted eleven obsidian artifacts from the Shumway site (10AM686) to Richard Hughes of Geochemical Research Laboratory for sourcing. Of the eleven artifacts submitted by Jerrems, nine were sourced to nearby Timber Butte, and one artifact was sourced to Gregory Creek in Oregon. The final artifact's source was not definitively identified however it most closely resembles the Coyote Wells East source in southwest Oregon (Hughes 2009).

CHAPTER 7: DISCUSSION

The most important category of data gathered from this project has little to do with the types of artifacts recovered or the distribution of sites, but rather collaboration. This project has highlighted the vast number of archaeological sites located on private lands that have been monetarily and physically inaccessible to archaeological professionals for decades. By working with local governments and meeting with local land owners, farmers, and even artifact collectors many sites have been identified and the relative data potential has been recognized. Many of the sites identified have very little disturbance aside from the occasional projectile point collected from the surface.

The data gathered from this project have greatly improved the knowledge of the prehistory of the Weiser River Basin. Working with private landowners and with local government has proven to be a very effective method of both identifying archaeological sites and learning about the prehistory of the area. By working with landowners the project became a very hands-on method of public archaeology. Landowners would show off their own private collections and then identify the locations from which the artifacts were discovered. This allowed for creating an official record of the sites and assigning some general context for where artifacts were recovered from. Working in this way sites can be identified and in some cases tested to determine stratigraphy and information potential. Although no absolute dating such as Carbon 14 dating has been done due to a lack of organic materials recovered, the styles of artifacts can generally be attributed to culture phases and time periods.

The artifacts reported from this project have identified cultural occupation of the Weiser River Basin that is more or less continuous starting in the Paleo-Indian time period

approximately 12,000 years BP and extending to the historic period. Analysis would be greatly improved by definitive dates that could be associated in context with artifact types. However, there appears to be a general lack of preservation of organic remains in the soils of the Weiser River Basin. No organic materials have been recovered from sites identified as a part of this project, even during test excavation. Without these dates it is difficult to make accurate determinations of when sites were in use or occupied. However, the relative dates associated with work conducted in nearby areas has allowed for general determinations of time frames in which sites were occupied. The obstacle of an absence of datable materials stresses the importance in generating cultural chronologies.

The author was able to connect general artifact types to regional trends in material culture. The developed chronologies are far from exclusive to the Weiser River Basin but have been created for general areas that are nearby or overlap the study area (Jennings 1968, 1986; Butler 1986; Cressman 1986; Ringe and Holmer 1987; Meatte 1990; Lohse 1994; Sappington 1994; Reid and Gallison 1996; Ames et al. 1998; Roll and Hackenberger 1998; Plew 2008). These chronologies must be relied on for general dating information due to both the lack of absolute dates determined from archaeological context and the lack of a chronology unique to the Weiser River Basin. The creation of such a chronology would be a very valuable piece of research that could be added for the Weiser River Basin.

Artifacts found at all of the sites recorded during this project can help explain the types of sites, data potential and general cultural phases that are present, giving general date ranges for each site. This section will break down the sites based on the material culture found at each location to date. Of the sites noted in the previous section many have no diagnostic features to place them temporally, they are simply scatters of lithic debitage, cores, and other

non-temporally exclusive artifacts. These sites are: the Hoxie site (10AM657), Jackson Creek (10AM21), Johnson Creek (10AM658), Madison Knoll (10AM661), 10AM667, D035, G003, 10AM704, G13, G15, D41, the Fraser site (10AM703), D26, R18, the Impulse site, 10AM677, 10AM680, 10AM694, 10AM695, 10WN864 and 10WN866. This is not to say that they do not present valuable data, but rather that to date no temporally diagnostic artifacts have been recovered from the sites. Some of these sites such as 10AM704 and the Fraser site (10AM703) have had some obsidian artifacts sourced, a testament to the information potential available even at sites without distinctive artifacts (Figure 7.1).

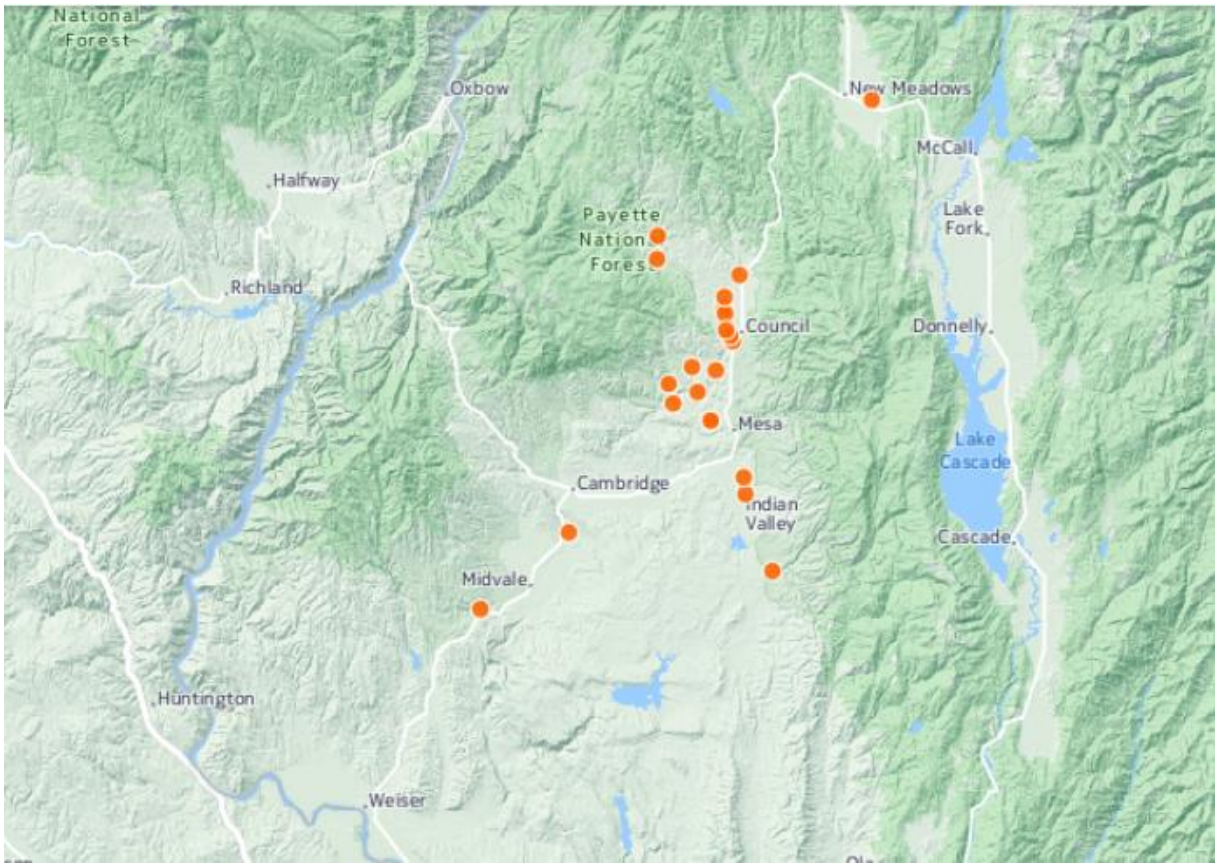

Figure 7.1. Map showing the location of sites where no temporally diagnostic artifacts were found (base map from cartodb.com).

Sites recorded since 2009 as part of this project that represent a Paleo-Indian occupation in the area include: the Crane Creek Folsom isolate, the Hargrin isolate, the

Shumway site (10AM686), 10AM696, and possibly site 10AM659 (Figure 7.2). A Folsom point was found along Crane Creek in Washington County at the Crane Creek isolate site. This point ties the area to the likely hunting of bison, notably *Bison antiquus* as well as providing a general age range. The Folsom tradition is associated with a date range of around 11,000 years BP to 9,000 years BP (Jennings 1986). The Crane Creek Folsom point is considered an isolated find, however in 1964 Alfred W. Bowers also discovered the midsection of a Folsom point in the vicinity of Crane Creek Reservoir and Ant Butte (Bowers 1967). The more recent find in conjunction with the previous find by Bowers suggests that the sites may not be as isolated as previously believed due to their proximity to one another.

The Shumway site (10AM686), the East Nelson site (10AM696) and the Hargrin locality all include stemmed projectile points belonging to the Western Stemmed Tradition. This style, also known as Windust, is more or less unique to the Rocky Mountain and Columbia Plateau areas and represents an age range of around 11,000 years BP to 8,000 years BP (Rudolph 1995). However, it is possible that this style of projectile point is considerably older. Research at locations such as Paisley Caves, Oregon, and Coopers Ferry, along the Salmon River, Idaho, suggests that the Western Stemmed tradition could be pre-Clovis in origin (Smith 2014; Gossard 2015). That cannot be definitively decided in the project area due to the lack of datable materials that have been recovered. A more diagnostic location is the Hetrick site which has dates associated with Windust in the 11,000 year range (Rudolph 1995).

The point recovered from the East Nelson site (10AM696) is a large, crude stemmed projectile point, however it cannot be definitively assigned a date range due the fact that it was found on the surface in a recently plowed field near an irrigation ditch (Sappington and

Wallen 2014). The well-crafted point found at the Hargrin isolate location was discovered on the surface with no other cultural materials, which made it impossible to associate a date with the point, however its style is very representative of the Windust culture.

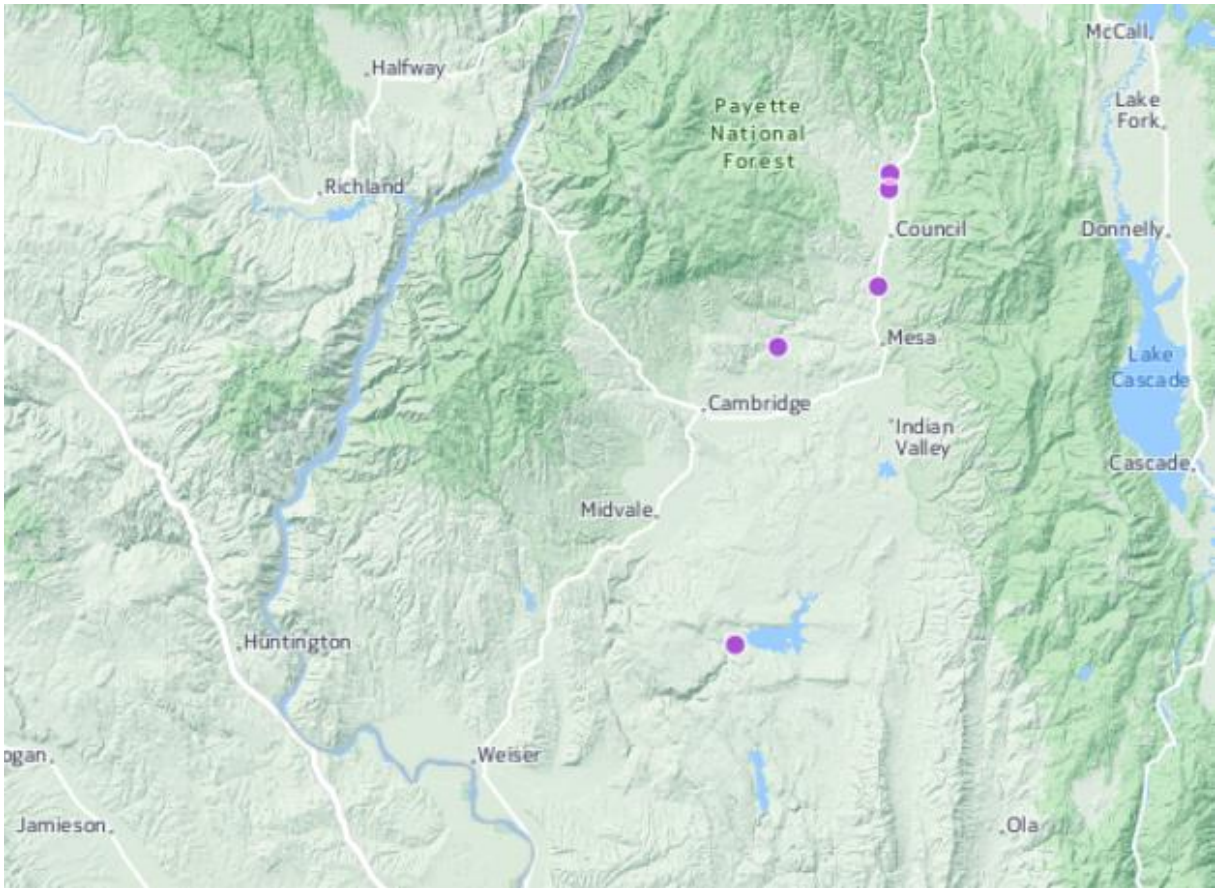

Figure 7.2. Map illustrating relative locations of sites associated with the Paleo-Indian time period (13,000 to 8,000 years BP).

Site 10AM659, which was recorded by Jerrems in 2010 is believed to represent a Paleo-Indian component based on the reports of artifact collectors in the area. A local collector noted that "a Dalton Point and various other old projectile points were found at the site" (Jerrems 2010). Jerrems never actually observed any of the projectile points that were supposedly found at the site and as a result it cannot be determined for certain whether or not site 10AM659 actually does represent a Paleo-Indian occupation. The Dalton style of projectile point is more generally associated with fluted technology in the Mississippi Valley

and the south-eastern United States from around 10,500 years BP to around 9,900 years BP (Ballenger 1998). This fact alone suggests that the collector may have been mistaken in his identification. However if he determined that the point was a Dalton point based on fluting technology, this would still place the artifact in the Paleo-Indian time period and would link the site to either the Clovis or Folsom traditions.

Sites that likely represent an early Archaic phase include: the Shumway site (10AM686), The Daniels site (10AM655), the Wassard site (10AM656), site SaR12, site 10AM669, 10AM670, the Lower Harrington site (10AM702), 10AM675, 10AM676, 10AM678, 10AM679, 10AM694, 10AM696 and 10AM697 (Figure 7.3). The sites representing the early Archaic period generally include artifacts indicative of the Cascade culture. The Shumway site (10AM686), the Daniels site (10AM655), the Wassard site (10AM656), site 10AM678, site 10AM679, site 10AM696 and 10AM697 all include clearly formed lanceolate Cascade projectile points. The most intriguing of the sites identified as belonging to the early Archaic is 10AM676. This site is little more than a lithic scatter, but Sappington found what appears to be an unfinished turkey-tail projectile point at the site. A style that has been readily recognized as indicative of the Western Idaho Archaic Burial Complex, associated with the Cascade culture and dated to the early Archaic.

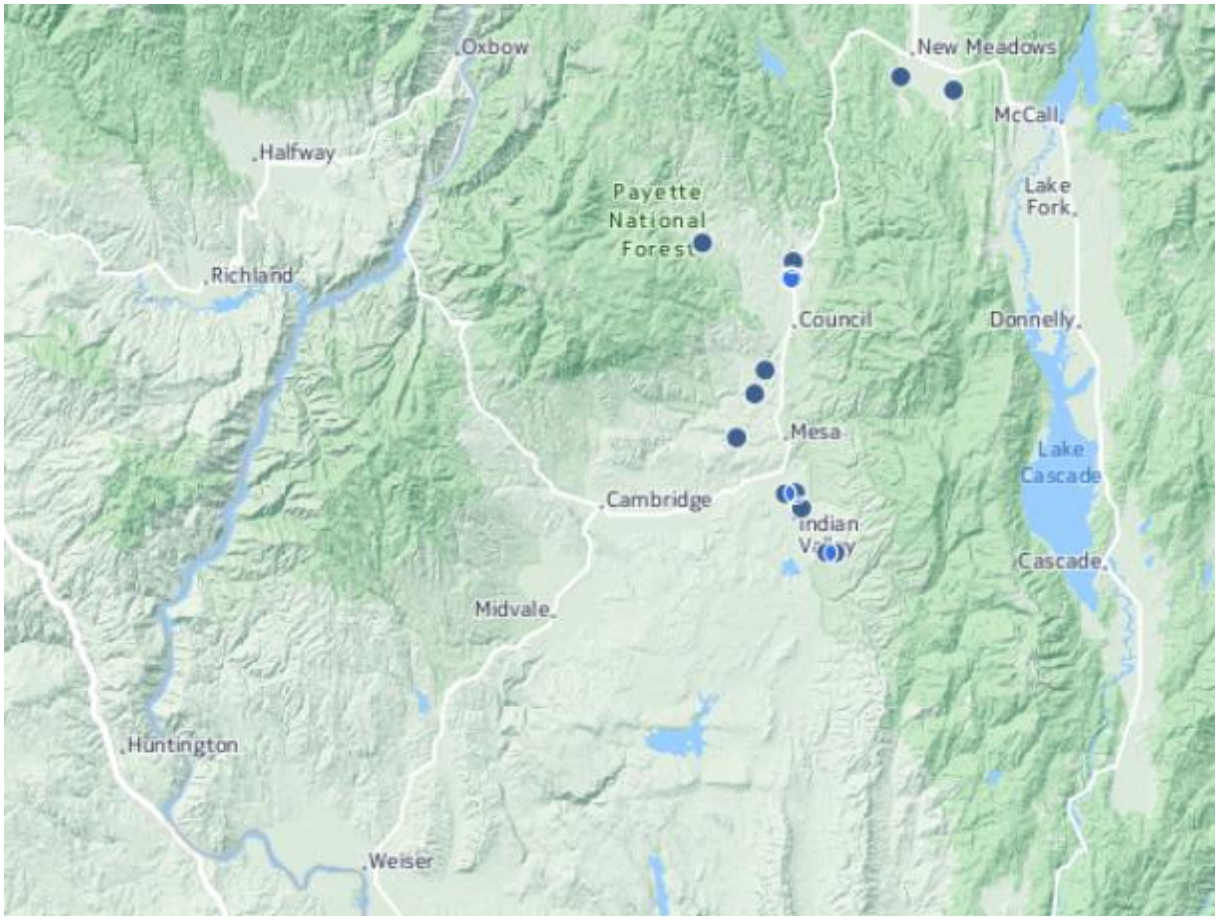

Figure 7.3. Map showing the distribution of sites identified containing an early Archaic Component (8,000 to 4,000 years BP) (base map from cartodb.com).

The middle Archaic period is well represented in the Weiser River Basin. Sites that potentially belong to the middle Archaic include the Gould site (10AM687), the Shumway site (10AM686), the Old Meadows site (10AM688), 10AM660, the Ridge Road Site (10AM666), the Lower Harrington site (10AM702), 10AM675, 10AM679, 10AM696, and potentially 10AM706 (Figure 7.4). The most prevalent artifact representing the middle Archaic is the large side-notched projectile point, also referred to as Bitterroot or Northern side-notched point. However, other points such as Humboldt concave base and Elko corner-notched projectile points are also found at the sites and may represent a later iteration of the middle Archaic. The Gould site (10AM687) includes a Humboldt style projectile point, which was found 70 centimeters below the ground surface in the side of an irrigation ditch (Jerrems

2009). Various styles of Humboldt projectile points were primarily in use between 6,000 and 1,000 years BP (Jennings 1986). This encompasses the latter half of the early Archaic and the first half of the late Archaic but the technology encompasses the entirety of the middle Archaic making it most distinctive to that time period.

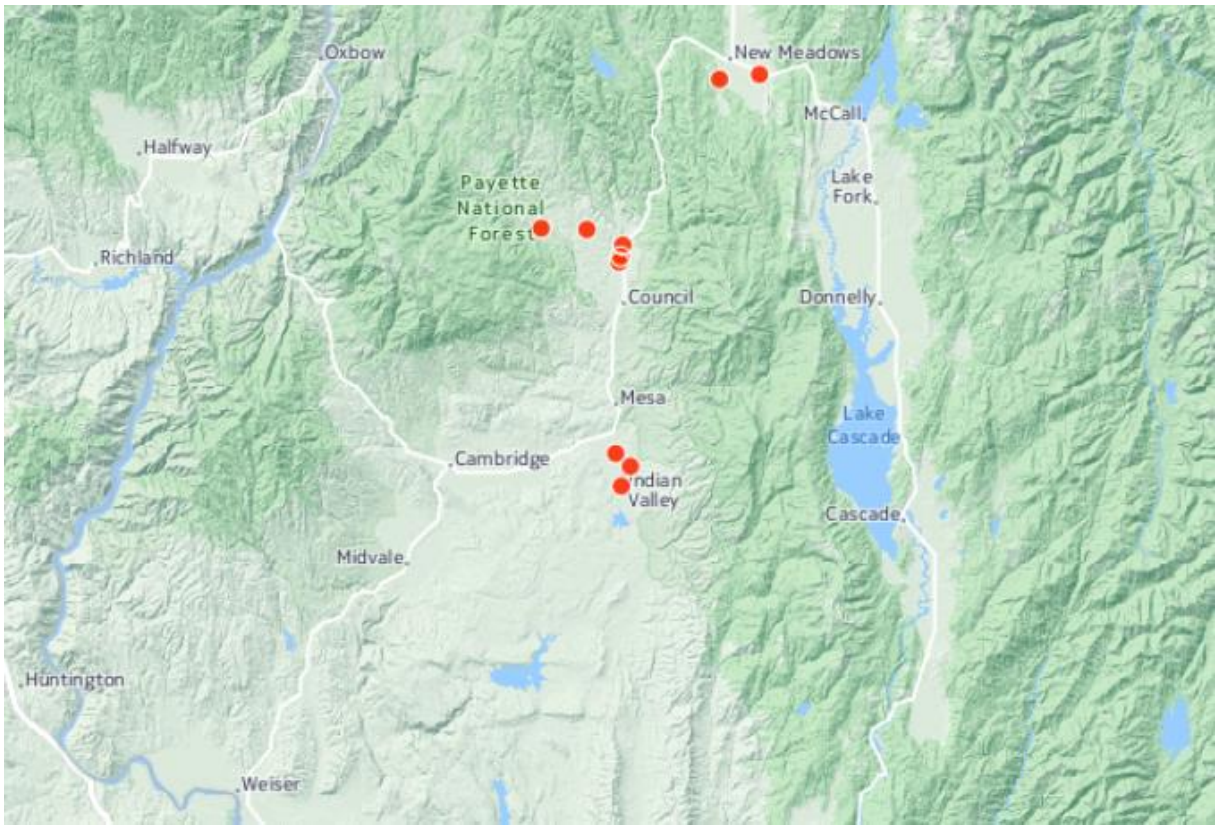

Figure 7.4. Map showing the locations of maps including a middle Archaic component (4,000 to 2,000 years BP) (base map from cartodb.com).

The late Archaic is also a well-represented phase in the Weiser River Basin. This is partially due to its temporal proximity to the present. Sites containing projectile points of a size consistent with the use of the bow and arrow were recorded every year, a total of at least ten of the 43 recorded sites recorded since 2009 include a component of materials suggesting late Archaic occupation. These sites include: The Shumway site (10AM686), the Old Meadows site (10AM688), the Wassard site (10AM656), 10AM668, the Lower Harrington

site (10AM702), site 10AM675, 10AM693 (the Bacon Creek Knob), 10WN865, 10AM706 and site 10AM697 (Figure 7.5).

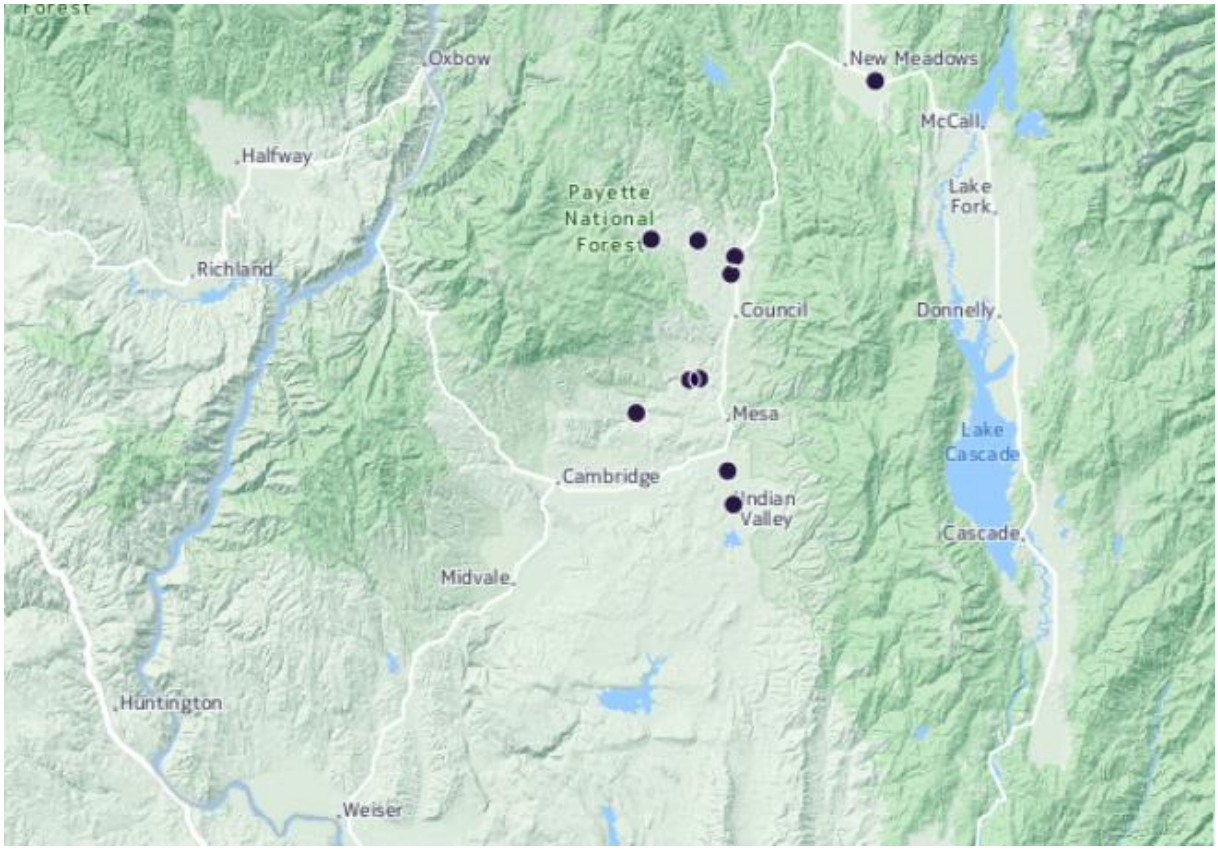

Figure 7.5. Map showing the location of sites with identified Late Archaic Artifacts (2,000 to 250 years BP) (base map from cartodb.com).

The other aspect of this research that provides information about the areas prehistory is obsidian sourcing. The relatively inexpensive results obtained through obsidian sourcing of artifacts recovered from sites provides better information about the movements of people in the area prehistorically. Not surprisingly, the results of obsidian sourcing overwhelmingly represent the use of the nearby Timber Butte source. This suggests that Timber Butte was an important toolstone source for the people inhabiting or visiting the Weiser River Basin. The results of the obsidian sourcing were not exclusively from the Timber Butte source, however. Some obsidian came from other sources located in central and southern, Eastern Oregon.

These sources include Gregory Creek, Indian Creek, Whitewater Ridge, Beatys Butte, and Coyote Wells East. Both Gregory Creek and Indian Creek are located fairly close to the project area, however, they are much harder to access from the Weiser River Basin than Timber Butte. Hells Canyon and multiple mountain ranges and river valleys lie between the Weiser River Basin and the Oregon obsidian sources (Skinner 2015) (Figure 7.6).

Of the 42 artifacts that were successfully sourced, 34 were identified as coming from the Timber Butte, Idaho source. The fact that 81% of the artifacts came from the Timber Butte source attests to its cultural significance in the Weiser River Basin. Two artifacts (5%) were sourced to the Gregory Creek obsidian source in Oregon. Another three artifacts (7%) were sourced to the Indian Creek source in Oregon as well. One artifact (2.33%) was sourced to Beatys Butte in southern Oregon and one artifact (2.33%) was sourced to Whitewater Ridge in eastern Oregon. Finally one artifact (2.33%) was sourced to Coyote Wells East also located in Oregon (Hughes 2009; Skinner 2015).

It is not surprising that Whitewater Ridge obsidian appeared in the study area, however it was carried further from its source. Whitewater Ridge is located in eastern central Oregon. The most surprising find however was that one obsidian artifact was sourced to Beatys Butte, Oregon. This source is located in central southern Oregon which is a considerable distance from the project area. According to Craig Skinner at Northwest Research Obsidian Studies Laboratory (NROSL) this artifact was the first piece of obsidian sourced to Beatys Butte that has been identified in Idaho by the NROSL (Skinner 2015b).

All of the artifacts are within a distance that could be considered part of a seasonal round, however the artifacts from Whitewater Ridge and Beatys Butte suggest a more likely trade connection because of the distance from the area. Liljeblad wrote that many tribes,

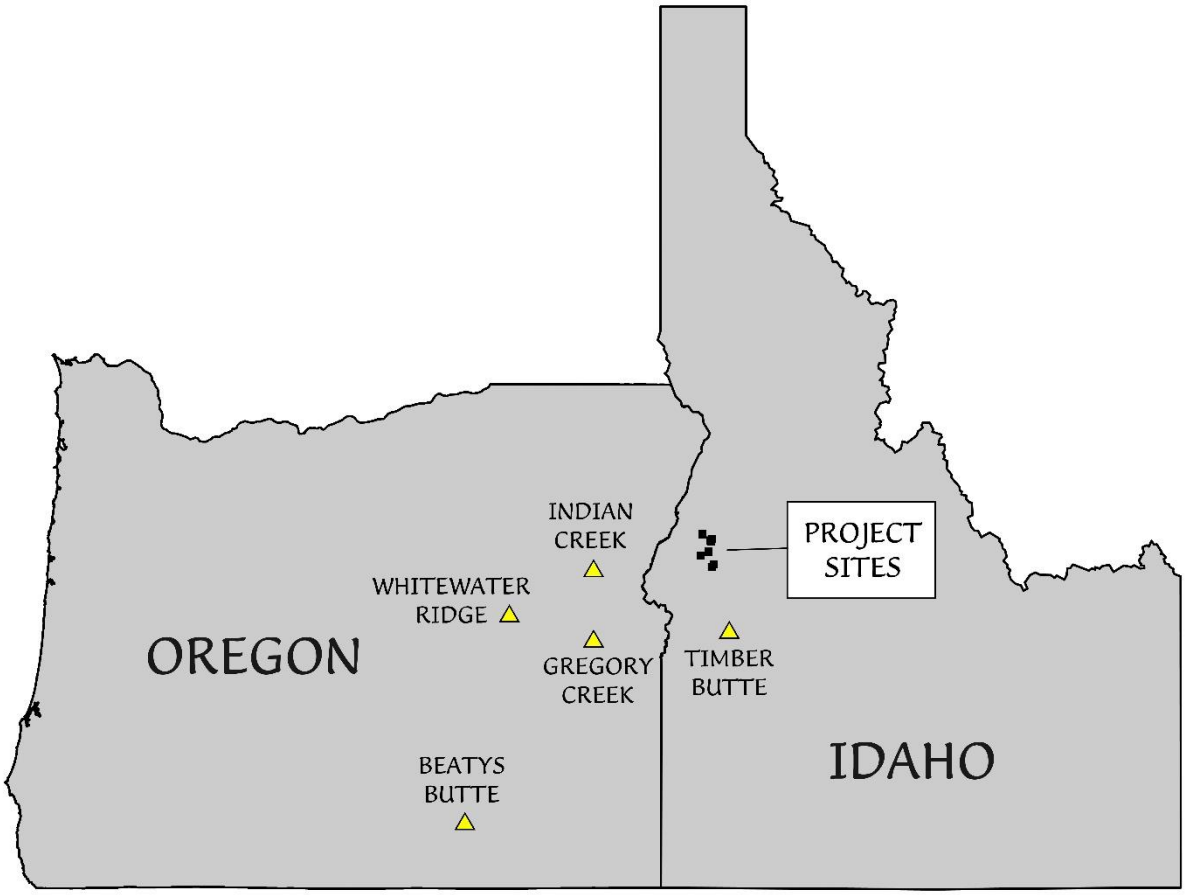

Figure 7.6. Map showing the location of obsidian source locations in relation to the project area. Map courtesy of Craig Skinner (Skinner 2015).

especially the Northern Paiute, the Nez Perce and the Eastern Shoshone all traveled to the Weiser area partially to obtain high quality obsidian (Liljeblad 1957:88). This is was suspected by Liljeblad to be Glass Buttes obsidian from Oregon, however the fact that no Glass Buttes obsidian has been identified in the Weiser River Basin suggests that that was probably not the source (Liljeblad 1957:88). It is far more likely that different groups visited the Weiser area to obtain Timber Butte obsidian, or to trade for obsidian from eastern Oregon sources. It is possible that individuals in the Weiser River Basin visited Whitewater Ridge or Beatys Butte, but they are a considerable distance from the area (Figure 7.6). This in conjunction with the fact that the Weiser River Basin was a known regional trade center suggest conveyance via trade (Liljeblad 1957: 82-89). It is quite probable that the artifacts from Whitewater Ridge and Beatys Butte, within the territory of the Northern Paiute, were conveyed to the Weiser River Basin via trade.

CHAPTER 8: CONCLUSION

Overall, the archaeological survey of private lands in the Weiser River Basin has been a great success. Since the project initially started, the Idaho State Historic Preservation Office (SHPO) has received records of 43 sites located in Adams and Washington counties on private lands that originally would not have been surveyed. The public has been actively engaged in the project and many interested local people have come to help on surveys and to dig test units, providing an opportunity to teach about archaeological methods and the importance of provenience to archaeology (Jerrems 2009, 2010; Sappington 2011, 2012, 2013; Sappington and Wallen 2014a, 2014b, 2015).

The project has benefited many people. The county governments receive funding for preservation and research, and the SHPO receives new site information. The public gains more knowledge of their area and archaeological methods, and landowners learn about the prehistory of their property and means of protecting their sites. Archaeologists have the opportunity to learn more about the prehistory of the area and can therefore present it academically as well as share that data with the interested public.

This project would not exist without the active engagement of the public. The local communities have shown overwhelming support and interest in learning more about the prehistory of the region. The interest in the program became evident when in 2014 Ken Reid and the author held two public meetings about the project at the Public Library in Cambridge, Idaho. The expectation was that a few active community members would attend. To everyone's surprise the events were packed, with more than 50 individuals in attendance at the first meeting. So many people came that the library ran out of seats!

Every year more local volunteers come along during the surveys to help out and to learn more. This has provided an excellent opportunity to teach about a wide range of topics ranging from the obvious history and prehistory to geology, archaeological methods, the importance of provenience, lithic technology, and most importantly, how to protect cultural resources and who to contact when they are discovered. Another benefit of this work is that the individuals who tag along during the surveys and test excavations often see for themselves what information can be learned from a site recorded properly, and as a result often volunteer sites on their own property to be documented.

Over the last couple decades there has been a movement to engage the public in the process of archaeology. Public involvement in archaeology takes many forms. In many cases this means working with descendant communities at interpretative sites and historic locations. At other sites public archaeology is working with the community to create meaningful exhibits in a museum. And still at others the public help develop the research design and interpretation of a project (Jameson and Baugher 2008; Richardson and Almansa-Sánchez 2015). The ideal circumstance being the active collaboration between archaeological professionals and members of the public (Little and Shackel 2014:72).

The project in the Weiser River Basin is a good example of a successful and meaningful public archaeology project. This project illustrates the involvement of the public in the identification, excavation and preservation of archaeological resources. The local community is involved in all aspects of the project. Individuals notify the archaeologist of sites that they know of. Landowners allow permission to survey and record sites on their property. Community members join the archaeologist in surveying and recording sites and in the event of excavation also assist in excavation and screening. The local community

generally knows many things about its past that the average archaeologist does not. Being involved with a community the archaeologist learns information important both to the archaeological finds, and in understanding the dynamic of the community that without collaboration would remain unknown (Jameson and Baugher 2008:5-6).

Collaboration with land owners, artifact collectors, and the general public is currently an area of confusion and contention in the archaeological community (Pitblado 2014a). Some archaeologists strictly avoid contact with artifact collectors due to the destructive and potentially illegal nature of an artifact collector's hobby (Pitblado 2014a, 2014b). However, in many, if not most cases these individuals are not actively plundering sites out of spite or to attempt selling artifacts. Many of these individuals are unaware of the legislation regarding collection or destruction of archaeological sites (Pitblado 2014b). Others simply want to learn more about the people that made those artifacts, and very few belong to the category of individuals intentionally recovering artifacts for the purpose of sale (Pitblado 2014a:387). Working with artifact collectors and the public in this respect is necessary, artifact collectors will learn very little about a site without consultation with an archaeologist (Moore 2005). If they do not learn anything about the site, archaeological methods or the importance of provenience they will continue to collect artifacts in the same harmful manner. The average individual has no opportunity to learn about a site unless he or she collects artifacts themselves. As an archaeologist, being available to the public resolves this problem (Pitblado 2014a, 2014b).

To alleviate the problem of interest in archaeology without a legal and ethical means of expressing that interest, archaeologists should be available to the artifact collectors and other interested public to provide instruction and record sites. By working alongside an

archaeologist many artifact collectors will not only learn more about the importance of archaeological methods, but will also likely gain a respect for the site and may avoid damaging it further (Pitblado 2014:388). In the case of this project in the Weiser River Basin, most sites are now left alone because the public knows that an archaeologist comes every year, and at that time the site can be recorded and the public can receive instruction explaining what that site and artifacts likely represent.

This project is an example of a successful community outreach program that effectively connects and abates tensions between archaeologists and artifact collectors in this area. This is not to say that such a relationship could be accomplished anywhere, but the possibility of success, if anything like the Weiser River Basin, is high. Bonnie Pitblado offered up her own research in collaborating with artifact collectors in southeastern Idaho and northeastern Utah as one example of a successful and ethical means of collaboration (Pitblado 2014a, 2014b). The work in the Weiser River Basin is another example of successful collaboration. The work is very similar in that archaeologists are working directly with the public to identify and record sites and represents an additional successful means of connecting archaeology and the public (Jerrems 2009, 2010; Sappington 2011, 2012, 2013; Pitblado 2014a, 2014b; Sappington and Wallen 2014a, 2014b, 2015).

Collaboration with the public in the Weiser River Basin led to the identification of many sites over the years and simple analyses of these sites was able to provide much more information about the habitation of the Weiser River Basin prehistory than was originally known. This work has been minimally invasive with only a few test units excavated to determine site stratigraphy and data potential. No major excavations were conducted and yet much has been learned. Continuation of this project is highly recommended and will be very

beneficial to the understanding of the prehistory of the region. If six years of minor work in the area can provide this much information, think what several more can do. This project should not only be continued but should also be expanded. There are many areas in the inland northwest that are dominated by private landholdings that could seriously benefit from this kind of work. One good example is Latah County, Idaho, where many people own pestles from the area and have found arrowheads and other artifacts but hardly any archaeological sites, especially prehistoric ones have been identified. By working with local government and landowners in other counties in a similar position, much more could be learned.

Although this project has been highly successful, more work is recommended both to continue the effective collaboration with the public and to gain a better understanding of the area. For example, one piece of data that would be of particular interest and use to both the communities and the professional archaeologists is a cultural chronology of the Weiser River Basin. The region is located between cultural areas which makes analysis of cultural material in the area exceptionally difficult. To which chronology do the artifacts relate most closely, those of the Lower Snake River and the Plateau culture area or those of the middle Snake River and the northern Great Basin area? This question can be addressed by the excavation of a few sites, potentially those on private lands that are in danger of further disruption by land use practices. The data gathered from these excavations would help to build a culture chronology of the area and greatly increase the likelihood of recovering materials that can provide dates associated with the artifact styles so prevalent in the region. The presence of Paleo-Indian artifacts, a topic of popular interest for many years, also means that the potential for early sites in the area is also very high.

This project was able to identify potential cultural phases present in the Weiser River Basin based on chronologies of the Northern Great Basin and the Southeastern Columbia Plateau. The occupation of the Weiser River Basin can be broken down into the Paleo-Indian (circa 13,000 to 8,000 years BP), the early Archaic (circa 8,000-4,000 years BP), the middle Archaic (circa 4,000 to 2,000 years BP), the late Archaic (2,000 to 250 years BP), and the ethnohistoric (250 years BP to modern times) periods.

This research also presented data about the toolstone conveyance of the region based on obsidian sourcing and the prevalence of basalt artifacts belonging to the Midvale Complex. Obsidian artifacts in the Weiser River Basin were identified as coming from six sources located in southwestern Idaho and central and eastern Oregon. The Timber Butte source, located in southwestern Idaho, dominated obsidian artifacts, composing 81% of the artifacts that were sourced. The remainder of the artifacts came from sources located in Oregon. The next highest percentage of the obsidian sourced was from Indian Creek which made up 7% of the assemblage. Gregory Creek obsidian made up 5%, and the Beatys Butte, Whitewater Ridge, and Coyote Wells East obsidian each made up 2.33% of the assemblage (Hughes 2009; Skinner 2015).

Ethnographic and historical research also made the significance of the area quite clear based on the multitude of floral, faunal and geologic resources available in the Weiser River Basin. The abundance and variety of resources is so dramatic that a seasonal round could potentially have consisted almost entirely of moving up or down the Weiser River this is contingent on climatic conditions and time of year. The bounty of the region could explain more of the significance of the area to trends unique to the general area such as the Western

Idaho Archaic Burial Complex and use by multiple cultural groups such as the Nez Perce and the Northern Shoshone.

The most important factor in the success of this project was the meaningful collaboration between archaeologists and the local government, individual landowners, artifact collectors, and the interested public in the area. Without a positive relationship between all of these entities this type of work would be entirely impossible. This work is a win-win situation. Archaeologists gather more data for research, the State Historic Preservation Office gains records of sites to monitor in the event of construction, development, and even changes in ownership, and the public gets hands-on experience learning about a wide range of topics ranging from prehistory to history to geology to archaeological methods and an abundance of other topics.

The data presented in this thesis illustrate the abundance of sites and information located on private lands that have not been formally recorded and promise high research potential. Further collaboration with communities will allow for leaps and bounds in our current understanding of regional prehistory as well as involve the public directly with archaeological research. It is almost certain that many of the most important archaeological sites are located on private lands.

REFERENCES CITED

Alt, David D. and Donald W. Hyndman
1989 *Roadside Geology of Idaho*. Mountain Press Publishing Company, Missoula: Montana.

Ames, Kenneth M., Don Dumond, Jerry Galm, and Rick Minor
1998 Prehistory of the Southern Plateau. In: *Handbook of North American Indians, Volume 12, Plateau*. Deward E. Walker Jr., ed.:103-109. Smithsonian Institution, Washington D.C.

Bailey, Robert G.
1995 *Descriptions of the Ecoregions of the United States*. United States Department of Agriculture, Forest Service. Miscellaneous Publication Number 1391.

Ballenger, Jesse A.
1998 The McKellips Site: Contributions to Dalton Occupation, Technology, and Mobility from Eastern Oklahoma. *Southeastern Archaeology*, 17(2):158-165.

Bowers, Alfred W.
1967 *Archaeological Excavations in the Spangler Reservoir and Surveys in Washington County, Idaho*. MS, Interagency Archaeological Services, San Francisco (HCRS). United States Department of the Interior and the Archive of Pacific Northwest Archaeology, University of Idaho, Moscow.

Brose, David S., James A. Brown and David W. Penney
1985 *Ancient Art of the American Woodland Indians*. New York: Harry N. Abrams, Inc., Publishers.

Butler, B. Robert
1978 Bison Hunting in the Desert West Before 1800: The Paleo-Ecological Potential and the Archaeological Reality. In: *Plains Anthropologist*, 23(82) Part 2: Memoir 14, Bison Procurement and Utilization: A Symposium:106-112.

1980 The 1968 Excavations at the Braden Site (10-WN-117): An Early Archaic Cemetery in Western Idaho. From: *Anthropological Papers in Memory of Earl H. Swanson, Jr.* Lucille B. Harten, Claude N. Warren, and Donald R. Tuohy, eds. Pocatello, ID: Idaho State University Press:117-129.

1986 Prehistory of the Snake and Salmon River Area. *In: Handbook of North American Indians,Volume 11, Great Basin.* Warren L. D'Azevedo, ed.:127-134. Smithsonian Institution, Washington D.C.

Chatters, James C.
1998 Environment. In: *Handbook of North American Indians, Volume 12, Plateau*. Deward E. Walker Jr. ed.:29-48. Smithsonian Institution, Washington D.C.

Chatters, James C. and David L. Pokotylo
1998 Prehistory: Introduction. In: *Handbook of North American Indians, Volume 12, Plateau*, Deward E. Walker Jr. ed.:73-80. Smithsonian Institution, Washington D.C.

Conn, Richard G. and Mary Dodds Schlick
1998 Basketry. In: *Handbook of North American Indians: Volume 12, Plateau*. Deward E. Walker Jr., ed.:600-610. Smithsonian Institution, Washington D.C.

Corless, Hank
1990 *The Weiser Indians: Shoshoni Peacemakers*. Salt Lake City, University of Utah Press.

Corn, Tyrone Lane
2006 *Timber Butte Obsidian Source Survey: Geology, Prehistory, Chemical Sourcing, and Debitage Analysis*. University of Idaho, Anthropology M.A. Thesis.

Crabtree, Donald E.
1982 An Introduction to Flintworking, Second Edition. *Occasional Papers of the Idaho State University Museum*, No. 28. Pocatello, Idaho.

Cressman, Luther S.
1986 Prehistory of the Northern Area. In: *Handbook of North American Indians: Volume 11, Great Basin*. Warren L. D'Azevedo, ed.:120-126. Smithsonian Institution, Washington D.C.

D'Azevedo, L. Warren
1986 Introduction. In: *Handbook of North American Indians: Volume 11, Great Basin*. Warren L. D'Azevedo, ed.:1-14. Smithsonian Institution, Washington D.C.

Dort, Wakefield, Jr.
1964 Geology of the Midvale Site Complex, Idaho. In: *Tebiwa: the Journal of the Idaho State University Museum*, 7(1):17-22.

Elston, Robert G.
1986 Prehistory of the Western Area. In: *Handbook of North American Indians: Volume 11, Great Basin*. Warren L. D'Azevedo, ed.:135-148. Smithsonian Institution, Washington D.C.

Fagan, Brian M.
2005 *Ancient North America: the Archaeology of a Continent*, 4th edition. Thames & Hudson, New York.

Fisk, Dale
2000 *Landmarks A General History of the Council, Idaho Area*. Books to Believe In, Parker CO.

2015 Artifacts on display in the Council Valley Museum, Council Idaho. Personal communication.

Fowler, Catherine S.
1986 Subsistence. In: *Handbook of North American Indians: Volume 11, Great Basin*. Warren L. D'Azevedo, ed.:64-97. Smithsonian Institution, Washington D.C.

Fowler, Catherine S. and Lawrence E. Dawson
1986 Ethnographic Basketry. In: *Handbook of North American Indians: Volume 11, Great Basin*. Warren L. D'Azevedo, ed.:705-737. Smithsonian Institution, Washington D.C.

Gossard, Marcia Hill
2015 Did the Clovis People Have Neighbors? In: *American Archaeology: A Quarterly Publication of the Archaeological Conservancy,* 19(4): 32-37.

Green, Thomas J., Max G. Pavesic, James C. Woods and Gene L. Titmus
1986 The DeMoss Burial Locality: Preliminary Observations. *Idaho Archaeologist*, 9(2):31-40.

Harrington, Robert
2015 Collection of salmon during runs in Hornet Creek before the construction of Hells Canyon Dam. Personal communication.

Harten, Lucille B.
1980 The Osteology of the Human Skeletal Material from the Braden Site, 10-WN-117, In: Western Idaho. From: *Anthropological Papers in Memory of Earl H. Swanson, Jr.* Lucille B. Harten, Claude N. Warren, and Donald R. Tuohy (eds.) Pocatello, ID: Idaho State University Press: 130-148.

Hughes, Richard
2009 X-Ray Fluorescence Analysis of Eleven Obsidian Artifacts in the Shumway Collection. *Geochemical Research Laboratory Letter Report* 2009-59.

Hughes, Richard E. and Max G. Pavesic
2009 Geochemical Analysis of Obsidian from the DeMoss Site, Western Idaho: Implications for the Western Idaho Archaic Burial Complex. *Journal of Northwest Anthropology* 43(1):117-124.

Hunn, Eugene S, Nancy J. Turner, and David H. French
1998 Ethnobiology and Subsistence. In: *Handbook of North American Indians, Volume 12, Plateau*. Deward E. Walker Jr., ed.:525-545. Smithsonian Institution, Washington D.C.

Idaho Department of Water Resources
2012 Weiser Subbasin. In: *Idaho Flood and Seismic Risk Portfolio: Effective 2012-2017*.:5.

Jameson, John H. Jr., Sherene Baugher
2008 *Past Meets Present: Archaeologists Partnering with Museum Curators, Teachers and Community Groups*. Springer Science+Business Media, LLC, New York.

Jennings, Jesse D.
1968 *Prehistory of North America*, Second Edition (1974). McGraw-Hill Book Company, New York.

1986 Prehistory: Introduction. In: *Handbook of North American Indians, Volume 11, Great Basin,* Warren L. D'Azevedo, ed.:113-119. Smithsonian Institution, Washington D.C.

Jerrems, William Jerry
2009 *Adams County Prehistoric Project: A Prehistoric Overview of the Council and Meadows Valleys derived from Museum Collections, Site Surveys, Test Excavation and Several Private Collections*. Report funded by the Adams County Historic Preservation Commission with funds from the Idaho State Historic Preservation Office, Idaho State Historical Society. Boise.

Jerrems, William Jerry
2010 *ACHPC Archaeological Project Letter Report for 2010: A Review of Eight Recorded Archaeological Sites in the Upper Weiser River Drainage and Meadows Valley Areas, Adams County*. Report funded by the Adams County Historic Preservation Commission with funds from the Idaho State Historic Preservation Office, Idaho State Historical Society. Boise.

Kinkade, Dale M., William W. Elmendorf, Bruce Rigsby, and Haruo Aoki
1998 Languages. In: *Handbook of North American Indians, Volume 12, Plateau*. Deward E. Walker Jr., ed.:49-72. Smithsonian Institution, Washington D.C.

Knudson, Ruthann and M. Pfaff
1979 Heritage Resources. In: *Crane Creek Known Geothermal Resource Area: An Environmental Analysis*. Susan G. Spence and Brant F. Russell, eds. United States Department of Energy, Idaho Operations Office, Idaho National Engineering Laboratory, EG&G Idaho, Inc. Idaho Falls, Idaho.

Leonhardy, Frank C. and David G. Rice
1970 A Proposed Culture Typology for the Lower Snake River Region, Southeastern Washington. *Northwest Anthropological Research Notes*, 4(1):1-29.

Liljeblad, Sven
1957 *Indian Peoples in Idaho*. Idaho State College: Pocatello, Idaho.

1972 *The Idaho Indian in Transition 1805-1960*. Idaho State University Museum: Pocatello, Idaho.

Little, Barbara J., Paul A. Shackel
2014 *Archaeology, Heritage, and Civic Engagement: Working Towards Public Good*. Left Coast Press, Walnut Creek, California.

Lohse, Ernest S.
1994 The Southeastern Idaho Prehistoric Sequence. *Northwest Anthropological Research Notes* 28(2):135-156.

Lohse, Ernest S. and Roderick Sprague
1998 History of Research. In: *Handbook of North American Indians: Volume 12, Plateau*. Deward E. Walker Jr., ed.:8-28. Smithsonian Institution, Washington D.C.

Meatte, Daniel S.
1990 Prehistory of the Western Snake River Basin. *Occasional Papers of the Idaho Museum of Natural History* No. 35. Pocatello, Id.

Moe, Jeanne M.
1982 A Folsom Point from the Owyhee Mountains of Southwestern Idaho. *Idaho Archaeologist*, 6(2):45-46.

Moore, Lawrence E.
2005 Social Change and Oklahoma Archaeology. *North American Archaeologist*, 26(4):389-397.

Murphy, Robert F., and Yolanda Murphy
1986 Northern Shoshone and Bannock. In: *Handbook of North American Indians: Volume 11, Great Basin*, Warren L. D'Azevedo, ed.:284-307. Smithsonian Institution, Washington D.C.

Patterson, Patricia A., Kenneth E. Neiman, Jonalea R. Tonn
1985 *Field Guide to Forest Plants of Northern Idaho*. United States Department of Agriculture, Forest Service, Intermountain Research Station Ogden, Utah. General Technical Report INT-180.

Pavesic, Max G.
1979 *Public Archaeology in Weiser Basin and Vicinity: A Narrative Report*. A Publication of the Center for Research, Grants, and Contracts, Boise State University.

1985 *Cache Blades and Turkey Tails: Piecing Together the Western Idaho Archaic Burial Complex*. From *Stone Tool Analysis: Essays in Honor of Don E. Crabtree*. Mark G. Plew, James C. Woods, and Max G. Pavesic (eds.). Albuquerque, NM: University of New Mexico Press:55-89.

1992 Death and Dying in the Western Idaho Archaic. *Ancient Images, Ancient Thought: The Archaeology of Ideology* Sean Goldsmith, Sandra Garvey, David Selin and Jeanette Smith, eds. Calgary: Department of Archaeology, University of Calgary:289-293.

2000 Prehistoric Pipes from the Olds Ferry Dunes Site (10-WN-557), Western Idaho. In: *Journal of California and Great Basin Anthropology*, 22(2):321-331.

2007 The Bonneville Flood Debris Field as Sacred landscape. *Journal of California and Great Basin Anthropology*, 27(1):15-27.

Pavesic, Max G., Susanne J. Miller, Patricia A. Gamel and Thomas J. Green.
1993 The DeMoss Site: A Material Culture and Faunal Update. *Idaho Archaeologist*, 16(1):3-15.

Peterson, Nicholas H.
1998 A Clovis Point from Long Valley. *Idaho Archaeologist* 10(2):41-42.

Pitblado, Bonnie L.
2014a An Argument for Ethical, Proactive, Archaeologist-Artifact Collector Collaboration. *American Antiquity*, 79(3):385-400.

2014b How Artifact Collectors and Archaeologists Can-and Should-Collaborate to Comply with Legal and Ethical Antiquities Codes. *Advances in Archaeological Practice*, 2(4):338-352.

Plew, Mark G.
2008 *The Archaeology of the Snake River Plain*. Boise State University Department of Anthropology. Boise State University Printing, Boise, Idaho.

Reid, Kenneth C.
2014 Crane Creek Folsom Point. Personal communication.

2015 Chapter 6: Through a Glass, Darkly: Patterns of Obsidian and Fine Grained Volcanic Toolstone Acquisition on the Southern Plateau. In: *Toolstone Geography of the Pacific Northwest*, Terry L. Ozbun, ed.: Simon Fraser University, Archaeology Press.

Reid, Kenneth C. and James C. Gallison
1996 Lower Snake River Basin. In: An Overview of Cultural Resources in the Snake River Basin: Prehistory and Paleoenvironments, edited by Kenneth C. Reid. *Northwest Anthropological Research Notes,* 30(1&2):15-104.

Reid, Kenneth C., Mathew J. Root, and Richard E. Hughes
2008 The Copper Creek Clovis Point from Hells Canyon, Northeastern Oregon. *Journal of California and Great Basin Anthropology*, 28(1):75-84.

Richardson, Lorna-Jane and Jaime Almansa-Sánchez
2015 Do You Know What Public Archaeology Is? Trends, Theory, Practice, Ethics. *World Archaeology* 47(2):194-211.

Ringe, Brenda, Richard N. Holmer, Susanne Miller, and William Akersten
1987 Archaeological and Paleontological Survey of the Idaho National Engineering Laboratory for the Super Conducting Super Collider. *Idaho State Museum of Natural History Reports of Investigations*: 87-12, Idaho State University, Pocatello.

Roll, Tom E., and Steven Hackenberger
1998 Prehistory of the Eastern Plateau. In: *Handbook of North American Indians, Volume 12, Plateau*, Deward E. Walker Jr., ed.:103-119. Smithsonian Institution, Washington D.C.

Rudolph, Theresa, editor
1995 *The Hetrick Site: 11,000 Years of Prehistory in the Weiser River Valley.* Report prepared for the Idaho Transportation Department by Soil Applications International Corporation. Boise.

Ruebelmann, George Norman
1973 *The Archaeology of the Mesa Hill Site: A Prehistoric Workshop in the Southeastern Columbia Plateau*. University of Idaho M.A. Thesis, Moscow, Idaho.

Sappington, Robert Lee
1994 The Prehistory of the Clearwater River Region, North Central Idaho. *University of Idaho Anthropological Research Manuscripts* No. 94. Alfred W. Bowers Laboratory of Anthropology: Moscow, Idaho.

Sappington, Robert Lee
2011 *Results of Recent Investigations at Nine Potential Archaeological Sites in Adams County, Idaho*. Report submitted to the Adams County Historic Preservation Commission with funds from the Idaho State Historic Preservation Office, Idaho State Historical Society. Boise.

Sappington, Robert Lee

2012 *Results of Investigations at 16 Potential Archaeological Sites in Adams County, Idaho, in 2012.* Report submitted to the Adams County Historic Preservation Commission with funds from the Idaho State Historic Preservation Office, Idaho State Historical Society. Boise.

2013 *Results of Investigations at Six Archaeological Sites in Adams County, Idaho, in 2013*. Report submitted to the Adams County Historic Preservation Commission with funds from the Idaho State Historic Preservation Office, Idaho State Historical Society. Boise.

Sappington, Robert Lee and Dakota Wallen

2014a *Results of Recent Investigations at Six Potential Archaeological Sites in Adams County Idaho*. Report submitted to the Adams County Historic Preservation Commission with funds from the Idaho State Historic Preservation Office, Idaho State Historical Society. Boise.

2014b *Results of Recent Investigations at Three Potential Archaeological Sites in Washington County, Idaho*. Report submitted to the Washington County Historic Preservation Commission with funds from the Idaho State Historic Preservation Office, Idaho State Historical Society. Boise.

2015 *Results of Recent Investigations at Four Archaeological Sites in Adams County, Idaho.* Report submitted to the Adams County Historic Preservation Commission with funds from the Idaho State Historic Preservation Office, Idaho State Historical Society. Boise.

Skinner, Craig E.

2015 X-Ray Fluorescence Analysis of Artifact Obsidian from Ten Sites in Adams County, Idaho. *Northwest Research Obsidian Studies Laboratory Report*, 2015-72.

2015b Personal correspondence with author via email.

Smith, Julian

2014 Is it Really Pre-Clovis? In: *American Archaeology: A Quarterly Publication of the Archaeological Conservancy*, 18(3):12-19.

Sprague, Roderick

1967 *Aboriginal Burial Practices in the Plateau of North America*. University of Arizona Press: Phoenix, Arizona.

Steward, Julian Haynes

1938 Basin-Plateau Sociopolitical Groups. Smithsonian Institution, Bureau of American Ethnology Bulletin No. 120, Washington D.C.

Thomas, David H., Lorann S.A. Pendleton and Stephen C. Cappannari
1986 Western Shoshone. In: *Handbook of North American Indians*: *Volume 11, Great Basin*. Warren L. D'Azevedo, ed.: 262-284. Smithsonian Institution, Washington D.C.

United States Geological Survey
2013 Eruption History for Mount Mazama and Crater Lake Caldera. Online. Available: https://volcanoes.usgs.gov/volcanoes/crater_lake/crater_lake_geo_hist_134.html.

Walker, Deward E. Jr.
1998 Introduction. In: *Handbook of North American Indians: Volume 12, Plateau*. Smithsonian Institution, Washington D.C.

Warren, Claude N., Kent S. Wilkinson and Max G. Pavesic
1971 The Midvale Complex. *Tebiwa: The Journal of the Idaho State University Museum,* 14(2):39-71.

Western Regional Climate Center
2016 Climate data for weather station in and near the Weiser River Basin, Adams and Washington Counties, Idaho. Cooperative Climatological Data Summaries. http://www.wrcc.dri.edu/climatedata/climsum/.

Whittaker, John C.
1994 *Flintknapping: Making and Understanding Stone Tools*. University of Texas Press, Austin, Texas.

APPENDIX

APPENDIX: X-RAY FLUORESCENCE ANALYSIS OF ARTIFACT OBSIDIAN FROM TEN SITES IN ADAMS COUNTY, IDAHO

By Craig Skinner

Northwest Obsidian Research Laboratory

Northwest Research Obsidian Studies Laboratory Report 2015-72

X-Ray Fluorescence Analysis of Artifact Obsidian from Ten Sites in Adams County, Idaho

Craig E. Skinner
Northwest Research Obsidian Studies Laboratory

Thirty-one obsidian artifacts from ten sites located in Adams County, Idaho, were subjected to energy dispersive X-ray fluorescence trace element provenance analysis (see Table 1). The samples were prepared and analyzed at the Northwest Research Obsidian Studies Laboratory under the accession number 2015-72.

Analytical Methods

X-Ray Fluorescence Analysis. Nondestructive trace element analysis of the samples was completed using a Thermo NORAN QuanX-EC energy dispersive X-ray fluorescence (EDXRF) spectrometer. The analyzer uses an X-ray tube excitation source and a solid-state detector to provide spectroscopic analysis of elements ranging from sodium to uranium (atomic numbers 11 to 92) and in concentrations ranging from a few parts per million to 100 percent. The system is equipped with a Peltier-cooled Si(Li) detector and an air-cooled X-ray tube with a rhodium target and a 76 micron Be window. The tube is driven by a
50 kV 2mA high voltage power supply, providing a voltage range of 4 to 50 kV. During operation, the tube current is automatically adjusted to an optimal 50% dead time, a variable that is significantly influenced by the varying physical sizes of the different analyzed samples. Small specimens are mounted in 32 mm-diameter sample cups with mylar windows on a 20-position sample tray while larger samples are fastened directly to the surface of the tray.

For the elements that are reported in Table A-1, we analyzed the collection with either an 8.8 or 3.5 mm diameter beam collimator installed - smaller diameter collimators are employed with smaller specimens and the tube voltage and count times are adjusted accordingly. Instrument control and data analysis are performed using WinTrace software (version 7) running under the Windows 7 operating system.

The diagnostic trace element values used to characterize the samples are compared directly to those for known obsidian and fine-grained volcanic (FGV) sources reported in the literature and with unpublished trace element data collected through analysis of geologic source samples (Northwest Research 2015a). Artifacts are correlated to a parent obsidian, FGV, or basalt source (or geochemical source group) if diagnostic trace element values fall within about two standard deviations of the analytical uncertainty of the known upper and lower limits of chemical variability recorded for the source. Occasionally, visual attributes are used to corroborate the source assignments although sources are never assigned solely on the basis of megascopic characteristics.

Results of Analysis

X-Ray Fluorescence Analysis. Five geochemical groups, all of which were correlated with known sources, were identified among the 31 obsidian artifacts that were characterized by X-ray fluorescence analysis. The locations of the sites and the identified sources are shown in Figure 1. Analytical results are presented in Table A-1 in the Appendix and are summarized in Figure 2.

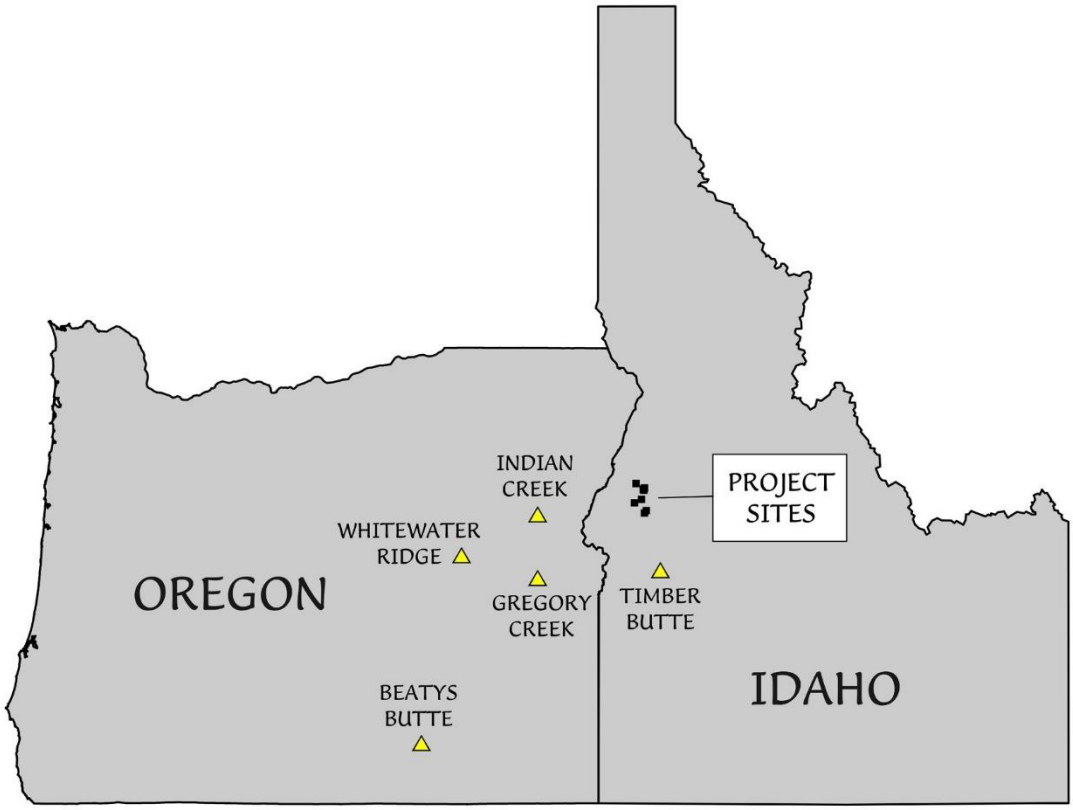

Figure 1. Locations of the project sites and the sources of the artifacts.

Table 1. Summary of results of trace element analysis of the project specimens.

	GEOCHEMICAL SOURCES					
PROJECT SITE	**BEATYS BUTTE**	**GREGORY CREEK**	**INDIAN CREEK**	**TIMBER BUTTE**	**WHITEWATER RIDGE**	**TOTAL**
10-AM-656	–	1	–	–	–	1
10-AM-693	–	–	–	1	–	1
10-AM-694	–	–	–	1	–	1
10-AM-696	–	–	–	2	–	2
Fraser Site 2	–	–	–	5	–	5
Lower Harrington	–	–	1	4	–	5
Upper Harrington	1	–	1	5	–	7
D33	–	–	–	3	–	3
Holmes Site (2013-5)	–	–	1	3	–	4
Durham Site (2015-1)	–	–	–	1	1	2
TOTAL	**1**	**1**	**3**	**25**	**1**	**31**

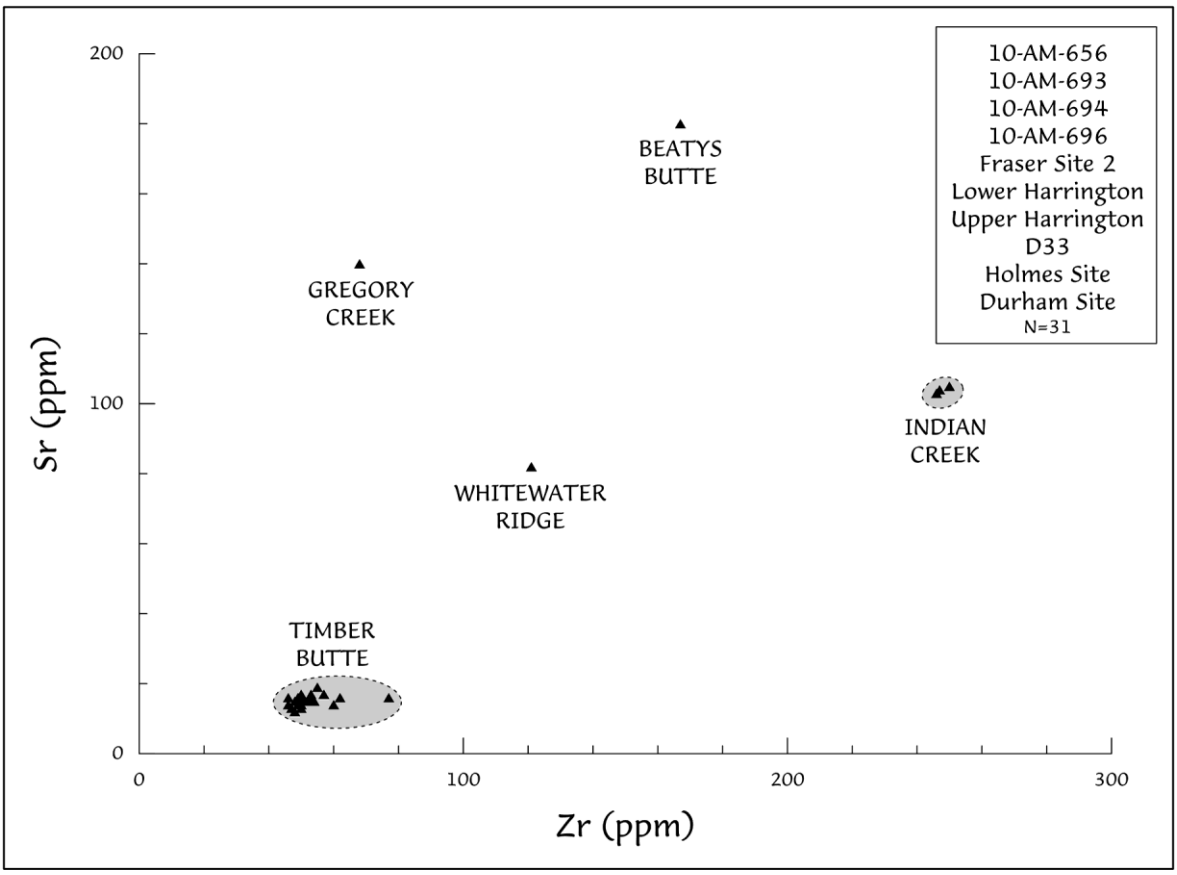

Figure 2. Scatterplot of zirconium (Zr) plotted versus strontium (Sr) for all analyzed artifacts.

Information concerning the locations, geologic setting, and prehistoric use of the obsidian sources identified in the current investigation may be found at *www.sourcecatalog.com* (Northwest Research
2015b).

References Cited

Northwest Research Obsidian Studies Laboratory
2015a Northwest Research Obsidian Studies Laboratory World Wide Web Site (www.obsidianlab.com).

2015b Northwest Research U. S. Obsidian Source Catalog (www.sourcecatalog.com).

Appendix

Results of X-Ray Fluorescence Analysis

Table A-1. Results of XRF Studies: Obsidian Artifacts from Ten Sites in Adams County, Idaho

Site	Specimen No.	Catalog No.	Trace Element Concentrations									Ratios		Geochemical Source
			Rb	Sr	Y	Zr	Nb	Ti	Mn	Ba	$Fe^{2}O^{3T}$	Fe:Mn	Fe:Ti	
10-AM-656	1	1.9.1	73	140	20	68	11	NM	NM	2153	NM	NM	NM	Gregory Creek
			± 2	2	2	2	2	NM	NM	29	NM			
10-AM-693	2	0.0.1	172	14	40	46	32	NM	NM	0	NM	NM	NM	Timber Butte
			± 2	1	2	2	2	NM	NM	17	NM			
10-AM-694	3	0.0.1	198	19	43	55	35	NM	NM	0	NM	NM	NM	Timber Butte
			± 2	1	2	2	2	NM	NM	18	NM			
10-AM-696	4	2014.1	179	15	38	54	35	NM	NM	0	NM	NM	NM	Timber Butte
			± 2	1	2	2	2	NM	NM	21	NM			
10-AM-696	5	2014.2	171	14	40	49	34	NM	NM	0	NM	NM	NM	Timber Butte
			± 3	1	2	2	2	NM	NM	18	NM			
Fraser Site 2	6	0.0.3.1	191	16	43	62	37	NM	NM	NM	NM	NM	NM	Timber Butte *
			± 2	1	2	2	2	NM	NM	NM	NM			
Fraser Site 2	7	0.0.3.2	178	17	41	50	33	NM	NM	0	NM	NM	NM	Timber Butte
			± 2	1	2	2	2	NM	NM	21	NM			
Fraser Site 2	9	0.0.3.4	212	17	46	53	38	NM	NM	NM	NM	NM	NM	Timber Butte *
			± 2	1	2	2	2	NM	NM	NM	NM			
Fraser Site 2	10	0.0.3.5	184	16	40	49	36	NM	NM	NM	NM	NM	NM	Timber Butte *
			± 2	1	2	2	2	NM	NM	NM	NM			
Fraser Site 2	11	0.0.3.6	176	16	42	50	36	NM	NM	NM	NM	NM	NM	Timber Butte *
			± 2	1	2	1	2	NM	NM	NM	NM			
Lower Harrington	12	0.0.14	89	105	55	250	16	NM	NM	1571	NM	NM	NM	Indian Creek
			± 2	2	2	2	2	NM	NM	27	NM			
Lower Harrington	13	0.0.15	181	14	42	50	35	NM	NM	0	NM	NM	NM	Timber Butte
			± 2	1	2	1	2	NM	NM	21	NM			
Lower Harrington	14	0.0.16	170	12	38	48	33	NM	NM	0	NM	NM	NM	Timber Butte
			± 2	1	2	2	2	NM	NM	16	NM			
Lower Harrington	15	0.0.19	194	14	44	60	40	NM	NM	0	NM	NM	NM	Timber Butte
			2	1	2	2	2	NM	NM	16	NM			

All trace element values reported in parts per million; ± = analytical uncertainty estimate (in ppm). Iron content reported as weight percent oxide.
NA = Not available; ND = Not detected; NM = Not measured; * = Small sample; FGV = Fine-grained volcanic specimen.

Table A-1. Results of XRF Studies: Obsidian Artifacts from Ten Sites in Adams County, Idaho

Site	Specimen No.	Catalog No.	Trace Element Concentrations									Ratios		Geochemical Source
			Rb	Sr	Y	Zr	Nb	Ti	Mn	Ba	Fe^2O^{3T}	Fe:Mn	Fe:Ti	
Lower Harrington	16	0.0.30	182	15	41	48	34	NM	NM	0	NM	NM	NM	Timber Butte *
			± 2	1	2	2	2	NM	NM	21	NM			
Upper Harrington	17	0.0.1	84	103	55	246	17	NM	NM	1559	NM	NM	NM	Indian Creek
			± 2	2	2	3	2	NM	NM	23	NM			
Upper Harrington	18	0.0.2.1	175	13	41	50	36	NM	NM	0	NM	NM	NM	Timber Butte
			± 2	1	2	2	2	NM	NM	21	NM			
Upper Harrington	19	0.0.2.2	182	16	45	49	37	NM	NM	0	NM	NM	NM	Timber Butte
			± 2	1	2	1	2	NM	NM	21	NM			
Upper Harrington	20	0.0.2.3	138	180	16	167	10	NM	NM	NM	NM	NM	NM	Beatys Butte *
			± 2	2	2	2	2	NM	NM	NM	NM			
Upper Harrington	21	0.0.2.4	180	15	42	49	39	NM	NM	NM	NM	NM	NM	Timber Butte *
			± 2	1	2	2	2	NM	NM	NM	NM			
Upper Harrington	22	0.0.2.5	172	13	36	47	33	NM	NM	0	NM	NM	NM	Timber Butte
			± 2	1	2	2	2	NM	NM	18	NM			
Upper Harrington	23	0.0.2.6	195	16	46	77	37	NM	NM	NM	NM	NM	NM	Timber Butte *
			± 2	1	2	2	2	NM	NM	NM	NM			
D33	24	0.0.2.1	193	15	42	53	36	NM	NM	NM	NM	NM	NM	Timber Butte *
			± 2	1	2	2	2	NM	NM	NM	NM			
D33	25	0.0.2.2	212	17	45	57	39	NM	NM	NM	NM	NM	NM	Timber Butte *
			± 2	1	2	2	2	NM	NM	NM	NM			
D33	26	0.0.2.3	184	14	42	50	38	NM	NM	NM	NM	NM	NM	Timber Butte *
			± 2	1	2	2	2	NM	NM	NM	NM			
2013-5	27	0.0.1	177	14	42	50	36	NM	NM	0	NM	NM	NM	Timber Butte
			± 2	1	2	2	2	NM	NM	16	NM			
2013-5	28	2014.1	87	104	55	247	15	NM	NM	1400	NM	NM	NM	Indian Creek
			± 2	2	2	2	2	NM	NM	27	NM			
2013-5	29	2014.2	196	15	44	52	39	NM	NM	0	NM	NM	NM	Timber Butte
			2	1	2	2	2	NM	NM	20	NM			

All trace element values reported in parts per million; ± = analytical uncertainty estimate (in ppm). Iron content reported as weight percent oxide.
NA = Not available; ND = Not detected; NM = Not measured; * = Small sample; FGV = Fine-grained volcanic specimen.

Table A-1. Results of XRF Studies: Obsidian Artifacts from Ten Sites in Adams County, Idaho

Site	Specimen No.	Catalog No.	Trace Element Concentrations									Ratios		Geochemical Source
			Rb	Sr	Y	Zr	Nb	Ti	Mn	Ba	Fe^2O^{3T}	Fe:Mn	Fe:Ti	
2013-5	30	2015.1	180	15	40	51	37	NM	NM	NM	NM	NM	NM	Timber Butte *
			± 2	1	2	2	2	NM	NM	NM	NM			
2015-1	31	0.0.1	170	16	39	46	35	NM	NM	0	NM	NM	NM	Timber Butte
			± 2	1	2	2	2	NM	NM	18	NM			
2015-1	32	0.0.2	102	82	21	121	6	NM	NM	1411	NM	NM	NM	Whitewater Ridge
			± 2	2	2	2	2	NM	NM	28	NM			
NA	RGM-1	RGM-1	142	101	25	220	9	NM	NM	751	NM	NM	NM	RGM-1 Reference Standard
			± 2	2	2	2	2	NM	NM	23	NM			

All trace element values reported in parts per million; ± = analytical uncertainty estimate (in ppm). Iron content reported as weight percent oxide.
NA = Not available; ND = Not detected; NM = Not measured; * = Small sample; FGV = Fine-grained volcanic specimen.