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United States Department of the Interior National Park Service

NATIONAL REGISTER

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National Register of Historic Places Multiple Property Documentation Form

This form is for use in documenting multiple property groups relating to one or several historic contexts. See instructions in SUIDELINES FOR COMPLETING NATIONAL RESISTER FORMS (National Register Bulletin 16). Complete each item by marking "x" in the appropriate box or by entering the requested information. For additional space use continuation sheets (form 18-988-a). Type all entries.

A. Name of Multiple Property Listing

Domestic Stone Circle Sites in Wyoming

## **B. Associated Historic Contexts**

Chronology and Development of Domestic Stone Circles in Wyoming

## C. Geographical Data

State of Wyoming

See continuation sheet

# D. Certification

As the designated authority under the National Historic Preservation Act of 1966, as amended, I hereby certify that this documentation form meets the National Register documentation standards and sets forth requirements for the listing of related properties consistent with the National Register criteria. This submission meets the procedural and professional requirements set forth in 36 CFR Part 68 and the Secretary of the Interior's Standards for Planning and Evaluation.

Signature of certifying official

STRIE MISTORIC PRESERVATION DEFICE

State or Federal agency and bureaú

I, hereby, certify that this multiple property documentation form has been approved by the National Register as a basis for Avaluating related properties for listing in the National Register.

9/11/89

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Signature of the Keeper of the National Register

## E. Statement of Historic Contexts

Discuss each historic context listed in Section B.

Stone circle or 'tipi ring' sites are a relatively common site type in Wyoming and the Northern Plains in general. For many years these sites were considered a priori to be impoverished in significant cultural information. In recent decades this attitude has changed slowly, and it has become evident that many stone circle sites can yield a great deal of significant information. Stone circle sites retaining a moderate integrity of context and association are likely to yield information on major research themes including the following: 1) Variation in Settlement and Subsistence Patterns; 2) Socio-political and Settlement Structure; and 3) Chronology of Aboriginal Structural Design. A large comparative sample of stone circle sites could yield information relevant to social organization and demographic parameters. such as family size. Stone circles occur singly, in small groups, or in large complexes numbering into the hundreds, and are known to date in appreciable numbers as early as the Middle Plains Archaic. Several possible stone circles have been reported from earlier contexts, but they are few in number and somewhat problematic in terms of form and function. Stone circle sites have typically been found in elevated locations, such as ridge tops, bluff edges or terraces, but various other situations are documented. Stone circles are most often found where suitable sized cobbles are readily available, and historically were often replaced functionally by sod or wooden pegs. Some stone circles in this region may have had ritual or ceremonial functions (see the Aboriginal Rock Alignments and Effigies in Wyoming Multiple Property documentation form), but the majority relate to some form of temporary domestic structure or feature. Stone circle sites are a highly visible resource with the potential to yield a great deal of information on nomadic, aboriginal subsistence and settlement patterns, past environmental patterns, and many other topics.

In his compendium on Northwest Plains prehistory, Frison (1978: 51-53) states:

During the Middle and Late Plains Archaic and the Late Prehistoric periods, large numbers of stone circles appeared in the Northwestern Plains . . . They appear nearly everywhere, singly and in groups that occasionally reaches [sic] into the hundreds. Buttes and less noticeable topographic rises are common locations. and ridge tops may be lined with them. They may line terraces along streams or dry arroyos. They occur in the arid, interior intermontane basins, on the open Plains, in the foothills, and even (with less frequency) in the high mountains. Groups of these may actually be contiguous over large areas. Sizes vary from about 11 feet to 24 feet in diameter although some are smaller and some are larger. They may be composed of a single course of stones either touching or some distance apart. Or they may be composed of a wide band of stones, suggesting that stones were piled several deep around the base of a lodge structure and they gradually became disarranged through time. At the center of some are small piles or vague circles that suggest fire hearths. Some of these 'fire hearths' are centrally located but many are not; some circles contain carefully prepared fire pits. Stones used may be stream boulders and cobbles or slabs of limestone, sandstone, or whatever stone material was available. These stone circles may represent all that remains after the removal or disintegration of various kinds of superstructures. If so they were constructed in

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### Historic Contexts, continued

conjunction with some sort of circular lodge or tipi (see Mulloy 1965a: 48). Malouf (1961b) thinks that different-appearing structures may have disintegrated leaving similar-appearing stone circles. He favors a domestic or living structure origin for most of them. Malouf refers to all of these as 'stone circles' but uses 'tipi ring' if the circle was used to hold down the bottom of a skin covered structure. Kehoe (1960) argues convincingly that the stone circles are actually tipi rings designed to hold down lodge covers but his data are limited to the Blackfoot reservation. Other ideas on the use and distribution of stone circles have been presented by Hoffman (1953). It appears that many stone circles do represent the only nonperishable remains of living structures but it can be strongly argued that others are not. Other less common features consist of vague stone circles made of large sandstone or limestone slabs. Certain kinds of dome-shaped. five- or six-sided, roughly circular log structures are known and may be Shoshonean in origin. Horizontally laid logs made up the sides of these structures and slabs of stone were laid around the outside. As the structure rotted away. the stones were left. Stone circles believed to be of Crow Indian origin at the Piney Creek sites (Frison 1967b) have larger stone concentrations to the windward, suggesting a relatively long occupation (several weeks or more) with added stone for protection from strong winds that occur almost daily. Other Crow Indian tipi rings, identified as Crow on the basis of ceramics, are found above the timberline in several concentrations of a dozen or more in the northern Bighorn Mountains. These are manifest as circles of large angular limestone blocks and are deranged somewhat, suggesting that they had been placed on top of a lodge cover to hold it close to the ground and moved outward when the lodge was taken down. The fire hearths in many of the circles are centrally located, but in others they are outside the circle. Stone circle sites are noted for a lack of diagnostic cultural material. Perhaps most of these sites, if they were living structures, represent occupations of a day or so. Most are associated with little more than a few flakes and an occasional broken projectile point or tool. It is possible that some circles had religious meaning; small stone circles have been observed in the vicinity of buffalo jumps and may represent locations of shamanistic activity associated with communal bison Others are quite large and may have been built for the kills. same kinds of reasons that present-day sheepherders build rock cairns and other features. On the other hand, many of the larger stone circles may have served important religious functions. Whatever their true function, stone circles will plague archeologists on the High Plains for some time to come.

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This is a good summary of the general nature of stone circle sites in Wyoming, and the major explanations which have been proposed for these stone circles. However, many stone circle sites have a great deal more research potential than is suggested by this brief summary. Although it is not uncommon to encounter small or large stone circle sites on deflated surfaces, associated with sparse and non-diagnostic materials, many sites are shallowly buried, often difficult to see, and associated with relatively rich cultural deposits. For example, Reher's (1982) work at the Wagensen site has shown that highly significant data can be obtained from within and around stone circles associated with little visible surface material. Similarly productive results have been obtained at other stone circle sites in the general Northwest Plains region (cf. Davis, et al. 1982; Flayharty and Morris 1974; Good and Hauff 1979; Wilson, Road and Hardy 1981).

A great deal of attention over the years in Plains archaeology has focused around the function and relative significance of the stone circle. Α comprehensive summary and representation of history and positions is presented in the tipi ring symposium of the 1981 Plains Anthropology Conference (Davis 1983). Frequently cited works which contain early compilations of information and statements of issues are those of Mulloy (1958; 1965) and Kehoe (1958; 1960). Many of the arguments presented in these works continue to the present time, altered relatively slightly by increased quantities of data and refined analytical techniques. The major change over this time, largely related to the emergence of ecological and cultural systems approaches in archaeology, has been the recognition that many stone circle sites can and do yield significant cultural information. Even sites which are individually poor in cultural materials can contribute to our understanding of aboriginal cultural systems by aspects of internal and locational patterning and by the very absence of certain kinds of cultural materials.

## Cultural Context

Prehistoric cultural materials in the Northwest Plains are conventionally classified chronologically within seven temporal units (cf. Frison 1978; Reher 1979). The major cultural periods of the Northwest Plains chronology are: 1) Pre-Paleoindian, or Pre-Clovis, prior to 12,000 years ago; 2) Paleoindian, ca. 12,000 to 8,500 years ago; 3) Early Plains Archaic, ca. 8,500 to 4,500 years ago; 4) Middle Plains Archaic, ca. 4,500 to 3,000 years ago; 5) Late Plains Archaic, ca. 3,000 to 1,500 years ago; 6) Late Prehistoric, ca. 1,500 to 450 years ago; and 7) Protohistoric, ca. 450 to 150 years ago, or the beginning of historic records. Components of these cultural periods are most commonly identified by the presence of certain diagnostic artifacts, such as projectile points or ceramics. Pre-Paleoindian is as yet poorly described and understood, and will not be discussed here. The remainder of the temporal units are discussed briefly below.

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### Paleoindian Period

The Paleoindian Period is popularly best known for its big-game kill sites and distinctive large point types. Documented Paleoindian sites are most numerous in the Bighorn Mountains and edges of the adjacent basins. In the eastern edge are the Hanson Folsom Site (48BH329) and the Medicine Lodge Creek Site (48BH499). To the west on the far side of the Basin are the Horner Site (48PA29) and Mummy Cave (48PA201). All of these are enrolled National Register sites. Other well documented Paleoindian components occur to the (24CB202, 24CB206 and at Paint Rock V (48BH349), Colby Mammoth (48WA322), 24CB221), Laddie Creek (48BH345), Southsider Cave (48BH364) and Little Canyon Creek Cave (48WA323). Another cluster of fairly well known Paleoindian sites occurs in Johnson (5LR26), Lindenmeier (5LR13), Wilbur-Thomas northeastern Colorado: (5WL45), Dent (5WL269), Jurgens (5WL53), and Frazier (5WL268), with the James Allen Site (48AB4) a short distance The well known Hell Gap (4860305) and Agate Basin (48N0201) type sites are located farther to the north in the upper reaches of 📕 In addition. numerous less well documented Paleoindian localities have been reported from this general region.

The earliest phase of the Paleoindian Period is Clovis, dating from 11,500 to 11,000 years ago. At the present time, Clovis is still the earliest widely recognized cultural tradition in North America, although numerous sites have been proposed as contenders for earlier human occupation. Clovis materials found in context are not uncommonly associated with extinct Pleistocene megafauna, such as mammoth. The Colby Site, for example, appears to have been a mammoth meat cache (Frison 1978:86-110). A Clovis point was recovered from the Casper site, but the major component at that site pertains to the late Paleoindian Hell Gap Phase (Frison 1974:74).

Other phases of the early Paleoindian, or Fluted Point Horizon, are the Goshen and Folsom Phases. Evidence from these phases indicates a shift from large Pleistocene fauna to the bison as a focus of cooperative hunts. The Hanson Site (48BH329) Folsom campsite not directly associated with kill or butchering activities (Frison 1978:115-146), and in combination with Folsom levels in several dry caves and rockshelters, helps to give us a broader perspective on Paleoindian adaptations than the more spectacular bonebeds of this phase.

The late Paleoindian phases or complexes are marked by a range of projectile point types which are aesthetically less appealing and more varied than the earlier fluted points. Well documented sites include communal bison kills, but there are also indications of transition to more diversified 'archaic' subsistence patterns.

A few poorly defined, possible stone circles have been found in association with Paleoindian materials. However, none of the typical stone circle sites of the region can be firmly associated with Paleoindian occupation. National Register of Historic Places Continuation Sheet

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Early Plains Archaic Period

The Early Plains Archaic Period is generally poorly represented in the Northwest Plains and Central Rocky Mountains. Known sites from this period are more commonly located at higher elevations. It has been suggested that the Altithermal climatic episode, which corresponds roughly to the time span of the Early Plains Archaic Period, was a prolonged dry period in the Northwest Plains, making the lower elevations and open basins less attractive for human exploitation (cf. Benedict and Olson 1978). Recent investigations at several Early Plains Archaic housepit sites in the Wyoming Basins and other portions of Wyoming have begun to alter these concepts. There is still much to learn about this elusive cultural period.

The Early Plains Archaic Period is fairly well represented in the moun-Many of the sites with Early tains Plains Archaic components which have been investigated are sites which have already been mentioned for their Paleoindian components. These include the Bighorn Canyon Caves (24CB202, 24CB206 and 24CB221), Medicine Lodge Creek (48BH499), Paint Rock V (48BH349), Laddie Creek (48BH345) and Mummy Cave (48PA201). With the exception of Laddie Creek, which is a deeply stratified open site, these are caves or rockshelters with long sequences demonstrating important changes in the developmental sequence of the region. In addition there are sites lacking earlier components, including Granite Creek Rockshelter (48BH33Ø), Southsider Cave (48BH364), Rice Cave (48WA363), Carter Cave (48WA365), Leigh Cave (48WA304) and Wedding of the Waters Cave (48HO301).

The onset of the Early Plains Archaic is marked by a sudden shift in projectile point styles from the lanceolate Paleoindian forms to large sidenotched types. Deposits from this period also yield smaller side-notched and corner-notched forms which can easily be confused with types from later cultural periods. Clear associations of materials of this period with stone circles are not documented at this time.

Middle Plains Archaic Period

The onset of the Middle Plains Archaic Period on the Northwest Plains and in the Central Rocky Mountains is marked by a conspicuous increase in the range and abundance of artifactual evidence of human activities. In many areas this evidence is more abundant than that for any preceding or subsequent cultural period. A number of researchers have interpreted this evident increase in site locations, site types and artifacts as reflecting a rapid influx of population from outlying regions (cf. Frison 1978:40) Zeimens 1977:103). Other lines of evidence indicate the strong likelihood that a change in habitat reflected in increased aggradation and soil formation resulted in conditions more favorable to the preservation of cultural materials (Späth 1984a). Among the cultural items or facilities which are more abundantly represented in the Middle Plains Archaic Period in are, groundstone grinding implements such as manos and metates, large roasting pits, stone circles (or 'tipi rings'), and perishable items such as cordage, basketry, worked hide and wooden artifacts. McKean Complex artifacts, which are major

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markers of the Middle Plains Archaic Period, are common surface finds throughout this region. Middle Plains Archaic sites are scattered widely through the State and adjacent regions. However, most of the well documented sites occur in the northern portion of the State, particularly

Late Plains Archaic Period

The Late Plains Archaic Period does not differ markedly from the Middle Plains Archaic in its artifactual inventory or economic orientation. The major distinction between these periods, other than mere passage of time, is a change in the styles and workmanship of projectile points. One of the early markers of the onset of the Late Plains Archaic Period is the appearance of carefully thinned, true corner-notched Pelican Lake points (Frison 1978;56-58). A later distinctive point type is the large, side-notched Besant point (Frison 1978:59). Generally speaking, Late Plains Archaic points are more carefully thinned and symmetrical than Middle Plains Archaic types. Patterns evident in the Middle Plains Archaic Period, including broad spectrum foraging and communal bison hunts, continue into the Late Plains Archaic. Site locations, ranges of site types, types of artifacts and types of features remain strongly comparable. If anything, Late Plains Archaic material remains are slightly less common than the preceding period. Well documented Late Plains Archaic components are less common than Middle Plains Archaic, and are somewhat more numerous around the Big Horn Basin than in other areas. Many stone circle sites date from this time period, but we have little information on what proportion of these sites are Late Plains Archaic in age, or how they might differ from similar sites of other cultural periods.

Late Prehistoric Period

The Late Prehistoric Period on the Northwest Plains is marked by the appearance of a wide range of smaller projectile points. The transition has conventionally been interpreted as representing the widespread adoption of the bow and arrow (Frison 1978:62). The majority of the Late Prehistoric points are small triangular side-notched, corner-notched or tri-notched forms. Another artifact type which appears in many Late Prehistoric sites is pottery. At least five distinct pottery traditions, most of which are apparently intrusive from surrounding regions, are represented in various parts of Wyoming (Frison 1978:64-69). Two of these traditions, generally referred to as Crow and Shoshone, are frequently found in the northern and western portions of the State.

In addition, in this time period, stone circle sites are presumed to contain larger numbers of rings, and, perhaps, more large rings than those of the preceding periods. Many investigators have assumed that most 'tipi ring' sites are Late Prehistoric or Protohistoric, and that those with larger rings are Protohistoric. This interpretation is based on the assertion that horses could effectively drag more and longer lodgepoles and larger lodge covers than their functional predecessors, large indian dogs. In addition, the fur trade (8-86)

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economy of the protohistoric and early historic periods placed a positive value on polygyny and appears to have made possible greater accumulations of wealth (cf Kehoe 1960). In large part these assertions and assumptions are based on the unproven premise that most stone circles relate to tipis or similar conical pole lodges. There is a great deal of fertile ground for fruitful investigations in this area.

Protohistoric Period

The Protohistoric Period is marked by the appearance of European trade goods and, after the Pueblo Revolt of 1680, by the large scale introduction of the horse. A fairly distinctive artifact type of this period, especially in its later stages, is the European made or hand-hammered metal projectile point. Earlier in this century these artifacts were common finds, but with the ravages of collectors and corrosion, they have become substantially scarcer. The intrusion of the fur trade, first through native middlemen and later through the direct incursions by Euroamerican trappers and traders in the 18th and early 19th centuries, brought new and more abundant trade goods (Späth Among the highly significant trade items were guns. The relative 1984). availability of guns, particularly in combination with the horse, introduced new possibilities in hunting and warfare. These new patterns in turn had drastic effects on social, economic and political organization. Indirect products of Euroamerican trade were significant upheavals in aboriginal social and economic patterns and the introduction of new and devastating diseases. Oddly, this brief but tumultuous period has remained elusive to the point of near invisibility in the archaeological record.

#### **Research Themes**

Stone circle sites within Wyoming vary in their distribution and manifestations in the various geographic areas of the State. Preliminary evaluation indicates that these geographic areas can be usefully subdivided into: 1) eastern Wyoming, including primarily the

and adjacent mountains; 3) southwest Wyoming, and 4) the central Wyoming 2) including the Basins. The bulk of the available information from site surveys is unsynthesized, and there may be a great deal to learn about basic characteristics and distribution. One of the few syntheses which has been done is that of Vlcek and Decker (1985) for southwest Wyoming. Temporally, stone circles are common from the Middle Plains Archaic Period onward, and represent aspects of cultural changes through those cultural periods. A number of different research themes can be addressed using information which can be derived from these site types. The following commonly recognized research themes represent composites of the geographic, temporal and thematic elements as they relate to definable site or property types characterized by domestic stone circles: 1) variation in settlement and subsistence patterns; 2) sociopolitical and settlement structure; and 3) chronology of aboriginal structural design. These research themes are briefly outlined in the following paragraphs, as they relate to

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domestic stone circle sites in Wyoming and adjacent areas. These research themes are presented of examples of the kinds of productive research which can be conducted on stone circle sites, and are not intended to be an exhaustive synthesis of current or potential research themes.

Variation in Settlement and Subsistence Patterns

Settlement and subsistence patterns are basic research themes of archaeology involving a range of theoretical and investigative approaches. At a basic descriptive level, the concern of these investigations is to determine the locations of sites and activity loci relative to resource structure. The descriptive foundation of settlement and subsistence pattern studies is the patterning of cultural properties on the landscape. Additional descriptive studies involve the structures and functions of individual properties, temporal associations of properties, and the nature and distribution of resources, past and present, across the landscape. After an adequate level of description is achieved, inferences can be made about variability in the spatial and functional patterning of sites, and patterns of subsistence through time. Stone circle sites, although they certainly do not represent the full range of cultural patterns from any period or area, have the advantage of relatively high visibility.

It is generally accepted for the Northwest Plains that aboriginal adaptations ranged from nomadic, broad spectrum foraging to more logistically patterned hunting and gathering strategies. Although it has been suggested that horticultural groups entered portions of the state in the Late Prehistoric period, semi-permanent or short term sedentary settlements have not been identified. In keeping with this general pattern, the majority of stone circles are recognized as the remains of temporary or portable domestic structures. More often than not, these stone circles are identified with the tipi, or portable, skin covered, conical pole lodge. However, there are indications that temporary structures such as wicklups, war lodges and hemispherical brush or timber structures are also represented (cf. Frison 1983). In any of these cases, no single site represents the full settlement or subsistence round of a social group. Therefore, the patterns of cultural and social associations among sites are critical to understanding aboriginal adaptations. Although difficulties persist with 'tipi ring' sites which yield little or no associated cultural material, significant advances have been made in identifying temporal and cultural affiliations of these sites.

Limitations must be recognized in stone circle sites as a data base, but the same is true of any class of prehistoric cultural property. An unknown proportion of stone circle sites in floodplain or lowland settings have been buried or destroyed. This can partially account for the fact that stone circle sites are much more commonly identified in ridge-top or high terrace contexts. In addition, stone circles are not found in areas where stone is not readily available, even though we have every reason to believe that the same cultural groups were utilizing those zones. Historic and ethnographic accounts indicate that historic groups preferred to use wooden pegs to secure their tipis, but resorted to the use of stones on hard or frozen ground. (8-86)

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This would suggest that for the historic period, stone circle sites represent a limited and biased sample of tipi camps. However, wooden pegs may not have become popular for securing lodges until the introduction of the steel axe (cf. Laubin and Laubin 1957). In addition, other methods or materials which have low archaeological visibility, such as sod rings, were employed to secure domestic structures. In short, it is necessary to recognize that domestic stone circle sites represent a potentially biased sample of a limited range of the settlement and subsistence patterns of aboriginal groups. At the same time, stone circles offer the advantage for settlement pattern survey of relatively high visibility and the potential, in many cases, of recognizing discrete cultural components.

The brief overview prepared by Vlcek and Decker (1985) covers the greater and discusses the known distribution and variability of stone circle sites. In 1984, this major portion of southwest Wyoming had just under 200 stone circle site recorded, in comparison with more than 1500 for the entire State, or about 1/8 of the known sites within 1/5 of the land area. The majority of the recorded stone circle sites in the region are small, with fewer than five rings per site. A few areas, such as **a second second** circles are generally fairly sparse, but a few localized zones have a much higher incidence of associated artifacts. In many areas, fire reddened rocks are commonly noted, but intact hearth features are scarce. Sites are recorded predominantly in elevated situations, such as ridge fingers, hilltops, bluff edges and high terraces, but an increasing number have been noted in canyon or drainage bottom locations. **Example the set of a set of a** area has a high occurrence of cate that many more rings were once present, particularly in the plowed bottomlands. A curious variant which occurs in this area is a 'ring' type which approaches a square outline.

In the early years of archaeological research on the Plains, stone circle sites were often neglected or considered relatively insignificant due to the "complexity and shallowness of deposits" (Davis 1983: 1). More recent work has demonstrated that these sites can contribute significantly to our understanding of aboriginal settlement and subsistence patterns, and that an observed paucity of surface materials does not adequately predict the subsurface potential of a site. In many areas, stone circles are the only major architectural remains identified for the prehistoric periods (cf. Morris, et al 1983). Keeping in mind that larger stone circle sites are likely to represent revisited locations, rather than large, single event encampments, they can provide significant insights into the mapping of cultural activity on the natural landscape in past cultural periods. Much of the meaningful interpretation of this information must be founded upon the internal patterning of individual sites, which in large part is the historic context to follow. United States Department of the Interior National Park Service

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Sociopolitical and Settlement Structure

While the previous research theme was concerned with the patterning among sites, this theme is concerned with the patterning within sites. In the recording and evaluation of site structure, as with site distribution, the relative visibility of stone circles can be a distinct advantage. At the descriptive level, the investigation of settlement structure is concerned with intra-site patterning, temporal discrimination and the functional aspects of features and facilities within the site. At the interpretive level, aspects of economic orientation, as well as demographic and social organization can be In addition, sites may also contain habitat indicators and other inferred. evidence of environmental continuities or changes. Evidence may include: local habitat indicators such as soil formation patterns. aggradation or deflation; faunal and floral remains, reflecting habitat or resource preferences; or, materials brought from other locations and reflecting movement of the social group. The thematic elements which can be addressed in the investigation of site structure include: economic pursuits; lithic technology; domestic practices and social organization; site specific aspects of subsistence patterns; and palebenvironments and climatic change, if the appropriate data classes are present.

Several examples of productive and informative approaches to site structure at stone circle sites are presented in the Plains Tipi Ring Symposium (Davis 1983). Several papers demonstrate that equally important, and often equally abundant, information can be obtained from within and between stone circle features. It is also demonstrated that many, but by no means all, stone circle sites are much more productive than surface evidence would suggest. Density of cultural items is typically on the order of one to ten items per square meter, but is often sufficient to make differential patterns of distribution evident. In some cases, clusters or concentrations of materials may reach densities of several thousand items per square meter. Depending on context and association, these concentrations may be extremely informative.

Classes of information on site structure available in domestic stone circle sites include: distribution of features, facilities and activity areas within the site; range and variability in size of rings; morphology of rings; nature of associated facilities; types and distribution of activity areas; and relative abundance and density of cultural materials. Each of these data classes contributes in various ways to a variety of research questions. Most reported stone circle sites are relatively small, which may reflect a preponderance of small, temporary camps during these cultural periods. Extensive area excavations are required to determine if other structure types or robbed rings are present at some of these sites, but less visible than the stone circles. In all of these cases size need not be a critical factor in the research potential of a site. The most important aspects of the site are the integrity of context and association of cultural materials and features. A complexity of larger sites is that multiple components are often represented, and these components are often not resolvable into discrete units. Thus, there is the possibility that smaller sites may be more significant in terms of research potential, because they may represent one or a limited few discrete

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components. Once a site, or component within a site can be associated with its appropriate temporal elements, the task is to recognize significant patterns in the distribution of materials and features. Then it is necessary to assign meaning to those observed patterns.

It is generally assumed that the majority of stone circle sites represent domestic activities of varying duration, and that the majority of observed patterns will relate to the integration of the household or cooperative activities into the community. Variations in size of rings have been interpreted as indicating the relative size, wealth and status of the family group. The combination of size and morphology of rings has been related to season and duration of occupation. The location of hearths and activity areas outside habitations may indicate summer occupation, while interior hearths and acti-vity areas may indicate winter occupation. The arrangement and relative size of rings in a discrete occupation can reveal status differentiation and other aspects of social organization. A number of investigators have endeavored to link stone circle size or morphology with cultural periods, but as yet, the documented evidence is insufficient. All of these kinds of inferences can potentially be derived from spatial patterning and gross morphology, and need not involve any abundance of associated cultural materials. However, to consider these inferences within a diachronic or comparative framework, it is necessary to have some level of temporal and cultural indicators.

Many more detailed analyses and inferences depend on the presence of additional classes of associated cultural materials. If only stone circles are present, little can be said about economic pursuits or domestic practices. The most common, though not necessarily abundant, cultural materials reported from stone circle sites are lithic debris and bone fragments. Lithic debris is by no means unique to stone circle sites, and various types and levels of information can be derived from the analysis of lithic materials. The interpretive potential of the lithic materials is greater if they can be firmly associated with the stone circle features and facilities such as hearths. At the simplest level, temporally diagnostic stone tools can provide a relative age for the associated component. Relative age of components can also be determined by radiocarbon, thermoluminescence, differential soil development, patination, and other methods with varying levels of resolution. The information in a stone circle site, no matter how abundant, dense or unique, is likely to be more significant if it can be firmly associated with one or more temporal components. Deaver (1986: 98) makes the point well:

As for other data types, generally the sites with higher temporal indicator densities have a greater chance of contributing significant data. It is particularly important to obtain a number of temporal indicators because sites may have multiple components and individual temporal indicators are not particularly accurate.

Deaver then goes on to present a point scale for scoring the "arbitrary research potential" of sites within a bounded sample. Point values are assigned to sites on the basis of top values in feature numbers, lithic densities, bone densities and density of temporal diagnostics. Such a quanti-

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tative 'goody' count is of limited utility, and then only if the sites are at a comparable high level of investigation. However, the rating does illustrate an approach to evaluating the relative significance or research potential of stone circle sites. The weakest aspect is that it overlooks the research potential of qualitative attributes or significant individual features.

Chronology of aboriginal structural design

One of the major humanistic questions associated with stone circles is what kinds of structures they represent, and what changes occurred in these structural forms through time. Early historic sources offer tantalizing hints, but little detailed information on early post-contact patterns. There are fragmentary descriptions of established equestrian cultures from the Verendrye expedition of the 1740s, and several earlier observations of pedestrian bison hunters and their dogs from 16th Century Spanish entradas into the northern Plains. However, these sources provide us with virtually no useful details for comparison. Lewis and Clark provided the earliest published English language accounts of the native cultures of the Middle Rocky Mountains (eg. Lewis 1959 [1814]). Their observations of a band of Lemhi Shoshone indicate that the chief had several horses and a skin lodge or tipi, while the remainder of the band used hemispherical wickiup structures. This strongly suggests that both the horse and the tipi were relatively new to this particular area or group, and were considered significant symbols of wealth or authority. This would hardly be an expected pattern if the tipi had been in common use in the Northwest Plains and Middle Rocky Mountains since the Middle Plains Archaic. None of the Lewis and Clark journals offer observations on the use of stones around the perimeters of habitations.

Apparently, for the Eastern Shoshone, the wickiup was the more common habitation type, particularly in small camps, well into the historic period (Späth 1984: 51). Another temporary habitation type which was in common use was the brush or timber war lodge. For both of these structural types, stones were often laid around the perimeter to stabilize the structure. The disintegration of these structures then left behind stone circles easily identified as 'tipi rings.' Any serious investigation of stone circle morphology should consider that a number of structural forms are probably represented by these stone features. Differences in structural form and associated features are very likely to reflect cultural differences, changes in adaptations, or, indirectly, seasonal or environmental differences. Thus, the potential research questions involved with structural design are not merely humanistic. but may involve scientific questions of broad application, involving cultural development and environmental change.

Many stone circles retain subtle evidence of the structures with which they were once associated, and much remains to be learned of the development and cultural affiliations of these structures. A large number of articles are available discussing how certain stone circles do or do not conform with ethnographically documented tipis (cf Davis 1983; Wilson, et al 1981). An almost universal weakness of these studies is the implicit assumption that stone circles are the remains of tipis, and morphological variability can be

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explained by patterns of tipi use or construction. Many potentially useful parallels have been pointed out between ethnographic tipis and excavated stone circle features, and some interesting correlations have been drawn between variables such as ring morphology and modern day wind patterns. However, alternative explanations have not been pursued. While many investigators have employed productive and innovative approaches to mapping and excavation, such as Tipi-Quik and radial grids, the majority of 'mitigations' have employed inadequate mapping and test unit strategies which fail to provide useful information for site evaluation or research questions.

Brasser (1982) presents a useful ethnographic and ethnohistoric discussion of the Plains tipi which highlights potential pitfalls in archaeological investigations. He argues from an ethnographic perspective that it is unfortunate that stone circles on the Plains are often referred to as tipi rings. He cites convincing examples from historic Shoshonean groups of the Great Basin, and from more distant areas such as the Arctic, of the use of stone circles for structures "which were decidedly not tipis" (Brasser 1982: 313). In the end, largely discarding the archaeological evidence as inconclusive, he argues for two cultural centers for the development of the historic Plains tipi: one in the northeastern woodlands and adjacent boreal forests for the three pole tipi; and the Northwest Plains and Rocky Mountain foothills for the four pole type. Parallels with the historic wigwam are used to argue that the three pole tipi developed among eastern Athapaskan and Siouan groups, and spread from the eastern Plains. This tradition was then brought to the Northwest Plains by the Cheyenne, Arapaho and Lakota in the 18th Century. The four pole type, on the other hand, is argued to have been an older Northern Plains tradition which emerged from the use of two dog travois as the foundation of the lodge. The primary historic carriers of this tradition on the Northwest Plains were the Crow and Eastern Shoshone, but the distribution of ethnographic traits suggests a center of development farther to the north. Many other descriptions of habitation types in the region and interpretations of the origins of tipi forms are available and should be taken into consideration in the interpretation of stone circles.

It has been demonstrated that many stone circle sites can, with a reasonable investment of effort, yield potentially important information on seasonality, adaptive patterns and social patterns. An additional effort to recover information on structural design might well prove rewarding. Remnants of post, stake or pole patterns, although frequently difficult to discern, have been successfully recorded in these shallowly buried sites. These kinds of information, available only through careful shaving of meaningfully placed excavations, can potentially tell us a great deal about what kind of structure was present. It is unlikely that a wickiup occupied for a week in an arid prairie will be as rich and clear-cut for excavation as an earthlodge occupied for several years. But, if we are looking to understand broad patterns of cultural development and differences in human adaptations, the smaller and more difficult sites are important as well.

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### F. Associated Property Types

#### I. Name of Property Type: A. Small ring groups

### II. Description

By far the most abundant prehistoric architectural manifestation on the Northwest Plains consists of small groups of one to five stone circles. These stone circles many or may not be associated with lithics, bone fragments or clusters of rock representing past hearths. In many cases there are no conventional temporal diagnostics, such as projectile points, or sufficient quantities of carbon, by which to assign an age to the sites. The integrity of these sites varies widely, from deflated and disturbed to buried and virtually intact. Similarly, associated cultural materials and facilities can vary from nothing to abundant lithic activity areas, bone debris, intact hearths, traces of posts or stakes, and other artifacts and features. These small (continued)

#### III. Significance

All of these sites are of relatively high visibility, compared to equivalent size sites lacking stone arrangements, and represent aspects of the social and adaptive patterns of aboriginal groups in the region. All such sites can contribute basic information on the distribution of small campsites over the landscape. However, the more kinds of cultural material they contain, the more potential they have of providing significant information about prehistoric cultures. For this information to make some positive contribution to our understanding of the development of aboriginal cultures, it is preferable to identify the site with a discrete time period or identifiable cultural entity, based on the association of diagnostic artifacts or on an accepted relative or chronometric dating technique, such as radiocarbon, thermoluminescence or relative patination. At some time in the future it may be possible to use attributes such as ring size and morphology to identify these associations. There is some value in preserving or setting aside sites (continued)

#### **IV. Registration Requirements**

Small stone circle groups can be somewhat of a problem, because any given group will have a relatively small potential to yield information. On the other hand, the cumulative information from a modest sample is likely to have a much higher potential. It is tempting to evaluate small stone circle groups individually and discount them all, piecemeal. For meaningful research or representation of broad patterns of cultural development, a large or representative sample of individual sites is needed. The following attributes contribute to the significance of an individual site, but a site would not have to fulfill all of these requirements:

1. The site should be attributable to a discrete cultural group or meaningful chronological period. This requirement can be fulfilled by clear association with diagnostic artifacts, materials datable by an accepted chronometric technique, or a datable geomorphic or geological context.

<u>X</u> See continuation sheet

<u>G. Summary of Identification and Evaluation Methods</u> Discuss the methods used in developing the multiple property listing.

Stone circles have been identified by the Review and Compliance Program as a property type commonly reported by CRM projects and in need of development in terms of historic context and evaluative criteria. The initial multiple property context has been developed on the basis of review of major survey and excavation reports from Wyoming and the surrounding states, and discussions in synthetic overviews of the region. In practice, field identification of stone circles includes circular stone features which had a variety of original functions, including domestic and ceremonial. This context is intended to address domestic stone circles, often referred to as 'tipi rings,' ranging in diameter from two to nine meters. These circles occur in small to large groups, and are often associated with features or artifacts reflecting their function. The basic outline of the multiple property context was developed before the identification of specific representative properties.

See continuation sheet

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X See continuation sheet

Primary location of additional documentation:

<u>X</u>	State	Historic	Preservation	Office _	 local	government
	other	State age	ency	-	 Univer	sity
Federal agency				-	 other	

Specify repository: SHPO Cultural Records, Laramie

I. Form Prepared By						
name/title: Carl Späth, Ph.D., Wyoming National Red	gister Archaeologist					
organization: State Historic Preservation Office	Date: <u>19 June 1989</u>					
street & number: University Station, Box 3431 telephone: (307) 766 5323						
city or town: <u>Laramie</u>	state: <u>Wyoming</u> zip code: <u>82071</u>					

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## Property Types, continued

II. Description, Small Ring Groups (continued)

stone circle groups are the remains of small, short term habitation sites. It is still poorly understood why rocks may have been used in some cases to secure or stabilize structures, and not in others. Some small stone circle groups, particularly where unusually large or small circles are present, may represent non-domestic sites, with perhaps a ritual or ceremonial function.

III. Significance (continued)

typical of an area, but the primary significance of small stone circle sites is in the cultural and environmental information which they can contribute.

IV. Registration Requirements, Small Ring Groups (continued)

2. The site should also contain or be directly associated with one or more of the following: a) distinguishable activity areas or meaningful distribution patterns among cultural materials such as lithics, ceramics, or bone; b) cultural features or facilities in addition to the stone circles; c) buried living floors or activity surfaces with the potential to yield clear patterns or associations; d) subtle cultural features such as postmolds; e) carbonized plant remains; or f) anthropic soil differences which could yield information through chemical tests or remote sensing.

3. The site may be associated with integral or incidental pedogenic or geomorphic features which have the potential to yield information on environmental conditions at the time of occupation or site formation. The site might be significant for its contribution to chronological control of paleoenvironmental information, even if it is relatively impoverished in cultural information.

4. The materials or features within the site represent, in a tangible or meaningful way, or can yield important information on, one or more identifiable cultural groups or chronological periods.

5. The site and its individual features embody the distinctive attributes of one or more identified types, periods or methods of construction of stone circles, or the site represents a significant and distinguishable entity whose components may lack individual distinction.

These requirements could reasonably be met by a discontiguous district of small stone circle groups within which no individual ring group was unequivocally significant, but as a related whole they fulfilled the requirements. This can be illustrated by the Corral Creek Tipi Ring District in Crook County.

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I. Name of Property Type: B. Mid-range ring sites

#### II. Description:

Mid-range ring sites are arbitrarily defined as sites containing from 6 to 30 stone circles, and demonstrating no clear-cut evidence of multiple components. Planned synthesis of selected samples from the existing database may lead to refinement of these numbers. It is assumed that each of these sites represents a small number of related events, and in some cases a single occupation. It is not known how often the use of stone circles may have been associated with the use of archaeologically less visible habitation structures, so that the stone circles are merely 'the tip of the iceberg.' The systematic search for other feature types associated with stone circles constitutes an important descriptive research objective, and could contribute important information for a variety of research questions. By ethnographic analogy, small temporary encampments may have been made by bands consisting of a small number of extended family groups during their annual subsistence Another possibility is a small task group separated from one or more round. bands or a 'tribe' to accomplish a specific purpose. In many cases a limited range of time and activities may be represented. If more than one occupation episode occurred at the site, they may or may not be resolvable into discrete archaeological components. As with the small ring groups, integrity varies from impoverished to virtually intact, and associated material may vary from virtually nothing to abundant artifacts and features.

### III. Significance:

The potential significance of mid-range ring groups lies in their association with broad patterns of cultural development and the important information which they may yield on social and adaptive patterns. Although current overviews of available information indicate that these sites are substantially less abundant than the small ring groups, they nonetheless represent a significant part of the readily visible archaeological landscape. They can yield important information on the mapping of aboriginal band activities relative to resources, and aspects of the size and internal structure of those bands. Well preserved or shallowly buried sites may also potentially yield information on lithic technology, resource exploitation, environmental change, and cultural chronology. The visual clues to patterning provided by the stone circles are a very important aspect of the significance of this site type. Any of this information, however, is more meaningful if materials, features and associations can be placed within temporal and cultural frameworks. The visual patterning of this site type can also contribute to development for public interpretation. A mid-range ring site might have the mutual advantages of manageable size and a range of clear visual patterns making it ideal for public education.

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**IV.** Registration Requirements:

Mid-range ring groups have a greater potential than small ring groups of individually yielding information important in prehistory. The physical association of a number of stone circle features introduces greater potential for spatial patterning and intra-site comparisons. However, mid-range ring groups in order to meaningfully contribute to research questions or represent broad cultural patterns, must meet requirements quite similar to those for small ring groups:

1. The site should be attributable to a discrete cultural group or meaningful chronological period, by clear association of diagnostic artifacts, materials suitable for chronometric dating, or a datable geomorphic or geological context. Evaluation of these attributes should not depend on initial inventory for diagnostic artifacts or carbonized materials suitable for dating, but should carefully consider alternative means of ethnic or temporal placement

2. The site should have one or more of the following attributes or associated cultural materials: a) intact cultural features or facilities in addition to the stone circles; b) distinguishable activity areas or patterns of distribution of associated cultural materials, such as lithics, ceramics or bone; c) buried living or activity floors with the potential to yield intact or reconstructible distribution patterns; d) subtle cultural features such as post molds; e) anthropic soil differences which could yield information through chemical tests or remote sensing; f) clearly associated floral or faunal remains; or g) associated pedogenic or geomorphic features which may yield important information on environmental conditions at the time of occupation or site formation.

3. The materials or features within the site represent, in a tangible or meaningful way, or can yield important information on, one or more identifiable cultural groups or chronological periods.

4. The site and its individual features embody the distinctive attributes of one or more identified types, periods or methods of construction of stone circles, or the site represents a significant and distinguishable entity whose components may lack individual distinction. National Register of Historic Places Continuation Sheet

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Domestic Stone Circles in Wyoming

I. Name of Property Type: C. Large or multi-component ring sites

### II. Description:

This property type is defined by two attributes which need not co-occur: 1) the presence of a large number of stone circles, arbitrarily defined as more than 30; and 2) the identifiable presence of more than one distinguishable archaeological component. Many investigations of large tipi ring groups have recovered indications of multiple occupation episodes, and have suggested that large ring groups often represent revisited locations rather than large camps. In principle, a large single component encampment would not conflict with historically observed patterns, and is likely to be found. However, the present weight of evidence indicates that a single occupational episode needs to be demonstrated and cannot be assumed. Therefore, large stone circle sites are very likely to be complexes of overlapping occupations, and difficult puzzles to resolve. Well documented large stone circle groups are generally in ridge top or terrace situations in relatively open country. In some cases larger 'tribal' or multi-band occupations may be represented, but repeated family or small band camps are also a possibility. In some cases multiple components are evident from superimposed or robbed rings, but in other cases the distinctions are far more subtle.

#### III. Significance:

This property type is defined as sites or localities either containing large numbers of stone circles (30 or more), or representing multiple occupation episodes (identifiable as cultural components). A large, single episode site is very likely to yield information on community structure and the prior movements or associations of the sub-groups of that settlement. The site may also yield important information on variations in domestic structure, resource utilization, and differential wealth and status. Multiple component or multiple episode stone circle sites, insofar as the occupation episodes are discrete and distinguishable, may yield the same kinds of information for one or more of the components. In addition, the multiple component sites offer the possibility of temporal or diachronic comparison within the same physical setting. Stone circle sites represent broad patterns of cultural development on the Northwest Plains, which are presumed to have culminated in the Protohistoric or Early Historic Periods. These patterns have their roots at least as early as the Middle Plains Archaic in this region, and represent deeply rooted aspects of Native American ethnic heritage. Large or multiple component stone circle sites can significantly contribute to our understanding of continuities and variations in aboriginal settlement and subsistence patterns, aboriginal socio-political and settlement

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Domestic Stone Circles in Wyoming

structure and ethnic or chronological differences in domestic structures. Features within these sites may also yield important information on lithic technology, resource utilization or preferences, and variations in the habitat over time.

**IV.** Registration Requirements:

Large or multi-component ring groups, particularly those with hundreds of stone circles, pose a problem diametrically opposed to that of small ring groups. It is easy to conclude that a site is significant merely because it is large, spectacular or has so many stone circles. However, these sites should be evaluated as rigorously as smaller sites. The most problematic aspect of evaluating large stone circle sites is determining whether the site components are resolvable into discrete units for synthesis and comparison of the data classes. In order to qualify for registration, a large or multiple component stone circle group should meet one or more of the following requirements:

1. The site components should be attributable to one or more discrete cultural groups or meaningful chronological periods, by clear association with diagnostic artifacts, materials suitable for chronometric dating or datable geomorphic or geological context.

2. The contributing site components should be largely resolvable into discrete units for purposes of synthesis and comparison of data classes.

3. The contributing site components should have the potential to yield or contribute significantly to one or more of the following data classes: a) intact features or facilities in clear association with discrete components; b) distinguishable activity areas or patterns of distribution of associated cultural materials, such as lithics, ceramics or bone; c) buried living or activity floors with the potential to yield intact or reconstructible distribution patterns; d) subtle cultural features such as post molds; e) anthropic soil differences which might yield significant information through chemical tests or remote sensing; f) faunal or floral remains clearly associated with discrete components; or g) associated pedogenic or geomorphic features which may yield important information on environment at the time of site occupation or formation.

4. The materials or features within the site represent, in a tangible or meaningful way, or can yield important information on, one or more identifiable cultural groups or chronological periods.

5. The site and its individual features embody the distinctive attributes of one or more identified types, periods or methods of construction of stone circles, or the site represents a significant and distinguishable entity whose components may lack individual distinction.

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Stone circle sites of any size may, in addition, be suitable for development and interpretation for the general public. They may have the potential to represent or convey an understanding of our cultural heritage without necessarily yielding information important in prehistory. For example, distinguishable differences in the morphology of individual rings or observable patterns in ring distribution might, with suitable interpretation, convey an appreciation of prehistoric campsites even in the absence of associated cultural materials. In some cases a scarcity of associated artifacts might cntribute to the development and manageability of the resource and its utility for public education.

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