THE QUEST OF VISION: VISUAL CULTURE, SACRED SPACE, RITUAL, AND THE DOCUMENTATION OF LIVED EXPERIENCE THROUGH ROCK IMAGERY

Aaron Robert Atencio
THE QUEST OF VISION:
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LIVED EXPERIENCE THROUGH ROCK IMAGERY

By

AARON ROBERT ATENCIO

Photojournalism, Metropolitan College of Denver, Denver, Colorado, U.S.A., 2015

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Approved by:

Scott Whittenburg, Dean of The Graduate School
Graduate School

Dr. Gregory Campbell, Chair
Anthropology

Dr. Douglas MacDonald, Chair
Anthropology

Dr. Riley Auge
Anthropology

Dr. Nathaniel Levtow
Global Humanities and Religions
Atencio, Aaron, MA, May 2019, Anthropology

Quest of Vision

Dr. Gregory Campbell, Chairman

Dr. Douglas MacDonald, Co-Chairman

This document will approach the multifaceted concepts that arise through the study of rock art and the cultivation of culture and belief through vision. Through this document the audience will encounter conceptual ideas regarding belief systems, ritual, experience, cognition, sacredness, and space/landscape — and how these are all essential dynamics that take place in the processes that cultivate the Shoshone visual culture. This document will employ an anthropological lens on the mentioned subject matters, while also approaching these concepts with an interdisciplinary curiosity of how they intermingle; creating a cohesive experience that focuses on these processes which empowered these people[s] to document their visions upon the landscapes that they existed within.

In closing, I assert that the data, methods and theories being implemented from multiple fields can — and will — continue to guide scholars to crystalize educated hypothesis regarding cross cultural phenomenon such as sacred experiences and visions; along with the propagation, cultivation, and revivification of rituals with specifics to the creation of visual culture.
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KEY OF FIGURES

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CHAPTER 1:

INTRODUCTION

Rock art and religious experiences are subjects that stir up a multitude of attention and reflection for many reasons. These separate worlds often combine, and when they blend and meld together, they leave us with a captivating glimpse into societies and cultures affluent in story, ritual, and landscape. Before venturing further into such worlds, some housekeeping is in order to establish the concepts and boundaries that may become breached throughout this document. Doing so will develop the approaches, presuppositions, and goals that I have for the research presented. This housekeeping will allow the audience to become aware of cultural presuppositions about fundamental reality and how we project meaning upon the material world concerning our world/culture view, versus other worlds/cultures views.

Rock art and the many processes that accompany it are visual by nature. Whether it be the red ochre handprints or thoroughly pecked figures into the rock, it is clear that the images were created to be seen, or to reflect what had been encountered and recognized by that person[s] who created it. At the top of the visual hierarchy of this document, we have a look into the history of North American rock art, moving below that the material will explore an amalgam of seeking visual experience through ritual, perception and cognition, art, and the preservation of culture through photographic documentation.

This document will present a multitude of concepts to be encountered through seven sections accompanied with figures and data charts. The first is an introduction to these concepts and the scope of the text as a whole. The second section will establish the various theories and methods employed throughout the research of this project. Following this, the third section will
encounter the historical basis for North American rock art, classificatory schemes, and
terminology. The fourth section will introduce the particular site of study — the Wind River
Basin and provide a glimpse into the material landscape. The fifth section will introduce the
topic of distribution and the specific classifying attributes of the rock art within the study area.
The sixth section will explore how the above sections pertain to specific dynamics within the
area and the visual culture that is prominent in the Wind River Basin, along with neurological
basis for visions and visual culture. The seventh section will conclude the document, and distill
the hypothesis and theories integrated in each section that set out to explore the data presented.
This distillation will provide a cohesive coalescing of the encountered material within each
section to provide understanding and meaning regarding the subjects above, while also
presenting ideas approaching the underlying specifics that may go unnoticed to the outside
observers.

Furthermore, the research will introduce a variety of photographs (taken by the author
unless captioned otherwise) and visual aids to give an integrated visual experience and provide
context to the research proposed within the document. Out of respect to the sacred nature of the
Dinwoody Tradition, photographs of the rock art will be printed separately or presented within a
slideshow during presentations. This decision was also made so that the specific audience can
encounter the images separate from the text so the main focus is on the image as encountered;
with a heightened amount of attention; while also avoiding the over-dilution of a sacred feature
of Shoshone visual culture. The decision to compartmentalize is not one of gatekeeping;
preferably, it is to propel curiosity of those interested into the realm of discovering these visual
dynamics in their rightful place, within their proper environment. The Dinwoody Tradition
cannot be experienced in totality by viewing a printed image or a projection on a screen. I assert
that these images must be encountered in the environment that they are tethered within, in short, these visual dynamics were not merely meant to be seen, but they were also expected to be experienced.

This document will be heavily invested in such visual records tethered to phenomenological experiences and ritual behaviors. Though, I hope that through navigating the research, the audience will encounter a multifaceted world; rich with a glimpse into why vision is so important to how and why we perceive our specific environments — and how these environments impact our perceptions and develop processes that we enact back into the environment itself. Following this, I hope the audience will entertain the initiation of an idea that puts forth a possibility that these landscapes may lead to the propagation of rituals and value structures, and that through these projected value structures, meaning can be revivified, morphed and reintegrated into the culture through lived experience.
CHAPTER 2:

THEORY AND METHODS

2.1: RITUAL

Praying, burning incense, baptism, dancing, offerings; these actions are what we call rituals. The term ritual is a singular word that attempts to describe extremely complex ideas, from fasting to human sacrifice; this term attempts to define these processes. There’s a multitude of complexity tied up into this one word, and with this comes the difficulty in establishing its meaning. We can further dissect this by asking a question like, why is drinking a glass of wine at dinner different from taking a sip of wine at a church on Sunday? Why is refraining from food call dieting, yet doing so for religious or spiritual reasons called fasting? In short, what is the definition of ritual and what makes a ritual a ritual?

There have been many attempts to cultivate an objective definition of ritual. Victor Turner states that ritual is “[P]rescribed formal behavior for occasions not given over to technological routine having reference to beliefs in mystical beings and power,” (Turner, 1967: 19). However, one problem to note with an objective definition — regarding a complex term such as ritual — is that we can always find contradictions and exceptions to such definitions.

If we take into consideration the definition above by Turner, and we accept that definition, then we must also recognize that any ritual behavior that is not anchored within a belief, mystical beings, and power is not a ritual. Herein lies the issue, there are many rituals — cross-culturally — that do not strictly adhere to Turner’s categorization of ritual. Often times Turner has contradicted this self-proposed definition of ritual, as it is easy to do considering the complexities and the dynamic nature of the subject.
Thus, how are we to get to the bedrock of defining ritual? I assert that rather than focusing on the objective components of ritual that are culturally dependent — such as the formality and repetition — we focus instead on the fundamental purpose of ritual, then work inwards towards the cultural dynamics and processes. Rather than getting bogged down in the cultural dynamics that are subject to change; the proper question to ask for establishing a lodestar is, “what does ritual do and what function can it serve?”

Early scholarship set out to view ritual as a dynamic related to religion. The first foundations came from four schools of thought: myth and ritual schools that asserted ritual was the catalyst for culture and religion, phenomenologists focusing on the importance of myth, and the psychoanalysts that integrated the above aspects in attempts to synthesize meaning (Bell, 1997: 3). Contemporary theorists and ritualists build upon — or try to transform the ideas proposed from early ritualists, and like many new theories, some of the contemporary approaches are repackaged and rebranded as something new, although they may very well be propagating the same ideas with a new veneer of conceptual language.

Mircea Eliade, one of the most prominent figures of religious research, viewed ritual as a performance, or “a reenactment of a cosmogonic event or story recounted in myth,” (Bell, 1997: 11). With Eliade’s assertion that, “Thus the gods did; thus men do,” ritual seems to be a performed set of behaviors framed to propagate the mythical story of primordial times. Eliade’s hierarchy of importance places myth above ritual, therefore establishing the hypothesis that myth is the underlying structure to all religious and spiritual experience. However, Jonathan Z. Smith refutes this point, regarding the importance of such a universal underlying structure and focuses on how the rituals set out to cultivate interconnected links of meaning through order (Bell, 1997: 11). Instead of myth being the key to the birth of a religion, the rituals are of equal importance
and act as an essential building block for religion through its capacity for routinization of actions that are projected and perceived as apart from other actions (Smith, 1980: 113).

Smith's view also requires that one look at the seemingly binary existence between the two poles of action. The importance of ritualized behavior and actions could not be perceived as significant without the mundane actions which they separate from; which further leads to the question of which holds more importance to the differentiation?

From here we can once again turn to Jonathan Z. Smith and Catherine Bell for more resolute orientation. These two scholars may provide a much more approachable and cohesive hypothesis for a starting point regarding rituals. Jonathan Z. Smith states that, “Ritual is, above all, an assertion of difference,” (Smith, 1987: 109). Bell further synthesizes Smith’s view on ritual:

[R]itual portrays the idealized way that things in this world should be organized, although participants are very aware that real life keeps threatening to collapse into chaos and meaningless. Ritual, he suggests, as an opportunity to reflect on the disjuncture between what is and what ought to be; it is a ”focusing lens” through which people can attempt to see, or argue for, what is significant in real life. (Bell, 1997: 12)

So, with this, what are we to take away from Jonathan Z. Smith’s definition and view on ritual? We can look at this statement as defining ritual as a bodily strategy — or an adaptation of physicality through performance — of acting in the world that differentiates specific actions from other actions. This separation and otherness create a categorization and classification of actions, asserting that some actions have more power and importance than others. Through this categorization, some actions become more potent through perception and routinization, and with that, we can infer that the projected importance of ritualized behavior carries more importance than the actions they separate from. Catherine Bell dissects this differentiation further, stating,
“At a basic level, ritualization is the production of this differentiation. At a more complex level, ritualization is a way of acting that specifically establishes a privileged contrast, differentiating itself as more important or powerful,” (Bell, 2010: 90).

From this, we can further assert that rituals are differentiated through actions that are utilizing culturally specific dynamics and processes that strategically create a difference. We can see this process through ritual action to maintain a state of differentiation and within examples such as baptism or ritual bathing and the creation of sacred spaces, which Jonathan Z. Smith also asserts is a flexible construct and not a universal.

A key component to take away from Catherine Bell's stance on ritual is that ritual is defined by its purpose to distinguish itself from the ordinary, and not by the specific strategies, dynamics, and processes that rituals deploy to attain this distinguishing categorization. This categorization allows ritual to reach far beyond strategies that are not only universal aspects of rituals; such as, repetition, symbolism, and formality.

With this view that ritual is merely an assertion and projection of difference, we can navigate more fluidly to dissect the way that rituals illuminate actions and frame the actions in their specific dynamics. The actions are essential, but the framing of such actions provides the boundaries to move the ritual action into its own category of being separate from the ordinary action. This aspect of “framing” is rooted within the thought of viewing ritual as performance, and it is a concept of how ritual behavior is communicated, and how that communication is informed and translated by the frame:

The term [framing] indicates the way in which some activities or messages set up an interpretive framework within which to understand other subsequent or simultaneous acts or messages. Frames, for Bateson, are a form of “metacommunication.” For example, framing enables one monkey to hit another and have it understood as an invitation to play, not fight. (Bell, 1997: 75)
Another aspect to consider when dissecting ritual behavior is not only focusing on the sociocultural, psychological, individual and group impact, but to consider the neuroanthropological (biogenetic structuralism when referred to within ritual studies) impacts as well. This term refers to the attempt to explore the evolutionary capacity of ritual behaviors between species (Bell, 1997: 31). What is further teased out from this exploration is the focus of the biological function of the body during a ritual, and the neurological processes taking place simultaneously:

[T]here have also been attempts to investigate the biopsychological roots of human ritual behavior and the effect of ritual behavior on both cognitive and more general neuro-physiological processes within the body. While it is widely assumed that ritual behavior is deeply involved in the interaction of the brain's cognitive functions with the socio-physical environment, some biogeneticists have also attempted to locate the specific brain sites responsible for ritual action. (Bell, 1997: 32)

From this we can understand this is utilized as a process to understand how the brain is operating during the ritual behavior, and how this impacts bodily functions within the environment, perhaps leading to insights on certain adaptational behaviors and physiological changes. The implications for this type of research could lead to discoveries revealing the connections between, mind, body, and environment that may have not yet been considered or revealed before. The cognitive research regarding aspects of measurable bodily behavior of the individual transmitted into a group is exploring these links between the mind, body, and environment eluded to above, and with conceptual anthropologists, such as Dimitris Xygalatas, leading the way, many discoveries could well be on the horizon. This exploration into neural functions may open up a multitude of possibilities. However, the extractions of what a ritual means to an individual regarding the experience can still fiercely be debated with regards to meaning and truth. This discourse often is rooted within the truth versus fact schools of thought,
and those are gaps that we have yet to bridge, and I believe it to be an unnecessary gap of existence.

While many ritual theories focus has been oriented more towards world religions, I assert that the defining boundaries and integrated approach of rituals and the theories surrounding them mapped out by Catherine Bell will be applicable to the research encountered in later sections. Through the utilization of an open approach, we can synthesize an emic and etic view with comparative studies, phenomenology, social/individual functionalism and pragmatism, cultural and cross-cultural comparative symbolism — along with psychoanalysis and neuroanthropology. While the literature discussion above is comparing a small set of theoretical definitions and approaches, it will provide an essential basis to understanding and framing the rituals that surround the dynamics of the vision quest and the ritualistic behavior, symbolism, and dynamics that are tethered to it.

2.2: SYMBOLIC ANTHROPOLOGY

A key aspect to deciphering ritual on a cultural level and understanding its actions is through the use of their symbols and symbolic actions employed throughout the ritual. This is where we can integrate the discussion on ritual from Smith and Bell and focus it with symbolic interpretivism.

The framework that symbolic anthropology comes to rest upon is identifying the meaning of symbols while attempting to dissect an understanding of the question about our human existence (Spencer, 1996: 535). Symbolic anthropology is focused on the interpretations that happen and differ across shared cultural ideas, structures and phenomenon, but dissects these
aspects into how they fit within the specific culture. Symbolic anthropologists emphasize the symbols, rituals, and behavioral processes that emerge, and use them as tools to further explore the meanings they have within the culture, along with the values they assign or are assigned. The rituals, myths, and behavioral practices are viewed symbolically, perhaps as an abstraction of something carrying an underlying meaning that is too eloquent and beyond our capacity to be transmitted through other means of communication. They act as vessels to transport ideas into the culture. Geertz proposed the concept that symbols served as a compass, or a lodestar to guide us through the hierarchies within which we exist.

Symbolic anthropology has studied a vast variety of material; from kinship and power structures to political organizations, to grasp an understanding of the value of symbols in the cultures that are studied. Even throughout the vast subject matter, some significant structures and frameworks lay out the landscape for symbolic anthropology.

One of these foundations is that actions are directly affected, perhaps even guided by interpretations and perhaps the symbols themselves. The functionality of the constructed social structures lies in the belief that symbols are aiding in the activities of the hierarchies and sociocultural processes. Symbolic anthropology has firmly placed its lens towards viewing and attempting to understand these dynamic processes, religions, mythology, and abstractions of narratives within the culture it sets out to illuminate. The other foundation is through the study of beliefs and belief systems in that, "beliefs, however unintelligible, become comprehensible when understood as part of a cultural system of meaning" (Des Chene, 1996: 1274).

Here we can divide symbolic anthropology into two main categories propelled by two foremost practitioners that became the tip of the spear for this field of study. This movement, by my assertion, was put into motion by two key figures: Victor Turner and Clifford Geertz. While
Clifford Geertz and Turner guided symbolic and interpretive theory into one of its heights, Mary Douglas should also be considered as providing insight into the field as well, though she often considered herself a soft-structuralist.

Clifford Geertz is one of the most notable and recognizable names in symbolic anthropology. Not only influenced by anthropology, Geertz also pulled from many schools of thought such as philosophy. Many of his most significant influences came from philosophers like Heidegger and Weber. This broad range of inspiration allowed Geertz to navigate a larger field and build a more profound framework for the emergence of interpretive anthropology.

These influences and the broad range of inspirations led to Geertz’s view on the landscape of culture, and it echoes throughout many of his works, one of the most notable being “The Interpretation of Cultures” (Geertz, 1973a). Geertz believed that symbols were not stowed away in the mind or held in a cache waiting to be pulled and recalled. Instead, he asserted that the symbols were outward expressions of the culture to be utilized by the societies they inhabited. Geertz proposed the notion that societies use the symbols as vessels or vehicles, and that the study of the symbols alone would be disingenuous — ultimately failing to reveal the potential meaning of cultures (Ortner, 1984: 129).

For Geertz, the true meaning was revealed through the context, as opposed to a western idea of finding meaning through the data extraction of text. To reach this true meaning of the culture, we must view the actors and take their interpretations into view to analyze, with the intent of fostering further illumination into the values of the cultures. Geertz proposed that the way to accomplish this could be through thick description — in short, writing effectively, profoundly and fluidly. The way to write fluidly and efficiently would be accomplished by getting in place (Emerson, 2001: 157) — merely meaning adapting and becoming close to the
cultural — and gaining entry into the society and the mind of its inhabitants. He believed that the human cultures were phenomenon entangled in a social structure, and it possessed a shared world of symbols and their meanings:

[Man is an animal suspended in webs of significance he himself has spun, I take culture to be those webs, and the analysis of it to be therefore not an experimental science in search of law but an interpretive one in search of meaning. (Emerson, 2001: 55)]

Geertz felt that fragmenting the "native" mind from the symbolic, and how they define the symbols within their culture would be moving in the opposite direction of deciphering those meanings. So, one must read the culture and symbols as a native would (emically) while still being cognizant of the outsider's utility to reach beyond the cultural levels.

Geertz proposed that behavior and culture would be unable to exist without one another, and to correctly understand one, both must be researched as a unit (Emerson, 2001: 55-75). Approaching the research this way provides a structure to an analysis of culture as a whole, ultimately allowing the anthropologist to engage in the so-called thick description. By doing so, the anthropologist is viewing the experience as an interpretation of what the indigenous actor is thinking. An etic perspective makes this interpretation that can be affected by their own biases/presuppositions they carry within the culture, but the theoretical approach allows the anthropologist to transcend these barriers hypothetically and properly conduct research (Geertz, 1973c).

Geertz reduced thick description as a specified type or frame of communication towards another sharing that same culture, which can decipher the context of the message that is being communicated. Geertz explained this more concisely with his dissection of difference between a "blink" or a "wink." A wink transcends the blink, even though it may be performed with the
same physical functions. It does so by the message it carries, it is done purposefully, directed towards something in particular. A wink is a symbolic message, carrying with it a message defined by the specific culture while creating a bridge of communication between the parties involved with the wink, and the individual receiving the wink. The interpretation and value of the wink lie within the culture it operates through, which bodes well for interpretive theory, further solidifying the concept that similar patterns are open for interpretation through the actors and the social systems (Geertz, 1973c: 6).

These differences between winks and blinks show the social structures that exist, the shared similarities, and the juxtaposing interpretive differences that lie within the structures that attach different values to similar actions, symbols, and objects. Geertz was steadfast in his approach to viewing culture, and with his belief in the theory came a type of dramatic social rift within the field of anthropology. This change required the acknowledgment of Geertz concept that cultures were not only a structure of operations but also, they provided a landscape through which these symbolic vehicles could transport ideas of the culture (Geertz, 1973b).

The symbolic and interpretive theory provides an enticing avenue to approach questions and implement research regarding the sacred and religious landscape. One of the most notable avenues for this method is through hermeneutics, which critically analyzes and interprets sacred and religious texts. The ability to interpret and analyze these texts became utilized by Geertz to convey the structures in society. At the same time, hermeneutics set out at observing the multiple hierarchies — such as religious, environmental and economical — and how individuals behaved and proceeded to exist through the structures.

This system of hierarchies, and the structure that this provides within a culture, by providing an arena that embodies social expression, becomes apparent through Geertz's work
illuminating cockfighting (Geertz, 1973e: 448). The social expression and the idea expressed or interpreted through the abstraction of Geertz’s observation of cockfighting is not a concept that stands alone when speaking of societal bonds through symbolic behavior that takes place in society.

Victor Turner, on the other hand, was drawn to illuminate the processes of culture through symbolic action. Turner was interested in the roles that particular symbols play within these structures. Turner also wished to explore further the weight that the symbols carried within the cultures and societies. Turner drew inspiration from the French sociologist, Emile Durkheim. Though Durkheim was not explicitly involved or attributed to the symbolic or interpretive school of thought, he did explore many avenues that dealt with interpretive methods.

Turner proposed a concept that is described as social drama. Turner believed that these social dramas are shared human cultural experiences that came out of unplanned social behaviors and processes (Turner, 1980: 149).

These dramas — as conceived — can be placed into categories: rupture, crisis, remedies, and reintegration (Turner, 1980: 149). Rupture is a tear, or rip, in the fabric of societies social aspects. Turner defines crisis as an emergence of chaos that takes place when societal norms cannot address the rip in the social fabric. The final categories of social dramas turn away from recognition of the issues and focus on resolving the issues that arise first. Remedy provides a concept to digress and make an attempt to reestablish the social order lost within chaos, and if successful it is followed by the reintegration and reemergence of the social fabric (Turner, 1980). This reemergence can be viewed as an abstraction that even though repaired, it has been metaphorically stitched up and changed in some sense.
Turner focused on ritual behavior and the symbolic aspect of the rituals. Turner felt that the symbols were carriers of ideas that behaved as catalysts to the processes that exist inside of these social constructs (Ortner, 1984: 131). Turner called these catalysts "operators" (Ortner, 1984: 131). Turner believed that the expressions or the symbolic abstractions are taken from the material world. These significant value definers are the roots of human interaction and relationships — stating "symbols are the catalyst that brings about societal actions and with it, force upon "determinable influences inclining persons and groups to action" (Ortner, 1984: 131).

What we can piece together with these ideas is the belief that these catalysts act as an operational force, and by doing so, they create emerging societal transformations which bring the inhabitants within that society together. This hierarchy that it creates provides a foundation where the symbolic world creates a landscape for individual and group interaction (Turner, 1967).

This form, or bonding, that takes place through ritual is called liminality. What liminality represents is a concept of an ambiguous transitional state through rites of passages (initially put forth by Arnold Van Gennep), ultimately providing the platform where the person partaking in the ritual created a community and a navigatory structure within the landscape of that ritual. Turner classified symbolic properties into crucial categories: 

- **multivocality**
- **condensation**
- **unification of disparate significata**
- polarization of meaning.

*Multivocality* means that a single symbol can represent many things, bordering the fine line that fragments a sign from a symbol. *Condensation* states that many things and its actions are represented in a single formation. The *unification of desperate significata* proposes that things are unified, or interconnected by their common possession of analogous or through association of thought (Turner, 1980).
Durkheim inspired another anthropologist by the name of Mary Douglas. As stated above, Durkheim was interested in the sacred being set apart from the profane, not always contingent on space. This concept of sacredness and set-apartness was an idea that Mary Douglas also explored. It can be argued that Mary Douglas's most prominent addition to the field of symbolic anthropology is her concept of group and grid (Bell, 1997: 44). Douglas's group concept states the position of an individual inside or outside a specific social group, while the concept of grid establishes the defined social roles of an individual through networks surrounding privilege claim and obligation (Douglas, 1970).

Douglas's work in the concepts of cultural theory of risk proposes the idea that social structures that become organized units allow biased interpretations that are confirmed further by the group bias, which concretes the structures in place rather than seeking contrasting options.

This theory can be beneficial to viewing structures of interpretations, such as an indigenous sacred site that furthers the propagation of sacred spaces to those seeking it, or purity rites within cultures while revivifying and benefiting the structures in place. Group and grid can be implemented and utilized in modern anthropology when attempting to illuminate these conflicts within a landscape dealing with interpretive and symbolic issues. While Turner and Geertz were invested within the frame of interpretation of symbols and their meanings, Douglas was a soft structuralist, integrating interpretation into a series of structures within a society.

Symbolic and interpretive anthropology is a theory that attempts to shift away from structural based approaches. It chooses to dissect topics through critical literary tools, while also taking the views of the actors and symbols within the cultures into account, which can provide useful to the theoretical issues within cultural ritual research. Symbolic anthropology pulls from multiple cultures, across multiple periods of time. This open-ended time frame, and ability to
move through multiple spaces and landscapes, allows anthropologists to utilize a cross-cultural approach to view shared concepts and ideas that emerge throughout different areas of cultures (Des Chene 1996: 1274). Symbolic interpretivism may also allow us to approach concepts that deal with conflicting interpretations that cultures define their identity within. The issues proposed above regarding ritual and cultural processes approached and successfully dissected with the framework that symbolic interpretivism uses.

Symbolic/interpretive anthropology stands in contrast to another mode of symbolic thought. This pattern of thinking, or theory that symbolic anthropology juxtaposes is the structuralist theory.

Claude Lévi-Strauss, an influential anthropologist and intellectual, was the leading force for structuralism (Des Chene, 1996: 1275). This theory found its home and became emphasized within linguistics and semiotics. Structuralism influenced many other intellectuals in these fields such as Peirce, one of the most famous American philosophers and a prominent figure in semiotics.

Structuralism's mission was to validate the concept that truth or the meaning within cultures derives from the contrasting and differing aspects or dualistic existence of specific things within the cultures. Structuralism proposed that the utility and meaning of the symbols only mattered within the hierarchy of the social structure that they inhabited, and with that, symbols could not provide an adequate understanding of these systems by themselves. The structuralists view also proposed that the actions perpetrated by the actors are fragmented, or separate from one another, which was a stark contrast to the symbolic view (Prattis, 1997: 33).

Structuralism emerged from concepts and ideas surrounding phenomenology and Gestalt psychology (Sturrock, 2003: 47). The goal of phenomenology is to provide a scientific
understanding, or rational acceptance, to philosophical ideas. One of the main realms that phenomenology was concerned with was bridging the gaps between the subject versus object of human thought, while attempting to understand, perhaps even define consciousness. Structuralists believed that consciousness was not fragmented from itself, or simply, that it also was conscious of something. With this, they believed that this shared consciousness could not be separated into the object or subject categories alone (Sturrock, 2003: 50).

Structuralism also followed a concept that consciousness exists through patterns of experiences, or in simpler terms; the sum is more profound than the parts of which it is comprised (Sturrock, 2003: 52). Structuralists believed that working within a theoretical framework provided tools to address their ideas in profound and accepted ways. They propose that humans can stay within the bounds of specific structures and understand them even if we are unable to explain why we understand the structures themselves. This is not to say that we do not understand the rules of the structures, in fact, humans in person-to-person interactions are aware at the correct implementation of these rules when we successfully communicate with one another (Johnson, 2009: 91).

Claude Lévi-Strauss trusted that the profound consciousness in the field of anthropological research rested upon human patterns through the mind that effectively produced societal and cultural categories and structures to organize the environment. This concept proposes Lévi-Strauss's belief that the processes did not define the culture, but they were a byproduct of the culture. In his book, *Structuralism and Ecology*, Lévi-Strauss states that the concepts and the composition of hidden rules that bind the behaviors of the actors are creators of cultures. The varying profundity between cultures are these binding behaviors rooted within these secret rules that the actors understand, though seem conflicted in the abilities to articulate
them Concisely. Lévi-Strauss believed the way to discover these hidden structures was by observing the dualistic nature or oppositions that bind them into a cohesive relationship. This rift between articulation and understanding is the primary goal that structuralism set out to explore.

While symbolic anthropology approaches cultures and the actors within it as separate from each culture and possessing a multitude of varying interpretations between these cultures, structuralism proposes that the thoughts of humankind are a process shared cross-culturally and that these thoughts exist as binary oppositions (Winthrop, 1991). Structuralism approaches the existing reality by focusing on cultural expressions and languages much like symbolic anthropology. Structuralists and symbolic anthropologists both believe that abstract expressions and cultural acts sometimes possess underlying narratives into the meaning of the culture and the thoughts of the actors. Structuralists firmly reverberate the belief that the structures and elements of culture are to be viewed as a related unit of the system that they exist within (Rubel; Rosman 1996: 1263). This states that fragmenting the elements from the culture is disingenuous to identifying the meaning within the culture and the elements. Instead, they are to be looked on and researched as a cohesive unit.

While differing in its approach and beliefs about cultures, structuralism and symbolic anthropology faced related criticisms from other theoretical approaches. The main criticism structural anthropology encountered, is that it does not allow for dynamics tethered to conscious human agency, and this is a criticism that is sometimes echoed through aspects of symbolic anthropology. This concern regarding theoretical and epistemological assumptions challenges the validity of observer-based approaches (Lett, 1987:103).

The landscape of structuralism is mainly focused on the hierarchy of the human mind and its thoughts. This approach leaves out concepts of historical significance that are affecting the
nature of culture. The structuralist depiction of human thought as being a type of hive-minded-consciousness opposes some views within symbolic anthropology, in that a multitude of differing interpretations for shared dynamics is not a genuine possibility to illuminating insight into the human psyche.

Many of the actions and processes encountered later with regards to ritual are symbolic by nature. The belief systems of the Shoshone utilize symbolic imagery and iconography to communicate such belief structures in dynamic ways. With this, it is essential to have a grasp on the albeit brief above overview of symbolic function and how to proceed in regards to implementing such an approach to decipher the data presented later.

2.3: Images and Photographic Documentation as a Research Method

Using images and photography as a research method is a technique that predate rock image studies. Not only has photo-documentation been used as a data recording method, but it has also been used as a means for preservation and social action. Treating visual images as tools for research is one method employed to translate and can be utilized to make educated assertions regarding the meaning and value of the proposed subject matter. Also, the use of images, whether it be photographs of rock images or the images upon the rocks themselves, can serve as a catalyst for cultural preservation, orientation, and change. To understand these concepts, first we must look at how photography has been used as a research method, then we can venture into how it has been applied, and may be applied, to further rock image research and the preservation of cultures.
We can initiate the analysis by asking if visual documentation can provide anything beyond a visual account of the subject matter it sets out to research? Following this line of questioning, we can further inquire; how are we to trust the validity of the subject matter being presented in the visual documentation, why is photography as a research method important, and can a visual case study change anything if it has a goal to do so?

We can only approach these questions by defining what is viewed as change. I assert that the power of visual documentation as a means for preservation, orientation, and change is a byproduct of the production of the images themselves. Also, I wish to look at this concept from a separate angle, one that serves as an indirect catalyst towards the creation of change by transmission of value and meaning upon the audience that is encountering the subject matter being recorded, then transmitted. Approaching the concept with such a frame may allow the project to elucidate the power of photography implemented as a research method while becoming a transmitter of ideas and place that eventually may lead to further changes within the studied subject matter.

These questions above arise when approaching the usage of photography as a research method. Firstly, can visual case studies be useful beyond the documentation of events while retaining an accurate visual representation of the events? In short, yes. Empirical [Westernized] scientific approaches to researching cultures and functions may be traditional; we may state that they fail to engage an audience, and anchor that audience to the subject in ways that photography is capable of creating investment. Photography can transmit data across cultures seamlessly without translation. Though some translation may be needed, we may assert that encountering an image is not only second nature to human beings, it is an unconscious process weaved into our biological processing of how we encounter and interact with our environment. In the words of
the Collier brothers (the forefathers of visual anthropology), "The nonverbal language of photorealism is a language that is most understood interculturally and cross culturally," (Collier and Collier, 1987: 9).

Many of the significant historical moments have been recorded using photography. Eddie Adams captured his famous Saigon Execution. Brent Stirton's Gorilla in the Congo displayed the impact that war-torn lands and conflict can have on surrounding wildlife. Malcolm Browne's The Burning Monk played a role in questioning the regime of President Ngo Dinh Diem, Kevin Carter's Starving Child and Vulture caused global awareness regarding the famine sweeping across Sudan.

One of the most prominent bodies of visual documentation came from Dorothea Lange and Ansel Adams regarding their work during the Great Depression and World War II. Dorothea Lange worked in collaboration with Paul Schuster Taylor, an agriculture economist, to document the lives of those affected during those tumultuous times, all while preserving the time and place of those impacted, along with the landscape and environment. With Taylor's economic report and Lange's compelling photographs, the collaborative project became a locus for discourse that led to providing food, housing, and medical care for dust bowl refugees. The work can be reviewed and further studied by way of their book, *An American Exodus: A Record of Human Erosion*. This compelling publication of photographs serves as a canonical representation and visual study of a moment in history and the way that still images can accomplish it.

Another historical account of visual anthropology is through the work of Edward S. Curtis. While much of his work receives criticism for creative reconstruction photography and salvage photo-ethnography (Collier and Collier, 1987: 9), the photographs produced by Curtis still serve as a lodestar of visual documentation and cultural preservation, documenting many
aspects of Native American processes such as warfare, vision quests, and religious or ritual processes.

Visual documentation provides a glimpse into the moment(s) that hold through the relentless world of oversaturated mediums of transmission. It is the alchemy of suspending time and place, blending silver nitrate, sunlight and time, to create a painting [photograph/image] through the chemical process of harnessing light. Photographs emulate, cultivate, and provide us with a process for our minds to recall and suspend significant moments. We may state that a great image orients us towards feeling, value, memory, and meaning. Though, not all photographs carry the responsibility or the capability of such evocations. For photographs to serve as catalysts of ideas that carry value and meaning, all elements must come together — like a visual symphony — to define the events and emotional connections to it. To become invested in a photograph is a multidimensional process. Story, idea, culture, place, and time must be definable through a moment captured in the photograph, one photo should tell a story, and a collection of photos should create a narrative, guiding the audience through the memory displayed in the photographs.

How one encounters and reads an image is another critical aspect to consider. Visual literacy is one’s ability not only to read a photograph, but also extract the corresponding data represented by the image. The photograph can be used just as a field note is used, albeit through the transmission of visuals instead of text. Data resides in the details captured within the image:

Photographs are precise records of material reality. They are also documents that can be filed and cross-filed and endlessly duplicated, enlarged, reduced, and fitted into many diagrams and scientifically extracted into statistical designs. (Collier and Collier, 1987: 10)

Learning to read a photograph comes from the understanding of the goal of the photograph, the knowledge of the narrative being created, and the subject matter:
The skill of learning to look at an image for a long time and explore the relationship of visual content, composition, and communication is the first aspect of visual literacy. (Bandyopadhyay, 2018: 3)

Visual literacy can be affected by many outliers: technical gear, setting, operational error and so on. It is also important to consider the level of training that the photographer possesses. While the advancement of technology and abundance of settings on most digital single lens reflex (DSLR) cameras of today allow even the most untrained individuals to produce images, there is a significant difference of the camera operating the settings itself, versus the operator setting the camera to create an image to their desire that is also compelling. This distinction is the difference between taking snapshots and the creation of an image. The camera will never produce anything other than what it is being allowed to produce; it has no agenda; "[I]t is a tool of both extreme selectivity and no selectivity at all (Collier and Collier, 1987: 9). The flaws, errors, perceptions, and images that come from it are done by the subjective decisions of the operators.

One criticism on the use of photographs utilized as records or data to be analyzed is that the data is too plentiful or there is too much specific data to make sense of. “Anthropologists mostly agree that photographic records are good, but in many researchers eyes they are ‘too good, with more information than we can refine,’” (Collier and Collier, 1987: 10). This may come from lacking the ability to remove photographs during the editing process that may contain repeat information, or through the lack of having multiple dynamics such as a variety of photographs within a set. I propose that even with the above criticism, having too much information is better than the alternative. We can further stand in favor that oversaturation of data is not a problem, while it may give more information than the researcher desires, it allows for rediscoveries of data that may have been missed through the first encounter.
A counterpoint to make upon the use of images as a data gathering tool is that the image itself has no value until one is imposed or attached to it. This value comes not from only what is within the image, but also the execution regarding how the image is encountered, used and analyzed. One way of doing so is by using photographs and images in interviewing and subject consultation. This was accomplished by Dr. Bernard Siegal and John Collier when they observed a deer dance done by the Picuris Pueblos of New Mexico (Collier and Collier, 1987: 128). Collier and Siegal assumed that the dance was the axis mundi of the ceremonial processes, though through the introduction of the photographs in the interview process they discovered that this theatrical act was not the crux of the ritual. This echoes the sentiment above that consultation with subjects within the photograph can provide valuable feedback as to what data is truly within the image:

Photographs by themselves do not necessarily provide information or insight. Without Siegel's disciplined use of the photographs nothing would have come of them. It was when the photographs were used in interviews that their value and significance was discovered. Only then, through the eyes and intelligence of a Picuris assistant, the photographs became anthropological evidence. (Collier and Collier, 1987: 129)

An essential step to utilizing visual research is establishing parameters, or boundaries that dictate what is needed and what can be discarded. While there are many techniques, we can proceed by researching the subject in a broad sense and funnel the findings inward. Robert Redfield utilized this approach in his beginning stages of the Chan Com case study, and I refer to as the "begin anywhere" or "pulling the rope" method (Collier and Collier, 1987: 161-162).

It is vital to be aware that even though the camera captures more detail than we can suspend with a glimpse, complete saturation — or documentation — of the subject matter is nearly impossible; details will slip through the cracks. However, even through the foreseen loss of data, a cohesive representation and view is possible.
A whole view is the product of a breadth of samples that allows us [to]
comprehend the whole through which systematic analysis of those
carefully selected parts. A good selection process provides a sufficient
reflection of cultural circumstance from which to establish a reliable
perspective. (Collier and Collier, 1987: 162)

With the goal of acquiring data that can hold up to the rigors of systematic analysis, a
process a systematic selectivity and order of recording the cultural processes and phenomena
must be employed. This selective approach of discovering what is to be utilized and categorized
as significant data, versus that which is not significant, does not save the researcher from a
problematic unselective approach (Collier and Collier, 1987: 165). This can be achieved by
accompanying the boundaries of the photographic process with notes of time, date, location,
equipment, and other categories pertinent to the accompaniment of the visual aid (Collier and
Collier, 1987: 162). By establishing the systematic approach and goals of the visual research, the
researcher can now approach the visual data beyond the genesis of discovery and move towards
deciphering the discovered data. This is the stage where the researcher can encounter the
material aspects of the visual aid such as artifacts, continuing themes, and repetitive behaviors or
processes that are quantitative data to be extracted. The process of analyzing the data begins,
"[W]hen we start to use our visual records as a source of primary insight and information,"
(Collier and Collier, 1987: 175, 178).

The goal by utilizing visual research is not to become inundated with so much data that
there is no cohesive finding. Instead, visual research is to be treated as a scientific tool and
method; just as taking written field notes are. It is to guide the research and researcher from raw
data to refined conclusions (Collier and Collier, 1987: 168). The keys to this are through
organization, discovery, analysis, and creation; these categories provide the foundations within
which all other aspects can be subcategorized.
With these considerations and examples, we can assert that visual approaches to studying culture, while also preserving it is not only applicable to anthropology, but it is a heightened form of cultural documentation. While some scholars may remain resolute in their presuppositions that images are not to be used as images may present too much for extraction; however, I disagree. Furthermore, we can see that Collier poignantly echoes this regarding the importance of visual anthropology as a scientific research method:

[H]uman memory and the notebook recordings become wholly inadequate and highly impressionistic. The special value for film and video lies in their ability to record nuances of process, emotion, and other subtleties of behavior and communication that still images can only suggest. With the still photograph one can quantify human content, described in detail, measure distances, define spatial relationships. (Collier; Collier, 1987: 144)

2.4: How Photographic Documentation Pertains to Rock Art

With the boundaries and scope of work established above, we may now proceed with how photo-documentation and visual research fits within the landscape of rock art. For many scholars, archeologists and rock image enthusiasts, preservation of these ephemeral images from the past is essential. Larry Loendorf, a key figure in the field of rock art states, “In recent years it has become abundantly clear that if rock art is not rapidly documented and conserved, most of it will be destroyed, regardless of whether it has been recorded,” (Loendorf, 2001: 55).

The preservation idea comes from a western archeological and cultural resource management perspective, and while we can agree that these images and landscapes are in need of protection, we may assert that it is essential to respect the dynamics of belief of those that created them. Some images were created to deteriorate and return to the earth, not to be kept in place for millennia. The history of photographic techniques such as chalking and latex molding of
petroglyphs has also led to further deterioration of sites. Though this often is done to enhance the incisings, the chalk can pose severe effects on the material aspects of rock art. This frequently renders the rock art unreliable to dating techniques, as was the case with fully pecked quadruped sample at Legend Rock (Whitely; Loendorf, 2001: 56). This instance is not constricted to a single site. Places such as Medicine Lodge Creek (samples WP90-22, WP90-24, WP90-25) have examples of updateable samples due to over-recording (Whitely; Loendorf, 2001: 57).

A rock art study and the Bighorn Basin, Wyoming, clearly demonstrates the damaging effects of chalk (Francis, Loendorf, and Dorn 1993). In this study, thirty-six petroglyphs from seven sites, including two well-known localities recently developed as Wyoming State Parks (Legend Rock—48HO4 and Medicine Lodge Creek—48BH499), were sampled for AMS and cation-ratio dating purposes. Both of these sites have been extensively recorded (Hendry 1983) and subjected to chalking since at least the 1950s, and to latex casting during the 1970s. Of the 180 varnish samples collected during the 1990 project (5 from each petroglyph), 24, or 13.5 percent, had high calcium values indicating they were contaminated by chalk, although chalk is no longer visible. (Whitely; Loendorf, 2001: 55).

The process of using chalk has been outdated but following in its place was the use of aluminum powders and pastes. While some of the procedures are regarded as canonical, or essential, there has yet to be a standard procedure implemented (Loendorf, 2001: 57). However, due to the interest in the field of rock art studies, there are many resources such as recording manuals at the researcher’s disposal. With these resources, we can postulate that consultation, if possible, is an essential dynamic. If consultation with a tribal member is not possible, the researcher must encounter this type of knowledge through a process that I call residual consultation, or the act of encountering data from past consultations completed with elders or experts.

Advancements in digital photographic equipment allow for greater flexibility in the field while documenting. Rock art researchers no longer need to rely on chalk or aluminum. As stated
in the above section, modern-day photographic equipment captures details at a high resolution. If one is working with digital files, they can be put through digital photographic processing software to enhance parts of the rock art that may be naked to the human eye. One of the modern advancements in this subfield is a digital imaging plugin tool called DStretch, (www.dstretch.com) created by Jon Harman. This plugin can be utilized on digital cameras, but can also be downloaded as an out of camera application (known as iDStretch) straight to a mobile device. This application allows anyone with a mobile device to use it as a research tool in the field, providing real-time feedback to data that is often unseen by the naked eye. The implications of such software are exciting. We can now revisit old rock art and tease out images that may have been unknown to researchers. DStretch does this by applying techniques used in decorrelation stretch imaging to rock art (Figures 1a,1b,2a, and 2b). Decorrelation stretch is a way of exaggerating colors to separate and enhance features of an image, making them easier to discern from other features:

DStretch is a useful tool for archaeologists involved in the study and documentation of rock art. Its enhancement techniques can bring out very faint pictographs almost invisible to the eye. Subtle differences in hue are enhanced which can give clues to superposition. Pictographs can be enhanced for publication or presentation to viewers not capable (or inclined) of noticing these faint elements. Use of DStretch can be as simple as just hitting a button that corresponds to a filter — though it also contains sophisticated tools for the manipulation of false color images. Because the enhancement works by increasing differences in hue, the technique gives better results for pictographs than petroglyphs. (Harman; http://www.dstretch.com/AlgorithmDescription.html)
Figure 1a. Original Photograph; Pictograph Cave: Billings, Montana.

Figure 1b. Original Photograph; Pictograph Cave: Billings, Montana. DStretch Applied.

Figure 2a. Original Photograph; Pictograph Cave: Billings, Montana.

Figure 2b. Original Photograph; Pictograph Cave: Billings, Montana. DStretch Applied.
What documentary photography of rock art allows the researcher to do is record in a highly efficient and detailed process. With the continued advancements within the technological field of photographic tools and techniques like DStretch, the ceiling is high for what is to be extracted from future research.

Visual documentation does not merely recreate an account through literature or data; it is the story; it is the data. The film replaces the field-book/notebook and provides a visual quote of data to be studied (Collier and Collier, 1987). As soon as the film reacts to the light, that moment framed in the lens is suspended. There is no recreation; it is as close to the truthful account as we can get, it is a "…complete quotation," (Collier and Collier, 1987: 9). Visual case studies allow audiences to approach subjects that are quagmires or outliers, and by doing so, it will enable discourse that can lead to further explanation, scholarship, and understanding.

The afterlife of photographic documentation can exist through generations. It allows us to visit those suspended moments, which renders its importance to nothing less than an absolute necessity. A photograph is a bridge, a gateway, and a placeholder. It is a translator of time, place and ideas, and a transmitter of meaning. The visual artifact is a trojan horse of ideas that embeds the data into our mind through our sight; it infiltrates the pathways in our brain — forcing us to engage with that which we are seeing. Through it, we can preserve cultures; without it, much can be lost. Studying our finitude within the infinite by creating a visual account is one of the oldest forms of cultural preservation and can be an essential tool utilized within rock art studies. A photograph is a form of a visual artifact that can serve as a culture's placeholder, which can further serve studies the same way ancient artifacts have served us in our endeavors to study the past.
Photo-documentation houses the potential to be a catalyst for change. Documentary photography encounters the topics of utmost importance that echo the state of time and place. Without it, the memories are lost. Creating an updated visual record that preserves our time and our place that will be referenced and revisited for future generations should not be viewed solely as an academic venture, but also as a humanitarian effort to illuminate our human condition; and it is one that the field of rock art should employ more frequently.
CHAPTER 3:

HISTORY, CLASSIFICATION, AND TERMINOLOGY

3.1: HISTORY AND THE IMPORTANCE OF ROCK ART STUDIES

Research in rock art can be considered one of the first forms or practices of archeological site recordings; and in its infancy, it was typically conducted by hobbyists and curious minds. Viewing Cotton Mather’s report on Dighton Rock site in the eighteenth century, to the Paleolithic sites located in Spain and France in the following century, we can witness the growth of petroglyph and pictograph discovery and analysis, and I assert that it will continue to do so (Whitley, 2001: 8). The interest in North American rock art with regards to intellectual research was established quite early:

[Intellectual interest in prehistoric North American rock art began at least as early (if not earlier than) the first studies of monuments, artifacts, and habitation sites. Following the initial studies of Cotton Mather at the start of the eighteenth century, this was based on a philological approach that treated rock art as examples of ancient scripts, with analysis then directed towards linguistic and epigraphic decipherment. (Whitley, 2001: 10)]

This philological approach was later distinguished by establishing that [rock] art should not be categorized as an ancient text or could be approached as a form of hermeneutics; though, it still did not extinguish key aspects that arose from their endeavors (Whitely, 2001: 10):

First, they explicitly recognized rock art as a vital component of the archeological record, an attitude that the archeological profession as a whole has only recently begun to adopt. Second, they raised for the first time the fundamental intellectual problems that all American archeology confronts: Who were the peoples that lived before us? What other past cultures were they related to? How can we learn about their past? Third, they approached the problem of learning about the past in terms of acquisition of knowledge — the information contained in translated texts
— not through the discovery and ownership of ancient treasures and artifacts. (Whitley, 2001: 11)

Early rock art research was not accepted by early archeological historians due to the lack of results that the philological approach failed to produce. The conception that rock art research cannot and will not produce any data to understand our past better is a troubling rift that at time propagates in American archeology.

What did emerge from the nineteenth century was an essential foundation — or bedrock if we will — of rock art techniques. Garrick Mallery, a prominent figure in early rock art research, published what may be the first thorough American statement regarding rock art field techniques; a time-honored tradition that can still be utilized today (Whitley, 2001: 12).

Studies in the field during the early twentieth century went through the ebb and flow of being faced with the difficulty of establishing controls, determining the age, motifs, and categorizations of sites. Illuminating what was looking to be a glum enterprise, anthropologist Julian Steward revivified the field through charting individual traits, while also attempting to define cultural areas and affiliations from the distribution of sites plotted on maps. Though not wholly successful, Steward was a crucial figure in cultural ecology and called for the importance of Native American ethnography to help illuminate and interpret value and meaning to rock art (Whitley, 2001: 12).

Rock art studies continued to remain under suspicious views and stagnantly conflated with conflict during the New Archeology trend. While rock art was being used to interpret cognitive and mental phenomena, the New Archeology wave treated these dynamics as a bastard child, holding steady to the intellectual theory that such dynamics were irrelevant; and such dynamics lent no value to the field. This created a further fracturing due to the heavily dominated westernized scientific thought processes of what defined rational science versus that of irrational
belief. This mode of thought caused the archeologists to sunder rock image research from the professional field of archeology, and the vacuum became filled by amateur researchers producing a multitude of eclectic results due to the lack of training and experience regarding scientific knowledge and processes. This influx of amateur research did not help the case for rock image research, and by 1970 it was struggling to find a place amongst other professional archeological fields and became a joke that the subfield was for “little old ladies in tennis shoes” (Whitley, 2001: 16-17).

The New Archeology trend was troubling yet illuminating for another reason. It forced us to look at how we attribute value and meaning to what subject is being studied. With specifics to rock art studies, the presupposition that symbols, belief systems, and cognitive phenomena had no utility to the archeological record, created an unfortunate metaphorical line in the sand, and by doing so, it failed to include an essential dynamic to understanding indigenous people’s views of such subjects. Research became me-search that only echoed the drive and presuppositions of the party conducting such research; the voice of the peoples was not being heard. This vacuum provided a singular, one-sided plane of interpretation, meaning, and value that was devoid of what these landscapes and images indeed attempted to transmit from the emic lived experience (Whitley, 2001: 18).

Though, through this emerging academic rift, the keys to the metaphorical gates regarding how the archeological record was managed changed legally in 1990 with the passage of the Native American Graves and Repatriation Act (https://www.nps.gov/nagpra/). This groundbreaking act removed archeologists from certain gatekeeping positions, along with their views that traditionally associated peoples (TAPs) could not benefit and further our understanding of the past. This changing of power now was placed into the hands of Native
American groups and tribal nations (Whitley, 2001: 19). While this may have undoubtedly become unpopular among some archeologists for various reasons, I assert that it plays an integral part into building a bridge between archeology and TAPs knowledge that has revivified rock image research as well as other approaches within archeology. It has done so by not only allowing the voices of TAPs to be heard, but by also welcoming them with a seat at the table of such studies to guide research for a more cohesive understanding of their expertise on such subjects:

While many archeologists have viewed NAGRPA as an attack on science, equally plausible is the view that it was a political change made necessary by the profession’s elitist attitudes about the archeological record, and archeologists’ refusal to admit that this record had any value beyond their own narrow research interests. In real terms, NAGPRA represents an expression of the American public’s deep dissatisfaction with the way archeologists had been managing the past. (Whitley, 2001: 19)

NAGPRA not only established new policies regarding the interpersonal relations between American archeology and TAPs, but it also urged the discipline to reconsider the value structure of significance of sites and how they relate to cultures beyond materialistic value. This refocusing and reconsideration gave rock art research new life and served as a catalyst for interdisciplinary consultation and the revivification of the subdiscipline as a serious scientific endeavor, but also as a vehicle to shift rigid paradigms of the past. This reinforced shift was noted by Whitley:

Rock art research, in contrast, has the potential to mediate these problems and conflicts. First, while it can maintain commitment to scientific methods and goals as a manifestation of an archeology of religion it necessarily foregrounds precisely the quality of archeological sites — sacredness — that Native Americans insist we have overlooked which led to NAGPRA in the first place. (Whitley, 2001: 21)
At present, the current state of rock image research looks promising. If any field in anthropology and archeology allows research to move flexibly between a multitude of disciplines, this is it. Furthermore, this is telling of the broad, multifaceted dynamics that surround this subdiscipline. One can approach it from a cognitive lens, while another can view it as an artistic study. Regardless, the interest and projected curiosity seem promising, and with further exploration and discovery, much can be garnered from this field.

3.2: ART, IMAGE, AND CONSIDERATIONS OF TERMINOLOGY

A theme that continues to emerge within rock art studies is the term *art* and how it pertains to the creation and cultivation of what one may see on the rock surfaces around the world. While this document is not intending to argue the artistic history and culture of rock art, it is essential to establish a standardized terminological reference point from which to proceed.

One major point of contention is between the views of it being art or image. The western archeological culture of rock art studies will undoubtedly prefer to keep the two words connected when referring to archaic images depicted upon the landscape, and I have no wish to tear the two words (*rock* and *art*) apart. Though, for the respect and consideration of emic views, I veer from the term of rock art for a brief moment to give attention to a quote that illuminates the indigenous perspective on the term rock art:

> [T]raditional peoples often lack a term that translates literally as “art”; “rock art” is inappropriate as a term for their pictographs or petroglyphs. The justification for this conclusion is the view that we have a unique Western meaning for “art,” one that specifically implicates aesthetic concerns — art for arts sake — the traditional cultures lack. By applying the term “rock art” to the paintings and the engravings of these traditional cultures, this reasoning goes, we are projecting onto them values and implications that they do not have. (Whitley, 2001: 22)
I do agree with the above statement to an extent, however, through the remainder of the document I wish to proceed by still referring to any imagery depicted upon the landscape as *rock art* to refrain from seeding further confusion regarding terminology in the field.

Further, another issue arises with what term to use when approaching images that are carved or painted. For our purposes, any images that were painted will be referred to as a *pictograph*, and those that are carved or pecked into the rock will be referred to as a *petroglyph* when a need to discern between the manufactured types arise.

**3.3: Tradition, Style, Class: A Look At Categorization**

Categorization of rock art is wrought with confusing perspectives and interpretations regarding categorical terms. The term *style* has received an ample amount of backlash, due to the unabridged consensus on a standardized categorization system, though, it is primarily misinterpreted and misunderstood. This misunderstanding often leads to the misuse of the term, which can lead to problems within categorization, and with the lack of a widely accepted structure of terms within the field, this comes without surprise.

*Style* is the most widely recognized and integrated term for the categorization of rock art. The use of the definition stems from classical archeology and art history (Francis, 2001: 221). The definition (proposed by art historian Meyer Shapiro) is what many would consider as close to a resolute term in the field of rock art studies today:

Style is assumed to be unique or peculiar to a period of a culture, and any given culture or epoch of culture, there is only one style or a limited range of styles. Furthermore: Whenever it is possible to locate a work through non-stylistic evidence, this evidence points to the same time and place as do the formal traits, or to a culturally associated region. The unexpected appearance of the style in another region is explained by
migration or trade. Thus, style is therefore used with confidence as independent to the time and place of origin of a work of art. (Francis, 2001; 221-22)

From this we can gather that style, within the above context is used as a classificatory tool used to diagnose the temporality and sociocultural history of the subject matter. This etic view of style leaves out the emic position of expression, meaning, and dynamics. However, some scholars have also incorporated such dynamics into the style classifications:

Style is, above all, a system of forms with a quality in meaningful expression through which personality of the artist and the overall outlook of a group art visible. It is also a vehicle of expression within the group communicating and fixing certain values of religious, social, and moral life through the emotional *subjectiveness* of forms. (Francis, 2001: 222)

While it is crucial to grasp the history of terminology employed within the field, it is more important to utilize these terms to fit within the research. We must be aware that the terminology must uphold the data being presented, and not dilute it with further confusion. Style can undoubtedly cause conflict when it is employed from an art historical perspective upon research that is not oriented towards art. Some modern researchers even attest that style is not a designatory tool, due to its shortcomings of categorizing attributes that differentiate one from another, as this could allow a single figure to be classified as multiple, but separate styles (Francis; Loendorf, 2002: 43). With this in mind, we can proceed with the foundation that above all, style can be a qualitative visual system, and it can be based upon artistic representations, subjective assertions, and false presuppositions (Francis, 2001: 222, 234). It is up to the researcher to make the terminology employed justify why its use is essential for the attainment of the research goals.

For this document, I wish to proceed with a broad category and funnel that category into smaller subcategories; such as attributes, design elements, descriptive types, and traditions. Some
of these will not be explored to their foundations, while others will require more attention as they
tie into later sections regarding processes that accompany them. In short, these categorical
systems must bring order to the proposed data set, but they must also heighten the ability to
observe and explain changing variabilities between each subset (Francis, 2001: 222, 236).

Attributes can be reduced to characteristics of the images or the site itself: e.g., pecked,
incised, painted, orientation or types of figures, and measurable features. This sub-category is not
restricted to the imagery alone; it can also include aspects of the landscape, such as specific
geographic features and regions. Further, design elements can be categorized alongside or within
attributes. Design elements can be anything designated by the researcher as important
characteristics to signify a distinction of the structure and form of specific characteristics within
(Francis, 2001; 222, 236). Following these is the next subcategory, descriptive types:

A descriptive type refers to a grouping of rock art figures based upon a
conscious recognition of dimensions of formal variation in those figures
which exhibit a consistent patterning of attributes. There’s no assumption
that descriptive types are meaningful to the makers of the figures; they
are based upon attributes defined by the investigator. (Francis, 2001: 222,
236)

Lastly, traditions, can be viewed as an amalgam or convergence between the two
categories of class and type. An example of this can be encountered through the pecked art found
in the Great Basin of North America and was used to categorize Columbia Plateau art by James
Keyser (Francis, 2001: 222, 237).

The main category that we will encounter are sites that are places of power; all other
subcategories will fall beneath this. Our specific area of focus will be that of the rock art,
designated as the Dinwoody Tradition, found in the Wind River and Bighorn Basins. However, I
would like to stress that this focus is not monotectic. Instead, it provides a center, or a point of
stability that all other types, elements, and dynamics can find a foundational structure to buttress
up against and provide navigatory stability. We will look at dynamics and meaning that can be accounted for in-regards-to the Dinwoody Tradition, and what implications this can have, or has had, for understanding these places of power and the rituals along with the sociocultural implications tethered to such dynamic processes. The following sections will also venture into and consider other rock art categories that are related to bringing a cross-cultural comparison to the research. This could provide an enhanced perspective regarding how these may be similar while also considering the differences.

CHAPTER 4:

WIND RIVER BASIN, ENVIRONMENT, AND SPACE

4.1 MATERIAL LANDSCAPE OF THE WIND RIVER BASIN

Before we can approach the abstract concepts to come in this section, it is vital that we establish a representation of the material and cultural environment that will provide the tether in conjunction with the immaterial. The material landscape of the Wind River Basin is particularly diverse. Three major geomorphological separations cultivate this diversity:

The volcanic Absaroka Range and Yellowstone Plateau create a formidable barrier between the Bighorn and Wind River Basins and the Columbia Plateau to the west and northwest. The Pryor Mountains on the north and the Bighorn Mountains on the east separate the basins from the vast grasslands of the Great Plains. To the west and south the Continental Divide follows the crest of the Wind River Mountains, separating the Wind River Basins, which are ecologically and culturally similar to the eastern Great Basin. (Francis; Loendorf, 2002: 1)

The landscape is an awe-inspiring ecological amalgam of rivers, lakes, and mountains showcasing the powerful effect of the Pleistocene glaciation and heightened storm erosion; this
area is also accompanied by a dynamic and eclectic weather system (Francis; Loendorf, 2002: 6). The mountains, with peak elevations nearly reaching up to 15,000 ft, are a product of ancient glacial scraping. The climate changes with the geographical features, and is as diverse as the landscape and weather. Precipitation levels can peak at 25 in and are often a product of ferocious summer storms, and extended bouts of frigid winter snows (Francis; Loendorf, 2002: 5). These geographical features and environmental aspects are essential for framing the culturally significant dynamics that took place, and still take place, within the area's history.

It is hypothesized that the earliest account of human activity in the area was established 11,000 years ago. It is further thought that these may have been the early ancestors of the Eastern Shoshone tribe, also known as the Sheep Eaters. This landscape was home to multiple Native American tribes from the Great Plains and Great Basin cultures:

Several historically documented tribes are known to have occupied and/or used the Big Horn and Wind River basin during the protohistoric periods. These groups are quite diverse and include the Numic-speaking Shoshone the Siouan-speaking Crow and the Algonquian speaking Arapaho. (Francis; Loendorf, 2002: 14).

4.2 THE EASTERN SHOSHONE, THE CROW AND THE NORTHERN ARAPAHO

The exact date of the Shoshone moving into the region is at times debated, though, with linguistic analysis it is thought that the Shoshone made their journey across the Great Basin 1,000 years ago, further settling to western Wyoming around 800 years ago. With the archeological evidence accrued, it is clear that Eastern Shoshone lived as hunter-gatherers, using a wide array of flora and fauna (deer, bighorn sheep, bison; along with various nuts, roots, and tubers) for food. The dates, although not exact, of Shoshone occupation in the area is substantiated through evidence accrued regarding the dating of petroglyphs and pictographs.
motifs central to Shoshone and groups within the Wind River Basin (Francis; Loendorf, 2002: 15).

Much of the early ethnographic data can be attributed to Ake Hulkrantz and Dimitri Shimkin, who established data regarding the kin or clan groups of the other Shoshone groups and surrounding proximal areas, such as the Idaho based Tukudika "Sheep Eaters," Kukundika "Buffalo Eaters," and the Agaidika "Salmon Eaters."

The Crow, a Siouan speaking tribe that split from the Hidatsa Indians of North Dakota, also used the area quite extensively, particularly the Bighorn region. This can be substantiated through the archaeological evidence regarding ceramics and specific kill sites in the eastern Bighorn mountains, along with fasting beds uncovered at archaeological sites (Brien, 2015). The radiocarbon dating of such sites places the Mountain Crow in the region at 500 years BP, followed after by their relative tribe, the River Crow (Francis; Loendorf, 2002: 16).

The Crow and Shoshone maintained fairly docile tribal interrelations in order to cultivate trade relations and use such relations, along with the areas, to access and promote the trade of Euro-American goods between parties (Francis; Loendorf, 2002: 17).

The Algonquian speaking Northern Arapaho are thought not to have inhabited the area until about 300 years ago when they split from the Atsina peoples. They are distant relatives to the Cheyenne and the Blackfoot, and their prehistoric homelands are west of the Great Lakes (Francis; Loendorf, 2002: 17). The Arapaho did not populate the area permanently until after refusing to settle on the Oklahoma reservation, and there is no concrete evidence placing them within the region for reasons other than raids and possibly trade. After their refusal to relocate, they were moved into the Wind River Reservation with the Eastern Shoshone in 1877 (Francis; Loendorf, 2002: 17).
This variation of peoples and cultures speaks volumes to the complex cosmological belief systems, tribal sociocultural structures, and rituals, and can be seen reflected as such through the ethnographic and archeological record of the area that will be encountered during this chapter (Francis; Loendorf, 2002: 3).

Another critical aspect to consider moving forward is the lifestyle of the indigenous peoples in the area. As stated above, archaeological data provides evidence postulating a hunter-gatherer way of life. It is essential, and integral, to this document, as it will help bring clarity to the division into how we, individually and socially move through our environments of today, versus that of the peoples in the Wind River Basin.

In short, the dichotomy of premodern society versus modernity is an evolutionary change in cultural perspectives we must consider moving forward in all aspects of this document. With this, we must also recognize and consider the mutual effects it had with regards to how we view the landscape now, versus how it was viewed in the past. This also guides us to consider how the landscape impacted the peoples of the past, and how it continues to do so now with specific attention given to visual culture. One of these considerations can be encountered through the cultivation and view of sacred space.

How space is defined, and furthermore how it is perceived, is garnered through the cultivation of cultural processes and perceptions. No space, without human interaction and self-projected perceptions along with personal experiences, is sacred. Before we attempt to establish what constitutes a sacred space with a focus to rock art sites from those that are not, it is essential to understand how sacred space differs from profane/mundane space.

It is thus necessary to make a distinction that sacred space may not have the same contextual religious associations that it has today. Instead, the document will explore this idea of
sacred space as a signifier for a place or threshold that possess a regenerative dynamic that can be accessed through cracks and fragmentation of common profane space.

Premodern cultures often viewed sacred space as the threshold for encountering libidinal forces or processes that could serve as individual and group regenerative places that echo throughout the culture and society. According to Eliade, modern humans no longer live in a world of sacred space. Eliade’s assertion is that through the consistent cultivation of progress and modernity, modern cultures are founded through profane space, and that in an ontological sense, sacred space is no longer unique. “Properly speaking, there is no longer any world, there are only fragments of the shattered universe, an amorphous mass consisting of an infinite number of more or less neutral places in which man moves, governed and driven by the obligations of an existence incorporated into an industrial society,” Eliade asserts, (Eliade, 1987: 23-24).

Eliade's contention is compelling, though, I assert that it is not wholly factual. Sacred space still exists, though it has transformed through time to remain purposeful to its culture, giving a glimpse into how cultures and ideas impact their environment and evolve alongside them. A sacred space sets itself apart from profane or mundane space by becoming a lodestar of higher established value in which peoples of societies and cultures can escape and renew themselves through the movement between thresholds. As the religious scholar, Jonathan Z. Smith, states, “A sacred place is a place of clarification, a focusing lens where men and gods are heirs to be transparent to one another,” (Smith, 1980: 114).

Sacred space, regardless of its time in history, acts as an axis mundi or a point of orientation away from profane/mundane space. In symbolic terms, this can be seen depicted throughout many mythological motifs; such as a sacred tree, or a pillar or ladder leading to
another realm. What is being distinguished through these motifs is the passage from one threshold to another.

This point of orientation, or compass of direction that leads peoples to the regenerative/libidinal space is not only symbolic, but also literal, and it is what will be defined as a dually purposed signifier of meaning. A sacred rock art site provides the dynamic of material with intangible value; while also establishing meaning through symbolic and literal action, and it provides us with an idea at how these dynamics can take place in the material world. Encountering the threshold that separates the profane and the sacred is the first steps of death and renewal that is a staple of ritual processes; such processes can be found in rock art creation/recreation, vision quests, and shamanic journeys; and these are vital dynamics to the belief/cosmological structures of the Wind River Basin.

CHAPTER 5:

WIND RIVER ROCK ART

5.1: DISTRIBUTION OF ROCK ART WITHIN THE WIND RIVER BASIN

The Wind River Basin and surrounding areas, such as southern Montana, are populated with some of the most compelling collections of rock art in the world. These areas are historical sites, but are also viewed as some of the most sacred, powerful, and spiritual places within the landscape for the traditionally associated peoples of the area. Many of the motifs, styles, and symbols are pertinent to understanding the indigenous history, along with the belief structures of these cultures.
The Wind River Basin and Bighorn rock art sites were first historically encountered and documented by Euro-American explorers in the late 1800s (Francis; Loendorf, 2002: 33). These early reports regarded the sites as prominent places for seeking power and spiritual use. The first published drawings of the Wind River Basin rock art came from Captain William A. Jones who discovered petroglyph and pictograph sites in Northwestern Wyoming. This discovery revealed multiple pecked abstract zoomorphic, anthropomorphic, and a single shield figure alongside three black painted figures above a rock shelter near the Little Popo Agie River. Another site, near present-day Lander, housed a panel of deeply incised figures. The last site revealed multiple figures that were thought to be a depiction of a battle (Francis; Loendorf, 2002: 34).

Much of the early investigations into what is now classified as the Dinwoody Tradition, was done by the likes of William H. Corbusier, Garrick Mallery, E.B. Renaud, Ted C. Sowers, and David Gebhard. Garrick Mallery attempted to decipher the meanings and symbols in the rock art but stated the symbols upon the rock could not be translated as a written language, unlike his research regarding the winter count hide paintings of the Blackfeet, Kiowa, Lakota, and Yankton (Francis; Loendorf, 2002: 19).

This etic view of what is translatable versus what is not was overcome when archeologists and rock art researchers incorporated emic views from the indigenous peoples, as previously stated. This was essential to overcoming projected meanings and false motif categorizations of symbols from interpretive methodologies such as the Martineu system (Francis; Loendorf, 2002: 20). Now, some of the more recent contributions to researching the area has been conducted by Larry Loendorf and Julie Francis (Francis; Loendorf, 2002: 33).

Some of these false projections of the Dinwoody tradition can be found in Sowers’ interpretation of petroglyphs encountered during the archeological survey of Wyoming’s
excavation of Dinwoody Cave, campsites, and through the documentation of the Wind River Indian Reservation Site during 1938-1939 (Francis; Loendorf, 2002: 36):

[H]e interpreted the “famous Dinwoody panel” as documenting the death and mourning of a great medicine man, complete with his departed spirit, crying wife, chief, medicine Man, and the giving the blankets and bags to the loudest mourners. Another panel represents the birth of twin boy and girl and the superstition surrounding such a purse, hello with representations of the midwife, the birthing height in which new mothers were confined, hermaphrodites, and a shamed father. (Sowers 1941b: 7-10; Francis; Loendorf, 2002: 36)

Here we can note the dangers of projecting ill-informed meanings upon these sites, and as stated above, this further reflects the importance of establishing TAPs knowledge regarding these sites. However, we can still make educated connections by cross-comparison of ethnographic evidence regarding meaning and behavior with respect to rock art sites. Relying on one method of extraction would be irresponsibly lazy and as dangerous as a projection of presuppositions about the images. The goal is to synthesize specific cultural meaning, while also remaining aware of motifs that may exist outside of the culture that persists over periods of time.

5.2: DINWOODY TRADITION

The geographic landscape of the Wind River Basin is home to the Dinwoody Tradition. This category of rock art is referring to the pecked anthropomorphic and accompanying figures distributed throughout the area. One of the most concentrated areas is on the western side of the Bighorn and Wind River Basin (Francis; Loendorf, 2002: 69). An interesting fact regarding
Dinwoody rock art is that it cannot be found outside of the Wind River and Bighorn Basin (Figure 3).

Figure 3.

*Source: Dinwoody Tradition Distribution Map: Reproduced from, Pictures in Place: The Figured Landscapes of Rock-art. Chippindale, Nash, and Loendorf (p. 203).*

Much of the data regarding the Dinwoody tradition does not provide a clear or concise representation of the distribution throughout the area. Instead, the data presented is a matter of selection bias. There have been minimal amounts of documental research within the reservation due to access and respect of the spiritual and religious importance of these sacred places (Francis; Loendorf, 2002: 70). With this in mind, we can assume that much of the available data has come from concentrated sites that have been previously documented, explored, and researched.
The Dinwoody Tradition is recognized as a subset of the Interior Line style, and it is hypothesized that it may show relational elements to Fremont and Glenn Canyon rock art (Turpin, 2001: 385). The attributes and design elements of this tradition are large, often life-sized, human figures adorned with unnatural limbs/appendages, missing body parts, headdresses, and at times are accompanied by a smaller figure or zoomorphs. The animal/zoomorphs are depicted with a level of realism that is absent from their counterparts. The outline-pecked/interior-lined types are distinctive to the Dinwoody tradition, with the most common being the fully pecked zoomorphs/animal figures.

The anthropomorphic figures are highly decorated, displaying pecking, stippling, and or interior lines (Turpin, 2001: 386). Dinwoody figures are always depicted with horns, or some variation of head adornment/headdresses (Francis; Loendorf, 2002: 82). Another key feature to notice is how these figures are depicted and located upon the rock, often emerging from, or into cracks, which is thought to represent a descent or crossing over into a different realm or another world (Turpin, 2001: 386). Dinwoody imagery is almost always pecked, with the exception of a few animal figures displaying fine incising (Francis; Loendorf, 2002: 83). The exact dates of manufacture are difficult to pinpoint, though, its time span is thought to cover Archaic, Late Prehistoric, and Protohistoric periods with periods of production ranging from 6,000 to 200 years ago, with more recent dates pointing to at least 2,000 years BP (Francis; Loendorf, 2002: 47; Turpin, 2001: 386):

It is important to recognize that Dinwoody petroglyphs are also dated by AMS $^{14}$C dating, cation ratio dating and combined with relative age estimates to establish the age of the Dinwoody Tradition from the historic period and 6,000 years BP. Standard radiocarbon dates from cultural levels overlying a Dinwoody petroglyph established its age at 2000 years BP, so even if researchers do not trust the new dating methods, there is solid evidence to support at least two millennia of antiquity for the tradition. (Loendorf, 2004: 204)
The traditional beliefs held by the Eastern Shoshone state that spirits or beings that inhabit the lands created the images depicted upon the landscape. This further resonates with their cosmological belief structure that the environment was populated by spiritual forces/beings that could be encountered, further linking these other-worlds to the lived-world. However, this emic regarding the manufacturing origins of the petroglyphs is not echoed by ethnographers and recent archeologists/anthropologists; who believe that production of the Dinwoody tradition is in relation with the Shoshone peoples themselves (Francis; Loendorf, 2002: 16).

The Dinwoody tradition can be further organized into five types *full pecked anthropomorphs, composite anthropomorphs, elongate interior-lined anthropomorphs, attenuated anthropomorphs, and wide-body anthropomorphs*; defined and propagated by Julie Francis and Larry Loendorf (Francis; Loendorf, 2002: 88-94).

*Fully Pecked Anthropomorphic types* are typically large figures that are recognizable by their attributes, such as completely pecked/chipped head decorations (such as horns and headdresses) (Francis; Loendorf, 2002: 88). The figures consist of squat-like bodies with short arms and legs (if depicted), and it is unusual for depictions of heads and necks to be present. The figures are always front facing, and no identifiable sex is attributed (Francis; Loendorf, 2002: 91). This anthropomorphic type is frequently encountered at the Legend Rock site, though they can/may show up at other sites.

*Composite Anthropomorphic types*, first described as *host-satellite design* (Francis; Loendorf, 2002: 91), are identifiable by the internally pecked human[s] or animal[s] figure[s] that seemingly emerge from the interior of the housing figure (Francis; Loendorf, 2002: 91). The more substantial composite figure is fully pecked with exception to where the secondary/interior figure is depicted; with the secondary's appendages escaping from the larger figures body. A key
attribute to this type is the interesting head decorations, which is often called a squash-blossom hairstyle, and looks as if a squash is resting/placed atop the head (Francis; Loendorf, 2002: 91).

Elongated Interior-Lined Anthropomorphic types are typically larger anthropomorphic figures with more prominent body length than width. The torsos are internally pecked with lines, with fine pecking substantiating the make-up of the body and head. Distorted appendages, at times adorned with claw-like attributes and winged arms, are often found with this type. These animal qualities depicted upon the image require them to be considered as therianthropic as well as anthropomorphic (Francis; Loendorf, 2002: 91). A critical component that is witnessed with this type is the full pecking of one foot, while the other remains skeletonized. This type also depicts wavy lines that can fully encompass the image, suggesting motifs, such as immersion into a separate realm, that are in relation to hallucinatory experiences and altered states of consciousness (Francis; Loendorf, 2002: 92-93).

Attenuated Anthropomorphic types have stem-like bodies that a horned head emerges from, the hands and feet also stem and fork from the linear body. This type is closely associated with the Legend Rock site and found in close, proximal, relation to the Composite or Interior-Lined types (Francis; Loendorf, 2002: 94).

Wide-Body Anthropomorphic types are figures with a squarely-squatted type body that is typically devoid of any head separation and decoration (Francis; Loendorf, 2002: 94). These figures incorporate many of the same characteristics of the types above (such as interior pecking, claw/winged arms and feet), but they are often smaller/shorter than their related counter-figures and usually depicted with the absence of legs (Francis; Loendorf, 2002: 94).

Abstract designs are sometimes encountered with Dinwoody figures, and while not specific to the Dinwoody tradition, the way in which they are incorporated with the imagery
requires considerations to be given to ideas such as the neuropsychological model of hallucinations and entoptic phenomena (Lewis-Williams, 2001: 332-356). Wavy lines, sometimes isolated, seem to be the most incorporated, often surrounding figures, as stated above. What these mean (isolated and incorporated) is often led by assumption and can/may often be dismissed as conjecture. Though, some cross-cultural comparison may lead to evidence to make an educated hypothesis to their manufacture and usage in the Dinwoody Tradition (Francis; Loendorf, 2002: 94).

5.3: EN TOTO PECKED STYLE

Another related series of petroglyphs widely distributed in the Bighorn Basin display fully pecked zoomorphic and human figures. These are referred to as en toto pecked style, with dates of production estimated of 2500 B.P. to 800 B.P. (Turpin, 2001: 386). The en toto figures are always fully pecked small human or animal figures, and usually accompany and share some attributes found with Dinwoody figures. This speaks to the relative visual cultural relationships between the two dynamic categories of pecked petroglyphs in this area (Francis; Loendorf, 2002: 72, 76). Most of the human depictions are thin torsos, bowed legs, and exaggerated (almost swollen) hands and toes. Many of the human figures are adorned with phallic like genitalia. Animal figures are often bighorn sheep, bears, deer, and elk. Sometimes figures are unidentifiable and are referred to as quadrupeds (Francis; Loendorf, 2002: 76).

A highly localized region displaying en toto pecked imagery is Petroglyph Canyon in southern Montana, though the en toto style can be found throughout the area. In the Petroglyph Canyon, many depictions of fully pecked animal and human figures occur near the southern
slope of the Big Pryor Mountain, with most of the figures being that of human depictions no larger than 10in tall (Francis; Loendorf, 2002: 72,74).

5.4: MANUFACTURING

The manufacturing process of these particular petroglyphs is accomplished by pecking and/or incising/scratching. Pecking was done by chipping or flaking the top layer of the rock, which then would reveal the layer beneath it creating a stark contrast between the two layers. Pecking can be found on the interior and exteriors portion of the incised bodies of anthropomorphs. This can be done with finely pecked or loosely pecked patterns. The torsos are typically adorned with widely spaced and highly decorated pecked marks. Pecking can also be utilized to completely reveal/fill a figure upon the rock, as commonly seen with the *en toto* style.

Incising or scratching was done by using a tool to remove the upper varnished layers by creating carved linear scratches. Tools excavated at Legend Rock have established the variations of tools used for these processes, and other excavations from various sites provide some context regarding the techniques that may have been used (chopping tools for fine line and pecking work) (Francis; Loendorf, 2002: 73).

The petroglyphs in the Wind River Basin are pecked and incised into the Tensleep sandstone and boulders that often orient towards lakes/water features. However, it is important to note that the pecked figures themselves are not oriented in any particular way (Francis; Loendorf, 2002: 70). It seems that the reasoning for the petroglyphs facing the water is due to the orientation of the rock/cliff itself, along with the importance that specific water sites held to Shoshone cosmography (Loendorf, 2004: 204). This scattered/unorganized orientation is further
solidified when looking at the Torrey Valley petroglyphs where many panels face east to west, and others face north to south, orienting away from but still geographically located near water features (Loendorf, 2004: 204).

The central area of the Wind River Basin is home to large anthropomorphs depicted upon panels of Eocene sandstone (Francis; Loendorf, 2002: 70). These panels can be found located overlooking valleys. These may have served as axiomatic landmarks for the indigenous peoples, or as a vision-seeking site due to the geographic features so often seen in plains visionary traditions (Irwin, 1996). The geographic elevation, along with the separation from the surrounding geography is not only an ascent in geographic terms, but also a symbolic one, providing a dynamic tethering to the physical ascent, which is often found in vision seeking.

It should be noted, due to the distributional data of where these images occur there appears to be a heightened interest in specific water features within the area; e.g., Dinwoody Lake and the Great Hot Springs, now known as Thermopolis, below the Wedding of the Waters (Francis; Loendorf, 2002: 9; Turpin, 2001: 385):

Sites containing Dinwoody and/or en toto pecked imagery occur along the Wind and Bighorn Rivers and their western flowing tributaries, from the upper reaches of these drainages near the peaks of the Wind River Range to the arid interior Big Horn Basin. Key Dinwoody tradition sites in the upper Wind River Valley include major complexes adjacent to Ring and Trail lakes along Torrey Creek and adjacent to Upper Dinwoody Lake on Dinwoody Creek. (Francis; Loendorf, 2002: 16)

Specific water features, such as the Bighorn River, separate the Bighorn Mountains from the Pryor Mountains, and have also served as an essential and dynamic landscape for the Crow peoples and their fasting bed rituals of seeking the medicine. (Brien, 2015).

Areas surrounding the Dinwoody Canyon are adorned with a collection of what can be considered highly complex anthropomorphic figures. This area, located on the far western side of
the Wind River Reservation, is home to Dinwoody Lake and the "Sleeping Ledge", which is a specific cliff that faces the lake located on the north side (Gebhard; Cahn, 1950: 219). As stated previously, water features seemed to hold particular interest to the Shoshone, and Dinwoody Lake is a prominent water feature of the area. The lake is a critical watershed of the Dinwoody glaciers (Gebhard; Cahn, 1950: 219). The canyon creates boundaries that run north to south, with the lake serving as the eastern border. The geographical area, which is a transitional zone of grasslands to high altitude conifer forests, may have served as a semi-permanent location for native peoples due to the abundant water supply and caloric resources, such as fish and an abundance of wild game. This area is also populated with many interesting human-like and anthropomorphic figures pertaining to the Dinwoody Tradition.

The many petroglyphs in this specific area have been encountered and classified by Gebhard and Cahn into four types (Figure 4): Type I (A,B) and Type IV (IV’) consist of simple animal and human figures while Type II and III focus on highly complex human/anthropomorphic figures and abstract designs (Gebhard; Cahn, 1950: 219).

Type IA petroglyphs are typically fully pecked figures, while Type IB consist of fine-line pecked animal figures. Many of these are found on the Tensleep sandstone, as such other figures
that have been encountered in other areas. The panels also show evidence of superimpositions of each type, though, the motif for such superimpositions is debatable. Though the reason for this is not eluded to in Gebhard and Cahn's report, one may assume that certain glyphs were revisited for spiritual/religious purposes due to the complexity of the figures depicted.

Patterns arise within the categorical structuring along with the locale in which they appear. According to Gebhard and Cahn, one-half of the pecked images can be found on the northern part of the lake; the remaining half is dispersed through the west and south. Nearly 76 percent of the Type III figures are located on the northern part of the lake, while Type I and II can be mostly seen on the western side (Gebhard; Cahn, 1950: 224).

The depictions, mostly conventional and refraining from complex attributes, of human figures appear to emerge from the Type II category (Figure 5).

![Figure 5.

Source: Type II Depiction: Reproduced from, The Petroglyphs of Dinwoody, Wyoming. Gebhard, David., and Cahn, Harold (p. 222).](image-url)
Panels begin to increase in size with this type and are located in a more elevated orientation (Gebhard; Cahn, 1950: 224). It is postulated that the Type III (Figure 6) depictions of humans grew out of the Type II depictions. Also, paralleling the growth in complexity is the growth in the panel size. Typically, Type II panels were not recorded any larger than 10 feet in length or height, and they are dwarfed by a particular panel (Site 1. PS (S.L.)11.4) measuring 38 feet long by 17 feet wide (Gebhard; Cahn, 1950: 224). Furthermore, these can mostly be encountered at the “Sleeping Ledge” with an orientation that is more elevated from the ground than the other types.

Gebhard and Cahn found striking similarities within the panels that can be compared outside of the Dinwoody Tradition, with the most relatable instances being recorded in the Southwest and California (Gebhard; Cahn, 1950: 226).

The early human and animal representations of Types IA and IB appear to be most like those which are found over the whole continent. For instance, what appear at first glance to be perfect reproductions of the early panels at Dinwoody are found in the Lamar district of Colorado.
and in the "Lost City" (Pueblo Grande de Nevada) in southern Nevada. (Gebhard; Cahn, 1950: 226)

However, when we take a look at the Type III figures, there are no other [known] instances of rock art in the plains area that can compare in motif and complexity, further establishing the lineage of complex anthropomorphics associated to the Dinwoody Tradition and its rarity. Though, there are some attributes that do appear cross-culturally that do arise from the complex abstract designs, such as figures being surrounded by circle/wavy lines, or geometric patterns existing within the torsos figures displayed in Type III human figures that may lend evidence to trance states (Figure 7).

### 5.5: Meaning, Value, and Utility

Looking at the variations and the mechanistic processes involved regarding these petroglyphs and the locations they reside within/upon, one must ask what might these have been made for, why, and what utility they may have served? First, I assert that the evidence regarding the impacts that the environment has upon belief structures is compelling. I further assert that the imagery is a direct reflection regarding cohesion between environment and the sociocultural beliefs/modes of being, and these intertwined dynamics serve as a cultural topological map of meaning and value, with a glimpse into understanding regarding the Shoshone worldview.
Many of the images encountered are depictions and representations of creatures and beings that are found in the Shoshone cosmological structure. This structure is comprised of an upper, middle, and lower realms (Francis; Loendorf, 2002: 120); these can be further classified as the sky, land, and water realms — and these echo motifs found in other tripartite belief systems/structures (Figure 8) that can be associated to religions/beliefs structured through visionary experiences often related with hunter-gatherer cultures (Francis; Loendorf, 2002: 120):

There are three inner penetrating strata in the respective realms that constitutes the wholeness of the natural world: the above realm, the middle realm, and the below realm. The relationship between these realms can best be described topologically as a distinctive contrast, more or less emphasized, between the above and below, but the middle representing the mysterious realm in which all beings meet and interact. (Irwin, 1996: 30)

This structure places winged beings (sky people) in the upper realm. These beings are often depicted as owls, eagles, and hummingbirds. An important thing to note is that lightning is
also located within the sky realm, and due to the Shoshone’s belief in its power, it is at the pinnacle of the cosmological hierarchy. Often, hummingbirds and eagles are used to represent the thunderbird, which is closely associated with lightning (eygagu?ce?) and thunder (toywoyaget) puha/power (Loendorf, 204: 206). We can see this relationship between bird and thunder when referencing a vision by Shoshone medicine man John Trehero:

   He saw a spirit enshrouded in something, “it looked like steam but it was fog.” The thunder spirit itself is described as a “sharp-nosed bird, little as a thumb, looking like a hummingbird, but faster.” (Trehero; Hulkrantz, 2009: 54)

   Below the sky realm is the land/middle realm populated by the terrestrial/ground people/beings. The population of the ground realm consists of animals and beings such as bison, sheep, bears, rock ghosts and mountain dwarves. The water realm (underworld) is populated by creatures that can move between the middle and under realms and is of particular importance for the Shoshone (Francis; Loendorf, 2002: 120). The beings populating this realm consist of turtles, rattlesnakes, and other amphibian/reptile creatures along with powerful/dangerous water-ghost beings such as Pa waip (water-ghost woman) who is thought to lure men into the water and drown them (Francis; Loendorf, 2002: 121). The tripartite systems provide some basis for structure; though, it is not a mode of total separation. Many of the beings can navigate between realms and act as liminal guides, displaying a far more profound level of complexity than previously attributed to premodern belief systems.

   The categorization of the beings as sky, ground, and water people is a testament to the Shoshone’s anthropomorphism seen within the petroglyphs at specific locales, reflecting the cosmological beings/animals encountered within the environment. This anthropomorphism allows these beings and the Shoshone a mutualistic communicatory relationship (Loendorf,
This relationship, along with the anthropomorphism can be witnessed in an account of a vision being attained by a visionary, as detailed by Hulkrantz:

There is the frightening trial, the manifestation of the spirit who tends to change forms – now a man, now an animal– the imparting of supernatural power, the conditions for the ownership of this power, and of the regulations concerning ritual paraphernalia. (Loendorf, 2004: 205)

This encounter recalls an interesting event taking place regarding the transfer of power experienced by the individual through the spirit encountered. The relationship of the creatures and the realms that they populate is not only cosmological, but this encounter shows and further solidifies the Shoshone belief that, although separated, these realms are very much intertwined/tethered to one another. This intertwining can be echoed by the attributes of petroglyphs and where they occur. Sky realm animals depicted through petroglyphs are found at higher elevations than their terrestrial counterparts. Water creatures that occupy the under realm are found in petroglyphs near bathing sites and lakes. The cosmological landscape becomes a mirrored map of cosmology and geography and establishes a form of expression onto the physical landscape (Francis; Loendorf, 2002: 121).

The images/figures encountered at the highest elevations, such as the Torrey Valley site, are typically depicted with attributes, such as wings, that pertain to the sky realm being. Torrey Valley's petroglyphs consist of a vast array of powerful winged figures, with one specific petroglyph thought to be a hummingbird, which, as stated above, are associated with thunderbirds, or tongwoyaget, which means "crying clouds" or thunder (Loendorf, 2004: 205). Another being that is depicted in petroglyphs that can be related to Shoshone spirits/being is wokaimumbic, or the cannibal owl. This being is said to share a resemblance to a giant dragonfly, but have human behavioral qualities/characteristics (Loendorf, 2004: 206). This may be an
elaboration on the owl figures depicted at Torrey Valley that have specific attributes, such as large eyes and three-digit feet (Loendorf, 2004: 206-207).

Torrey Valley provides a base-line to measure the frequency of the petroglyphs linked to the tripartite structure and where they geographically occur with a specific focus on elevation change. The data (Figure 9) shows that along the Wind River, with comparison to the Torrey Valley, there is a direct correlation between the attributes of the figures encountered, which appears to be linked with the changes in elevation (Loendorf, 2004: 208).

<table>
<thead>
<tr>
<th>Animal types</th>
<th>Torrey Valley</th>
<th>Middle sites</th>
<th>Lower sites</th>
</tr>
</thead>
<tbody>
<tr>
<td>Birds</td>
<td>number</td>
<td>%</td>
<td>number</td>
</tr>
<tr>
<td>pendant wings</td>
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<td>25</td>
<td>4</td>
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</tr>
<tr>
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</tr>
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</tr>
<tr>
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<td>100</td>
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</tr>
</tbody>
</table>

*Figure 9*

Source: Figures, Attributes and Landscape Table: Reproduced from, Pictures in Place: The Figured Landscapes of Rock-art. Chippindale, Nash, and Loendorf (p. 208).

Bird figures occur at 40.5 percent at Torrey Valley, then decrease to 5.3 percent at middle sites, and further plummet to 1.5 percent at lower sites. The anthropomorphic figures occur at nearly 50 percent at Torrey Valley, then increase to nearly 60 percent at middle sites, followed
by a decrease to nearly 35 percent at lower sites. Quadrupeds occur in the Torrey Valley with nearly a 10 percent rate; then they see an increase in the middle sites to 33.3 percent, followed by a slight decrease to nearly 25 percent at lower sites. Water-ghosts are the most rarely occurring figures within Torrey Valley, only accounting for 4.2 percent of the figures and even at a lesser rate of 2.7 percent in the middle sites. However, these figures significantly increase to nearly 26 percent at lower sites. Other figures, such as turtles, frogs, snakes, and butterflies do not occur at Torrey Valley and middle sites, but they occupy the lower sites at 12 percent (Loendorf, 2004: 208). The distributional data regarding specific attributes and motifs of the petroglyph figures provide evidence that continuously substantiates the relationship between geographic environment impacting the Shoshone belief structures in-regards-to the perceptual iconography of specific spirits/beings.

Many of these sites serve a purpose beyond the cultural topological representation spoken of above. With this in mind, it must be explored why these images have attributes that reflect the landscape that they are placed in.

The ethnographic data regarding North American rock art provides ample evidence that sites like Torrey Valley and Legend Rock are not cases of art cultivated for art's sake or merely visual abstractions of cosmological and topological beliefs tethering to one another. Instead, these sights are thought to be powerful/sacred sites that were utilized for spiritual/religious processes by medicine men seeking power, shamans, and those that were being guided to a vision (Francis; Loendorf, 2002: 16).

Sites such as Legend Rock are often referred to as *poha kahni*, which means "house of power" where spirits and supernatural beings occupy realms that are accessible through these sites (Francis; Loendorf, 2002: 112). This can be viewed metaphorically, but from the Shoshone
beliefs perspective, the land is filled with spirits and spirits give puha. I assert that this is meant in more specific and literal context.

These *poha kahni* sites also serve as an environmental canvas on which those granted with a vision, or those who experienced a state of altered consciousness, could depict these experiences through the creation of rock art. It is important to understand that the images are not static, nor is the experience, with the latitude regarding individual experiences consistently differing. With this in mind, we can also note that, although from an etic perspective, we may view the imagery as low-resolution depictions and abstractions of a high-resolution experience. We must also take into account that the emic consensus among the visionaries is that the power of the images and landscape a very real.

It is clear that these images not only serve as a representational abstraction or low-resolution images of the high-resolution experience, but also as a point of contact or a residual phenomenological footprint to the axis mundi that future vision seekers could encounter and utilize; and such experience is considered truthful and real by those who undergo such processes. The imagery and the landscape, much like the individual's experience, are not static, merely to be reduced to materiality; instead, it is a living cultural organism that functions towards the individual and echoes through society. The interconnectedness between geographic landscape and the rock art depicted/encountered at sites allows us to become witnesses to an intriguing relationship that continuously grows, transforms, and revivifies itself. With this, we can also witness the unfolding and the integration taking place into many dynamics of the Shoshone worldview. This interconnectedness that is witnessed is a testament to their beliefs regarding the views of a wholly connected environment/world.
It is clear that the Eastern Shoshone belief and cosmological structures are tethered to place and experience, but why does the experience of the cosmological structure seem to be heavily invested with the idea of encountering it through dynamics of vision and sight?

I postulate that, with the data above, many figures display features that seem to form communicative attempts at transmitting value and meaning, symbolically through specific attributes that can be linked to the environment, geography, and cosmology. While the figures may be viewed as attempting to appeal towards dynamics of transmission through lived experience within place, they may also depict an emerging aspect of rituals that were enacted to facilitate such experiences. These rituals tethered to experience and place can be witnessed in processes such as shamanic practices for entering trance states or specific acts witnessed through preparations of vision quest rituals.
6.1: SIGHT, VISION, ORIENTING, AND PERCEPTION

The cliché, "seeing is believing," attempts to sum up the hypothesis that what we perceive is in fact reality. While we can agree with the utility of perception being a key factor of what is envisioned as useful versus useless, I assert that such a cliché is flat, and it is not fully representational regarding the importance and the complex dynamics of vision.

The vision of primates is a crucial evolutional component of our success, and when comparing this to the vision of other mammals, we can see evidence regarding specialized, highly complex, and detailed visual dynamics. The primate visual system integrates itself into many parts of the brain, and such integration, depth, and complexity are often absent in other vertebrates. Sight and vision not only dramatically impact the way interactions take place between actor and environment, but it can also be argued that it has been, and continues to be, the key factor with regards to how primates live, function, manipulate, and cultivate existence within the environment.

The eyes accomplish sight, and eyes have been around for a very, very long time. Eyes first appeared about 543 million years ago during the Cambrian, when they evolved in trilobites
(Isbell, 2011: Kindle Location 547). Through this evolution, animals started using sight as a dynamic tool of survival, implementing it into daily actions such as predation. According to Andrew Parkers "Light Switch" theory, this was a beginning foundation to the genesis of the interactions that took place between predators and prey; which developed many processes that can be observed within our brain that are present today (the orienting response/reflex) (Isbell, 2011: Kindle Location 556).

Primates eyes and visual system have evolved to be quite fantastic data gathering tools. For starters, primates have evolved a depression in the eye, called the retinal fovea, which gives us the ability to perceive small objects with exceeding clarity (Isbell, 2011: Kindle Location 576). The pathways that relay information from the eyes to the brain allowing us to have sight is a highly integrated process rich with complexity.

Sight, or seeing, is the lightning-quick sequence of physical processes of relaying sensory data (light waves/energy) that makes their way in the form of neural messages to the brain, which, for our purposes, we can group into the term pathways. From there, another round of lightning-fast process takes place within the brain, working to piece together the messages, in further attempts to piece together a model of what we are seeing. This process, where rods and cones are stimulated, activates the ganglion cells in preparation to carry data to the optic nerve, then onto the thalamus and the visual cortex.
This process is linked to the lateral geniculate nucleus (Figure 10a) (LGN), and primates have one of the most complex LGNs of the mammalian world. Our LGN is highly integrated along many levels within the visual system (Isbell, 2011: (KINDLE LOCATION) 579).

One particular pathway of importance for our concerns that is correlated with the LGN is that called the magnocellular (M) pathway, ventral processing, and dorsal processing streams, which are involved with motion detection and changes/contrasts of illumination (Isbell, 2011: (KINDLE LOCATION) 588). The highly integrated dorsal visual processing stream is one of many complex processes of vision in primates (Figure 10b):

The dorsal visual processing stream goes to the top of the brain to the parietal lobe and includes visual areas V1 and V2, the middle temporal area (MT), and the posterior parietal cortex (PPC). The dorsal stream is specialized for spatial discrimination, movement detection, and visual control of reaching and grasping. The dorsal stream has been described as being specialized for "vision for action." It is also used in perception, however, particularly of spatial relations. (Isbell, 2011: (KINDLE LOCATION) 595-598).

Accompanying the dorsal visual process stream is the parvocellular (P) processing stream, which is located at the base of the underside of the brain (Isbell, 2011: (KINDLE LOCATION) 603). This pathway specializes in object perception; it accomplishes this by extracting fine details.
along with vibrant/rich colors. This process corresponds to the ventral visual processing stream, which is shared with the V1, V2, and V4 cortex. At the V1 and V2 stages, the processes are extracting out the simpler colors, hues, and lines. Once the data reaches the V4, it continues to extract more complex forms and hues (Isbell, 2011: KINDLE LOCATION 607). In short, this visual stream is another highly specialized process of the brain working in conjunction with the eyes that scans, perceives, and can assess.

The V1, V2, V3, V4, and V5 are smaller sections that make up our visual cortex. The visual cortex is a section of the occipital lobe located at the back of the brain where the left and right cortex process the sensory input from the opposing sides eyes (right visual cortex with the left eye and left visual cortex with the right eye). The visual cortex is also very complex, dealing with detection and identification of a multitude of subjects such as movements and shapes. Primates are heavily vested in and functionally dependent on the V1 compared to other mammals. Damage to the V1 would most likely create obstacles that would be difficult to overcome regarding perceptual and physical navigation of the environment.

The visual expansion of the LGN displays the evidentiary evolutionism of our brain's ability to see, perceive and assess. Though, some of the most ancient processes are linked to the LGN in specific ways. The Super-Colliculus Pulvinar Visual System (SCP), the primary visual system of non-primate vertebrates (Isbell, 2011: KINDLE LOCATION 637), is what essentially awards us a three-dimensional view of the world by splitting the field of vision in half while ganglion cells project into opposite hemispheres, which in return gives us detailed depth and dimension (Isbell, 2011: KINDLE LOCATION 650). The SCP (Figure 10c) is further linked to the posterior parietal cortex (PPC) which is integrated further along towards the end of the dorsal stream. This link and
location of the links are vital. A function of the SCP with regards to the dorsal stream is the ability to initiate reflex actions (such as grasping and grabbing), or quick actions to what is seen without assessing what, if any, action should take place. The PPC ultimately has the function of overriding that process, to disengage reflexive action when not necessarily needed. Primates’ PPC is highly integrated within visual processing (Isbell, 2011: Kindle Location 682). This may provide illumination to the evolutionary evidence that the purposeful action, as opposed to non-assessed reflexive action, of forelimbs impacted the expansion of the primate brain. This further substantiates that we view the world through means of interacting with it, not only reacting to it. Lived experience and interactions guide our behavior and future presuppositions of behavior.

In short, the SCP is linked to our focus becoming oriented towards subject matter that enters our gaze, deciphering quickly if it is a threat, and responding accordingly to such subject matter. In comparison to the threat assessing visual process of the LGN, the SCP is a visual processing system that integrates lightning quick detection with elusive reflexive motor responses.

This interacting and orienting towards that which is being assessed is regulated by the four divisions (inferior, lateral, medial, and anterior) of the pulvinar, which is located in the dorsal thalamus (Figure 10d) (Isbell, 2011: Kindle Location 717). In short, it focuses attention on
objects we deem important. The inferior and lateral are linked to visual sensory, the medial is linked with visual and acoustic sensitivity, and the anterior is linked to somatosensory (bodily sensations) (Isbell, 2011: (Kindle Location) 717-718). The inferior and ventral lateral pulvinar are concerned with the specific processes of turning attention to objects of relevance while tuning out those that are of no concern. This is accomplished by receiving the visual data from the retina and specific layers of the SC receiving input from the locus coeruleus (LC), which in short establishes our concentration/attention during fight or flight scenarios (Isbell, 2011: (Kindle Location) 723, 728).

This parallel processing taking place, making sense of forms, depths, colors, and motion, is a symphony of visual dynamics within the brain that leads the see-er to perceive what is meaningful and what can be utilized within the known modeled make up of their world versus that which lies beyond the known modeled makeup of their world. This dynamic sequence that leads us into action is once again evidence echoing that we do not see the world, we experience it, and we do so mostly beginning with the visual system and its processes.

With the albeit brief summary of the visual system and its integration throughout the body, we can see evidence of how the early processes of sight set the stage for perception and attributing value through experiencing the environment. Sight does not provide meaning; it
provides data that our brain processes into extractable data that we perceive as meaningful and engage with and navigate. Furthermore, this meaning through perception is cultivated by data relaying processes within the brain. Orienting and focusing on that which intrigues us may seem magical, but it is regulated by dynamics of neural, visual, and cognitive processes of deciphering data through sight.

Many of these processes are ancient, such as threat detection regulation by the SCP or the conscious assessment and awareness of specific objects done by the LGN. Evolutionary adaptations drive much of the reflexive responses to our environments with the goal to prolong survival and avoid threats, while value and meaning assessment builds upon those anciently integrated parts of the brain. Our vision is an integrated process vested in two vital systems complementing one another by working in two separate ways. I assert that these processes are evidence that we are heavily invested towards goals that are focused on acquiring data and mapping such data onto our presuppositions of the environment. Furthermore, the act of proceeding in accordance with pragmatic modes of being by integrating actions that can be utilized within the perceived environment are byproducts of these processes. From this extraction of familiarity regarding the visual data, then orienting, assessing and exploring that which challenges those presuppositions of the explored/projected/perceived model of the world we create, is what ultimately has driven, and is the catalyst of lived experience, meaning, and physical, psychological, and cultural evolution.

With all this in mind, we can not only gather that vision is multifaceted, but we can assert that it is a fully integrated function of being and encountering the environment. Through this, we are embarking on making order out of the disorder. Vision is the crescendo of a grand symphony that arises from the accumulation of these sensory and cognitive processes at work. It is sense
data and perceived meaning/utility interwoven to create a map that we can navigate. Applying this integrated definition of vision to a hunter-gatherer society may provide insight into how the culture is rooted through these physiological processes, and how value was attributed to certain environmental subjects that became woven into specific cultural dynamics/processes.

6.2: IMPLICATIONS OF VISION REGARDING DREAM FASTS, VISION QUESTS, AND THE SEARCH FOR *PUHA*

An essential aspect of a hunter-gatherer society is the ability to see well. Vision, literally and abstractly, is vital to the individual, tribal, and cultural health of such cultures. Biologically speaking, human vision has not evolved much from hunter-gatherer people's, but our environment and cultures have, and this change directly impacts how we see and navigate through our worlds, both physically and culturally. This change can be viewed as a form of cultural evolution with regards to sight/vision.

Many modern societies do not actively engage in hunting to procure the food needs of their societies. Though hunting is still a practiced act today, it is safe to say that many people in the modern world get their daily caloric needs from food sources that were not tracked, hunted, killed, and harvested by themselves or close members of their family/tribe. If one is going to be a successful hunter, one needs knowledge of the environment, very acute eyesight, and the physical ability to kill, clean, transport the harvested food. The Eastern Shoshone were avid and proficient/prolific hunter-gatherers, and success within the environment was heavily vested in acute and specialized vision.

This placed the Shoshone in a position that required them to adapt to their environment and caloric needs. This adaptation was accomplished through acute vision and observation of the
flora and fauna necessary for the hunter-gatherer way of life; this way of living relies on the integration and the dynamics of the visual systems processes. Looking at how much of the individual’s and group’s health hinged on the success of attaining their caloric need through the harvesting of animal protein and gathering flora, we can see where the dynamic genesis, regarding the cosmological importance of the animals to their culture accrued from lived experience tethered to sight/vision/observation, arose from:

RELIGION, although inherent in man, borrows its expressions from the setting or milieu in which man appears. The forms through which man expresses the supernatural are all drawn from the cultural heritage and the environment known to him, and are structured according to his dominant patterns of experience. In a hunting culture this means that the main target of observation, the animal, is the ferment of suggestive influence on representations of the supernatural. This must not be interpreted as meaning that all ideas of the supernatural necessarily take animal form. First of all, spirits do appear also as human beings, although generally less frequently; the high-god, for instance, if he exists, is often thought of as a being of human appearance. Second, although spirits may manifest themselves as animals they may evince a human character and often also human modes of action. (Hulkrantz, 1970)

What we can extract from Hulkrantz’s quote is the connection to animals within the Shoshone culture reaches far beyond the simple perceptions of how we view our flora, fauna, and environments today. They shared not only a material tether to the creatures of their environment but also a spiritual tether to specific animals. Their attention to the environment went beyond materiality and blossomed into perceptions of what it is to exist within the environment they observed:

The Shoshone are keen observers of animals. In particular they know the animals good for food, like the buffaloes. They have many names for the buffaloes according to their age and sex, and for different parts of the bodies of these animals... Our conclusion must be that the idea of the animal is structured culturally, that is, the animal is seen not exactly as a biological being, but as a being colored by cultural values,
and judged from cultural premises. It plays the role ascribed to it by cultural tradition. (Hulkrantz, 1970)

We do not have to claim that this is a non-refutable hypothesis. Though, we may assert that when referencing the ethnographic data, we are faced with accounts of witnessing this relationship along with accounts of attaining specific power through beings that present themselves as animal-like. There are also accounts of visions of animals behaving in ritualistic acts specific to the belief structure, such as the Sun Dance:

One of my Shoshone informants, a reputed medicine-man, saw... some bears perform the Sun Dance at a place called Sweetwater Gap. This happened at sunrise on a day in spring... The bears were dancing in front of a pine-tree painted yellow, red and green. They made four steps forwards and four steps backwards, and all the time they were looking at the pole. They also sang, and their singing was a growling. They had built a fire there. My informant thought that this "midnight-fire" had been made by one of the bears who, he surmised, was a puhtagan, a medicine-man. He added that when dancing the bears pray for their youngsters. "They act just like a person. They are smart". (Hulkrantz, 1970)

This account shows the multi-faceted and dynamic connection that the Shoshone have with the animals in their environment and their cosmology as echoed in previous locations of this document. Accounts such as those provided above revivify the tether between culture, environment, and belief. Much like other dynamics that are culturally specific, such as vision questing, these are not static, and they reach beyond material experience and value, further lending credence to the intertwining relationship between lived experience, sight/vision and the mapping of their visual culture along with the environment:

One of the most fundamental aspects of the Plains religious topology is its implicit, undivided wholeness. This wholeness constitutes the interactive relationships between many beings, both visible and invisible, whose "homes" are identified with particular ecological environments. The center of this wholeness is the earth itself, regarded as a living being. (Irwin, 1996: 29)
Whether interpretations of such accounts given by Hulkrantz's medicine-man informant agree that the bears performing the Sun Dance are "real" will require a look at both emic and etic perspectives. We may concede, from an etic perspective, it is far easier to discredit such an account as a hallucination and factually impossible/unreal. However, for the medicine-man, the experience was authentic, therefore making it factual with regards to the individual and sociocultural utility it offers. What we can extract by this is that the experience by the medicine-man contained an amount of practical cultural utility, therefore rendering an etic based truth un-applicable to his projected value of his vision. The bears dancing in a ritualistic manner solidified their cosmological existence paralleled with their existence in the material world, not merely by witnessing, but also by the cultural foundations and cosmological history of beliefs already mapped into the presuppositions of the informants mapped model of the experienced world. By doing so, it not only resolutely solidifies the belief structure, along with the dynamics submerged into such structure; but it also presents an experience with data that is of perceivable meaning to the medicine-man that can be utilized culturally.

This data, in the form of witnessing a familiar creature perform a ritual action that is rooted within the cultural belief structure, presents an account regarding a navigatory map of experience and meaning to which the medicine-man can tether group integrated ritual acts such as the Sun Dance. The account leads to another interesting dynamic of how the Shoshone envision a cosmological creature with puha/power from those that do not possess puha/power.

The bear is an important/powerful creature for the Shoshone and many Native American peoples. It seems that through their human-like behavior, bears have the ability to interface with humans (Hulkrantz, 1970). These bears, through their actions of dance and the throwing of paint, showed the medicine man that they owned both mugwa/body-soul and navužieip/dream-soul.
“The bears have got *mugwa*, for they can move. But they must also have *navužieip*, for otherwise they shouldn't have had power to throw that paint on the tree” (Hulkrantz, 1970).

This dualistic possession sets the bears apart and establishes them as spiritual guides in a dream/vision, or spirit helpers that one may encounter during vision quests. These zoomorphic beings are operating on a separate cultural-cognitive-plane than that of their animal counterparts. Such a separation shows the distinction between the lived world (natural) and the other encountered realms (supernatural) (Hulkrantz, 1970), along with the ability to co-exist and navigate between each one:

Like most other peoples the Shoshone distinguish between a natural and a supernatural reality. The former is the common, everyday world where one event follows the other in an ordinary, expected way. The supernatural world, on the other hand, often breaks through into the natural world but may also run parallel to the latter and manifest itself in the ordinary pattern of events. It is not founded in an exterior chain of causalities, but in religious belief. Now, naturalism and supernaturalism are the two main levels of cognition referred to above. The animal which the hunter approaches may be a real (natural) animal, or it is the abode or rather the manifestation of a spirit. Sometimes the two conceptions blend, so that what appears from the outset to be an animal reveals itself as a spirit. In principle, however, the difference is sharp and uncompromising. (Hulkrantz, 1970)

This distinction is one that is important for further exploration of the next dynamic of the Shoshone visionary practices. These accounts, and extractions/interpretations of such accounts, also allow us to hypothesize that through sight, the visionary culture of the Shoshone can be perceived and related to in certain ways, and not all dynamics are unimaginably abstract from others. I assert that the cultural adaptations within the environment that serve the individual and the group is a dynamic map that stems from sight. This map then proceeds to establish the value and meaning through the processes of tethering lived experiences onto such dynamics from
already established experiences that have been transmitted through stories, oral traditions, and ritual acts.

A dynamic process that performs in the manner stated above is that of vision quest, dream sleeps, and dream fasts. While the rituals surrounding the Shoshone vision quest may differ between tribal nations, the quest for procuring a vision is practiced throughout many indigenous peoples cultures, and with this exploration and distillation of meaning and function can take place by viewing such dynamics. The ethnography regarding vision seeking is extensive through the Great Plains, where the indigenous peoples of the area seemingly practiced this ritual with a significant degree of specialization. With this data, it is clear that two major categories can encompass all other dynamics taking place within vision quests, those categories being unsupervised quests and guided quests:

Two forms generally characterize the Plains vision quest. The first is the unsupervised pattern of dream fasting, which involves the individual in a search for a vision or dream as a self-determined quest, frequently undertaken without supervision or guidance… the second type of the dream fast is the supervised quest, usually carried out under the guidance of an experienced elder. The supervision could be highly or only minimally structured and given by a parent, another relative, or a recognized religious leader. (Irwin, 1996: 98)

Formal and informal approaches are also considered when undertaking the quest. The formal quest is typically highly ritualized and integrated within the community. Formal questing also carries the connotation of the highest importance for individual and group reasons. An excellent example of this type of formality can be witnessed when encountering the Sun Dance ritual, which was abstractly eluded to during the dancing bear vision.

The antithesis of the formal approach is an informal quest, and it is what we may propose as the genesis experience of the shamanic journey. The visionary experiences a call to action, where the dream/vision is granted to the individual without any ritualized action or formality to
procure such a vision. According to Robert Lowie, this was the normal or most accounted for encounter of visions for the Shoshone (Irwin, 1996: 100).

Though Lowie states the informal quest was typical for the Shoshone, the Shoshone did take part in specific ritual acts to prepare and attain visions. Many of these rituals were enacted at such sites in search for *puha* or medicine/power (Trehero; Hulkrantz, 2009: 25). The process to procure *puha* was called *puhawilo/puhawido*, which means “sleep at medicine-rock (Trehero; Hulkrantz, 2009: 53; Francis; Loendorf, 2002: 111).

It is important to take note of the usage of the word *sleep* within the quote above. To *sleep* would not give the seeker *puha*, it must be given to the seeker through transmission of the *puha* itself. This is encountered during visions where the *puha* reveals itself to the visionary in specific forms; such as thunderbirds, bears, beavers, and rattlesnakes. The *puha* could also reveal itself in non-animal forms, such as lightning or curiously formed stones and rocks (Loendorf, 2004: 205). Structured visions were attained through rituals that prepare the vision seeker for their quest:

> Visions were commonly sought by young men, who went to the sites, bathed in a nearby stream or lake, and then sat facing the panel while they waited for several days for a visit from a supernatural power. Once the being or power arrived, [its] form might change throughout the experience. (Francis; Loendorf, 2002: 111)

Ake Hulkrantz noted such a ritual as told to him by Shoshone medicine man, John Trehero:

> First we should get into the water naked and at least splash a little water over the top part of our bodies; and we should paint a little red on our chest and forehead; then smoke. Finally, we should devote ourselves to what is called *puhawido*? — sleep at Medicine Rock. (Trehero; Hulkrantz, 2009: 53)

With this, we can see that "sleep at medicine-rock[s]" is not eluding to power gained from sleep. Rather, sleep may be used as a signifier to state one step towards being granted a
vision with hopes of *puha* being transmitted to the visionary. This also could be viewed as evidence for solidifying Lowie's view regarding the informality of how the vision reveals itself to the Shoshone. As the ethnographic evidence regarding visionary traditions of the Great Plains explains, dreams and visions are often viewed as of the same vein, one is associated with structure while the other is not (Irwin, 1996: 18).

Dreaming is truly important to the visionary cultures of the Great Plains. The dream world and material world are intertwined. However, we may hypothesize that the dream world is, by nature, phenomenological. There is no strict emic distinction drawn between the dream/vision reality and material reality, with regards to one having heightened value over another — for the visionary. However, a counterpoint to this claim can be made with regards to the degree of ritualization that takes place within a formal quest. Even with this, is it an adhered to belief that each reality has meaning and value. Each world is vital to the structure of belief and visionary experience.

In Native American context, there’s no distinct separation between the world as dreamed and the world as lived. These are states integral to the unifying continuum of mythic description, narration, and enactment. In contemporary, nonindigenous cultures, the distinction between waking and dreaming is largely a consequence of culturally reinforced rational theories of mind and has resulted in a bifurcated worldview for most Euro-Americans. (Irwin, 1996: 18)

Often the boundaries are immersed with one another (possibly a case of neuropsychological bridging), where aspects of each can enter each world/dimension and can hold value and meaning. The material world is often the catalyst for the landscape for the dream world. This is important because it provides a tether to a familiarity into which the dreamer can root themselves into for orientation. It also provides a standard/baseline to measure what is encountered as either known or unexplored territory. I postulate this could substantiate a level of
cognitive processing through the visual system that can be measured if a subject were to agree to such neurophysiological tests.

Much like some beings can travel between the separate cosmological structures, an experienced vision seeker can travel into multi-dimensional realms/worlds on their vision quest. This can be viewed from an etic perspective quite symbolically, though, the ethnographic accounts of firsthand experiences retain that these experiences are as real as any material-lived-experience for the visionary. This *realness or vividness* of the dream experience is a sign to the visionary that their experience is without a doubt successful and pragmatic. An account of such an experience can be seen recorded through the words of Lakota Sioux John Fire (Lame Deer):

> The real vision...is not a dream; it is very real. It hits you sharp and clear like an electric shock. You are wide awake and, suddenly, there is a person standing next to you who you know can’t be there at all... yet you are not dreaming; your eyes are open. You have to work for this, empty your mind for it. (Irwin, 1996: 127)

This account is a specific example of a mindful, aware, and cognizant recalling of what many outsiders would consider an unreal hallucination. Though, with John Fire’s account, we can see that this was welcomed/worked towards, and greeted with attempts to distill understanding of the experience between different realms/realities that he considered very real. John Fire was an experienced dreamer, he began doing so at the age of sixteen following the death of his mother. His clarity and recounting of visionary experiences is a direct reflection of what one would consider a form of heightened awareness from multiple encounters (Irwin, 1996: 128).

The constant movements between realms consistently force the dreamer to enter liminal stages with the end goal of emerging into the lived world with new knowledge and powe*p*puha.
The procurement of power was accomplished through preparation and stages of ritual acts such as bathing at specific sites, sweat baths, and tobacco offerings. These actions were not only to cleanse and prepare the vision seeker but also as a symbolic act to show the great spirit the sacrifices willingly done to weaken themselves out of humility. Sacrifice and sacrificial offerings are ritual acts encountered in many spiritual and religious ceremonies, and are essential parts of encountering puha:

The renunciation of food and water is a form of sacrifice intended to evoke a compassionate response. Because the dream spirits are regarded as more empowered than human beings, they are thought of as willing to share a surplus of their power with those less fortunate… This phenomenon of giving and sharing power is a central feature of the Native American social and religious structure. The social norms of sharing and reciprocity express the greater reciprocity believed to exist between humans and all the beings of the sacred world. (Irwin, 1996: 110)

The act of making a conciliatory gesture is giving up what is of high value in order to encounter the puha. For a hunter-gatherer, these are food, clothing, and shelter (to name a few). Removing these needs is an ascetic approach; seen as an act of ridding the self of rigid cultural dynamics adhered to that exist for the individual's ability to orient themselves within their world. These basic needs move from a category of essentials for survival into a new category of obstacles in the way of transformation. The ritual act of sacrifice places the individual in a position to move from a place of the known into the unknown. The known is the culture and the hierarchical structures of belief that create the shared sociocultural system. The unknown is the dream/vision realm of possible transformation and reemergence.

Following the ritual act of sacrifice, the individual typically seeks a place to encounter the vision and puha. As stated above, the geographic landscape is a place of power, and some are viewed as harnessing more power than others, such as the poha kahni sites. These sites are not
only sacred and powerful due to their materiality, but also because they possess a multifaceted aspect of importance that is measured and utilized beyond material meaning. An individual not immersed in the Shoshone culture may view such sites only as a meaningful geographic feature, but, if we look at it as a symbolic vehicle, we can see beyond the material aspect.

Ethnographically, a commonality regarding sites for seeking power through visions were commonly hills, buttes, and mountains; this was for geo-symbolic and cosmological reasons:

Certain buttes were recognized as particularly powerful and inhabited by dream-spirits willing to share their power and knowledge; each community had its own specifically recognized hills or buttes. The primary concept — to be above the middle realm of normal habituation — meant making oneself more visible to all the powers. Although these powers might be of any type, among the many groups that power was conceived of as dwelling within the specific hill chosen by the seeker for the fast. The symbolism of the hill or butte was deeply involved with the communally shared structures of thought and belief. Like the sacred earth lodges of performing shamans, the many buttes and prominent hills were thought to be populated by unusual or extraordinary beings. (Irwin, 1996: 106)

As stated above, these *poha khani* sites are not to be viewed simply as a material environment. The components that make up the materiality and the images depicted upon/within them are vehicles in the sense that they operate as a place where processes and functions beyond the material world take place. This dynamic allows it to perform the role as the theatre and cultivated sacred space from which the visionary can begin the transformative process of going from a place which is familiar to the unexplored territory of the vision/dream fast. This framing of place and power can parallel the idea *temenos* or sacred place of power originally proposed by Douglass Price-Williams and Mircea Eliade:

The reality of the imaginative leap, the entities and the actions encountered in imaginal space, is carried out in the *temenos*, the sacred ground, the theater, the altar. This is what marks the process off from sense perception reality…In other words, the imaginative process — which I am calling the mythopoetic function — is not carried on outside
of the ritual space. It is not extended into the common domestic sphere, the market for the areas of ordinary work. (Irwin, 1996: 60)

This framing of place/landscape is the continual cultivation of an outlook of *wholeness* that is often seen in Native American belief systems, which proposes that everything is to be respected due to the belief regarding integrated connectivity that all things share.

For the Shoshone, encountering the beings within the landscape is a process of awareness within one's vulnerability along with their place and interconnectedness within their world. It is also a glimpse into the psychology of the individual through the actions taken to procure a vision. This harmonious interplay between the categorized known and the willingness to venture out into a dimension to experience the unordered unfamiliarity is a social drama that unfolds and impacts the individual, requiring sacrifice and self-reflection in ritualized acts to receive further instructions from the dream-spirits.

These ritual acts are often transmitted into the group to catalyze a greater possibility of an altered state and visual experience. One of the most common forms of group ritualization can come in the form of prayers enacted by the visionary's family. Also, there may be a more seasoned vision seeker, sometimes regarded as shamans, who will accompany a less experienced visionary through certain stages:

The guiding religious conception is that the individual must address the powers in a ritual manner to allow them to respond in accordance with the maturity and preparedness of the seeker…more experienced seekers tend to use a more ritualized approach…because of the instructions they have already received from dream-spirits. (Irwin, 1996: 115)

The dimension of the vision/dream is where the spirits/supernatural beings reveal themselves to the visionary. Many different spirits can be encountered, and they may take a multitude of forms. This place where the visionary is granted the vision and encounters the
being[s] is considered the center, or more poignantly put, it is where vision seekers are immersed into the dream/vision world and can begin their visionary enlightenment.

The “center” of this topology is the place of visionary or ritual instruction. Either the dreamer is taken into a center or the center becomes a place where visionary experience occurs…Any place where visionary experience occurs or is invoked becomes a center and a place of power. (Irwin, 1996: 59)

The center is the axis mundi of the visionary experience. The center provides a cosmological point of reference, but by no means is static in location and direction. The center can be activated through a spontaneous vision, though it may also be cultivated through formal ritual actions — touched upon previously. Regardless, this center is an essential and dynamic aspect to framing and placement of the orientation of the vision:

A direction is not something to be measured in a strict Cartesian sense as a rigidly fixed, three-dimensional spatial grid, and time is not rigidly conceived, unidirectional linear flow from past the future…Directionality, in the Native American context, inevitably refers to the subjective experience of the individual or the collective activities of the people as a whole. (Irwin, 1996: 59)

Visions and encounters with the spirits are not guaranteed; key factors in attaining an encounter can be through ritualization, state of mind of the seeker, and the appeal to the specific power. According to ethnographic accounts, one means of establishing spiritual contact can be from the top-down of addressing the spirit-power hierarchy. Calling/pleading for an encounter with the highest power will not necessarily produce such an encounter. Instead, these appeals will often lead to a lower hierarchical spirit/being to encounter the visionary.

The transmission of power is believed to be a direct result of the display of suffering, humility, and the emotional release provided through a divine action such as fasting.

This transmission of power from the spirits on to the individual appears to be a mutualistic relationship not solely based on the suffering of the human individual, but also by the
spirits powers ignited as a result of the participant's willingness to partake in the quest (Irwin, 1996: 140). Ownership of power is dynamic and can be displayed in tangible and intangible ways. Though, it is always contingent on the specific power sought and granted to the individual.

For instance, warriors preparing for battle will seek out specific beings that coalesce with the end goals of their specific vision quest and power transfer that they hope for. The power granted upon the individual often comes with residual attachments and specific instruction[s]. These attachments are often called prescriptions and proscriptions. Proscriptions are the steps and processes taken within life to maintain the awareness and ability of the granted power; these are often restrictions integrated in daily life, such as refraining from partaking in the meat of the animal-being that the spirit manifested as during the transfer of power. Prescriptions are the acts that pertain to using the granted power. This prescriptive aspect can often be encountered through the making of sacred objects or ritual bundles to encounter the power (Irwin, 1996: 157). If these restrictions are too much for the individual to adapt to, the power can be rejected. Though, this generally is viewed as extremely dangerous; especially if the vision came spontaneously (Irwin, 1996: 156).

The use of power is the ultimate form/proof of integration and ownership of the power and the vision quest. This proof may be accomplished through acts such as foretelling future events and healing sickness within the community. Though the distillation is the crux, we may propose that the tracking, documentation, and low-resolution rendering upon the landscape holds high importance as well, and if we adhere to the wholeness of the cosmological structure that the emic perspective adheres to, we can assert that each step taken towards the vision is of equal importance.
This low-resolution, regarding experience, is the fusion of image, experience, and landscape/materiality that coalesces into form and function. It provides a lodestar for future vision quests, while also recording the lived-experience that revivifies the cultural dynamics of belief, ritual, and individual/group health that we continuously witness taking place through multiple processes.

6.3: Vision Quests and Shamanic Journeys

Unfortunately, almost any altered state is naively attributed to a shamanic journey, and this is not always the case with vision quests. In fact, virtually any person can journey to have a vision; however, there are distinctions that can identify the shamanic journey from a formal vision quest. The spontaneity of visual experiences is important to distinguish from the priestly tradition versus the shamanic doctor traditions when viewing whether or not a quest is rooted in shamanism.

Shamans and shamanism are disputatious topics when looking at their place within rock art. Many believe that it is belligerent and culturally naive to lump all spiritual and ritual leaders into the category of shaman[s], and this is not without warranted concern. However, this document adopts the view that, for our purpose, shamanism can be accepted as a premodern tradition of religious and spiritual tradition[s] experienced by a spontaneous call to action and those who seek knowledge beyond the material-lived-world, while also serving as spiritual guides to those called to action in a similar sense. “It is this definition of shaman, as a recognized specialist who employs certain techniques to acquire supernatural knowledge and power for the benefit of the community,” (Francis; Loendorf, 2002, 24).
Shamanism is closely tied to rock art and vision questing due to the acquisition of power and the guidance provided to future visionary's quests. It is a distinct tradition that can be seen in cultures worldwide, and is regarded as the oldest practiced profession and is tethered to recorded phenomenological experiences reaching back into our earliest records of history. Shamanism is a term that was initially used to describe ritual or spiritual leaders:

The word shaman indeed applies to particular religious persons from Siberia and central Asia but also has been used to describe practitioners from many other places and practices including those from the distant past. According to Eliade, the shaman has unique qualities. He is a magician as are many others, but not all healers are shamans. (Bullen; Rock Art and Spirituality, Gillette; Greer; Hayward; Murray, 19)

This multicultural phenomenon, and the specific accounts recorded through ethnographic accounts and rock art depictions also lends particular basis to the neuropsychological model for exploration of altered states and visions which will be further explored in a later section:

The neuropsychological model lays the foundation for a “shamanic” explanation for hunter-gatherer artistic traditions worldwide. Many of the universal symbols found in shamanic religions have their origin in cross-cultural neuropsychological and somatic reactions to altered states of consciousness (Whitley 1994b:1). The model develops an explanatory mechanism for the occurrence of numerous design elements found in paintings and engravings in southern Africa and indeed throughout much of the world. These images are the product of the hallucinations experienced during shamanistic trances; that is, they are metaphorical depictions of the images, visions, and somatic reactions experienced during trance state. (Francis; Loendorf, 2002: 23)

With this knowledge, we may now turn to how visual experiences and shamanic traditions operate as an individual and collective cultural process, and how these processes mirror/parallel and are often integrated within vision quest rituals. These visionary shamanic experiences may be viewed as a liminal experience that emerges through many hallucinogenic experiences, altered states, and shamanic journeys.
As established previously, there is a calling, almost always spontaneous, or need to explore and venture into a journey to the other world, followed by the immersion into that other state, which results in symbolic death, and finally culminates into the reemergence into something new/reborn. This reemergence of the now shaman back into a regular or material state of existence is something that can be seen obtained through a successful vision quest. Though the practitioner has come back to our world, the process has implemented changes for the individual that can also be put forth into the group culture. This quest is an essential building block to the ethnogenesis of premodern beliefs, specifically in the Great Plains of North America, and it is closely integrated with visual experiences, much like the vision quest:

Irwin (1996) argues that the individual visionary experience is the basis for Great Plains religious worldview. Whether spontaneous or formalized as a quest, the visionary experience is a source of personal empowerment that guides individual behavior and action, structures social and religious behavior within the community, and reinforces communally held values and beliefs. (Francis; Loendorf, 2002, 25)

Important questions to put forth are why are researchers so enamored by shamanic experiences, and what was the meaning for displaying these experiences through the creation of rock art? A reduced assumption into this inquiry can be viewed in the same way as a separation from ordinary experiences mirroring how explored space is separate from unexplored space. Though, we would benefit to approach this question with the hypothesis that echoes previous assertions stating that these images placed upon the environment are navigatory structures of experiences that can be accessed for future journeys and experiences. These can/may also transmit meaning between both worlds. These markings and landscapes are acting as a tether between two poles of reality. The act of creating rock art in a shamanic experience is another form of death, rebirth, and renewal through liminal processes and emergence, which we can encounter through ethnographic data.
Death is one of the primary metaphors because of the physical similarities between "real" dying and collapsing in a trance (loss of consciousness and motor control, loss or diminution of vital signs, rolling back of the eyes, convulsions, and so on). This connection was expressed linguistically by the northern Paiute word *tutaigep*. The root of this word is tai, "to die" (Fowler 1989:158 cited in Whitley 1994b:14), but it is translated as both "paint" and "poison." Thus, dying, painting, and holding supernatural or medicinal powers can be associated while also providing a profound piece of evidence that directly links shamanic practices with the cultivation of the seen image and creation of rock art (Francis; Loendorf, 2002, 27-28).

Shamanic vision quest experiences are viewed as a heightened form of consciousness, entered through trance. These shamanic vision quests mirror the tripartite structural system of liminal stages with regards to the cosmological structures often found in hunter-gatherer societies. The traveler encounters this tripartite structure through the organization of the other world, "The world is organized into at least three realms — the above, the middle, and below — which are inhabited by a variety of beings, including humans," (Francis; Loendorf, 2002, 25). Through this, the practitioner of the quest is gifted visions from other worlds, beings, spirits, and entities that they may encounter, and when they return to the world of what we may call our own, they possess the knowledge of how to transmit their visions and experiences throughout the societies and cultures.

Mircea Eliade believed that ritual and or spiritual shamanic journeys that used hallucinogenic or mind-altering substances were diluted, perhaps less truthful forms of pure shamanic experiences. Though, I assert that the *experience* of the shamanic journey is the highest vector of value to be extracted from the trance.
When viewing the travel through other dimensions and worlds, our modern view of possibilities may seem disingenuous, as our modern cultural presuppositions create a material boundary to how we approach trance experiences. However, it is essential to view these experiences from an emic point of view and discern how it operates within its contextual hierarchy.

Travel between the realms is an integral part of many visionary experiences. This aspect of Great Plains religious practice has been downplayed, in part because our culture perceives it as irrational. (Francis; Loendorf, 2002: 25)

Shamans are thought to encounter knowledge and beings or energies beyond the material world, and at times not only encounter them but even hold sway over such power granted to them by beings. This is where a key distinction can be made between a novice and an experienced vision quest practitioner. Shamans can integrate their granted powers with much more control, and they can distill meaning from their experiences with far greater confidence than that of non-shamans.

The communication of the "other" worlds that shamans experience is often theorized as opening up a line of communication between the human psyche and the transcendent divine. I merely speculate that many of these experiences linking these separate worlds can be witnessed depicted upon petroglyphs at Legend Rock.

Many of the anthropomorphic figures in the Thermopolis area appear to emanate from cracks in the rock: vaguely defined heads appear to flow out of cracks into intricately detailed bodies, and fingers or limbs are often truncated by cracks and fissures. These are undoubtedly metaphorical representations of travel between natural and supernatural worlds (Francis; Loendorf, 2002: 118).
Shamans are often viewed as messengers of the unknown, encountering the higher self. There are many theories regarding shamans as embodied archetypes of psychological experiences and mental healing processes acting as premodern psychologists (Herrmann, 2002).

The evidence for shamans acting as the first psychoanalysts is at times a leap and not always the case. However, we may not see it as reckless to put forth confident assertions regarding self-reflection within shamanic journeys that can be extracted through the depictions of their experiences that emerge through rock art. Such depictions, like those found in motifs of traveling to other dimensions or supernatural realms and reemerging into the material world, serve as a key distinction in a successful vision quest and such distinctions transmit the journey of the quest through artistic low-resolution rendering into/onto the environment.

This interplay between the landscape, material environment, and the altered shamanic state is essential to one another, and the revisiting of sites to update these maps of value and meaning are still essential to the cultural health through the individual vision quest. An example of this re-visitation and remapping can be detected at Dinwoody site 48HO354 which, "demonstrates the re-pecking and alteration of images common at Dinwoody sites," (Francis; Loendorf, 2002: 100).

The dynamics between landscape, environment, and belief depicted through rock art can be viewed as art, but do they echo more profound sentiments of the interconnectedness of the peoples and their environments? As stated previously, several motifs directly reflect the environment they are etched upon, while also providing symbolic importance to the images and figures that can be tethered to aspects of a trance state/shamanic journey. These bird-like and anthropomorphic figures that are found near shamanic sites are examples of echoed motifs and metaphorical representations of the transitions of entering trances. These images and depictions
also display the importance animals and environment have in cultural myth stories and beliefs that we have established in previous sections (Francis; Loendorf, 2002: 30). Turtles and water figures are found near bathing sites, which are often used for bathing rituals. This process of submersion and reemergence symbolically and literally is of particular importance for updating, conserving, and pruning the religious or spiritual beliefs and practices of religious minded cultures:

[T]he role of lakes and springs as portals to the supernatural and home to a variety of malevolent spirits is well documented ethnographically (Liljeblad 1986: 653), and shamans often ritually bathed at such places before the vision quest. Within the Dinwoody tradition, some anthropomorphic images are occasionally completely engulfed by wavy lines or circles…giving the impression of being surrounded by or underneath something. Such images could represent the experience of the shaman during the vision quest or depict the supernatural creatures that lived in the lakes and springs. (Francis; Loendorf, 2002: 30)

The access to the sites where these visions took place is also essential to further quests. The shaman plays an essential role in this pruning, as they often act as a liminal guide to younger vision quest participants and shamans in training.

Through the extraction of the data presented above, we can see compelling evidence that vision quests are an essential foundation for cultural and individual health. We also witness that the separation between shamanic vision quests, versus novice questing, is hinged upon the spontaneous/unstructured call to actions, continuous integration and use of power, leading future quests, and heightened awareness of the trance/altered states.

Though not all visionary practitioners are shamans, many rock art sites in the Great Plains area are tethered to sacred rituals, trance states, and altered states/trance experiences (Francis; Loendorf, 2002: 27). I assert that all these sites and experiences are pivotal for value
and meaning within the material culture and also serve as intangible resources for indigenous peoples.

With all the data accrued so far, what are we to make of such visionary experiences so meticulously integrated into specific cultural dynamics? Are these so immersed within specifics that no cross-cultural, physiological, psychological, or etic perspectives can be extracted from such experiences? We can assert that with the cross-cultural accounts at our disposal, and the evidence we have gathered, that we can explore and apply etic perspectives. However, to do so, we must concede that much of the experiences do need to be encountered with the emic views intact to further assist towards mutually revelatory distillation of the experiences. To not do so would be lazy research, and an even lazier attempt to seed the scientific world with ill projected data.

6.4: LOW-RESOLUTION IMAGE AND HIGH-RESOLUTION EXPERIENCE

While there is much debate regarding the meaning behind the images encountered at rock sites specific to visionary quests we may assert that many images encountered are low-resolution depictions of high-resolution experiences. What exactly do we mean by the terms low-resolution and high-resolution, and how does it pertain to images? A low-resolution image may be perceived, for our sake, as a thumbnail. This thumbnail may not depict and project the whole image with regards to the experiences tethered to it. However, the data or information we are given by this low-resolution depiction serves its purpose by providing enough utility to transmit meaning and value in place of a more complex, higher resolution image.
A high-resolution image is the expanded version of the low-resolution thumbnail, providing the more delicate details that become pixelated or bypassed through the compression of itself into the lower resolution image. The utility of each depends on the goal of the outcome and the application. These can be viewed as simple tools of communication and documentation, and also as a conscious choice to utilize these visual representations in different manners; nevertheless, each has its rightful place and time.

It is essential to take note that the terminology encountered here can be viewed as electronic as if it is speaking on files and photographs alone. Though, we may approach these terms to be applied less robotically and applied in a dynamic and broad visual context pertaining to lived experience and material aspects that are tethered to these experiences. Much like opening a thumbnail on a computer to expand into the higher resolution file, many of the rock images operate the same way. Think of the images that are sought out during the vision quest as a low-resolution file, and when encountered or opened up they can expand into a high-resolution image of experience.

The vision quest and the Shoshone visual culture are dynamics that we can assert displays this low-resolution/high-resolution rendering of experience. With this in mind, let us turn our focus to the neuropsychological model, which may give insight to this low-high-resolution experience.

6.5: ENTOPTICS AND THE NEUROPSYCHOLOGICAL MODEL

As postulated above, vision is an essential aspect within hunter-gather societies, but sight and vision/perception have evidentiary implications reaching further back than that of hunter-
gatherer cultures. It appears that we have evolved with a capacity to enter altered states, hallucinate and dream, with some theories stating our ancient relatives Australopithecines and Neanderthals could quite possibly have entered similar experiences of altered states (Lewis-Williams, 2001: 336).

While there is little to no evidence revealing geometric/abstract petroglyphs existing independently within the Wind River Basin and the Dinwoody Tradition; I assert that the dots, zig-zags, wavy lines, and abstract designs incorporated into the figures are possibly documentations of entoptic phenomena. For our purpose, we will refer to these characteristics (phosphenes, flickers, visual snow, geometric motifs, and visual percepts encountered in “light” hallucinations) as entoptic phenomena. Or as Lewis-Williams poignantly states, “visual sensations derived from the structure of the optic system anywhere from the eyeball to the cortex,” (Lewis-Williams, 2001:339). It will also be important to note that not all these visual percepts/characteristics are to be treated as universals, and that the meaning attributed are heavily weighted in favor of cultural values diffused upon and imposed into/upon them.

Applying a single theory to explain rock would be to suffer from a type of theoretical ideological possession. However, the neuropsychological model proposed by David Lewis-Williams does provide a foundation strengthened by scientific research that can explain aspects of altered states of consciousness that were often attributed and tethered to rock art by early researchers. Coupled with the scientific research proposed above regarding the visual system, we may assert that we are encountering a fair amount of evidence that accounts for the importance of vision and visionary experiences within cultures.

The neuropsychological model came to fruition out of the interest to explore these links of altered states and geometric/abstract motifs with scientific data rooted to neuropsychology and
neurophysiology (Lewis-Williams, 2001: 332). During the early 19th century the research, most notably executed by Heinrich Klüver and Max Knoll, explored visual luminous, non-veridical, and geometric percepts (Lewis-Williams, 2001: 332).

Through electric stimulations projected into the brain, Knoll showed that specific light patterns are independent of external light sources. Ultimately, this means that these types of visual hallucinations are a product attributed to the subcortical brain as opposed to the optic nerve and retinal ganglion network, this lends evidence to our claim previously that vision and sight are not mutually inclusive (Lewis-Williams, 2001: 333). Furthermore, other research has shown that electric impulses are not the only method to entice such percepts. Substances, such as psilocybin, lysergic acid diethylamide (LSD), dimethyltryptamine (DMT), and mescaline have been recorded to produce these visions consistently. Not only do these psychotropic substances exemplify such experiences, but they may heighten the intensity as well.

Along with psychotropic substances and electric stimulation are other various ways to induce altered states: for example, sensory deprivation, fasting, meditation, and even medical condition such as migraines, epilepsy, and schizophrenia (Lewis-Williams, 2001: 337). It is also important to note that psychotropic substances, electric impulses, and other various techniques used to seek out altered states are not an end, they are the means to an end; that end seems to be utilizing altered states as a tool, which serves as a magnum opus of meaning rooted in experience.

Geometric patterns have also been recorded cross-culturally through ethnographic accounts prior to linking them with the lab-induced findings touched upon above. These ethnographic samples recorded by Gerardo Reichel-Dolmatoff were first-hand accounts of "light" altered states of consciousness reported by South American shamans (Lewis-Williams,
2001: 333). These accounts led to the distinction between stages of hallucinations, one being the built-in entoptic phenomena that any human with a functioning visual system can experience, and the other being a culturally driven experience super-imposed upon the "lighter" hallucinatory stage (Lewis-Williams, 2001: 333), which I postulate can be extracted from characteristics seen within the Dinwoody Tradition anthropomorphic figures.

The ethnographic accounts by Reichel-Dolmatoff paired with the lab-based findings provided the bedrock for a model such as the neuropsychological model to arise. This model sprouted from a similar neurophysiological model that explored these same states of altered consciousness. However, Lewis-Williams felt it was important to branch away from the former terminology for distinct reasons:

The neuropsychological model derived from a reading of the neurophysiological and neuropsychological literature on altered states of consciousness. We, however, preferred neuropsychological to neurophysiological because rock artists were not photocopying machines who produced exact replicas of mental imagery. Rather, mental imagery was processed in specific historical and psychological circumstances. All art, including that derived from the workings of the human nervous system, is culturally and historically situated. (Lewis-Williams, 2001: 336)

I agree with the above statement for many reasons; but the major detail states that all these visual phenomena cannot be assumed universal. However, when these visual motifs do arise, the neuropsychological model allows for the cultural dynamics to be digested along-side the phenomena, which provides context from which data can be extracted. From this, further exploration of the meanings and functions of the altered states within their cultural settings can take place.

The neuropsychological model takes these experiences and attempts to unpack and make sense of these visual phenomena that appear to be hard-wired into the mammalian nervous
system (Lewis-Williams, 2001: 336). The neuropsychological model attempts this unpacking by establishing a three-staged, seven-principled model created by Ronald K. Siegel that appeals to what a visionary may experience during these stages (Figures 11a, 11b).

The first stage is where one experiences the “light” entoptics consisting of six original forms:

1. A basic grid and its development into a lattice and expanding hexagon pattern;
2. sets of parallel lines;
3. dots and shorts flecks;
4. zigzag lines (reported by some subjects as angular, by others as undulating);
5. nested catenary curves (native village form the outer arc comprises flickering zigzags);
6. filigrees, or send me entering lines. (Lewis-Williams, 2001: 337)

All these forms are able to bend, shift and change in shape by means of pulsations, rotations, and can even merge into another and are not products of outside light sources (Lewis-Williams, 2001: 337). This stage is one that any person can experience, and the genesis of it is not contingent upon culture or prior experience with altered states. However, the choice of meaning attributed to particular motifs is culturally contingent, and with the evidence provided above, we can declare that the meaning is established through the mapping of data provided by the visual system.

An example of this value placement and orientation towards perceptual importance/utility can be found in the clustered dots that Sans Bushman attribute to bees, which is believed to be linked with their cosmological view and provide
evidence of specific cultural tethering between shamanistic power and bees (Lewis-Williams, 2001: 341). This projected meaning of bees accounting for the abstract shapes fulfills the need to bring structure into a culturally specific form, while also providing utility to the visuals experienced.

Stage two of a hallucination structured in the neuropsychological model is when I assert that the orienting process of the brain moves into the process of exploration. Through this stage, attributing meaning that can be understood by the individual immersed in the altered state begins to take place. This state moves the geometric shapes into a categorical structure, attempting to diffuse the unknown geometric shapes into a resolution that can start to be understood, then applied to their known value structure, such as the presupposed map of explored territory/known data. Zig-zags can become snakes, dots can become bees, and so on. We can see the example of this with the bee-dots relationship of the San bushmen briefly stated above. This projected meaning of bees accounting for the abstract shapes fulfills the need to bring unfamiliar shapes into a culturally specific and familiar form. We can assert that this is a distillation process and an attempt to order the disordered information, while also providing utility to the visuals experienced.

The transitory stage from Stage 2 into Stage 3 is what we may refer to as bridging. This is where the individuals report being teleported, transported, flying, tunneled, and or vortexed towards a bright light (light at the end of a tunnel) (Lewis-Williams, 2001: 339). This bridging is the moment of liminality in the altered state, taking the individual into the deepest stage of the altered state. Through this instance of bridging, we can witness the genesis of animals, people, and abstract figures that can become interwoven with the grid patterns often reported during tunneling. This stage may not be bounded to visual percepts alone; in fact, many cultures record
a feeling of flight, which is often attributed to shamanic/trance accounts. These records fulfill another dynamic of the model regarding somatic hallucinations and is commonly found depicted within winged figures in the Dinwoody Tradition and the puha that they possess and may bestow upon a visionary during such altered states.

Once the individual has crossed the bridge into stage three, we can witness accounts of deep hallucinations. This stage is commonly associated with anthropomorphized figures, a key characteristic of the Dinwoody Tradition, and extreme perceptual changes to bodies, limbs, such as large hands, extra fingers, and so on (attributes often seen in the en toto pecked style). Reports of the entoptic phenomena are still present; however, they no longer standalone (Lewis-Williams, 2001: 339). Instead, they are buttressed upon and tethered to the hallucinated iconography.

These stages do not always follow a sequential progression. In some instances, an individual may enter stage three without noticing bridging. The stages may seem to meld together into one altered state for some individuals. Also, imagery is not bounded to only those listed above. For these instances, the seven principles accompany the stages to account for outliers:

Dowson and I postulated seven principles of perception that govern the entoptic phenomena of Stage One and the hallucinations of Stage Three. The principles are: replication, fragmentation, integration, superpositioning, juxtapositioning, reduplication, and rotation. (Lewis-Williams, 2001: 340)

*Replication* occurs when subjects are able to recall and depict the geometric figures that can clearly match that found in neurophysiological literature. *Fragmentation* occurs when the hallucinations can be reduced to the base components. *Integration* is the act in which the forms can become blended and combined to form imagery of the highest complexity (blending of
zigzags and grids into one complex pattern). The combination of images without blending and direct overlapping is called superpositioning and juxtaposing. Reduplication refers to the mirroring and reflecting of images; they do not blend or impose. A good example worth imagining is of fractal images continuously propagating upon parallel mirrors. Rotation is the final principle and consists of the ability for all images to turn multi-directionally.

We can see these fulfillments of stages in the Dinwoody tradition. Shapes and abstract designs are not typically separate, but can be discovered as integrated within the figures themselves. For instance, if we view some of the anthropomorphs recorded at Legend Rock, we can see a clear case of stage three hallucinations. The elongated torsos, enlarged hands, and buffalo like heads adorning the thin bodies is, in my estimation, evidence of an aspect of the culture and the values being depicted into the hallucination/vision experienced by an individual. We also see the fulfillment of the enlarged hand and feet motifs, along with hands and feet depicted as claws, or depictions of extra fingers often seen between both the en toto and Dinwoody Tradition.

Another example is how the shapes are incorporated with the figures surrounding Dinwoody Lake. These figures display evidence for some of the most complex petroglyphs incorporating abstract designs. We may assert that the "type III" (a classification of highly detailed anthropomorphs in the area) human-like and abstract anthropomorphic figures in this area are evidentiary examples of entoptic phenomena projected upon the Dinwoody iconographic figures. Wavy lines and spirals are incorporated within and outside of bodies, dots project outwards from and near the head — and the figures are often accompanied by smaller zoomorphs and animal figures pertinent to their culture.
As stated above, we cannot postulate that this model can account for all the imagery found in the Wind River Basin; however, we can attest to the model providing compelling evidence to explore the possibilities that contemplate certain aspects of visual projections, which establish a relationship with culturally specific/meaningful subjects. Also, this model does present an interesting dynamic to rock art studies. Utilized as a tool that “[I]n the absence of ethnography, it can be used to identify arts derived from the imagery of altered states of consciousness,” (Lewis-Williams, 2001: 341). While the model can function without ethnographic resources, it is important to seek out as many resources that may lead to a fuller and more comprehensive distillation of discovery.

Another point to turn our focus towards is a fully integrated structure it follows to solidify its validity. What this means is that for this model to withstand criticism, all three stages must be fulfilled regarding the identification of an element explored above integrated into each stage. Finally, the key component for the use of this model is that it be only applicable to exploring arts linked with altered states of consciousness (Lewis-Williams, 2001: 341).

This model allows researchers to focus on a specific event (entoptic hallucinatory experiences) and propose the impacts that ripple outwards from it. With this, let us turn towards two dynamics that can uphold the validity for using this model to explore the dynamics of the Dinwoody Tradition: the ritual behaviors, specifically vision quests, and shamanism. With these dynamics, along with the views of the cosmological structure and the glimpse into the primate visual system, we may declare that there is an ample amount of evidence that establishes vision and visionary experiences being a driving force to the visionary culture of the Eastern Shoshone.
CHAPTER 7:

CLOSING THOUGHTS

This document set out to explore and unpack specific ritual behaviors that are enacted during cultural processes. This exploration was to provide a glimpse into the dynamics that solidify, revivify, and propagate the belief structures of society through the individual’s journey of reflection, transformation, and reemergence.

While the scope of the document is broad, we may reflect on the dialogue of neuroscience and spiritual/religious experience that emerged through the document. The goal was to bring these two dialogues into the document to encounter the data and ideas presented above with the goal of providing mutually engaging and thought-provoking pathways of exploration to the document. Admittedly, for a cohesive understanding, such a dialogue between the two was meant to be consistently revelatory and unifying across multiple levels of analysis. We are left with distillations and questions regarding patterns of action by the actors through their environments.

The evidence presented asserts that there are multiple ways of perceiving and construing the environments we immerse ourselves within. While the objective world is undoubtedly made up of material objects, cultural and societal actions do not navigate or adhere
to such a single dimensional projection. Instead, even equipped with the knowledge regarding the material make-up of the world, we act as if that knowledge alone cannot yield the information needed to navigate through in a meaningful way. We can witness this type of behavior encountered in above sections while also witnessing the Shoshone ritual behaviors and the cosmological belief structure that is integrated into multiple levels of the individual and societal processes.

The primary emphasis of being for humans is not what inaugurates the graphic nature of the material world, it is how to orient oneself in regard to proper and culturally moral action, with goals of cultivating lived experience. Though the material/objective world provides the foundation from which our actions are put into play, those actions are focused less towards what is and more towards what should be. Placing ourselves in a position to act towards what is needed or what is and can be utilized versus acting in accordance to material facts appears to be the primary mode of being within the environment. We may assert that this is what is being acted out with regards to the dynamic processes and lifestyle of the Shoshone’s lived experience proposed above.

Vision quests, trance states, and the cosmological structure explored within this document not only recognize the material of the environment; it considers that data and applies it to a structure that can be utilized beyond the material aspect. This process of meaning, value, and utility does not become distilled through facts; it becomes resolute through orientation, action, and its persistence through time. While the Shoshone’s way of life may seem foreign in terms of its applicable utility in the modern world, we may assert that the ideas that buttress against it are utilized and integrated deep into our structures and substructures of our bodies and brains. We may further assert that many socio-cultural structures adhere to such modes of action in the
environment founded within moral and pragmatic utility, rather than objective facts, much like the Shoshone's postulated belief about the world.

We can see that the rituals, seeking visions, and altered states, with regards to the creation of visual culture and the experiences intertwined within them, is an ability to abstract specific patterns of behavior and then distill those patterns into modes of being. The visionary experience, with regards to ritual acts such as sacrifice, can be viewed as a distillation of these patterns of action and form, and it cannot be challenged or surpassed when viewing the elegance and complexity it embodies through action and process. They produce dynamics of knowledge that at first encounter are challenging to translate and understand. These acts are physical embodiments of the forms of information that may exceed our capacity to represent explicitly.

We may also assert that these abstractions representing the complex modes and patterns of cultural and social behavior are attempts to bring the foundational processes of how to be in the world into illumination. We exist, no matter what time and place, within our environment not as data processing machines, but as beings of orientation, utility, exploration, and transformation.

While we may not take part in vision quests, we explore ideas and subjects that exist outside our map of lived experience and presupposed projections of the world. We do so to discover the utility that such unknowns may provide us as individuals and groups, while also solidifying the foundation that such culture rests upon to sustain; keeping our cultures and their processes in order. This process of distilling data into a pragmatic experience is the substructure and process that are the foundation for science, religion, and nearly everything attempting to navigate culture and environment. Science allows us to gather knowledge to manipulate objects and ideas in the world, doing so by observation, accumulation of data, and distilling that through
processes and models presenting us with something of value extracted and implemented into our lives.

The philosophical differences in place keeping these modes of thought — religious versus scientific — is what fractures the potential to have both ideas within a field of play. For the religious mind, truth arises from that which is experienced. The reality is hinged upon all dynamics of lived experience. Qualia — such as dreams and visions — are an essential piece of data to be extracted and understood to piece together reality. Religious experiences and stories are not concerned with the material facts about the objective world as they are with the lived experience. Though, this does not mean that the material world does not hold value. These experiences and truths distilled through experience are acted into the material world; the objective world is a theatre for the religious minded, and the material world is one of many maps to navigate. The premodern hunter-gatherers were not scientists with regards to our definition of scientists today, yet they accrued pragmatic information through a distillation process that helped them build a useful model, utilizing new experiences into their environments. The dynamics may have been different, but the narrative substructure of making order out of disorder is an echoed pattern of behavior, whether it be implicit or explicit.

I assert that the perception of the environment is not specifically hinged upon the give and take between the dynamics of culture and environment, but that these also incorporate physiological processes and the individual experience that becomes rooted in meaning. This amalgam is what truly represents the model of being through action, versus the mode of existing with data. Through being, individuals are navigating the dynamics explored in this document, creating a map in which they not only navigate morally but also revivify and create through such active navigation and participation. This takes place through the process of sight, being
constructed into vision. We are presented with incalculable amounts of data in fractions of
seconds. Yet, we are capable of processing, consciously and subconsciously, that data into
categories of familiarity versus that which has yet to be explored. Through the act of orientation
towards what is to be explored, we push our cultural boundaries further outwards, turning
unexplored data into familiar experience. This is the process we are witnessing on multiple
dimensions, through multiple dynamics regarding the data presented above. It is a science in its
own right, operating within an environment of evolution and lived experience. This making order
of the encountered unorder and the projection of familiar cultural data onto the unexplored, is a
substructure deeply integrated into our oldest cultural and physiological processes. It is an
exploration for deeper knowledge and understanding about how to take action, and to dismiss it
as primitive is to not delve deep enough and explore the ideas that are unknown to us, and to be
dominated by our own presuppositions of restrictive paradigms.
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**WEB LINKS**
