THE PHILOSOPHY OF ERNST CASSIRER

AS

APPLIED TO ROCK ART

AT

PARAWAN GAP, UTAH

by

Neal Morris

The study of rock art is one of the most interesting endeavors I have ever pursued. The reason for this fascination is the broad range and depth of the research involved. To study rock art is to study philosophy, history, symbols, legends, astronomy, psychology and archeology. These combined interests and the quiet beauty of the desert wilderness constitute an incredibly rich experience. Certainly rock art is one of the most precious archeological treasures of the Southwest.

Many people in the Utah Rock Art Research Association are similarly captivated by the study. But it is the method of rock art study that concerns us here. While the field is wide open and ready for research and discovery, there is much controversy as to which methods are valid. Since there does not seem to be the possibility of discovering some linguistic interpretation, archeologists in the Southwest have tried to apply a pure analytical approach. By this I mean the pure numerical analysis of occurrence and frequency of similar forms. Few forms have been interpreted beyond very broad meanings; i.e. zoomorphic and anthropomorphic. It seems as though there has been a taboo or at least a stigma attached to the interpretation of rock art beyond this point. It is understandable how the methods of modern archeology require the statistical approach, but they have achieved little results for rock art.

It was early in the first half of this century when the pioneers of Southwestern archeology demonstrated that systematic and meticulous study of stratigraphically sequenced ceramics were sensitive indicators of temporal transition. In 1924 Kidder published the first comprehensive synthesis of Southwestern archeology. This was an remarkable accomplishment for the science throughout the world. It had been rescued from the hazy twilight of legendary information into the illumination of scientific data. As the techniques of dendrochronology and radiocarbon dating were perfected the stratigraphic data was correlated to produce a significant scientific accomplishment. Artifacts, principally pot sherds, stratigraphically sequenced have
proven diagnostic to identify the roots, stems, branches and phases of prehistoric cultures.

Suffice it to say that modern methods of archaeology are both remarkable and scientifically valid. These methods deal strictly with the artifactual data, and group the data (but incidentally not the peoples) into categorically defined classifications. But when we come to the study of rock art we enter the realm of the mind, and some now very familiar controversies present themselves. The whole thing is reminiscent of the difference between the psychologies of B. F. Skinner and Abraham Maslow. Each is equally valid but decidedly different. The human mind is its own greatest enigma, but for that very reason its most compelling fascination. I am forced to concede that the interpretation of rock art is caught in this same web of vagaries. But this makes an otherwise mute statement. The creators of rock art were trying to understand themselves just like we are trying understand rock art. The rock art itself is a manifestation of their need to order the universe around them. We cannot expect to interpret it with a precision that it did not contain the day it was created.

Researchers like Carl Jung, Joseph Campbell, Ernst Cassirer and others spent their lives in the pursuit of general understandings concerning the development of the human psyche. In their research they all observed that there are universally repeating themes that are found throughout all time and all cultures. Carl Jung called these themes motifs, and even more basic psychological constructs he called archetypes.

The archetypes of Carl Jung are psychic constructs that are adapted from man's instincts and fundamental social relationships. For example there is a archetype called "the way". This archetype deals with paths, but not always literal paths. It is very common nowadays to use block diagrams and flow charts, especially for computer programs. But there is, on the basic level, no similarity between a path and a running computer program; however the archetype of the way is a very useful and in some cases an absolutely indispensable tool for comprehending the flow and function of a computer program. The path archetype has become a useful mental construct in dealing with many modern problems of technology, but the archetype is primordial. The archetype comes from an animal's instinctive ability to find its way. Bees must find their hives, birds their nest, foxes their holes and man his cave. This archetype is so fundamental that one of the first games children play with a pencil and paper is to trace their "way" through a maze. Mazes are found in many places on the face of the earth and, according to Frank Waters, a maze in rock art indicates to the Hopi a symbol of the migration legends. This is exactly as would be expected when considering the archetype of "the way". But to the Hopi, the migration legend is also a spiritual way, the Navajo speak of different "ways", referring to the various rituals of their religion, and Christians quote "I am the way, the truth and the life ...". It
is not too difficult to see how this instinctive ability of all
animals has become a framework for many mental constructs
throughout all human history and it is not unreasonable to look
for these archetypes in rock art.

Before we leave the archetype of "the way" let's consider
just briefly the relationship between space and time. The mind
uses this archetype as a mental construct for time. Therefore
the maze and the spiral are not just symbols of path and
migration but also of symbols of time. When the human mind
comprehends time it borrows the archetype of "the way" as a
mental framework on which to sequence events in time the same way
it sequences objects along a path. The Hopi say that the maze or
spiral represents the migrations, but the migrations are more an
area in their history than a path or itinerary. Lone Dog's
winter count was inscribed on a buffalo robe and later reported
in Garrick Mallory's work "Picture-Writing of the American
Indians". The winter count consists of symbols representing
events of each year starting at the center of the robe and
spiraling outward as the years are counted forward from 1800.1
We will deal with time in more detail later in this paper.

I have referred first to the archetype of "the way" because
its derivation from the instinctive level is so clearly evident.
But an archetype that is more relevant to our point is the
archetype of "The Great Mother". It is also clear that this
archetype must stem from the instinctive level but it is more
than the instinctive ability to link elements of a path in a
logical procession. This archetype links individuals and
prescribes relationships, thus connecting elements of spirit.
Two spirits to be exact; that of parent (mother) and that of
child. This archetype becomes the framework for the first of
life's relationships; mother to child and child to mother. The
psychic material for this archetype wells up from the instinctive
level below, and according to Jung is preconscious. This has
been called the "archetype "an sich" or "primordial archetype".2
It is easily seen that instinctive material of this archetype is
essential for survival and therefore can be safely assumed to be
universal. It is not therefore a dubious assumption that the
archetype itself is universal. This has adequately been proven
by Jung, Campbell and Cassirer. It is to be expected that this
archetype would also be found in rock art. I assure you that it
has and will become the topic of another paper. But one
conclusion that we will add here to our discussion of archetypes
is the inclusion of spirit. While the great mother concept will
occur again and again as a mental construct (in modern computer
terminology an algorithm) it would be impossible to use the great
mother construct as a pure intellectual tool and not also include
spirit as a inherent part of the framework. The American Indians
use archetypes in their concepts of life and the universe so
intensely that it is well-nigh impossible to study American
Indian religion without becoming emotionally involved. Frank
Hamilton Cushing felt guilty for years after he returned to the
East for not continuing his religious practice as a Zuni priest.
More deeply than guilt he felt that he should return to "the true way and his true self".  

The Egyptians had, by the time of Cleopatra, three scripts: the old and then considered sacred hieroglyphs, a cursive, derivative script called hieratic, and a third further derivative script called demotic which was an extremely cursive, modified and abbreviated hieratic. The Rosetta Stone is carved in hieroglyphs, demotic and Greek capitals. Why were two Egyptian texts required? From our discussion of archetypes and spirit it is evident that the demotic could never retain the sacred character of the hieroglyphs which were little graphic figures of common objects, people and animals. Each of these little figures bears with it some element of personality and spirit that could never be found in the hieratic or demotic. You can see that this mode of writing added a dimension that is missing in more modern alphabets. This is why the hieroglyphs retained their spiritual quality and share this dimension of spirit with rock art. Therefore, it would have been disrespectful not to use the sacred script. What was this added dimension? We have implied here that it was archetype and spirit but there is another way to understand the added dimension.

Reading and writing is usually considered to be a left brain experience as they are related to listening and speaking. But when one looks at a picture perceived in its wholeness the right brain is used. Therefore, Egyptian hieroglyphic reading was a combined right and left brain function. More of the whole self was included in the experience. In the case of rock art interpretation, as far as we presently know, there is no language component as there is in hieroglyphs which makes the reading of rock art wholly a right brain function. There will more on this later.

To my knowledge Ernst Cassirer, in his work "The Philosophy of Symbolic Forms" never referred to the works of Carl Jung. These men were contemporary and I doubt that Jung had achieved popularity by the time Cassirer was writing this work. Jung was quite content to dabble in mysticism while Cassirer would shudder at the very thought being very much in the traditional school of scientific philosophers. But even though the men differ greatly in style, they were coming to the same conclusions. This is why I have discussed Jung before proceeding on to Cassirer. Cassirer observed, and rightly so, how much spiritual and emotional union man has with what should otherwise be pure intellectual concepts i.e. the cardinal directions in many cultures always entail associated gods. But Cassirer did not make it clear why the mythical consciousness involved spirit in so many concepts. From Carl Jung's work it will become evident how spirit became a necessary part of so many mental constructs.

Early man relied heavily on the archetypes to comprehend the universe around him. But each archetype bears with it a character of its own, a spiritual/emotional quality that cannot
be separated from the archetype itself. Therefore, if the
archetype was employed, so also was its spiritual/emotional
component. For example, the earth is analogously considered the
mother of all living. But the analogy did not stop there.
Mothers have personality, and if the earth is our mother, the
earth also has a personal/spiritual consciousness. This takes
the mother/earth parallel way beyond analogy to a deeply felt and
deeply believed comprehension of the earth as a living thing,
with the emotional and spiritual quality of a "Great Mother". (I
must confess that this sounds right to me.)

This understanding from Carl Jung provides us with some
additional resource to comprehend and appreciate the work of
Ernst Cassirer. Cassirer points out at every turn how the
"mythical thought" lends spirit to its understanding of the
universe, but he does not explain why. Cassirer explains the
principle of "objectivization" which is to take a inward
understanding of a thing and turn it outward into a self existent
phenomenon. But he only identifies the mechanism and does not
explain its inner workings. I believe that the archetype is that
mechanism.

The American Indian's religion originates so close to the
archetypes that to understand it is to be emotionally involved.
And it would be almost impossible to understand it unless a
person were to use the deep emotional apparatus within. It is
like tasting wine. One can not become expert unless one tastes.
But when tasting wine it is important not to swallow least one
becomes intoxicated. So is the case with studying the American
Indian religions, because the archetypes are just as much alive
in us now as they ever were. Now they are more deeply hidden
than in the past and this generation therefore understands them
less. A perfect example of this is in the current news. A woman
agrees to become a surrogate mother for a price. She does this
fully believing that the fee will relieve her of the emotional
tie with her baby. When the baby arrives, it then becomes too
great an emotional breach to give up the child and a court case
ensues.

Let us now turn to the work of Ernst Cassirer.

About 1919 Ernst Cassirer published his in depth work "The
Philosophy of Symbolic Forms". It came in three volumes: "Volume
1: Language", "Volume 2: Mythical Thought", and "Volume 3: The
Phenomenology of Knowledge". Our studies relate to the volumes
on language and mythical thought. These volumes define and
explain a number of conceptual frameworks applicable to rock art,
the primary subject of this paper. Cassirer studied ancient and
primitive peoples throughout the world to define and delineate
mythical thought. It is my intent to point out and explain the
frameworks of mythical thought and show examples in rock art. I
believe that this is one of the few ways available to us to
understand Indian writing. Cassirer, in his studies, does refer
to some North American Indian tribes, but his work is largely
drawn from the beliefs and legends of peoples all over the world throughout history. Should we doubt that his observations would be valid for the creators of rock art in the Southwest? It would seem unlikely indeed that the rock inscriptions of the Southwest would, for some unexplained reason, have had greatly divergent mentalities from other peoples of the ancient world. Barring this unlikelihood, lets proceed to explain each thesis that seems reasonable and applicable. After this, we will fill in examples from the rock art at Parowan Gap, Utah.

OBJECTIVIZATION AND SPIRIT

One of the fundamental concepts of Cassirer is that of "objectivization". Cassirer posits a characteristic of mythical consciousness to place external to the self certain spiritual and intuitive impressions. These are taken not as internally originating impressions but more as actual revelations of the outside world. Therefore every symbol or linguistic expression is considered not just as a representation of some outward reality but is an object of efficacy in and of itself.

"... In every linguistic "sign," in every mythical or artistic "image," a spiritual content, which intrinsically points beyond the whole sensory sphere, is translated into the form of the sensuous, into something visible, audible or tangible."

"The Philosophy of Symbolic Forms" Vol 1 p108

Cassirer posited from his study of language that the word does not just represent the "ding an sich" (the thing in itself), but instead the word is taken as the thing in itself by the mythical consciousness. The analytical consciousness assumes that the word is only a representation of imperfect data related to some external object that we can never completely know or understand. But the mythical consciousness does not distinguish between an external object or its symbol or word. This concept is vital to understanding Cassirer and rock art.

"... The true concept of reality cannot be squeezed into the form of mere abstract being; it opens out into the diversity and richness of the forms of spiritual life--but of a spiritual life which bears the stamp of inner necessity and hence of objectivity. In this sense each new "symbolic form"--not only the conceptual world of scientific cognition but also the intuitive world of art, myth, and language--constitutes, as Goethe said, a revelation sent outward from within, a "synthesis of world and spirit," which truly assures us that the two are originally one."

"The Philosophy of Symbolic Forms" Vol 1 p111

"... Nothing is more usual and nothing seems more justified than the view that the fundamental act of the mythical consciousness is an act of 'personification'."
It is evident from the above quotations that Cassirer related personification and objectivization. This characteristic of the mythical consciousness therefore bestowed on most all things an attribute of spirit and outward necessity. Cassirer maintains that this stems from the animal's world view. That early man, like the animals before him, did not distinguish between other living things and the inanimate. Or maybe more accurately, they did not distinguish between living and nonliving things outside of themselves if they had motion. If a deer sits in the wood among the trees and the stones and everything remains still then it is alone. But if a stone rolls down the mountain, the stone acquires life. So likewise with the mythical consciousness, if a thing had motion it had life and spirit. The wind blew because it had life (and maybe the essence of life itself); the sun, the moon, and the other celestial bodies moved, therefore they had life. And in the strictest sense they do; but for the mythical consciousness they acquired life in the same dimension and spirit as the individual. This then applied to the other living things as well, whether they were plant or animal. The reason for this is not too difficult to understand. The life with which the mythical consciousness has acquaintance was its own. It extended from that which understood to that which it could not otherwise understand.

... In the early stages of the mythical world view there is as yet no sharp boundary separating man from the totality of living things, from the world of animals and plants; particularly in totemism the kinship between man and animal, and above all the relationship between a clan and its totem animal or plant, is taken by no means in a figurative but in a strictly literal sense. In his actions and institutions, in his whole form and manner of life, man feels himself to be one with animal. It is reported that even today the Bushmen, when asked, cannot define a single point of difference between man and animal. Among the Malays there is a belief that the tigers and elephants have a city of their own in the jungle, where they live in houses and behave in every respect like human beings.

The mechanism of objectivization was then a mental process by which the mythical consciousness projected its inner mental interpretations outward on to otherwise real outward, sensed impressions. This is personification. But objectivization goes further to encompass the word and the sign. The word and the sign stand with full efficacy for the "thing in itself". Therefore, to possess or to utter the word is to have power over the thing. Thus, there are incantations and magic words. This is still very much with us in the prayers and rituals of all
religions. This applies to the symbol as well. When you have let a thing's word or symbol become the thing itself, then to manipulate or alter the word or symbol is to manipulate or alter that thing. This is because they are one and the same. This implies that the mythical consciousness may possess little knowledge of the objective reality of the thing in itself.

This process of objectivization then became an acquisition of power over other people, nature and the universe. The more expertly and exquisitely a symbol could encompass the characteristics and essence of its object, the more power that symbol would have over that object. Just imagine now the power that was bestowed on the person who possessed the word, the name or the symbol. An ancestor could live on through his or her name, the sun would rise and set through its symbol and the seasons could be regulated if the proper symbols, numbers and words were incanted.

OBJECTIVIZATION FROM THE BICAMERAL MIND

Julian Jaynes, in his book "The Origin of Consciousness in the Breakdown of the Bicameral Mind", offers an alternative scenario that equally well accounts for the phenomena of spirit and objectivization. This deals with the understanding that man has a bicameral mind divided into the right and left hemispheres of the brain. It has been demonstrated that these two hemispheres are two fully functional and possibly independent brains. These brains can, and often do function independently of each other, each having their own specialized function contributing to the total intelligence of the individual. The two brains are connected by a very large nerve called the corpus colossum. If the corpus colossum is severed either in treatment of mental disease or by accident, then the two brains must communicate through external means. This is done by the right brain hearing what the left brain is saying through the ear. The two brains may also communicate through body motion. In some cases histories it is reported that one hand may grab the other in order for the dominant side of the brain to maintain control over the whole body. It is said that a horse has such poor communication between the right and left side of its brain that when it is only trained to be mounted on one side the rider can't mount from the opposite side. The opposite side of the horse's brain and alternate side of the horse does not know what is trying to mount it and still fears the rider.

It is the contention of Jaynes that messages coming from the right half of the brain were in ancient times thought to be coming from some unseen god. Because the conscious side of the brain (the left side in most people) hears an audible message, he thought that this was an external being talking to him. In reality it was the opposite side or unconscious side of brain communicating with the conscious self through internal but distinctly audible words. This in effect is objectivization. For further discussion of this theory see Jaynes interesting
SPACE, TIME and NUMBER

........ And in both cases the concrete expressions of this wholeness, its intuitive schemata, prove to be the fundamental forms of space, time, and finally of number in which the factors which appear separate in space and time, the factor of "coexistence" and the factor of "succession," permeate each other. Any relationship into which the contents of mythical or empirical consciousness gradually enter is attainable only in and through these forms of space, time and number. ....

"The Philosophy of Symbolic Forms" Vol II p 79

Ernst Cassirer researched in depth the concepts of space, time and number of the mythical consciousness. These mental frameworks are the necessary tools required by this consciousness to order its universe. And likewise with the theoretical consciousness. But the two mentalities differ considerably in their rudimentary psychic understructure. In every case space, time and number stem from the very subjective beginnings of the mythical consciousnesses and are the more natural form of these concepts. These frameworks in the theoretical consciousness are indeed quite different and possibly could be considered unnatural even though they are the rule in today's world. Space, time and number are now defined without soul to be quantities ever extending to plus or minus infinity in whole or fractional incremental units. Immanuel Kant notwithstanding, this is not a mentality that was with us 'a priori'. In some quantum leap that is beyond the scope of this paper but which Cassirer addresses in the third volume, man acquired new constructs for space, time and number.

For the mythical consciousness, this quantum leap had not yet taken place. Space, time and number were concepts that were formed from the rudimentary material of the human mentality. Number concept extends from the "me and thou" where this means mother and child. Space concept extends from the other where other is mother (notice the connection in the words: other--mother) and later family. And time extends from the what Cassirer calls "bio-time", this being the perception of change in one's own development. In all three cases the perceptions are subjective, personal or interpersonal and in each case this leaves the concepts of space, time or number a residual attribute of soul or spirit.

NUMBER

Cassirer observes from his study of language in Vol. I that man cannot logically or syntactically deal with an uncollected
mass of homogeneous or nonhomogeneous items. But when that mass
is given a number then it becomes an "it", a "she" or "he"
depending on the language being spoken. When a thing remains an
unnamed and uncounted clump of things it remains undifined and
unspecified by the mind. A name for the thing has not yet been
defined and therefore it's identity does not yet exist. But if
you count the items in the clump (Rmember that we are working at
a great disadvantage here because we are using a medium,
language, to explain itself. The word clump is here also already
an entity.), an entity for the thing wakes up and the
multiplicity of things becomes a unit; i.e. seven days is one
week. Through the medium of number, days, months, and years
become specified and defined. These then can be placed into the
syntactic structure of language and thus be dealt with by the
psyche of man. This is a totally logical need, but Cassirer also
probes deeply into number in the mythical-religious consciousness
and discovers that number has the attribute of spirit.

... In the system of theoretical knowledge number
signifies the great connecting link which can embrace
the most dissimilar contents and transform them into
the unity of concept.

"The Philosophy of Symbolic Forms" Vol II p140

I choose to investigate the concept of number now because it
is so very evident in rock art in the Southwest. The site that
we are going to tie into this paper as linking examples of rock
art into Cassirer's work will have a great deal to do with space,
time and number. As the mythical consciousness confronted his
universe, primitive man needed ways with which to comprehend his
world. It was, as it is now, not just a matter of understanding
the world around him, but also an attempt to control his
environment, to increase his ability to deal with the multitude
of factors that effected his well-being. Number then became one
of the necessary mental constructs that would elucidate
everything he observed or needed to understand. All this is very
much as we in our time and culture would understand and use the
concept of number, but in the mythical consciousness, number had
an additional attribute of identity.

... Whenever two quantities appear as equal in number,
i.e. wherever it is evident that they can be
coordinated member for member, myth "explains" this
possibility of a coordination, which in cognition
appears as a purely ideal relationship, by imputing a
common mythical "nature" to the two quantities.
However they may differ in sensuous appearance, things
bearing the same number are mythically "the same": it
is one essence which merely cloaks and conceals itself
under different manifestations....

... And from this it follows that the mythical view of
number—as of space and time—contains at the same time
a factor of universality and a factor of thoroughgoing
particularity. Here number is never a mere ordinal, a mere designation of position within a comprehensive general system; rather, each number has its own essence, its own individual nature and power.

... Thus, in mythical thinking as elsewhere, number serves as a primary and fundamental form of relation. Here, however, this relation is never taken merely as such, but appears as something immediately real and efficacious, as a mythical object with attributes and powers of its own. Whereas for logical thinking number possesses a universal function and signification, for mythical thinking it appears always as an original "entity," which imparts its essence and power to everything subsumed under it.

... in mythical thinking number appears as such a medium of spiritualization—but here the process takes another direction. While in scientific thinking number appears as the great instrument of explanation, in mythical thinking it appears as a vehicle of religious signification. In the one case it serves to prepare all empirical existence for acceptance in a world of purely ideal relationships and laws; in the other it serves to draw all existing things, all immediate data, everything that is merely "profane" into the mythical-religious process of sanctification.

"The Philosophy of Symbolic Forms" Vol II pp 142-143

In the foregoing Cassirer explains that the attribute of the mythical consciousness to make number not a process of enumeration, but also that each number has a spiritual efficacy. Where does this spiritual component come from and why does it persist in the mythical-religious consciousness? Cassirer makes an explanation of this in Volume I.

In the enumerations arising from this personal sphere we again encounter that same correlation between number and object enumerated, which we have discussed above. We have seen that the first numerical terms originated in specific, concrete enumerations and seem to retain their color. This characteristic coloration is most apparent where the number arises from a differentiation not of things but of persons. For the number does not appear primarily as a universal logical principle or endless process; it is restricted from the outset to a specific sphere, whose limits are defined less by objective intuition than by pure subjective feeling. It is this feeling which differentiates "I" from "thou" from "he"; but there is no immediate need to progress beyond this sharply defined triad, given in the differentiation of "three persons," to the intuition of a further multiplicity.

"The Philosophy of Symbolic Forms" Vol I pp 242-243
Here Cassirer shows that the first three numbers, one, two and three, stem from man's first realization of the "I" and the "thou". If one considers the similarity between "I" and the number "1" they are very much the same and in Roman numerals they are the same. The number "two" retains "its color" as Cassirer says in that it sounds like "you" the second person and in French the familiar form for the second person is precisely "tu". When we consider the third person in English again the "color" is retained in the "th" relating "three" and "they", "them", "their" etc. Again, as with the other archetypes, the "I, you, he" archetype is the mental construct from which number originates, but again with this comes spirit and identity of number.

A reading of any number of books on the Navajo religion reveals a fascination with the number "four". Where in European culture the number three is the desired number of good luck ("The third time is the charm"), fairy tales and incantations, in the Navajo religion the charmed number is "four".

... They kept secret, too, all the mysteries they had learned in the eastern mountains. The women thus married bore children every four days, and the children grew to maturity in four days, were married, and in their turn had children every four days.

"The Book of the Navajo" p86

There were four previous creations, there are four cardinal directions, four seasons and four life stages. This fascination with the number four comes from the fundamental nature of the number two. Four is two groups of two and therefore a perfect set and a perfect completeness, the charm of two stems from the left and right of body form, and pairing of the species into male and female. Again, the magical numbers two or four stem from the body itself, or the structure of the species. These are all living things and therefore lend spirit to number.

... in every particular fourness apprehends the universal form of the cosmic fourness. We encounter the number four in this function not only in most of the North American religions but also in Chinese thinking. In the Chinese system, a particular season, color, element, animal species, organ of the human body, etc. corresponds to each one of the principal directions, west, south, east and north, so that ultimately, by virtue of this relation, the entire diversity of existence is in some way distributed and, as it were, fixed and established in a particular intuitive sphere. ....

"The Philosophy of Symbolic Forms" Vol II p147

Four then becomes the linking number between space and time as in four seasons and four cardinal directions. The fourness of these two, space and time, link them together in mystical union.
We can also investigate here the derivative numbers of four which would be "eight" and "sixteen". These numbers are extended from "four" and "two" before that, with the repeated application of two. This created a mathematics in which some multiplication and division was easily possible. Multiplication by two could be done on a pure intuitive basis by using the first set as base to create the second set. Division could be done much like children divide pieces of candy -- one for you and one for me, one for you and one for me, etc.

SPACE

When there are no late frosts, the growing season is lengthened at the expense of the barren months, to the delight of all those who tend fields. From such a feeling arises a common tale: the "Battle between Summer and Winter." One such tale comes from Acoma. It is set long ago, at White House, the mythical village in the north where the Keres first learned of their gods, met the real kachinas, and were instructed in the ways which they should follow.

The spirits in the story are Shakak, ruler of North Mountain who is the spirit of winter, and his opponent is Miochin, of South Mountain who represents summer. At Sia it is said that Shakak means spruce tree and Miochin a variety of oak. I do not think however, that they are tree spirits, but merely one aspect among many--including animals, birds, butterflies, clouds, and the like, which are identified with the spirits of "chiefs" of the directions.

"Pueblo Gods and Myths" pp 165,166

... The directions are taken not as abstract and ideal relations but rather as independent entities, each endowed with a life of its own—as can be seen, for example, from the fact that they often experience the highest concrete formation and embodiment of which myth is capable, i.e., they are raised to the level of gods. Even at relatively low levels of mythical thinking we encounter these gods of direction: gods of the east and north, of the west and south, of the lower and upper world... Each particular spatial determination thus obtains a definite divine or demonic, friendly or hostile, holy or unholy "character". The east as the origin of light is also the source of life—the west as the place of the setting sun is filled with all the terrors of death.

"The Philosophy of Symbolic Forms" Vol II p89

Space, like number, retains all kinds of personal attributes in the mythical consciousness. A direction is not just a direction; it is a person, a personality, a god. This, for many
reasons, originates with the individual's original perceptions of space being the separation of mother and child. Over there is mother and there is now space between us. The concept of space is born with the separation of birth. Prenatally the universe was mother, a living thing with nurturing spirit. And the child and the universe were one. Postnatally then, the universe around the mythical consciousness is also a living and hopefully a nurturing entity. While these early realizations are prior to memory of all people, they never the less are born within us on the subconscious level and become the psychic material for our first understandings. Even if there is no memory of the birth experience either in the conscious or subconscious, there is still an inevitable separation of mother and child and the above argument still holds. I prefer to believe in the subconscious memory of the birth experience because when space, time, or number is apprehended the attribute of spirit is added subconsciously. It was not a conscious decision of some ancient shamen to assign gods to the four directions, rather the four directions were perceived as gods themselves.

...... In all this we see the two fundamental features of the mythical feeling of space--the thorough qualification and particularization from which it starts and the systematization toward which it nevertheless strives. ....... Later the system of the seven planets seems to have led to a sevenfold organization of the whole world, such as we encounter in Babylonia, India, and Persia. Here we seem far removed from these primitive divisions which project and copy all human reality in the human body; here the narrow sensuous view seems to be overcome by a truly cosmic and universal perspective; but the principle of coordination has remained the same. Mythical thinking seizes upon a very specific and concrete spatial structure in order to carry through its whole orientation of the world.

"The Philosophy of Symbolic Forms" Vol. 2 p92

The sevenfold orientation of space seems also to have been derived even more anciently than the designation of the seven planets. The seven "theres" or places of a child's awakening to a perception of space are front, back, left, right, up, down, and here (or me). This translates into the standard rectangular coordinate system -x, -x, -y, -y, -z, -z and the origin or point of reference. This reference system is still very much with us and is called "Euclidian space". To the human condition it seems totally natural and an immutable property of space itself. The development of science went all the way down to Einstein before breaking away from this egocentric human bias. Space is spherical at best, which brings us full circle to the seven spheres that Cassirer refers to above.
Space, defined by the body parts, an attribute of being. Thus, to order the universe was to order oneself because his universe was an extension of the self (this is simultaneously so right and wrong). There may be some apprehension that a primitive people would not be well enough acquainted with their own body/mind parts and functions to model a universe after their inner workings. This comes from a basic intellectual prejudice that confuses technical advancement with spiritual maturity. To state it as clearly as possible, our technical advancement does not mean that we are spiritually or psychologically advanced beyond ancient peoples. In fact, our technical advances and our techno-society stands between us and the discovery of our inner selves. When our society finally started to discover its psychological self, William James turned to religion, Sigmund Freud turned to Greek myths, and Carl Jung to ancient symbols. Each man turned to the past to discover the psychic material of the present. Is it not reasonable to concede the possibility that the ancients were more acquainted with their psychic self than is the norm today? That while some nomenclature has changed (Freud, where possible, reestablished ancient Greek/Latin nomenclature) the fundamental understandings were there anciently? Why we in this time think that they literally believed in gods and devils within themselves, I’m not so sure. The names and symbols they used for the inner psychic elements were borrowed from the world of things around them. When Jonah spent three days in the belly of a whale, I take that to mean that he passed through a midlife crisis. Since it is clearly impossible that he could have been swallowed by a fish and come forth in three days, the gospel writer used the allegory to convey another meaning. If there was no such term as midlife crisis, then what other way could he express the experience? And he wouldn’t want to, either. It was totally natural and appropriate for him to use this method of communication, and he would not even have tried to explain the experience in other terms. I do not understand how we became so psychologically unenlightened, but we did, and when Freud rediscovered these things, in our naivete we assumed that we were the first to understand.

Now, while ancient man was more astute about himself, and modeled his space according to his own "a priori" perception of space stemming from his anatomical structure, he was only locally correct about real space. That's another subject and not the topic of this paper, but once again we have shown that space had spirit, which spirit was an extension of the self, and to order space and the universe is therefore to order oneself. I believe, for a number of reasons, prehistoric people of Utah in varying degrees had a fascination with space, time, and number. That the archetype of "The Way" was very strong in them and manifested itself in a fascination with space. I intend to show by the examination of one site in particular that these preoccupations are demonstrable in their rock art and completely consistent with the work of Ernst Cassirer.
Ernst Cassirer probes deeply into the nature of time both in the mythic and scientific perceptions. While our topic here is the mythic perception, we still are not able to divorce ourselves from the pure Newtonian perception of time; that of an ever-proceeding and never-varying procession of evenly spaced increments ever streaming out of the past and into the future with the present, in the scientific sense, as nothing but a singularity, having no interval, dividing the past from the future. Even though the foregoing definition is sadly lacking on several wises, it never the less seems somehow to make sense. The first and most profound problem with this definition is that it breaks down in relativistic space; time is not uniform. The second problem is that time cannot be defined without its dependency on space. If I had said that the increments were of equal intervals of time (say one second apart), then I would have used "time" in its own definition. Instead, I used the word "spaced" which, interestingly enough, makes the definition of time and time itself dependent on space. This is exactly what Einstein stated, that time is different in different spaces.

While the foregoing clearly implies time's dependency on space and at least sounds scientific, it was no different for the mythic perception of time. Mythic time also relates to space. As the sun moved across the sky, the perception of time was related to the motion of the sun through space. East represented the morning, the zenith, noon and the west represented the evening. Space and time were intuitively and practically interdependent. In like manner the year was timed by the motion of the sunrise or sunset, up and down the eastern horizon at sunrise, or the western horizon at sunset.

But there is also an additional perception of time that is integral to the human psyche. This is a sense of phase.

... The intuition underlying all this is that temporal, like spatial, intervals and dividing lines are not mere conventional distinctions of thought but possess an inherent quality and particularly, an essence and efficacy of their own. ....

"The Philosophy of Symbolic Forms" Vol II p 108

... These peoples have what one might call a special mythical-religious "sense of phases" which applies to all the occurrences of life, particularly to the most important transitions from one age or status to another. ....

"The Philosophy of Symbolic Forms" Vol II p 109

... It is a widespread notion, recurring in various form, that in passing from one sphere of life to another man acquires a new [...that the child, for
example, dies with the coming of puberty; he dies to be reborn as a youth and as a man. In general, two significant stages of life are separated by a "critical phase" of greater or lesser duration, which is manifested in a number of positive prescriptions and negative prohibitions and taboos.

"The Philosophy of Symbolic Forms" Vol II p 109

If I ask the reader to remember some passed year in your life, say 1980, what will you recall? Will it be the calendar hanging on the wall, or the rising of the sun on Winter Solstice? Not hardly; I remember for that year Paris, France, a home in St. Nom La Breteche, a new marriage, a new son and potty training (that's a biggy), with the older children passing through the significant phases of their lives, and the various stages of adolescence (that's even bigger). We remember time not in the Newtonian/scientific sense but with respect to space, the place where we were and the particular life "phase" that we were in, or the significant transition that was being made at that time. The year or date number 6/21/80 is just a symbol for all that was transpiring on that date. So the perception of time with respect to date is a secondary level of perception.

Thus we see that for mythical consciousness and feeling a kind of biological time, a rhythmic ebb and flow of life, precedes the intuition of a properly cosmic time. Actually, cosmic time itself is first apprehended by myth in this peculiar biological form, for to the mythical consciousness the regularity of the natural process, the periodicity of the planets and the seasons, appears entirely as a life process. At first the mythical consciousness apprehends the change of day into night, the flowering and fading of plants, and cyclical order of the seasons only by projecting these phenomena in human existence, where it perceives them as a mirror. ....

"The Philosophy of Symbolic Forms" Vol II p 109

I use the little illustration about 1980 to help the reader understand the point about life's phases and places, and it also points out that our perception of time is not, in the practical sense, so different from the mythic perception of time. While we understand a more scientific definition of time, we don't really use it in the literal sense. But the mythic consciousness added something that we do not. The mythical consciousness interpreted the passage of time in the same way it understood life's passages. In so doing it perceived the four seasons of the year as four of life's passages or phases.

... The path of the sun and the course of the seasons are not regulated by an immutable law; they are subject to demonic influences and accessible to magical powers.

...
which

... shows that they have to do with conceptions going back to a fundamental form of the mythical consciousness. The primary mythical "sense of phases" can apprehend time only in the image of life, and consequently it must transpose and dissolve everything which moves in time, everything which comes and goes in set rhythm, into the form of life.

"The Philosophy of Symbolic Forms" Vol II p 110

But the understanding of time did not stop here for mankind, nor for the site that we are going to investigate. The perception of time evolved into the theoretical independence of number and universal order of "sacred epochs and sacred numbers".

But in the second case, when the mythical-religious feeling is no longer oriented solely toward the immediate existence of the various objects in nature and the immediate action of the particular natural forces, when both of these gain a characteristic expressive meaning in addition to their direct substantial signification—when they become a medium through which the idea of a lawful order governing and permeating the universe is apprehended—a new conception and meaning of the divine emerges. Now consciousness is no longer oriented toward any particular natural phenomenon, however overpowering; every natural phenomenon serves rather as a sign for something else, something more comprehensive, which is revealed in it. Where sun and moon are not considered solely according to their physical being and physical effects, where they are not worshiped for the sake of their radiance or as producers of light and warmth, moisture and rain, but are taken instead as the constant measures of time from which the course and rule of all change are read—here we stand at the threshold of a fundamentally different and more profound view of the world. From the rhythm and periodicity which can be felt in all immediate life and existence, the mind of man now rises to the idea of the temporal order as a universal order of destiny, governing all reality and all change. Only thus seen as destiny does mythical time become a truly cosmic potency—a power binding not only man but also the demons and gods, because only in it, and through its inviolable measures and norms, are the life and action of men and even the gods made possible.

"The Philosophy of Symbolic Forms" Vol II p 112

Now in a transition that profoundly changes the mythical consciousness of time. Time and its numbers now become independently operating entities unto themselves. They have
become the flow of governing order of the universe. Time then becomes the ruler of the sun, the moon and the stars and not visa-versa. Formerly the sun, the moon and the stars were the defining entities of time. At this point a God can come into being that is not the sun but governs the sun and its motions.

In the Pueblo of Sia it is the Two Sisters who are responsible for creating the Sun. They discuss the problem during a kiva conversation and conclude: "Now we will make light, that our people may see; we can not now tell the people, but tomorrow will be a good day and day after tomorrow will also be a good day," meaning that their thoughts were good, and they spoke with one tongue, and that their future would be bright, and they added: 'Now all is covered with darkness, but after a while we will have light.' These two women, being inspired by Sus'sistinako, created the sun from white shell, turkie, red stone, and abalone shell. After making the sun they carried him to the east....The next morning they ascended a high mountain and dropped the sun down behind it, and after a time he began to ascend, and when the people saw the light their hearts rejoiced.

"Pueblo Gods and Myths" pp 140,141

It is also said that the darkness overread alterned with three feeble shades of light, just as it did in the four lower worlds. So Alitse hastiin the First Man and Alitse asdzqq the First Woman decided to make the fifth world brighter than any of the four lower worlds had been.

They thought about it for a while. And for a long time they talked about what kind of light they wanted. Until they finally decided to make a sun and a moon.

First they fashioned the sun. They make an object round and flat, something like a dish, out of a clear stone called tseghadinidini or rock crystal, as Bilagaana would call it today.

"Dine bahehe The Navajo Creation Story" p 90

Here we can see that some Pueblo and Navajo peoples believe in the creation of the sun and thus the creation of light and time by preexisting gods. The wording of the actual legends is a far cry from Cessirer's philosophical, scientific jargon. But this is exactly what Cessirer has said: principle replaces the specific incidences of daily experience. The sun was the first time piece, but now time becomes a principle in itself independent of the sun and the sun is replaced both in religion by a superior god that created the sun and in science by a better clock, the near sun. (It turns out that the sun is not a perfect time keeper. Look up the equation of time in astronomical texts.)

To conclude the this discussion on time, let me add one more
quote for Cassirer from his third volume, "The Phenomenology of Knowledge".

The true intuition of time cannot be gained in mere recollective memory, but is at the same time knowledge and act: the process in which life itself takes on form, life in the spiritual not merely the biological sense, and that process in which life comes to conceive and know itself—these two must eventually constitute a unity, and hence this conception is not the merely external apprehension of a finished and ready form in which life has been squeezed but is the very way life gives itself form in order that in this act of form giving, this formative activity, it may understand itself.

"The Philosophy of Symbolic Forms" Vol III p 190

Here Cassirer makes a point that is as useful to our point as any that has been made concerning time. He, after an extensive epistemological treatise concludes that it is the understanding of time that gives life form, and thus becomes the vehicle by which life understands itself. If this is true, and all that I read of Southwestern mythology indicates that it is, then the measure of time and establishment of methods of time measurement occupies a great deal of life energy. For anyone who has spent any time at Parowan Gap, Ut. this must be a likely conclusion. I want to go to Parowan Gap and discuss how all this fits into what was recorded there on the rocks, but first I must cover one additional subject.

LIGHT

Ernst Cassirer focused on all the major elements that we need at Parowan Gap and other significant sites in the Southwest to warrant our interpretations. Of all the topics thus far covered, none is more central to our purpose than light.

...... And in the creation legends of nearly all peoples and religions the process of creation merges with the dawning of the light. ...... from the egg issues Ra, the god of light, whose genesis is described in the most diverse versions, all of which however go back to the original phenomenon—the bursting forth of light out of darkness. ......

"The Philosophy of Symbolic Forms" Vol II p 86

...... And this opposition of day and night, light and darkness, birth and death, is also reflected in countless ways in the mythical interpretation of concrete events of life. They all take on a different cast, according to the relation in which they stand to the phenomenon of the rising or setting sun. "The worship of light," writes Usener in his 'Gotternamen', "is woven into the whole of human existence." ......

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The worship of light is also coupled with the worship of the principal luminaries: the sun, the moon, and the stars. And of course the most often deified and most sanctified celestial body is the sun. At the birth of a child the Hopis to this day practice a ritual to the sun as follows:

For nineteen days now the house had been kept in darkness so that the child had not seen any light. Early on the morning of the twentieth day, while it was still dark, all the aunts of the child arrived at the house each carrying a Corn Mother in her right hand and each wishing to be the child’s godmother. First the child was bathed. Then the mother holding the child in her left arm, took up the Corn Mother that had lain beside the child and passed it over the child four times from the navel upward to the head. On the first pass she named the child; on the second she wished the child a long life; on the third, a healthy life. If the child was a boy, she wished him a productive life in his work on the fourth pass; if a girl, that she would become a good wife and mother.

Each of the aunts in turn did likewise, giving the child a clan name from the clan of either the mother or father of the aunt. The child was then given back to its mother. The yellow light by then was showing in the east. The mother, holding the child in her left arm and the Corn Mother in her right hand, and accompanied by her own mother—the child’s grandmother—left the house and walked toward the east. Then they stopped, facing east, and prayed silently, casting pinches of cornmeal toward the rising sun.

When the sun cleared the horizon the mother stepped forward, held up the child to the sun, and said, “Father Sun, this is your child.” Again she said this, passing the Corn Mother over the child’s body as when she had named him, wishing for him to grow so old he would to have lean on a crock for support, this proving that he had obeyed the Creator’s laws. The grandmother did the same thing when the mother had finished. Then both marked a cornmeal path toward the sun for this new life.

“Book of the Hopi”³ pp 8, 9

I believe in order to personally appreciate the worship of the light one must place himself back in the environment of the peoples of the Parowan Gap site. They were most likely Fremont and lived in pit houses. They were principally hunters and gatherers which can be, contrary to our perception of life’s needs, a fairly adequate subsistence. But the significant point to be made here is that when the sun went down it was dark. This is very different from our times. Ever since Edison nightfall just has not had a significant impact on daily life. But for the
Fremont, darkness brought a time of fear and anxiety. Life changed with the darkness and the times of transition were anticipated and closely observed. The earth’s shadow on its own atmosphere was observed and the different colors of light were noticed and given great significance. The transition from darkness to light was considered an allegorical reenactment of the creation story in which the color of light of each of the previous worlds was given great significance. In this way, each nightfall and daybreak was given a symbolic and deep psychological meaning. How greatly this must have exalted the experience and given solace to them at the approaching darkness. (Choice of words is appropriate here “solace” – “sol”. Sol, the ancient Roman sun god.) The elements of light, color of light, and deification of luminous celestial bodies becomes a familiar pattern throughout the ancient world with the North American continent being no exception.

The foregoing is but the first level of perception concerning the worship of light. But the significance of light penetrates the human psyche much deeper than alleviating fears of the dark.

"Yajnavalkya, what is the light of man?"
"The sun is his light," he answered. "It is by the light of the sun that a man goes forth, does his work and returns."

"Quite so, Yajnavalkya. But when the sun is set, what then is the light of man?"
"The moon is his light," he answered. "It is by the light of the moon that a man rests, goes forth, does his work and returns."

"Quite so, Yajnavalkya. But when the sun is set, and the moon is set, what then is the light of man?"
"Fire is his light," he answered. "It is by the light of the fire that a man rests, goes forth, does his work and returns."

"Quite so, Yajnavalkya. But when the sun is set, and the moon is set, and the fire has gone out, what then is the light of man?"
"Speech is his light," he answered. "It is by the light of speech that a man rests, goes forth, does his work and returns."

"Quite so, Yajnavalkya. But when the sun is set, and the moon is set, and the fire has gone out, and speech is hushed, what then is the light of man?"
"Self is his light," he answered. "It is by the light of the Self that a man rests, goes forth, does his work and returns."

Brihadaranyaka Upanishad

Light to the human psyche is much more than an electromagnetic wave. Light entering the human eye creates an image on the retina. This image is transmitted to the visual cortex where it becomes a mental image. While the visual image is very
momentary, the mental image is stroked in the brain and becomes psychic material of human knowledge. The brain never sees light; it only experiences the mental image. In fact, the mental image can be seen or experienced independent of the visual images, just like the guru says.

There is also a basic archetype that appears in the worship of light. I am not be able to explain this any better than Eric Neumann.

This arrangement of opposites is in itself symptomatic of the ambivalent character of the archetype. Bearing and releasing belong to the positive side of the elementary character; their typical symbol is the vegetation symbol, in which the plant bursts out of the dark womb of the earth and sees "the light of the world". This release from the darkness to the light characterizes the way of life and also the way of consciousness. Both ways lead always and essentially from darkness to light. This is one of the reasons for the archetypal connection between growth symbolism and consciousness—while earth, night, darkness, and unconscious belong together, in opposition to light and consciousness. In so far as the Feminine releases what is contained in it to life and light, it is the Great and Good Mother of all life.

Erich Neumann "The Great Mother" p 65

In the above quotation Neumann links the light with consciousness and the life force. The darkness is associated with night, unconsciousness and death. Light is associated with day, consciousness, birth, life and transformation. This association is so deep in the human psyche that the mere observation of the sunrise is sufficient to incite the awakening of the creation story to many tribes of the Southwest.

There are three phases of dawn: Qoyangnuptu, the purplish dawn-dusk when the shape of man is first outlined; Sikengnuqa, the yellow light of dawn which reveals man's breath; and finally Tapawiy, the red sunrise glow in which man stands proudly revealed in the fullness of his creation.

The dawn of each new day and the dawn of each annual cycle endlessly repeat these three phases of all Creation at the dawn of life, the beginning of man's evolutionary journey.

Frank Waters "The Book of the Hopi" p 137

It can be seen from the above two quotes that light is closely linked with the phenomenon of human birth and transformation. However it is not just allegorically linked; it is also mysteriously interrelated. Thus the observation and ceremonial performance of ritual, at specific times of year and at specific times of day becomes highly important to many tribes
of the Southwest. As mentioned above, I believe the people of the Parowan Gap site to be Fremont. It is not known what happened to the Fremont, therefore it cannot be said with certainty which tribes descended from these people. Nevertheless it seems likely that the Fremonts would not be radically different from their descendants. We have the work of Cassirer and others to state that these kinds of belief systems existed throughout the ancient world. With this in mind we should be justified in looking for some manifestations of these beliefs in the rock art at Parowan Gap.
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