

The Origin And Evolution Of Religion And Science

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by

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Introduction

This book introduces a new way to organize human understanding of nature. It reconsiders the commonly accepted yet quite arbitrary and unproven assumption about nature that space is infinite, and instead assumes that space is finite. Following the implications of this change in the most fundamental presupposition about space throughout the history of science has led to an extremely simple model of nature that is so highly organized that its single, unified pattern of change in nature appears to apply to everything in nature.

Our species was originally much like the other animals. Our ancestors changed each generation, over tens of millennia, before achieving our modern degree of awareness of nature and of relationships that exist in nature.

This change has not been completely random, but has followed a pattern. This pattern is known as evolution. Everything in nature evolves, and all evolution follows the same pattern.

Evolution is a cyclic pattern. Modern humans have evolved to the awareness of the first 5 stages in the cycle of evolution.

These stages are best understood as dimensions. According to modern science, nature is composed of 2 components, space and time. Science currently recognizes 3 dimensions of space and 1 dimension of time. However, it can now be demonstrated that our species, with its 5 senses and its 5 fingers per hand, has evolved to the awareness of 5 dimensions of space and time. Furthermore, the existence of each of these dimensions of space and time is understood by the mind as a dimension not of space alone or of time alone, but of space-time: We live in a world of awareness of 5 dimensions of space-time.

Basic geometry is all that is needed to understand this new model, which reconsiders the notion of what constitutes a dimension.

During human evolution, our ancestors used language to develop models of nature. Speakers of Indo-European languages (a group that includes English and Greek) have developed 2 main types of models of nature, known as religion and science. Religion and science are not only very different, they are symmetrically opposite in every respect, such that they are seemingly completely incompatible. Now, however, they can be shown to be interrelated sides of the same coin. Religion and science have evolved following the same pattern as everything else in nature. The Greeks are used as example to discuss the evolution of religion and science.

Introduction

All of the primary stages in the evolution of religion and science are discussed. Discussion of religion covers the symbolism of each of the primary Greek gods, from the beginning through the Titans, the Olympians, and monotheism, explaining how and why each was superseded by the next in importance. Discussion of science begins with the ancient Greek model of the 4 elements, and describes subsequent evolution to Euclidean geometry, Newtonian physics, and relativity. This book concludes with an introduction to the next stage in the evolution of science, which represents an entire dimension of evolution beyond what is understood by science at present.

Part I

Nature

Chapter 1

Awareness of Nature

Life on earth has been evolving over billions of years. Compared with the origin of life on earth, Homo sapiens, the species of human beings, evolved in the fairly recent past. Throughout most of the evolution of life that eventually led to the appearance of our species, the forms of life that would eventually give birth to our species and to people who are alive today were not much different from the other animals. They were completely unaware of and had no ability to manipulate in their minds complex relationships that occurred in the world around them. They had little ability to be consciously aware of their environment, other than observing and interacting with what was right in front of them at any given moment.

Since the dawn of our species, our ancestors have grown significantly in their mental capability, in their ability to be aware of nature, and in their awareness of how nature is organized. It is language that enabled our species to develop conscious awareness of relationships that exist in nature.

Language is what has enabled our species to become aware of the structure of nature. As the human mind evolved, human languages evolved along with our species to reflect and enable the ongoing level of understanding of nature of our species. The primary capability of language, and the primary purpose of language, is to enable human beings to understand nature. And what is nature? Historically, according to science, nature has come to be considered in terms of 2 notions, space and time. According to modern physics, however, space and time are not considered to be distinct from each other at all, but to exist only in the unified form known as space-time.

Language enables members of our species to represent, internalize, manipulate, and communicate awareness of relationships that exist in nature, relationships that exist in space-time. Language is all about, and only about, representation of awareness of relationships that exist in space-time. The grammar of each language constitutes a model of nature that represents and reflects the organization of the understanding of nature of the culture that gave rise to the language.

Once our species began to develop language, our ancestors did not grow to our current level of awareness of nature all at once. The progressive changes to the human level of mental awareness and understanding of nature and the environment occurred in discrete, incremental stages, which are best understood by the notion of dimensions of space and time. Modern languages reflect mankind's evolution to the awareness of each of 5 dimensions, such that mankind currently lives in a world of linguistic awareness of 5 dimensions of space. The existence of each of these dimensions of space can be comprehended by the mind only in relation to a simultaneous awareness of the existence of a corresponding dimension of time. In other words, space and time are understood by the mind in terms of 5 dimensions, each of which is a dimension not of space alone or of time alone; modern human beings are aware of 5 dimensions of space-time. Our species, with its 5 senses and with its 5 fingers per hand, etc., has a body with a physical structure that has naturally enabled us to evolve to the awareness of 5 dimensions of nature, 5 dimensions of space-time.

Our passing through these 5 stages in the mental development of our species, and our successive growth to the awareness of each of these 5 dimensions of space-time, were not an isolated experience in nature, but constitute the stages of a commonly occurring pattern. This pattern is a cyclic pattern. This 5 stage pattern describes not only the history of change in the human mind, but of all change that occurs in nature. This pattern is known as evolution. Everything in nature evolves, and all evolution follows the same pattern.

As our ancestors evolved, they came to recognize and to be aware of progressively more complex relationships within their bodies that accompanied, correlated to, and enabled their awareness of progressively more evolved relationships in the world as a whole. The source of awareness of these more evolved relationships in nature was the progressive awareness of increasingly complex cyclic changes that occur in nature, cyclic changes that occur in spacetime. These changes are commonly recognized as units of time, such as the units of time of the day, the month, and the year. And yet, awareness of these cycles of time, awareness of all motion through time, is only possible when there is an equivalent awareness of space, and awareness of motion through space. For example, awareness of the unit of time of the year requires awareness of the motion through space of the earth around the sun. Awareness of time requires and is dependent upon awareness of space. For there to be awareness, there must always be equivalent awareness of space and time; all awareness is awareness of space-time.

Many modern scientific hypotheses that attempt to provide a comprehensive and unified understanding of the dimensions of space and time have had to resort to extremely abstract mathematics, postulating a fantastic number of dimensions, such as 10, 11, or even 25 dimensions. Such notions can exist only in the imagination and can be demonstrated only within the abstract world of mathematics, since all of these extra dimensions are completely beyond any possibility of human awareness in the real world.

The hypothesis presented here is much simpler and is much more approachable for the common person. Until the final chapter of the book, the only knowledge of mathematics or physics that is required is a very basic knowledge of geometry. Even then, not much more is required. In other words, all 5 of the dimensions of modern human awareness are of course easily and naturally recognizable. Not all of them are currently recognized as being distinct dimensions, and what it means for each dimension to be a dimension of space-time has not yet been made clear, but these notions do not require the learning and acceptance of alien concepts that are totally beyond human experience as much as reinterpreting and reorganizing our understanding of concepts that we all already know and have natural and constant experience with.

Modern science organizes and analyzes the world from the perspective of understandings that have evolved within the cultures of people who speak languages within the so-called Indo-European family of languages. The new model of nature that is presented here is much more comprehensive, and takes into consideration the understandings that have evolved within the cultures of the entire species, thereby enabling a much broader and more unified context for representation of the understandings gained from human experience. Much of the analysis of non-Indo-European cultures is presented in a separate book, so as to keep the size of this book more manageable.

According to the hypothesis presented here, everything in nature evolves according to the pattern of evolution. Biological evolution, which some people exclusively think of when they consider evolution, is but one limited example of this universal cyclic pattern.

Because everything in nature follows the same cyclic pattern that is evolution, if we could discover any one avenue by which to better understand the stages in the cycle of evolution, we would better understand all manifestations of the cycle.

This pattern is presented to apply to the evolution of the universe as a whole, to the evolution of the life of each person, to the evolution of the life of our species, and to the evolution of the languages of our species. Everything in nature evolves, and all evolution follows the same pattern. At their most fundamental level, the differences among the grammars of the languages of the world are not random, but are pattern-oriented. The primary source of difference among the various languages of the world, the primary determiner of the fundamental pattern of organization of a given grammar, is dependent upon which of the 5 dimensions of awareness our ancestors in Africa had evolved to at the time that the original speakers of the language, or of what eventually evolved to become the language, left the homeland of our species in Africa.

As our ancestors evolved to the awareness of succeeding dimensions of space-time in the homeland of our species in Africa, small groups continuously migrated out of the homeland in Africa and around the world. Each group took with it a language that expressed the current dimensions of awareness. Whereas the languages of all such groups continued to evolve as their speakers became aware of succeeding dimensions, the grammar of each language remained oriented in a fundamental and primary way to the number of dimensions of which the original speakers were aware at the very moment that they left the homeland in Africa.

The dimension of awareness that could be expressed in the language that each group of people took with them at the moment that they left the homeland of our species became their primary dimension of orientation to the world. All modern cultures, and all modern people, are now aware of all 5 dimensions. As each language evolved into its modern form, awareness of each subsequent dimension was incorporated into every aspect of the grammar in a manner that was consistent with the primary dimension of orientation, rather than being integrated into the grammar to form a new primary dimension of orientation, as continued to occur with the languages of the people who remained in the homeland in Africa.

The grammar of each language of the world is organized in a way that reflects and is constrained by its primary dimension of orientation. Although briefly discussed in this book for each dimension, in another book, the grammars of 5 model languages, one whose speakers orient to each of the 5 dimensions of space-time, are demonstrated in detail to reflect their primary dimension of orientation, including such as through the structure of consonants and vowels that compose syllables, the organization of syllables to form words, the organization of words to form phrases, the organization of phrases to form clauses, and the organization of clauses to form sentences. For example, the ancestors of the speakers of languages of the Indo-European language family, a family that includes languages such as English and Greek, left the homeland in Africa after our ancestors had evolved to the 4th of these 5 stages of awareness; they had evolved to awareness of the 4th dimension of space-time.

In comparison, the ancestors of the speakers of Chinese left the homeland in Africa once they had evolved to the 1st dimension of awareness. Of course, all modern people have evolved to the awareness of all 5 dimensions. However, the grammars of the modern languages of the world reflect fundamental, pattern-oriented differences that depend most significantly on the primary dimension of orientation of their speakers.

Speakers of all modern languages have developed comprehensive models of nature that organize their understanding of nature. The grammar of each language perfectly mirrors the model, in the sense that the grammar of each language perfectly reflects the assumptions and understandings about the organization of nature held by the speakers of the language.

Chinese society has developed unified models of nature. One such model is the extremely important model of the Dao. The Chinese model of the Dao reflects nature as seen through the grammar of the Chinese language and through the culture of the Chinese people. The Dao is a unified model of nature. In another book, the Dao is explored in great detail in the context of its symbolism of evolution through the 5 dimensions of space-time. The Dao is the Chinese equivalent to the cycle of evolution.

In contrast to the unity that is expressed and symbolized by the grammar and philosophies that evolved in Chinese society, Western societies, those of speakers of languages of the Indo-European family of languages, have evolved to develop 2 seemingly completely incompatible types of models of the world, which are known as religion and science. These models are not merely different from each other, but they are completely opposite and completely symmetrical in all respects, in the same way that space and time are completely symmetrical and completely opposite in all respects.

Whatever individuals might personally think of religion and of science, and a great many people recognize any value only or primarily in one or the other, there is no doubt that the goal of each is the same, to attempt to understand and model the nature of the world. Religion and science are two naturally evolving types of Western models of nature that have the very same goal, to organize our understanding of nature. Yet why does English support 2 completely symmetric and seemingly incompatible models of nature?

Religion is the name given to a variety of models of nature that reflect a primary orientation toward the organization of our awareness of relationships that exist in time. As an example, it was the priests in ancient societies, the keepers of religion, who were the keepers of the calendar, the keepers of time. Science is the name given to a variety of models of nature that reflect a primary orientation toward the organization of our awareness of relationships that exist in space. English is a subdivided language, reflecting the fact that speakers of English have evolved to develop 2 different and distinct types of models of nature that they model, time and space.

Religion and science have both evolved according to the same pattern as everything else in the universe, the pattern of evolution. The stages in the evolution of both religion and science are covered in detail in this book.

This book presents the history of the ancient Greeks as being a representative example of the evolution of religion and science. The Greek religion has evolved through a number of well-documented stages. As well, ancient Greek developments in science are well documented. The Greeks have exerted a tremendous influence on Western culture, and most people are somewhat or greatly familiar with the importance and influence of ancient Greece. Also, the ancient Greeks were important to the rise of monotheism in the West.

The history of Greek religion is well documented. The ancient Greek pantheon of gods evolved through several generations, from the first generation of Gaea and Uranus, to the second generation of the Titans, and finally to the third generation of the Olympians. This was followed by evolution to a modern monotheistic religion.

These were not randomly or arbitrarily organized groupings of gods, but were highly organized representations of and very appropriate reflections of the Greek people's evolving awareness of nature, beginning from a stage not far removed from the other animals to modern human awareness today. Monotheism represents a natural and necessary evolutionary step in their mental development, which arrived when the Greeks had reached the appropriate level of understanding of nature. The symbolism of each of the major groups of gods is demonstrated to follow the same pattern as everything else in nature, the pattern of evolution.

The history of science is also well documented. The progressive understandings of science since the time of the ancient Greeks have not been haphazard or random, but have also evolved through the same stages as religion, the stages in the pattern of nature that everything follows, the pattern of evolution.

Finger Signs

As our ancestors evolved, it was finger signs that enabled and accompanied their evolution of awareness. Mankind recognized relationships within the human body and among the arms, hands, and fingers with the world as a whole, and learned from these relationships about the structure of the world, the structure of their language, etc. In other words, when our ancestors looked at the world outside, they had to symbolize the relationships that they discovered somewhere on the body as well as in the mind, and the fingers and other parts of the body provided analogous relationships that enabled awareness. People could symbolize on their bodies, and particularly on their fingers, analogous relationships to those in the world as a whole. The human body is structured in such a way as to reflect and enable awareness of 5 dimensions of space-time.

In order to be able to be aware of and to internalize their understanding of progressively more evolved cycles of time, those cycles of time that enabled and accompanied awareness of subsequent dimensions of space-time, our ancestors had to recognize increasingly evolved relationships within the human body, which enabled them to symbolize and distinguish the stages within each cycle. The finger signs that enabled and accompanied the awareness of each dimension of space-time are presented here. However, the finger signs were different for people who oriented to a given dimension compared with those for people who oriented to a previous dimension and who then came to superimpose their new dimension of awareness upon their primary dimension are presented in the discussion for that dimension, and the more detailed analysis and comparison of fingers signs that symbolize each dimension of awareness among cultures that orient to one of the other dimensions are presented in another book.

These finger signs are symbolic; it is not that people were consciously aware of them. This book provides hundreds of photographs of finger signs that reflect relationships associated with each of the dimensions of space-time.

These finger signs are extremely powerful. This book will demonstrate a progression of finger signs that leads to extremely comprehensive symbolism. There are considered to be 4 primary points during the cycle of the year, the points that represent the beginning of the 4 seasons in the United States, the summer and winter solstices and the spring and fall equinoxes. An extremely simple yet extremely powerful set of finger signs will be demonstrated to have enabled our ancestors, for each of these 4 days during the year, to point with their fingers to the location on the horizon or in the heavens where the sun will be at sunrise, at sunset, at noon, and at midnight. Furthermore, these finger signs enable identification of the location where the sun will be at every hour of the 24 hour day on each of these days. Moreover, 2 different sets of finger signs will demonstrate these same understandings from the perspectives of 2 very different cultures that are located at 2 very different locations on the earth.

Orientation

In order for their finger signs to enable representation of the stages in the cycle of evolution, and in order to enable awareness of the sub-stages within each of the cycles of space and time, our ancestors had to orient their bodies, to physically position their bodies, toward a direction with respect to the earth, such that their finger signs would have maximum ability to reflect and enable awareness of distinctions within the cycles of nature. The direction on the earth toward which the people of each culture came to orient their bodies differed depending on their primary dimension of orientation. As the primary dimension of orientation of our ancestors evolved, cultures became more organized in their ability to symbolize their awareness of nature on their bodies and in their language, which was made possible by evolution in the direction of the orientation of their bodies to the nature that they symbolized. As cultures continued to evolve to the awareness of each dimension of space-time subsequent to their primary dimension of orientation, their finger signs evolved from the perspective of their primary dimension of orientation; in other words, they kept their bodies oriented in the same way, and developed more evolved finger signs that symbolized subsequent dimensions of awareness from the perspective of their primary dimension. The evolution in the direction of orientation of the human body with respect to the earth presents a clear pattern that demonstrates how awareness of relationships that exist in nature enabled the human species to evolve to the awareness of 5 dimensions of spacetime.

Note to the Reader

This book presents a large number of details to support the hypothesis that is presented herein. It is not advisable, particularly when reading this book for the first time, to spend so much time trying to understand all of the specific details that it interrupts a smooth understanding of the general flow of the book. In other words, upon first reading, it is not as valuable to concentrate on the specific details in the book as it is to allow your mind to become aware of the pattern that is demonstrated to permeate all aspects of human awareness and existence. On the first reading, some of the more detailed sections on finger signs might be skimmed over.

Eventually, if not initially, readers should not only look at the photographs of the different fingers signs, but should physically make the signs with your arms and hands, in order to be able to demonstrate for yourself that these patterns are natural, and that they well symbolize your own physical, mental, cultural, spiritual, and grammatical understanding of nature. However, during the first reading, it is best not to get so bogged down by the large number of finger signs as to miss the overall point of the signs.

This book includes hundreds of photographs and hundreds of diagrams. Great effort was taken in the preparation of this large number of photographs and diagrams in an attempt to make understanding of the text easier. However, the author is not highly skilled at either photography or graphic art. Therefore, with some of the illustrations, it would be beneficial if the reader were to contribute a little imagination in order to be able to recognize the similarity of the photographs and drawings to the concepts that they represent.

Chapter 2

Models of Nature

Our species differs from the other animals in that we have language. Language has enabled us to develop models of nature. Models of nature are ways that human beings internally organize, or model, our understanding of nature.

Each language grammar constitutes a model of nature, as the grammar of each language reflects the organization of the awareness of nature of its speakers.

In addition, there have been many models of nature throughout history that have been purposefully constructed on the basis of understandings in science and religion.

Many earlier scientific models of nature have long since disappeared, whereas others remain in use and popular today. Let us consider one scientific model of nature that was very popular in the past, but which is no longer in common use.

Claudius Ptolemy was a Roman citizen, ethnically Greek, who lived in the Egyptian city of Alexandria some 1900 years ago, in the 2nd century. He wrote a book that became extremely popular, the Almagest, that proposed using a series of concentric circles, called epicycles, to describe the motion of objects in the solar system. It was not until the middle of the 1500's that the popularity of this model began to wane, in favor of the model of Nicolas Copernicus, which placed the sun instead of the earth at the center of the solar system.

For 1,400 years, Ptolemy's theory of epicycles was the dominant theory of astronomy. When it was ultimately abandoned, it was not abandoned because it was wrong. In fact, the truth value of models of nature is not important. Instead, only the usefulness of such models is important. Ptolemy's model was used for so long only because there was no alternative model that proved to be more useful.

Over the long period of its use, human understanding of nature evolved significantly. What began as a simple model of nature became increasingly complex, as significant and complex modifications to the model became necessary in order to enable the model to continue to be able to explain human observation in light of the continuous evolution of societal understanding of the solar system. In the later years, the average person had no ability to understand the complexities required to utilize the model well.

Eventually, a completely new paradigm changed fundamental premises, such that once again simplicity was possible, and such that the complexities of the theory of epicycles were no longer needed. When Copernicus developed a model of nature that placed the sun at the center of the solar system, rather than the earth, the new model of nature was so much simpler and yet much more encompassing that Ptolemy's theory was eventually abandoned completely in favor of it.

Now, once again, theories of physics have become so complex that the average person has little to no ability to understand them. In order to enable modern theories to fit with observation, scientists have had to resort to complex fantasies and highly abstract mathematics that, for example, postulate a fantastic number of dimensions. Some theories have postulated 10, or 11, or even 25 dimensions, almost all dimensions of which are beyond any possible human awareness, but which can only exist within the realm of very abstract mathematics and in the imagination.

Science is ready, and overdue, for a new paradigm, one that enables once again a return to simplicity. This book introduces such a model.

This book presents a new model of nature, a completely new way to organize our understanding of nature, that is so simple and so all-encompassing that much of the complexity of modern science will no longer be necessary in order to enable the pieces of our modern understanding to fit together well.

This model has been developed by reconsidering one of the most fundamental presuppositions that people who are well-read in science tend to hold about the nature of the world, a presupposition that is commonly accepted at present, yet which is typically accepted without question, without consideration, and without awareness of its tremendous yet implicitly accepted implications on our understanding of nature. This model reconsiders the notion that space is infinite, and instead considers that space is finite. In other words, this new model substitutes one clearly arbitrary yet commonly accepted assumption about nature for another clearly arbitrary assumption. This model then explores the incredible implications of this change in this presupposition. Reconsideration of such an important presupposition is reasonable and justified based on the understandings of modern physics, whether or not the results obtained here are accepted as valid.

Chapter 3

Geometry:

An Ancient Model of Nature

Before investigating the evolution of the mental development of our species, let us examine a simple Western model of nature that we can use for comparison and enhanced understanding.

One of the most important of the scientific models of nature that have been developed by Western societies, and the earliest scientific model ever developed that remains tremendously useful today, is known as Euclidean geometry, or simply geometry. Many students learn about geometry at school, and this is the first formal model of nature that is taught to students at school. However, there is no attempt to have students consider, to recognize that they might question, or to even recognize that there exist, fundamental underlying presuppositions about the structure of nature that must be implicitly assumed to be true in order for geometry to have meaning. For the most part, the presuppositions of geometry that were first laid out some 2,300 years ago continue to this day to dominate scientific thought and the notion of the dimensions of space.

Let us begin by presenting an analysis of the fundamental presuppositions that underlie geometry, in order to make them explicit, for the purpose of enabling deeper understanding and to provide some preliminary insight into differences that we will discover between the model of geometry and the new model that is being introduced here.

Geometry has proven itself to be an extremely useful model of nature. It is not a useful assumption to consider that geometry is somehow "true," because that is not meaningful or possible. Geometry is useful insofar as the structure of nature as exemplified by geometry appears to mirror the structure of the real world. By ignoring all of the obvious incompatibilities with the real world and by focusing only on the commonalities, this model has proven itself so useful as to be the first model of nature that is taught to all students of math and science.

Students are taught that geometry provides simple and extremely useful relationships that we can manipulate in the mind that correlate in a very useful manner and to a very high degree with relationships that we can observe to exist in nature.

The basic presuppositions of geometry are unconsciously accepted without question. In other words, at its most fundamental level, geometry relates to the world on the basis of a series of presuppositions about the structure of nature that are not subject to analysis or question, and that cannot be subject to analysis or question, from within the framework of geometry itself. Let us examine those presuppositions.

Presuppositions of Geometry

Geometry is a relatively simple model of nature, and is based on 3 fundamental presuppositions about the nature of the world:

- 1. The only component of nature is space.
- 2. Space exists in 3 dimensions.
- 3. In each dimension, space is infinite.

Let us examine these presuppositions more closely:

1. The only component of nature is space:

It shall be accepted as given that it is meaningful to consider space completely isolated from time. In the 2,300 years since Euclid wrote the book Elements, which has proven to be the most influential book in the history of science, this is the only one of these presuppositions that has been reexamined and successfully challenged, and this presupposition has evolved multiple times over this period. More recent models of nature have come to include time as well as space, and most recently time integrated with space, as space-time. In other words, although more recent models of nature presuppose 2 components of nature, space and time, geometry presupposes 1. With no representation of time in this model, there can be no representation of motion in space, as motion in space requires time. Therefore, this model at best represents only existence and position in space.

2. Space exists in 3 dimensions:

It shall be accepted as given that humans are aware of 3 distinctions, or extensions, in space, known as dimensions. Modern theories sometimes claim more, such as 10, or 11, or 25 dimensions, but these are still controversial, and anyway are beyond human awareness. Each of these 3 dimensions represents extension in a pair of directions in space that can be referred to by such names as length, width, and height (or depth). All of space always exists in all 3 dimensions.

3. In each dimension, space is infinite:

Infinity takes on 2 forms, infinitely large and infinitely small.

Structural Elements of Space

On the basis of these 3 fundamental presuppositions about the nature of nature, the following can be deduced about the structure of space:

1. There exists a set of fundamental elements that compose the structure of space.

2. Each of these elements exists in all 3 dimensions.

3. For each element, each of the 3 dimensions is infinite.

4. There exist exactly 4 such elements, wherein 0, 1, 2, or 3 of the infinities are large.

These are the implications about the structure of nature that are drawn by geometry on the basis of its presuppositions. According to geometry, the four building blocks, or elements, that compose space, are recognized to be as follows:

1. The first fundamental element of space is the point. The point exists in 3 dimensions. Each of the 3 dimensions is infinite. In a point, each of the 3 dimensions, length, width, and height, is infinitely small. Because 0 of the 3 dimensions are infinitely large, the point is called 0 dimensional, and it is understood that points exist in 0 dimensions.

2. The second fundamental element of space is the line. The line exists in 3 dimensions. Each of the 3 dimensions is infinite. In a line, width and height are infinitely small. Length, however, is infinitely large. Because 1 of the 3 dimensions is infinitely large, the line is called 1 dimensional, and it is understood that lines exist in 1 dimension.

3. The third fundamental element of space is the plane. The plane exists in 3 dimensions. Each of the 3 dimensions is infinite. In a plane, height is infinitely small. Length and width, however, are infinitely large. Because 2 of the 3 dimensions are infinitely large, the plane is called 2 dimensional, and it is understood that planes exist in 2 dimensions.

4. The fourth fundamental element of space is simply called space, or 3 dimensional space. The totality of space exists in 3 dimensions. Each of the 3 dimensions is infinite. In space, each of the 3 dimensions, length, width, and height, is infinitely large. Because all 3 of the 3 dimensions are infinitely large, space is called 3 dimensional, and it is understood that space exists in 3 dimensions.

Chapter 4

A New, Unified Model of Nature

In order to develop a better understanding as to how the differences with geometry of the new model of nature presented here can be considered to be not much more than a reorganization of our current understanding of nature, rather than as an attempt to introduce completely new structures of nature that must be accepted even though completely beyond the capability of human experience, let us challenge the absoluteness of these 3 presuppositions of geometry.

The purpose of challenging these presuppositions is not to attempt to demonstrate that the models of nature that seem so natural to speakers of English are somehow wrong. Nor is it the intention to claim that other models of nature, such as the Chinese model of the Dao, frequently mentioned herein in comparison, are somehow superior. The purpose is to make and support the claim that each culture holds a distinct and isolated perspective on nature, and to encourage the idea that a more encompassing, unified context of understanding that reflects the perspectives of the various cultures of our species has the potential to enable a much more powerful and much more useful model of nature.

1. Geometry reflects the presupposition that space is infinite. This is the third presupposition in the list. Is this an accurate assumption?

Space may well indeed be infinite. However, space might not be infinite. There is no compelling scientific evidence that space must be infinite. There is no compelling evidence that space must be infinite in extent, that space will continue to expand outward forever, or that space must be infinite in time, that space will even exist forever. Some scientists consider there to be some modern evidence, but it is not conclusive, and anyway such evidence would not have been available to the original Greek developers of geometry 2,300 years ago. The most powerful evidence that space is infinite is simply the fact that Euclidean geometry, the most important model of space for the past 2,000 years, assumes it, and accepts without question that space is infinite. Absent any compelling evidence to the contrary, most people consider that there is no reason to change assumptions. Furthermore, it is not easy to change this assumption, or to determine the implications of such a change, making it a difficult as well as a high-risk low-value proposition for most people.

From the perspective of Euclidean geometry, it is indeed reasonable to assume that space is infinite. The reason is that geometry ignores the notion of time. As there is no representation of time, then there can be no representation of motion in space, as motion in space takes time, and for the same reason there can be no representation of change in space; and without motion in space, there can be no mass in space. Since the model of geometry does not support the notion of mass, points in space must indeed be considered to be infinitely small, and therefore anything that is composed of geometric points must also be considered to be infinite. Since newer models of nature support the notion of time, and therefore motion and mass, the notion of infinity is no longer mandatory, as it is in geometry. We could simply choose to assume instead that space is finite. The primary Chinese model of nature, the Dao, which is the model of nature that developed in China that is equivalent to science, certainly makes such an assumption. We will discover that the more that we integrate time into our models of space, the more difficult it will become to maintain the notion that space could possibly be infinite, either infinite in extent or infinite in time. If we were to begin from the assumption that space is finite, instead of infinite, and then follow where that leads us, we would find that the implications prove to be extremely useful and insightful.

What are some of these implications? If space were considered to be finite, the status of the point would evolve. Although the 3 concepts of the line, the plane, and 3 dimensional space correlate to the 3 dimensions of space, there is another concept in geometry that does not currently correlate to a dimension, the concept of the point. Why is it that the point is not considered to constitute a distinct dimension, but is instead considered to represent no dimensions? The reason is that it is presupposed in geometry that space is infinite, and that all components of space are either infinitely large or infinitely small in each dimension. The point is considered to be infinitely small in all dimensions, such that the point by itself is not recognized to have any existence in space. The point exists, but it exists without occupying any space at all. In other words, although points form the basis for all that exists in space, points themselves exist without existence in space.

This would not be the case if space were considered to be finite. In finite space, the length, the width, and the height of the point would each be finitely small, such that the point would be recognized to exist in space, and therefore the point would have to be considered to constitute a dimension that is as significant as, yet distinct from, the other 3 dimensions as the numeral 0 represents a concept that is as significant as, yet distinct from, the Arabic numerals 1 through 9. In other words, just as we recognize 10 significant distinctions in Arabic numerals, and not only 9, even though one of the 10 is 0, in like manner we would recognize 4 dimensions in space, and not only 3, even though one of the 4 represents 0.

Assuming that space is finite, the point can reasonably be considered to constitute a dimension, such that there would be recognized to exist 4 dimensions of space. Since we are herein assuming space to be finite instead of infinite, we should adopt terms that better reflect the finite nature of space. Instead of the dimensions of the point (which is infinite), the line, the plane, and 3 dimensional space, we will refer to these as the dimensions of the point (which is finite), the line segment, the area, and the volume.

2. Geometry reflects the presupposition that space can be considered outside of the context of time. This is the first presupposition in the list. Is this an accurate assumption?

Geometry considers it meaningful to consider space outside of the context of time. Geometry completely ignores time. Modern models of space do not deem this useful, and represent time to lesser or greater degree. In modern physics, there is even question as to whether space has any existence at all devoid of time. All modern models of science have completely abandoned the notion that space could exist independently from time, or that space could even be meaningfully considered outside of the context of time. It is now recognized that all of space is always in motion. For example, all atoms and their constituent subatomic particles are constantly rotating about their axes and as well they are constantly moving through space to new positions relative to everything else in space. Motion through space requires time. It is not possible to consider a snapshot of space that is completely devoid of all motion, as envisioned in geometry, except within the imagination, because space cannot exist devoid of motion. Geometry can ignore motion, but only because it ignores time.

Let us reconsider, and integrate time within our model. Let us begin slowly, and consider time to be another fundamental component of nature, in addition to the space component, yet a component that is completely distinct from space. How shall we represent time?

Time is currently commonly represented as constituting a single dimension, which is completely distinct from the dimensions of space. How is this single dimension of time commonly symbolized? Geometry has a concept known as the ray. Whereas a line represents an extension of points in a pair of directions, a ray represents an extension of points in one direction only. In geometry, as a model of space only, the ray and the line are considered to be unified into a single dimension.

How shall we consider time? The most common metaphor for time for speakers of English is the notion that "time flies like an arrow." And how does an arrow fly? Like an extension of points that flow in one direction only. Time is well represented by the geometric concept of a ray. To use a term that better reflects the finite nature of space, let us call it a ray segment.

Although the geometric model of space does not distinguish the ray from the line, in terms of dimensions, once we include time within our model of space, we recognize that our culture clearly distinguishes the ray from the line, as the ray

symbolizes our understanding of time, whereas the line is one symbol of our understanding of space.

In our model that represents both time and space, we now have 5 total dimensions of time or space; these are the dimensions of the point, the ray segment, the line segment, the area, and the volume.

However, if we look at the most recent models of nature, it is commonly considered that time is in fact not distinct from space, but that time and space exist only in an integrated form, as space-time. Without going into details at this point, such a consideration would yield not 5 dimensions of time plus space, but 5 dimensions of space-time.

3. Geometry reflects the presupposition that we live in a world of 3 dimensions of space. This is the second presupposition in the list. Is this an accurate assumption? How many dimensions are there really?

We have seen that with a slight change in thinking, it is possible to consider that there exist not 3 dimensions of space, but 5 dimensions of space-time. This is in line with the representation of nature expressed by the primary Chinese model of nature, the model of the Dao. Is this accurate?

We cannot know at this point the final answer to this question, nor is it important to our discussion here. Instead of trying to answer questions that cannot now be answered, we can talk about what we can now know, and what we can be aware of. Human beings evolved from species that were much like the other animals, completely unaware at a conscious level of any of the dimensions of space-time. Our species evolved to its current level of awareness over time. The structure of the human body is such that it is natural that our species has evolved to the awareness of 5 dimensions. As our ancestors observed relationships in the structure of the human body, and particularly in the structure of the fingers of the hands, they recognized finger signs, which correlated to relationships that they observed everywhere in nature, and the human mind and human languages evolved.

The human species, with its 5 fingers per hand and with its 5 senses of awareness, is able to and has currently evolved to the awareness of 5 dimensions of space-time.
Chapter 5

Evolution: Cyclic Changes in Nature

Let us now introduce the concept of evolution, as represented in this new model of nature. Evolution is the cycle of nature. The cycle of evolution is nature.

The animals that were the ancestors of our species, Homo sapiens, were just like the other animals, unconscious of the world around them and with only a very limited ability to interact with the environment other than to react to it.

Our species evolved on the continent of Africa. When our species first emerged, our ancestors were not fully developed mentally, and did not have the same ability as we have now to understand and relate to our world. Our species evolved in stages to its present awareness of the environment and of nature. For example, the earliest members of our species did not have the ability to create or maintain calendars that would have enabled them to track the cycle of the earth around the sun, the cycle of the year. In the beginning, our species had very little understanding of time at all.

In other words, our species evolved during its time in the homeland of our species in Africa to an increasing awareness of nature. This evolution occurred in stages. The shift in human awareness of nature that accompanied and enabled each of the stages in the evolution of human understanding and development can best be understood using the concept of the dimension. Language, and specifically the grammar of language, provided the most important tool to symbolize mankind's evolving understanding during this evolution to each of the dimensions of awareness. Finger signs are how mankind was able to internalize the significance of each dimension. Language grammars have evolved over time to reflect the current stage of understanding of nature of their speakers.

Modern languages reflect mankind's evolution to the awareness of each of 5 dimensions, such that mankind currently lives in a world of linguistic awareness of 5 dimensions of space. The existence of each of these dimensions of space can be comprehended by the mind only in relation to a simultaneous awareness of the existence of a corresponding dimension of time. In other words, space and time are understood by the mind in terms of 5 dimensions of space-time.

As mankind evolved to the awareness of each succeeding dimension of nature, language evolved to express that awareness. The stages in the evolution of mankind, the stages in the evolution of nature, can be traced through the stages in the evolution of the languages of mankind.

The evolution of the human mind, the evolution of human language, and the evolution of the human species have not been entirely random, but have followed a

pattern. The evolution of all that exists in nature follows this pattern. This pattern is a cyclic pattern. All evolution, whether it is the evolution of the universe, or the evolution of a species, all evolution follows the same cyclic pattern. The increasing awareness of our species of our environment through each of these stages was accomplished in conjunction with an increasing awareness of the various cycles of nature that have enabled mankind to develop awareness of the grand cycle that is nature, the cycle of evolution. The human species, with its 5 senses, and with its 5 fingers per hand, is able to and has evolved to the awareness of 5 stages in the cycle of evolution.

As mankind evolved to the awareness of succeeding dimensions in the homeland of Homo sapiens in Africa, small groups continuously migrated out of the homeland and around the world. Each group took with it a language that expressed the current dimensions of awareness. Whereas the languages of all such groups continued to evolve as their speakers became aware of succeeding dimensions, the grammar of each language remained oriented in a fundamental and primary way to the number of dimensions of which the original speakers were aware at the very moment that they left the homeland in Africa.

The dimension of awareness that could be expressed in the language that the people of each group took with them at the moment that they left the homeland in Africa became their primary dimension of orientation to the world. All modern societies, and all normal people, are now aware of all 5 dimensions. As each language evolved into its modern form, awareness of each subsequent dimension was incorporated into every aspect of the grammar in a manner that was consistent with the primary dimension of orientation, rather than being integrated into the grammar to form a new primary dimension of orientation, as continued to occur with the languages of people that remained in the homeland in Africa. In other words, each language of the world has a primary orientation to one of the dimensions of human awareness, which guides and constrains all grammatical organization within the language, among other things.

The ancestors of the speakers of English left the homeland in Africa when mankind was aware of 4 dimensions, and these 4 dimensions were integrated into a single pattern, although the 5th dimension, of which they became aware after they left Africa, was not integrated. These people tend to think of each of the dimensions of space and time in terms of being either a dimension of space or a dimension of time. However, modern physics teaches us that this is not an accurate

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understanding. The structure of the universe in its current state, after the Big Bang, is such that there is no subdivided space from time, although our language does create this apparent subdivision for us. Each of the dimensions of space or time is more accurately recognized to be a dimension not of space alone or of time alone; each dimension is a dimension of space-time. As we shall see, our species recognizes and relates to a world of 5 dimensions of space-time.

Everything that exists in the universe follows the pattern of evolution. A set of analogies will be presented here as a way to develop an overall impression of the stages in the cycle of evolution.

Example Cycles of Evolution of Nature

Let us begin with 2 analogies to serve as examples of cycles of evolution in nature.



We will begin with the cycle of evolution of the universe as a whole. The universe exists forever, and is infinite in time.

In the 1st dimension of the universe, there is only time. Time is infinite. There is no space in the 1st dimension, as space is finite, and does not exist in the 1st dimension of the universe. The 1st dimension symbolizes unity, as there is only 1, time. The geometric point well symbolizes the 1st dimension, as a point cannot be subdivided into smaller parts.



In the 2^{nd} dimension of the universe, time gives rise to space. This is a 1 way process, like the unidirectional ray segment. The 2^{nd} dimension symbolizes subdivision, as from 1 there becomes 2. Time remains 1^{st} , but now there is a 2^{nd} , space. The geometric ray segment well symbolizes the 2^{nd} dimension, as the points of a ray segment flow in 1 direction only.

The 2^{nd} dimension lasts for as much time as is necessary for time to give rise to all of space that will ever exist in this cycle of the universe.



In the 3rd dimension of the universe, time provides space with a spark that enables space to subdivide. Time impregnates space, with a flash of light. This spark causes the creation of what is known as light. From the spark that is contributed by time, space subdivides to give rise to the phenomenon of light that we know today. The word light here refers to all electromagnetic radiation, and not just to visible light. Light enables a unification of time and space. Light enables space-time. The beginning of the 3rd dimension, the original flash of light, is known to science as the Big Bang and to religion as the Creation. During the 3rd and 4th dimensions of the universe, neither time nor space can exist without the other, due to the existence of light. Time and space can exist only in the unified form of space-time.

The geometric line segment well symbolizes the 3^{rd} dimension, as the points of a line segment flow in 2 directions. The 3^{rd} dimension symbolizes the line segment, as light is between time and space, and the line expands outward. The 3^{rd} dimension symbolizes subdivision, as there exists more than the 1, time; however, the 3^{rd} dimension symbolizes unity within the subdivision, as light enables a unification of time and space. Time is the 1 that remains 1^{st} , whereas light, like space, comes later, and so is 2^{nd} .

Evolution of the Universe

 4th dimension represents the 4 stages in the cycle of the universe: Time alone, Time giving rise to Space,
Space-Time expanding, and Space-Time contracting Well symbolized by a square (area).



The 4th dimension of the universe is the dimension of the area. The geometric area well symbolizes the 4th dimension, as the symbol of the 4th dimension, the square, is a figure that has 4 sides. Starting at a beginning point on the square and then traveling around the circumference, eventually the last point will be reached. This is the end, and the end symbolizes death. The universe, which expanded outward in the Big Bang, contracts inward into the Big Crunch. The world, which was born in the Creation, dies in the Revelation.

In the 4th dimension in the cycle of the universe, the unification of space and time as space-time continues. Space and time continue to be unified as 1, such that neither can exist alone and without the other. It is light that enables and supports the existence of space-time.

Whereas space-time expands outward, from the Big Bang, in the 3rd dimension in the cycle of the universe, space-time contracts inward, toward the Big Crunch, in the 4th dimension. At the end of the 4th dimension in the cycle of the universe, light completes its cycle of life, and light dies. Light is finite and now it comes to an end. The universe as we know it dies, because light, which is born of space and which is finite, dies. There remain 2, time and space. However, without

light to enable the unification of time and space, time and space are no longer unified, but are subdivided.



As the 5^{th} dimension of the universe begins, there are again 2, time and space. Space begins to dissipate, reversing its growth in the 2^{nd} dimension. At the end of the 5^{th} dimension in the cycle of the universe, space dies. The cycle of the universe is now complete.

The 5^{th} dimension is again a dimension of unity, as at the end there remains only 1, time, to perpetuate the cycle infinitely. After the 5^{th} dimension, the cycle returns again to the 1^{st} dimension, and time can repeat the cycle of the universe. The universe is perpetuated.

The 5^{th} dimension is the dimension of perpetuation, and the cycle of evolution repeats. The geometric volume of the cube well symbolizes the 5^{th} dimension, as any number of areas will fit into the volume, by which to perpetuate the cycle of evolution.

Review of the Cycle of the Universe				
	Dimension	Stage in the Cycle		
	1	Time alone in 1 st dimension.		
	2	Space born at beginning of 2 nd dimension.		
	3	Light born at beginning of 3 rd dimension.		
	4	Light dies at end of 4 th dimension.		
	5	Space dies at end of 5 th dimension.		
			-	

Let us review the cycle of the universe. This cycle is the primary cycle of the universe, and begins in the 1st dimension.

Time is alone in the 1^{st} dimension. Time gives rise to space in the 2^{nd} dimension.

Light is born in the 3rd dimension, causing and enabling a unification of time with space. At this time, neither time nor space can exist without the other, but time and space can only exist in the unified form of space-time. Furthermore, space cannot exist in a form that is separated from or without constant interaction with its child, light.

At the end of the 4^{th} dimension, light dies. This causes a separation of time from space. During the 5^{th} dimension, space dissipates, in a manner that is the reverse of how it grows in the 2^{nd} dimension. At the end of the 5^{th} dimension, space dies. This leaves time alone to repeat the cycle anew.

There are a couple of points to note. Notice that what existed in the 1^{st} and 2^{nd} dimensions, time and space, are what have become unified into 1. Also, notice that there are 3 distinct entities; time, space, and light, with light being the child of time and space.

A recurring theme for each manifestation of the cycle of evolution is that, in the 3^{rd} dimension, it is that which came 2^{nd} that subdivided. In this example, space subdivided to give rise to light.

The 3rd dimension began with the Big Bang. In the 3rd and 4th dimensions, there is no distinct space and time; there is only space-time.



Our second analogy follows the same stages in the cycle of evolution. This is the evolution of the cycle of life and the family among our species. This is the cycle of evolution of our species. In the previous example of the cycle of evolution of the universe, the universe as a whole is infinite, such that that which is 1st remains 1st throughout each cycle in the life of the universe. This example of the cycle of life concerns that which is finite, life within our species, such that that which is 1st will change in each stage of the finite analogy of the life of mankind that follows.

In the 1st dimension of my life and my family, 'I' exist. There is only 1 person, 'me'. As Indo-Europeans identify god as male, in the beginning man is alone in life. There is no woman associated with man in the 1st dimension of his life (as an adult) and his family, as there is only 1, man. Man can live (seemingly) forever, as he is able to perpetuate his species. The 1st dimension is well symbolized by the geometric point, as there is only 1 point, and it cannot be subdivided.

The cycle of life does not begin at the 1^{st} stage of the 5 stage cycle, but rather this is the 1^{st} stage in the continuation of a cycle that has had previous cycles. This stage in the cycle of life, where man is alone, begins just after the onset of what is known as puberty.



In the 2^{nd} dimension of the cycle of life and the family, man subdivides. Man finds woman. Now, in the 2^{nd} dimension, there are 2. In this analogy of the finite life of our species, not only does the 2^{nd} dimension include woman as well as man, but woman becomes 1^{st} and man becomes 2^{nd} . It is the woman who will give birth to a child, and so she is the one who will, by bearing a child, perpetuate the species and live (seemingly) forever. The 2^{nd} dimension is well symbolized by the geometric ray segment, as man alone as 1 gives rise to 2, man and woman. The flow is in one direction, like a ray segment, from man to woman.

In this stage in the cycle of life, where man finds woman, man had entered puberty in the previous dimension, whereas for woman this dimension begins just after her onset of puberty.



In the 3rd dimension of the cycle of life and the family, man provides woman with a spark that enables woman to subdivide. Man impregnates woman. Woman subdivides, to give rise to child. In what is known as conception, or sometimes by another name such as creation, woman becomes pregnant with child. This is analogous to the Big Bang, or the Creation, which causes the creation of the universe as space-time. The child resides between man and woman, and the child is a unification of man and woman (at least of their genes). Man enables a unification of man and woman, as child, in the same way that time enables a unification of time and space, through light.

Just as when woman appeared in the 2nd dimension she became 1st and man became 2nd, when child appears in the 3rd dimension he becomes 1st and woman becomes 2nd. In other words, once woman has begun to perpetuate, by becoming pregnant with child, she becomes 2nd. It is now the child who is 1st, and it is the child who will live (seemingly) forever and who will continue the perpetuation of the species into the next cycle (the next generation). In the cycle of the universe, what represent the 1st and 2nd dimensions, time and space, become unified, as space-time. In the cycle of life and the family, what represent the 1st and 2nd dimensions, man and woman, become unified, as child. The 3rd dimension is well symbolized by the geometric line segment, as woman as 1 gives rise to 2, woman and child. The flow is in two directions, like a line segment connecting the child to both man and woman. Although this is the 3^{rd} stage in the cycle of life, this is the stage of conception, which is the beginning of the cycle of a new life, the next generation of life.

This stage in the cycle of life, where a new child is conceived, begins the stage in the cycle of life known as parenthood.



In the 4th dimension of the cycle of life and the family, the pregnancy continues. The 4th dimension begins as the child as an embryo becomes a fetus. Man and woman continue to be unified as 1, such that neither can live without the other within their child, who represents a unification of man and woman through their genes.

During the pregnancy, woman is less self-supporting than woman was alone, and so man supports and protects woman.

At the end of the 4th dimension, woman gives birth to child. At this point, woman and child are no longer unified, but are separate. Woman can now live in a form that is separated from her child.

At this point, at the end of the 4th dimension, man is no longer as necessary to support woman, who can now support herself. Although the 1 who is 1st, child,

will continue to live, (seemingly) forever, man can now come to the end of his cycle of life without significantly compromising the future of the species.

Man now completes what cultures that orient to the 4th dimension can consider to be the 4 stages in the cycle of life. Once man has traversed all 4 stages in the cycle of life, he will reach the end, and the end is death. The 4 stages are conception through birth, birth through puberty, puberty through parenthood, and parenthood through death. The 4th dimension symbolizes awareness of death. The geometric area well symbolizes the 4th dimension, as the area is symbolized by a 4 sided figure that is possible to traverse starting at one place and traveling around until reaching the end, and the end is death.



In the 5th dimension of the cycle of life and the family, there are again 2, woman and child. Child is too young to support himself, and so woman supports child. At the end of the 5th dimension, child reaches puberty. He is now able to support himself, and he is able to perpetuate the species.

At the end of the 5th dimension of the cycle of life, woman dies. Once child reaches puberty, woman can now come to the end of her life without significantly compromising the future of the species. The cycle of life is now complete. The

child is now alone as 1, and will live to perpetuate the species through another cycle of life. The child is now the 1, the 'I'. 'I' have returned to the beginning of the cycle of life. There is a child, my child, another 'I', who will live though his cycle of life, and the species is perpetuated. The 5^{th} dimension is the dimension of perpetuation, and the cycle of evolution repeats. The cube well symbolizes the volume, as a cube contains any number of areas of life.

Review of the Cycle of Life			
Dimension	Stage in the Cycle		
1	Man alone in 1 st dimension.		
2	Meets woman at beginning of 2 nd dimension.		
3	Child conceived at beginning of 3 rd dimension.		
4	Child born at end of 4 th dimension. Man dies.		
5	Woman dies at end of 5 th dimension.		

Let us review the cycle of life and the family. Remember that each new life begins in the 3^{rd} stage of the cycle. Conception occurs at the beginning of the 3^{rd} dimension. Birth occurs at the end of the 4^{th} dimension. Puberty is reached at the end of the 5^{th} dimension. However, there are differences in the cycle between man and woman.

Upon reaching puberty, child becomes man, and enters the 1^{st} dimension. Man is alone in the 1^{st} dimension of the family. In the 2^{nd} dimension, man meets woman. At the beginning of the 3^{rd} dimension, man enters parenthood. Woman becomes pregnant, and man supports and protects woman at this time. At the end of the 4^{th} dimension, once the child is born, man is no longer required to support woman, and is able to die any time after that without significantly compromising the future of the species. The death of man occurs at the end of the 4^{th} dimension. The life of man runs from the beginning of the 3^{rd} dimension of 1 cycle through the end of the 4^{th} dimension of the following cycle.

The path of woman differs slightly. Since our focus is upon man, our analogy does not concern itself with women until she reaches puberty. Upon reaching puberty, woman enters the 2^{nd} dimension. At this stage, she meets man. At the beginning of the 3^{rd} dimension, woman enters parenthood, and becomes pregnant. At the end of the 4^{th} dimension, the child is born. Still, woman is required to nurse and raise the child through puberty, at which point the child can support himself. Once the child reaches puberty, woman is able to die any time after that without significantly compromising the future of the species. The death of woman occurs at the end of the 5^{th} dimension. The life of woman runs from the beginning of the 3^{rd} dimension of 1 cycle through the end of the 5^{th} dimension of the cycle.

There are a couple of points to note in comparison to the cycle of the universe. Notice that what existed in the 1^{st} and 2^{nd} dimensions, man and woman, are what have become unified into 1. Also, notice that there are 3 distinct entities; man, woman, and child, with child being the child of man and woman. Furthermore, there are 2 distinct forms of mankind; man and woman. Child is either man or woman. There are therefore 2 different forms of this cycle, one where the child is man and the other where the child is woman.

Comparison of These Examples							
	Stage Symbolism	Ι	II	III	IV	V	- -
	Time	1	1,2	1,2,3	1,2	1	
	Mankind	1	1,2	1,2,3	2,3	3	

In the cycle of the universe, time impregnates space, with the creation of a child, through a single flash of light. In the cycle of the family, man impregnates woman, with the creation of a child, through sperm to create a fertilized egg, a single cell of life.

Light enables a unification of its parents, time and space, in the form of space-time, which gives life to light, and enables it to perpetuate. Light then

subdivides, repeatedly. The light subdivides, creating more light, perpetuating that light, as the universe grows, throughout the life of light. Child enables a unification of its parents, man and woman, through a unification of their DNA, their genes, in the form of a child, which gives life to the child, and enables it to perpetuate. The cell then subdivides, repeatedly. The cell subdivides, creating more cells, perpetuating those cells, as the child grows, throughout the life of the child.

Light, the child of time and space, enables the 3rd and 4th stages in the cycle of the universe. The single cell, the child of man and woman, enables the 3rd and 4th stages in the cycle of the family.

Light enables space-time, which grows to form the current generation in the life of the universe, and light fills up space. Child enables a unification of man and woman, which grows to form the seed of the next generation in the life of the family, and child fills up woman.

In the 3rd and 4th dimensions of the life of the universe, space cannot exist separated from the light that enables the unification of space and time; space and light are in a constant state of interaction. In the 3rd and 4th dimensions of the life of the family, woman cannot exist separate from the child that enables the unification of man and woman. During the entire duration of the pregnancy, woman and child cannot exist separated from each other; woman and child are in a constant state of interaction within the body of woman.

In the cycle of the universe, all 3 exist together, as a family, where the child, light, enables a unification of the parents, time and space. In the cycle of the family, all 3 live together, as a family, where the child enables a unification of the parents, man and woman, through their genes.

The cycle of the universe and the cycle of life are very similar. There are differences, however. The primary source of differences is that time is infinite, yet mankind is finite. Time is constant in each generation in the life of the universe. Mankind is not constant in each generation in the life of the species, but presents a new man in each generation, with some differences with the man of the previous generation.

In the cycle of the universe, time is infinite, and space and light are finite. Therefore, light enables the unification of its parents, time and space, until light dies. Then, space dies. With the universe, time repeats the cycle, infinitely, and each generation in the cycle begins the same, with time. In the cycle of the family, all 3 are finite. Therefore, child enables the unification of its parents, man and woman, until man dies. Then, woman dies. With the family, it is the child that repeats the cycle, finitely, and each generation in the cycle begins differently, with child.

The cycle of the universe is infinite, and so is completely symmetrical. Time starts 1^{st} and ends last. The 1^{st} dimension contains time. The 2^{nd} dimension contains time and space. The 3^{rd} dimension contains time, space, and light. Death then occurs in reverse order. The 4^{th} dimension contain time and space. The 5^{th} dimension contains time. Infinite time ends the cycle back at the beginning.

Time is infinite, such that each cycle begins the same as the previous cycle. Space appears 2^{nd} and ends 2^{nd} from the last. The 5 stages form a completely unified cycle.

The cycle of life is finite, and so is asymmetrical. Man starts 1^{st} and ends last, but in a subsequent generation. The 1^{st} dimension contains man. The 2^{nd} dimension contains man and woman. The 3^{rd} dimension contains man, woman, and child. Death then occurs in the same order. The 4^{th} dimension contains woman and child. The 5^{th} dimension contains child, who once again is man. Finite man ends at the beginning, but in a subsequent generation of the cycle of life.

The life of mankind is finite. Although the cycles repeat, each cycle begins with a new generation, and not the same generation as in the previous cycle. The cycle begins in the 1st dimension, but each new life, each new generation, begins in the middle of the cycle, in the 3rd dimension, to provide overlap, as a child cannot support itself at birth.

Man appears 1st, in the 1st dimension, and dies 1st, in the 4th dimension of the following cycle. Woman appears 2nd in the 2nd dimension, and dies 2nd, in the 5th dimension of the following cycle.

Man and woman each lives a cycle and a half. Conceived in the 3^{rd} dimension, each dies one and a half cycles later, in the 7^{th} stage of the cycle of each.

Man lives in the 3rd, 4th, and 5th stages of 1 cycle, and in the 1st, 2nd, 3rd, and 4th stages of the next cycle.

Woman lives in the 3rd, 4th, and 5th stages of 1 cycle, and in the 2nd, 3rd, 4th, and 5th stages of the next cycle.

This enables man and woman to pass on knowledge and to support and protect the next generation in the finite existence of the species and of each finite life of each individual of the species.

Example Cycles of Evolution of Awareness of Nature

Let us continue with 2 analogies to serve as examples of cycles of evolution in awareness of nature. These cycles are not about nature itself, but about human awareness of nature. Awareness of nature is symmetrical to nature itself, as awareness of space is 1^{st} , and awareness of time is 2^{nd} .



Our next analogy follows the same stages in the cycle of evolution. This is the evolution of the awareness of time among the individual members of our species.

In the 1st dimension of awareness of time, there is awareness of only 1 facet, or dimension, of time, the time of the present. Newborn individuals can be consciously aware of space, of an object that exists in space, but only when such an object is at the point of the here, now. There is no conscious awareness of anything that is not right here, now.



In the 2nd dimension of awareness of time, there is awareness of 2 facets, or dimensions, of time, the time of the present and the time of the past. As they evolve through time, as they age, individuals eventually can become consciously aware of space, of an object that exists in space, that was at the point of the here and now sometime before, in the past.

Children do not become aware of the past and the future together, at the same time in their lives, but separately. 1st, they begin to remember what happened before, in the past.



In the 3rd dimension of awareness of time, there is awareness of 3 facets, or dimensions, of time, the time of the present, the time of the past, and the time of the future. As they evolve through time, as they age, individuals eventually can become consciously aware of space, of an object that exists in space, that will be at the point of the here and now sometime after, in the future. As they recognize objects from their past coming into their present, in a repeating and cyclic manner, children eventually begin to realize that such cycles will continue into the future as well; they can be aware of the future.



In the 4th dimension of awareness of time, there is awareness of 3 facets, or dimensions, of time, the time of the present, the time of the past, and the time of the future.

As they evolve through time, as they age, individuals eventually can become consciously aware of space, of 2 object that exist in space, that will be together at the point of the here and now. When there is awareness of 2 objects, each with a past and a future, at the same point, the point of the here, at the same time, the point of the now, there can be awareness of the interaction between these objects. This dimension is the dimension of awareness of interaction.

The symbol of the area, the square, is drawn differently from before in the diagram, in order to make it clear that 2 segments are interacting at the point of the here and now.



In the 5th dimension of awareness of time, there is awareness of 3 facets, or dimensions, of time, the time of the present, the time of the past, and the time of the future.

As they evolve through time, as they age, individuals eventually can become consciously aware of space, of more than 2 object that exist in space, that will be together at the point of the here and now. When there is awareness of more than 2 objects at the same point, the point of the here, at the same time, the point of the now, there can be awareness of the perpetuation of any number of objects at the point of the here and now. This dimension is the dimension of awareness of perpetuation.

The symbol of the volume, the cube, is drawn differently in the diagram, in order to make it clear that 3 segments (on 3 areas) are interacting at the point of the here and now.

Review of Evolution of Awareness of Time				
	Dimension	Stage in the Cycle		
	1	Awareness of present.		
	2	Awareness of past.		
	3	Awareness of future.		
	4	Awareness of 2 objects here, now.		
	5	Awareness of any number of objects here, now.		

Let us review the cycle of awareness of time. The 1st facet of time of which newborn individuals become aware is the time of the present, right now. At the time of the now, there can be conscious awareness of an object at the point of the here in space.

The 2^{nd} facet of time of which individuals evolve to become aware is the time of the past, and of time that came before. At the time of the now, there can be conscious awareness of an object that was at the point of the here in space, in the past in time.

The 3rd facet of time of which individuals evolve to become aware is the time of the future, and of time that will come after. At the time of the now, there can be conscious awareness of an object that will be at the point of the here in space, in the future in time. It takes experience with awareness of the past, and of cyclic occurrences of objects in the past, that enables awareness that such cycles will continue to occur later, in the future.

The 4th facet of time of which individuals evolve to become aware is the simultaneous awareness of 2 objects at the same point in time, the time of the now. When there is awareness of 2 objects at the point of the now, there can be awareness of interaction between these objects.

The 5^{th} facet of time of which individuals evolve to become aware is the simultaneous awareness of 3 or more objects at the same point in time, the time of the now. When there is awareness of 3 objects at the point of the now, there can be awareness of any number of objects at the point of the now, such that these objects can perpetuate indefinitely.

These stages in the cycle of evolution of awareness in the life of each individual are the same as the stages in the cycle of the evolution of the mental development of the species as a whole, from the time our species was born until the present time. This will be explored in detail throughout this book.



Our next analogy follows the same stages in the cycle of evolution. This is the evolution in the development of the languages among our species. As with the previous example, the stages in the evolution of the languages of our species follow the same pattern as the stages in the development of language for each individual.

In the 1st dimension of the cycle of evolution of language, there is only 1 type of word, nouns. Nouns are words that describe awareness of existence in space, as nouns represent such as persons, places, and things. In the universe, time is 1st, but in the awareness of nature, awareness of space is 1st.

The 1st dimension is well symbolized by the geometric point, as there is only 1 point, and it cannot be subdivided, just as there is only 1 type of word, the noun, which cannot be combined with other words to form such as sentences.

The 1st type of word that babies learn is the noun. The 1st type of noun that babies learn is proper nouns, which are nouns that represent 1 object in space, such as mama and dada/papa.



In the 2^{nd} dimension of the cycle of evolution of language, nouns subdivide. Nouns give rise to adjectives. Now, in the 2^{nd} dimension, there are 2 types of words in language. Adjectives represent awareness of time. Adjectives describe nouns, and so relate to space, as nouns relate to space, but adjectives represent changes that occur in space, and changes in space require time. Adjectives introduce time into space.

The 2nd dimension is well symbolized by the geometric ray segment, as 2 dimensional adjectives represent changes over time that flow in 1 direction only, like a ray segment. In this way, a young man can evolve into an old man, but the reverse is not possible.

Adjectives can combine with nouns to form 2 types of constructs, the phrase and the sentence. An example of a phrase is 'old man'. An example of a sentence is 'man old'.



In the 3rd dimension of the cycle of evolution of language, adjectives subdivide. Adjectives give rise to verbs. Whereas adjectives represent time, they represent time in relation to space. Verbs, however, are only about time. Adjectives reside between nouns and verbs, and represent a unification of nouns and verbs. Verbs are all about time and nouns are all about space.

Verbs that evolved in the 3rd dimension of language are mostly intransitive verbs of motion, such as the verbs 'come' and 'go'.

Now that languages have evolved verbs, during the entire life of the sentence, a noun and a verb cannot exist without the other. In all sentences, a noun requires a verb, and a verb requires a noun (although one or the other can be implied). Nouns and verbs are unified as 1. The 3rd dimension is well symbolized by the geometric line segment, as nouns are related to adjectives and to verbs. The flow is in two directions, like a line segment connecting the noun to both the adjective and the verb.

Notice that the structure of the clause is well symbolized by the line segment. When the noun is spoken, at the point in time of the now, the adjective will have been spoken before, in the past, and the verb will be spoken after, in the future.

Verbs can combine with phrases to form a new type of construct, the clause. An example of a clause is 'old man comes'.



In the 4th dimension of the cycle of evolution of language, subdivision continues. In addition to the noun having subdivided, the verb now subdivides. Just as the noun subdivided to form the adjective, the verb subdivides to form the adverb.

In the 4th dimension, the noun can be part of a segment, as it can be modified by an adjective. As well, the verb can be part of a segment, as it can be modified by an adverb. A sentence of 2 segments is well symbolized by an area, as an area is a figure that can be defined by 2 segments. Here, the 2 segments are connected using 2 other segments, representing a square. On the left in the diagram is the sentence 'Old man comes slowly'.

The 4th dimension of awareness of language also enables the awareness of direct object transitive verbs, which enable awareness of the interaction of 2 objects at the same point of the now. On the right in the diagram, there are 2 sentences, 2 segments of awareness. These are 'Woman eats bird' and 'Man catches bird'. There can be awareness of the interaction of these clauses, though the use of subordinate clauses, 'Woman eats bird that man catches'.



In the 5th dimension of the cycle of evolution of language, there is awareness of a 5th type of word, the conjunction. Conjunctions enable perpetuation, such that the cycle of language is now complete. Using conjunctions, the sentence can be perpetuated. For example: The young man walked to school, while it was raining, because his bike is broken, and because he does not have a car, since cars are expensive, and they are dangerous, although they can be safe, if people drive carefully, or if there is no traffic... Conjunctions enable multiple clauses within the same sentence to connect one to the other, thereby enabling the sentence to be perpetuated.

The 5th dimension is the dimension of perpetuation, and the cycle of evolution repeats. The cube well symbolizes the volume, as a cube contains any number of areas of clauses.

Conjunctions are the last type of word in language for children, and for our species, to evolve to the awareness of. Children prefer to use multiple short

sentences, which evolve, as they age, into fewer sentences perpetuating multiple clauses each, once they begin to use conjunctions.

Notice that there are 5 types of words; nouns, adjectives, verbs, adverbs, and conjunctions. However, the 5th type of word, the conjunction, is a return to unity, as any number of clauses can become unified into a single sentence.

Also notice that there are other types of words in language; interjections, pronouns, and pre(post)positions. These are secondary types of words, and are discussed elsewhere. They are omitted from this book in the interests of simplicity.

Review of the Cycle of Language				
	Dimension	Stage in the Cycle		
	1	Nouns alone in 1 st dimension.		
	2	Adjectives appear in 2 nd dimension.		
	3	Verbs appear in 3 rd dimension.		
	4	Adverbs appear in 4 th dimension.		
	5	Conjunctions unify in 5 th dimension.		

Let us review the cycle of language. The 1st type of word in language was the noun. Nouns (except for abstract nouns, discussed elsewhere) represent objects in space. The 2nd type of word is adjectives. Adjectives modify nouns, and introduce time into the symbolism of space. Adjectives, such as young and old, represent objects in space as the objects evolve over time. The 3rd type of word in language was the verb. Verbs symbolize time. For example, it is not possible to go or to come at an instant in time, but must occur over time. The 4th type of word in language is the adverb. Adverbs modify verbs in the same way that adjectives modify nouns. The 5th type of word in language is the sentence to perpetuate, such that multiple clauses can perpetuate the number of ideas expressed within a sentence.

Evolution of Consciousness

Our species has evolved from awareness of existence

of the point, in the 1st dimension of awareness,

to awareness of perpetuation of the volume,

in the 5th dimension of awareness.

Our species was originally like the other animals, with much less awareness of our environment than people have now. After our ancestors became sapient, or conscious, they evolved in stages to our current awareness of the cycles of time of the day, month, and year.

These cycles of time that are so important to humans are actually cycles of space-time, since mankind would not be able to be aware of, recognize, or track these cycles of time except by observing corresponding cycles of motion through space. For example, humans can only be aware of the cycle of time of the month by observing motion through space, the motion of the moon around the earth.

Our species has evolved from its original orientation to the awareness of existence, at the point, the point of the here in space, and the point of the now in time, in the 1st dimension of awareness, to orientation to the awareness of perpetuation of the volume, the volume of the there in space, along the ecliptic, and the volume of the past in time, in the 5th dimension of awareness.

Chapter 6

Dimensions of Awareness

Symbolism of the 5 Dimensions Awareness represented by each dimension

- 2. Position
- 3. Motion
- 4. Interaction
- 5. Perpetuation

Each of the 5 stages in the cycle of evolution, in all of its forms, including the cycle of the universe, the cycle of life, etc., involves and represents increasingly complex relationships between space and time, between man and woman, etc.

Each of the 5 stages in the evolution of human awareness, each of the 5 dimensions of awareness, represents an evolutionary leap in the ability of the human mind to be aware of relationships that exist in nature, of relationships that exist in space-time.

The 1st dimension represents the awareness of existence. This involves the ability of the mind to be consciously aware of the existence of objects in nature even when such objects are not currently present and visible.

The 2^{nd} dimension represents the awareness of position. This involves the ability of the mind to be consciously aware of the position of objects in space-time. In other words, there could be awareness of change in objects over time.

The 3rd dimension represents the awareness of motion. This involves the ability of the mind to be consciously aware of the motion of objects through space-time.

The 4th dimension represents the awareness of interaction. This involves the ability of the mind to be consciously aware of the interaction of objects in space-time.

The 5th dimension represents the awareness of perpetuation. This involves the ability of the mind to be consciously aware of the perpetuation of objects in space-time.



In order to be able to conceptualize the increasing complexity of the degree of awareness enabled by each dimension, we can look to geometry, a relatively simple model of nature that was the first model of nature that was developed by the Greeks that is still in common use today, more than 2,000 years later.

Each of the 5 stages in the evolution of human awareness of nature can be represented using one of the structural components in use in geometry. The 5 dimensions can be represented using the analogies of the point, the ray segment, the line segment, the area, and the volume.

Each of the grammars of the languages of the world evolved with a primary orientation to one of a set of 5 fundamental patterns, where each of these patterns can be understood in relation to one of these geometric analogies.

The geometric symbols in the diagram will be presented as the focus for understanding the symbolism of each of the 5 dimensions in the cycle of evolution.

Chapter 7

Religion and Science

The language of the ancient Greeks had a primary orientation to the 4th dimension of awareness, reflecting the fact that their ancestors left the homeland in Africa after they had already evolved to this dimension of mental development.

The ancient Greeks oriented to the 4th dimension of awareness, and this dimension was their primary dimension of awareness. Still, when their language originally evolved, their language and culture were already highly evolved, as they expressed a unified awareness of 4 dimensions of space-time. The ancient Greeks developed myths about what happened before their language and culture came to be. In other words, they developed mythology to represent and symbolize their 1st through 3rd dimensions of awareness, although this mythology was developed after the fact to present a unified progression of evolution of gods from the perspective of their primary dimension of orientation.

Primary Gods for Each Dimension						
	Dimension	Male Gods	Female Goddesses			
	1		1			
	2	1				
	3	6				
	4	6	6			
	5 Stage I	6	6			
	Stage II	1				

This table shows the ancient Greek representation of the primary gods and goddesses for each of the 5 dimensions of awareness. Each of these dimensions will be covered in detail.

The gods and goddesses listed here for the 1st, 2nd, and 3rd dimensions of awareness were not actually created or recognized when these people were still at these dimensions of awareness. They were created during the 4th dimension of awareness, the primary dimension of orientation of this culture, to explain their religion, and their background, from the perspective of their then current dimension of awareness, the 4th dimension.
The ancient Greeks represented the 1^{st} dimension with 1 goddess. The 2^{nd} dimension added 1 god. The 3^{rd} dimension added 6 gods. The 4^{th} dimension added 6 gods and 6 goddesses. The 5^{th} dimension was subdivided into 2 stages, of which the 1^{st} stage added 6 gods and 6 goddesses, and the 2^{nd} stage replaced all previous gods and goddesses with 1 god.

For reasons that will become clear, the Greeks believed that the 1st primary force of nature was a goddess, a female. Beginning with the 2nd dimension, there was also a god, a male. Once males came on the scene, they became predominant, for reasons that will become clear. The 3rd dimension added 2 sets of 3 gods, all male. The 4th dimension added 6 pairs of gods, where each pair included 1 male and 1 female. In other words, the 4th dimension of awareness added 2 sets of 3 gods that were male and 2 sets of 3 goddesses that were female. The 5th dimension evolved in 2 distinct stages. Of these, the 1st stage of the 5th dimension added 6 male gods and 6 female goddesses. These can also be considered as 3 sets of 4 gods. In the 2nd stage of the 5th dimension, all previous gods and goddesses evolved into a single male god, which is the single god of monotheistic religions today.

The 5th dimension of awareness, where we are today, is represented by a single god, as was the 1st dimension of awareness. Whereas the goddess of the 1st dimension of awareness was a simple goddess, the god of the 5th dimension of awareness is complex. The difference in symbolism between a male and a female is quite significant, as we shall see.

Religion

Evolution of dominance from female to male Also:

Evolution from 1 god to many and back to 1

Greek religion passed through stages, from the original unity of 1 female goddess, to the various subdivisions with their increasing numbers of gods and goddesses, until finally returning to the unity of 1 male god. The Greek model begins with unity and ends with unity. However, the final unity is much more complex and powerfully symbolic than the initial unity. This is symbolized by the difference between the unity of a goddess and the unity of a god. In more important terms, this is symbolized by the difference between unity of awareness of space and unity of awareness of time.

The goddess of the 1^{st} dimension was the goddess of the earth. In terms of time and space, the earth symbolizes awareness of space. In the 2^{nd} dimension, she created and was paired with the god of the heavens. The heavens symbolize time. Beginning with the 2^{nd} dimension, time takes precedence over space, and the god of the heavens takes precedence over the goddess of the earth. In the 3^{rd} and 4^{th} dimensions, they had a generation of offspring. The 5^{th} dimension begins with a 2^{nd} generation of offspring. From there, the religion evolved to monotheism, which although clearly evolved from the Greek pantheon is a very different form of god.

In this book, we will explore the symbolism of the gods of religion for each of the 5 dimensions of awareness in the evolution of Indo-European mental development, and at the same time look at the symbolism involved in the corresponding evolution of science.

Hesiod was a Greek poet who lived at approximately the same time in history as Homer, approximately 700 B.C. He is considered to be a major source of understanding of Greek religion at that time. Hesiod's Theogony (Θ εογονία, 'god genesis') is an excellent source of Greek traditions concerning the origin of the gods, and provides deep insights into Greek understanding of the origins of human awareness and understanding of nature. Only the primary gods will be discussed here. The numerous secondary gods will not be discussed.

Evolution of Religion and Science

According to modern physics, nature is a manifestation of relationships between 2 components, time and space. Religion and science are the names given to the 2 primary types of ways that speakers of English and Greek learn to model their awareness and understanding of relationships that exist in nature, their awareness of relationships that exist in time and their awareness of relationships that exist in space. Religion is a way to model nature that reflects a primary orientation to time. Science is a way to model nature that reflects a primary orientation to space.

For comparison, speakers of Chinese did not develop religion or science, which reflect subdivided models of awareness of time and space. Instead, they developed a single, unified way to model nature, known as the Dao. The Dao is discussed in detail in comparison to religion and science in another book.

Religion and science have not been around since the beginning of human language, but evolved when the human mind reached a certain level of awareness of nature. Furthermore, such models have not remained static throughout history, but have continued to evolve as the human mind has continued to evolve.

Our ancestors have evolved through 5 dimensions of awareness.

In the 1st dimension of awareness, there was awareness of 1, space. Awareness of space was primary, as this was the 1st dimension where there was awareness of space, and as there was no other awareness.

In the 2^{nd} dimension of awareness, there was awareness of 2, space and time. Awareness of time became primary, as this was the 1^{st} dimension where there was awareness of time. Awareness of space became secondary, as this was the 2^{nd} dimension where there was awareness of space.

In the 3rd dimension of awareness, there was awareness of 3; space, time, and their unity as space-time. Awareness of space-time became primary, as this was the 1st dimension where there was awareness of space-time.

The 4th dimension was the primary dimension of awareness of the ancestors of the speakers of English and Greek, the focus of this discussion. Being their primary dimension of orientation, the 4th dimension was their 1st unified dimension of awareness. These people then evolved through 1 more dimension of awareness, to a 2nd dimension of unified awareness. This was the 5th dimension of awareness. Whereas they evolved to their 1st dimension of unified awareness, the 4th dimension of awareness, in 1 stage, they evolved to their 2nd dimension of unified awareness of Indo-European peoples evolved through 3 stages; their primary dimension of awareness, and the late 5th dimension of awareness.

In the 4th dimension of awareness, these people developed 1 type of model of nature, known as religion. In the 5th dimension of awareness, these people additionally developed a 2^{nd} type of model of nature, known as science.

Religion represents a relationship with nature wherein all of an individual's understandings of nature are assumed/recognized to be under the control of conscious, arbitrarily changing entities, known as gods. Gods are typically symbolized as some form of life, in the form of some plant or animal. For anthropomorphic societies such as those of speakers of Indo-European languages, a group of languages that includes English and Greek, the most powerful of the gods would typically take human form. Each god was recognized to have its own personality and its own agenda. Followers of a religion would consider themselves able to exert some control over their gods, by learning their personalities and by coming to understand their motivations. Careful observation of a god's behavior would make its personality and desires known. It was important to become familiar with the likes and dislikes of individual gods, so that people could hope to make sacrifices to the gods or otherwise encourage them to act in a way that maximizes their favor and minimizes their punishment, where punishment might take the form of natural disasters or bad weather, reduced harvest, or assistance to enemies in war, each of which would be attributed to a displeased god. Understanding the motivation and behavior of their gods was the way that societies and individuals could believe themselves to achieve some measure of control over what occurs in nature.

Science represents a relationship with nature wherein all of an individual's understandings of nature are assumed/recognized to be under the control of unconscious, unchanging laws of nature. People are not able to completely understand nature or to exert complete control over nature. However, since the laws that nature follows are thought to be unchanging, careful observation of nature makes it possible to recognize and come to understand these laws, thereby increasing societal and individual understanding of what occurs in nature, and when and why, and thereby enabling belief in the ability to exert some measure of control over what occurs in nature.

For religion, the gods have their own motivations and their own reasoning, and for whatever reason at whatever time might act on the earth, or on a society, or on an individual in a way that could range all the way from tremendous assistance to terrible disaster. Therefore, the most important, and the most powerful, people in a society would be the priests, a class of people whose role it was to understand the gods, to explain the needs of the gods to the common people, to ensure that the common people behave in a way that pleases the gods, and to know how to entice the gods to act in the best interests of the people. As well, since religion is primarily about time, in all but the most recent of societies the priests were responsible for tracking the objects in the heavens that enabled awareness of the cycles of time; in other words, the priests were the keepers of the calendar.

For science, human behaviors were not considered to directly affect the weather, natural disasters, and so on, and so scientists, the class of people whose job it was to deepen societal understanding of nature based on the principals of science, although important, were not nearly as important as the priests.

Because cultures that orient to the 4th dimension have a primary orientation to time, and have a secondary orientation to space, priests, the keepers of religion, where religion symbolizes society's awareness of time, have historically tended to play a much more important role in society than scientists, the keepers of science, where science symbolizes society's awareness of space.

In the 4th dimension of awareness, there was awareness of 3; space, time, and space-time. The 2nd set of 3 stages of awareness (the 4th dimension and the early and late stages of the 5th dimension of awareness) follows the same pattern as the 1st 3 stages. In the 4th dimension of awareness, therefore, once again awareness of space was primary. For example, the primary god of this stage, the stage of the Titans, was Chronos, the god of the land on the earth, who was the primary god of space. At this time, there was only 1 type of model of nature, religion.

In the 5th dimension of awareness, there was awareness of 3; space, time, and space-time. At this time, there were 2 types of models of nature, religion and science. For religion, once again awareness of time was primary. For science, awareness of space was primary. In other words, religion has a primary orientation to time, and science has a primary orientation to space.

In this 1st stage of awareness of both religion and science, the 1st stage in their evolution to their awareness of the 5th dimension, the notions about nature that were symbolized by religion and science were symmetrical to each other.

For example, for religion, the primary god of this stage, the stage of the Olympians, was Zeus, the god of the year, which was their largest unit of time. In Latin, Zeus was known as Jupiter. The name Jupiter comes from the Latin 'dyeu pater', which means 'father god'. Zeus was the king of the gods. He had a distinct personality, and many myths were told about him. Great natural or manmade disasters were often attributed to Zeus. It was important for society to attempt to

become aware of his likes and dislikes, because it was very important to curry his favor and to avoid his wrath.

For science, the equivalent notion to Zeus was the cycle of time of the year. The god Jupiter was a part of nature, and was also represented physically, as the most important planet in the heavens for ancient societies. Observing the planet Jupiter in its cyclic journey around the heavens is what enabled ancient societies to become aware of and to track the stages in the cycle of the year, the largest natural unit of time in ancient Greek society.

Religion and science (astronomy) both considered the planet Jupiter to be extremely important, and for the same fundamental reason of enabling society to track their largest unit of time, but their approach, interpretation, and resulting understanding were extremely different.

In the 2nd stage in their evolution to the awareness of the 5th dimension, religion and science evolved differently. Just as there are 5 dimensions of awareness, this last stage of evolution itself occurred in 5 stages. Religion evolved in 1 of these 5 stages, the 1st stage, and science evolved in the subsequent 4 stages.

Religion was 1st, and science was 2nd. At this time, religion evolved 1st, and in 1 stage. In this stage, there is awareness by religion of 1, time. As demonstrated later, a single finger sign enables representation of their awareness of all units of time, unified, such that each unit of time flows into the next in a continuous cycle of flow through time.

Religion in this stage, monotheistic religion, is only about awareness of time. Awareness of time is primary, and there is no representation of awareness of space. There is awareness of motion through time, but there is no awareness of motion through space, or of change in space. In other words, monotheistic religions are founded, and then they are explained through writings. After that, religions become very conservative, and tend to change only in time. The most powerful force against change in religion is the force of tradition. The way that it always was is the way that it should always be. Whenever changes do occur in space, and whenever there is a break with tradition, it typically causes a decisive separation from those who continue to follow the tradition of the earlier way.

Next, science evolved 2nd, and in 4 stages. These stages are about space-time, but with a primary emphasis toward space. In other words, scientific models of nature have been gradually evolving from representing only space to representing only space-time. There are 4 primary models of nature, 4 models of science, that

will be discussed in this book that will serve to symbolize these 4 stages in the evolution of science in modern times.

The 1st stage is represented by Euclidean geometry. Geometry is a simple model of nature wherein only space is represented. Time is not represented in geometry at all.

The 2nd stage is represented by Newtonian physics. Time is represented in Newtonian physics, but time is considered to be completely separate and distinct from space.

The 3rd stage is represented by Einstein's theory of relativity. In relativity, space and time are partially integrated into space-time.

The 4th and final stage of evolution of science has not yet occurred in modern society. In this stage, space and time are completely integrated into spacetime. Evolution to this 4th stage is now made possible by the new model of nature presented throughout this book. At the end of the book, an introduction to the implications of this model on the evolution of science will be presented. A much more detailed discussion of the implications of these ideas on science is presented in another book, which discusses all of the ideas in this book in much greater detail.



In Hesiod's Theogony, the initial state of the universe was what is known as Chaos, an empty void from which everything that now exists arose.

The ancient Greeks used the word chaos to represent the stage in their history before their ancestors had begun to develop a consciousness awareness of the environment, awareness of time and space. Chaos is a word that represents the awareness of nature of our ancestors before the development of language, when we were much more like the other animals. Chaos represents the inability of the mind at that time to identify or recognize any form of distinction within the environment. When there is only chaos, everything in the mind is dark, and nothing can be recognized as distinct from anything else, unless it happens to be right here, in front of the face, right now. At that time, our ancestors were just like the other animals, and, from the perspective of the ancient Greeks, their understanding of the nature of the world would have been nothing but chaos.



Let us imagine standing at a spot on the earth where the ground is completely flat. This is represented by the spot where 'I' stand in the diagram. (1) Looking out into the distance, as far as the eye can see, it is not possible to see the entire earth, because the surface of the earth is not like the surface of a table but is more like the surface of a ball, in the shape of a sphere. In the distance, the earth curves away from our line of sight, such that there is a natural distance beyond which we cannot see. The spot on the earth that is at the edge of our line of sight, the farthest that we can see in any direction, is called the horizon. (2)

If we rotate our bodies, we can see the horizon in every direction, and in every direction the horizon appears to be roughly the same distance away. In geometry, a figure where all parts are equally distant from the same spot, known as the center, is called a circle. The circle will be used here, and again in discussing each of the dimensions of awareness, to represent the limits of our awareness of subdivisions within nature, and the extent to which such subdivisions can be recognized and symbolized on the human body. As we rotate our bodies in order to observe any 2 spots on the horizon, the measurement of how far we have rotated, from one spot to the next, is called the angle. A common measurement of angles is the degree. Perhaps because the cycle of the year, society's largest unit of time, which represents a complete revolution of the earth around the sun, is subdivided into approximately 360 days, circles are considered to represent 360 degrees, written 360° . If we rotate our bodies enough to observe the entire circle, such that we return to the spot where we began, our bodies are considered to have described an angle of 360° . (3)

As our ancestors evolved to the awareness of each succeeding dimension of space-time, they had to be able to symbolize the resulting awareness of greater subdivision somewhere on the body in order for it to be ingrained within the mind. Each dimension within human awareness enabled subdivision of awareness of space and time. Subdivision leads to greater understanding, due to awareness of increasing relationships. Subdivision is always subdivision into 2.

We will begin with the number 2, since 2 is the number of subdivisions of our awareness that are associated with each additional dimension within our awareness. We will use the number of dimensions as an exponent, in order to understand how many subdivisions of the unity of nature, and of the unity of the circle, were within human awareness with the awareness of each dimension.

As we follow the evolution of our ancestors to the awareness of each of the dimensions of space-time, we will follow the evolution in their ability to be aware of subdivisions within the unity of nature, and of their ability to recognize and represent such subdivisions on the body.

The ability to represent and symbolize increasing subdivisions of the circle of the horizon on the body enabled and correlated with the ability of the mind to be aware of subdivisions within all of nature.

Chaos represents the period in human history when there was no awareness of any subdivision within the unity that is nature or within the unity that is the human body. As there was at this time awareness of 0 dimensions, there was awareness of 2^0 subdivisions of nature. 2^0 , 2 multiplied by itself 0 times, is by definition equal to 1. There was at this time awareness of a subdivision of the body, and of space and time, into 1. (4)

Since there was awareness of only 1, it cannot really be called a subdivision, but rather a unity. At this time, there was awareness only of the unity of nature. In

other words, we can consider awareness of a circle of 360° , without awareness of any possible subdivision within it.

As well, there was no awareness of subdivision within the body. At this time, the body could turn around completely, for example, and the eyes could observe the entire circle of the horizon as a unified body, but there was no awareness of distinct and separate parts of the body, just as there was no awareness of subdivisions within any part of nature. In other words, if any part of the body moved in its symbolism, all parts of the body moved together as a unified body.

The unity of the circle shown in the diagram, and the unity of the body that symbolizes the limits of human awareness, will subdivide as we discuss evolution to the awareness of each of the 5 dimensions of space-time. For each dimension, human awareness of the body was able to subdivide, enabling symbolism using increasing numbers of distinctions within the body, and increasingly smaller angles of distinction. This in turn enabled the symbolism of increasingly small parts of the circle of the horizon, and enabled the mind to recognize a greater number of spots on the horizon as distinct and meaningful, to give each such spot a name, and to associate each spot with other identified spots on the horizon.



There is another way to consider the circle of our awareness, and that is in the form of a square, as the square of our awareness. Whereas a circle is a figure that has 1 side, a square is a figure that has 4 sides. Like a circle, the sides of a square are also considered to be formed from angles that together span 360°.

We will see that a fundamental difference in the symbolism of time and space of the ancestors of the speakers of English is that time is symbolized in the form of a circle, yet space is symbolized in the form of a square.

Minimum Joint Angle					
	Dimension	Minimum Angle			
	0	360°			

During this time, when all was chaos, there were 0 dimensions of awareness. There was no awareness of any subdivision, or distinction, within nature. There was therefore no awareness of any subdivision within the body. No part of the body could move independently of any other part of the body in order to symbolize any awareness of subdivision, or distinction, in nature.

The locations on the body where the various parts of the body are able to move independently of each other are called joints. Awareness of a change in relationship between 2 parts of the body due to motion at a joint enables awareness of a distinction within the body, and correspondingly with nature, because we can be aware of the relationship between the 2 parts of the body before the motion compared with their relationship after the motion as a distinction.

However, at this time, any motion of a joint would cause the relationship between the 2 sides of any joint after the motion to be the same as before the motion, such that there could be no awareness of any distinction between the before and after relationships.

Therefore, we can say that the smallest angle of movement of any joint on the body was 360° , such that at this time the joints of the body could not be used in any symbolism of awareness of nature.

Part II

Dimensions Of Time & Space

Chapter 8

The 1st Dimension: Existence At A Point

Let us now examine the 1st of these major stages in the evolution of the awareness of nature of our ancestors, the 1st Dimension of Awareness.



The notion from geometry that is analogous to the 1st dimension of awareness in the history of our species is the notion of the point. In the 1st dimension of awareness, there is only 1 point of awareness, the symbol of which is shown in the diagram. There is no meaningful way to subdivide this symbol into smaller parts, and the point is therefore appropriate as a symbol of unity. Note that the point is symbolized by a single point, wherein there is no structure that can be subdivided into smaller parts. As well, there is no way to combine the point into a more complex symbol, since there is awareness only of a single point.

In the geometry of 0 dimensions, where only a single point can exist, and where there is no consideration of the line or other geometric concepts that build upon the point, there are only 2 possible states for any given point. Each individual point can either exist here or not exist here. There are no relationships that a point can hold with other points, since each point stands alone.

Numeric Symbolism

The 1st dimension of awareness can be represented in language by the number 1. This is reasonable, as only 1 point is involved at a time.

Language Symbolism

During the stage of the 1st dimension of awareness, our ancestors evolved to the 1st dimension of language development. At this stage, the only form of structure within language was the word. In other words, there were no phrases, clauses, or sentences, which would be composed of multiple words, as these would not symbolize a single point. As well, each word was composed of a single syllable, as a word that could be broken into syllables would not still symbolize a single, indivisible, unified point.

The form of word to evolve in the 1st dimension of awareness was the noun. The noun evolved in each subsequent dimension of awareness, but during the 1st dimension of awareness, only the simplest form of nouns existed. These were proper nouns. Proper nouns are nouns that represent a single object, a single point in space. An example is a proper noun such as Bob, which refers to a single object in space.

Nouns are words that enable the awareness of objects even when the objects that they represent are not physically present right here, right now. Through the use of proper nouns, language could be used to represent awareness of the existence of an object that was not physically present. However, nothing else could be realized from a noun other than that the object exists. There could be no awareness of change within the object, as awareness of change requires awareness of more than 1 point in time, which was not possible at this stage in human history, since at that time in our history there was only awareness of isolated points in space-time.



The 1st dimension of awareness is represented in the analogy of geometry as the dimension of the point.

In the 1st dimension of awareness, there was awareness of 1 facet of time, 1 tense of time. There was awareness of the present tense, the point of the now in time. In the beginning of human consciousness, mankind was not able to manipulate in the mind and be aware of things that had happened in the past or that would happen in the future, but only of things that were happening right now, in the present. It was far in the future that mankind would be able to ponder what happened years ago or would happen years in the future, as early mankind was not even aware of concepts of time such as the day, the month, or the year at all. Babies also do not have any awareness of time other than the now. It is not meaningful to ask a baby what he will be doing in 20 years, as babies require years of evolution through their lives in order to be able to understand the concept of the year. The same holds true for the infancy of our species.

At this stage, there was no awareness of any other time than the point of the now. Because there was no awareness of any distinction in time, there was no awareness in this dimension that time exists. There could therefore be no representation of time in this dimension of awareness.



The 1st dimension of awareness is represented in the analogy of geometry as the dimension of the point.

In the 1st dimension of awareness, there was awareness of 1 point in space, the point of the here. Each person, at that stage in our evolution, could only become aware of something when that thing reached the point of the here in space, immediately in front of the person's nose. In the beginning of human consciousness, mankind was not able to manipulate in the mind and be aware of things that were happening far over there, but only of things that were happening at the point of the here, immediately in front of the nose.

When a thing left the point of the here, such that it was no longer at the point of the here, there remained the noun of language, proper nouns, to recall and refer to the thing. Even when no longer at the point of the here, the use of a noun enabled mankind to recall that the thing existed.

Other than existence, nothing else could be recalled about a thing once it left the point of the here in space, because language had no other words that might express awareness of other relationships in space.



To symbolize the 1st dimension using fingers signs, stand up straight, with the feet together, and with the arms hanging down alongside the body. The hands are closed into fists, and the thumbs extend downward along the tops of the index fingers. This is the initial position for preparing for finger signs.



Relocation of the arms in order to prepare the hands for symbolism of the 1^{st} dimension of awareness requires 2 steps. 1^{st} , use both shoulders to shift the arms upward and outward 90° , such that the arms extend horizontally outward toward the left and right.



2nd, use both elbows to shift the forearms 180° inward, such that the forearms lie alongside the upper arms, the radius and ulna bones of the forearms are horizontal (forward-rearward) with respect to each other, and the hands touch each other, immediately in front of the nose.



This is a view of the hands from the inside. The left thumb lies alongside and above the right thumb, and the nose touches the thumbs at the space between the thumbs, where the 2 bones of each of the thumbs meet.

The hands form 1 monolithic block. There is no awareness of subdivision within the hands, and there is no awareness of organization within the hands.

There is only awareness of the body as 1 whole, un-subdivided body. There is no awareness of subdivision, and so there is no awareness of more complex relationships in nature. There is awareness of the existence of the hands in front of the nose, but there is no awareness of anything else. Other than the fact that they exist, there could be no other awareness of things that exist in space. There was no awareness of time, so there could be no awareness of change in space.

When an object would come to the point of the here and now, there could be awareness of it, just as there was awareness of the hands when they were located in front of the face. A noun could be used to refer to the object at the point of the here and now.

The elbows could then shift the forearms 180° outward, such that the hands would no longer be located in front of the face, and such that the hands would no longer be visible to the eyes as they continued to look forward. Because of language, when an object would leave the point of the here and now, the resulting symbolic disappearance of the hands would not symbolize the complete loss of awareness of the object. There would still remain the noun of language that could be used to recall the object when it is no longer here, such that in the mind of

mankind there could still be awareness of the existence of an object that had entered awareness and then had left the point of the here and now.

Notice that when the elbows reposition the hands to the sides, the hands are no longer visible to the eyes. The eyes cannot then shift to look at the hands, because the hands are each positioned at a different point in space from the point of the here, and at this time in our evolution there was awareness of only 1 point, the point of the here. As well, the point of the here must be immediately in front of the nose, as there was at this time no awareness of time, and so there would have been no time to look at the hands and then subsequently to look beyond the hands and the point of the here. As we progress through the dimensions of awareness, and as there becomes progressively more awareness of time as well as space, the point of the here will become progressively more removed from the position immediately in front of the nose. Speakers of Chinese, who orient to the 1st dimension of awareness, commonly touch their noses to refer to themselves, here, rather than touching their chests at the sternum, as is common among speakers of English.

Cycle Of Nature

Evolution to subsequent dimensions of awareness, evolution of language, and evolution in understanding relationships in time and space all require awareness of cyclic changes that occur in nature.

When mankind was able to evolve to the awareness of cyclic changes that occur in nature, such awareness enabled evolution of the human mind and of the structure of human language.

In this 1st dimension of awareness, there was as yet no awareness of any of the cycles of nature that modern humans are now aware of. The only awareness that language enabled was awareness of when something was at the point of the here and now, when something was at the point of right here in space, at the point of right now in time. Also, through the use of nouns of language, there was awareness that such a thing exists even when it was no longer at the point of the here, now.

Geometric Structure of Awareness						
	Dimension	Geometric Structure	Number in Awareness	Composition of Structure		
	1	Point	1	1 point		
					·	

In the 1st dimension of awareness, there is awareness of 1 point. Each point stood alone, and there could be no awareness of any relationship to other points.



In the 1st dimension of awareness, 1 part of the body was used in symbolism, once the body had prepared for symbolism. This part of the body was the arms.

Joints of Arms Used in Symbolism						
	Dimension Number of Joints		Joint Added In This Dimension			
	1	1	Elbow			

In the 1st dimension of awareness, after moving the arms into position to represent symbolism, only 1 joint of the arm could be used in symbolism. This was the elbow joint.



In each dimension of awareness, the number of distinct parts of the body that are used in symbolism will increase. As well, the minimum range of motion of the various joints of the body that are used in symbolism will decrease. This decrease represents awareness of finer distinctions in space-time.

As we follow the evolution of our ancestors to each of the dimensions of space-time, we will follow the evolution of their ability to be aware of subdivisions within the unity of nature, and to recognize analogous subdivisions on the body.

At the time of the 1^{st} dimension of awareness, there was awareness of 1 subdivision within the unity of nature. As subdivision is subdivision into 2, there was therefore awareness of 2^1 subdivisions of nature. 2^1 , 2 multiplied by itself 1 time, is equal to 2. There was at this time awareness of a subdivision of nature into 2.

We can therefore consider awareness of the 360° circle of the horizon of our awareness as subdivided into 2, where half of 360 is 180, such that there was awareness of 180° .

This awareness was symbolized by an awareness of corresponding subdivision on the body. There was now awareness of distinct and separate parts of the body, just as there was awareness of subdivision within all aspects of nature, such that a part of the body was able to move separately and distinctly from the rest of the body in its symbolism.

The minimum motion of any part of the body, relative to the other parts of the body, in order to symbolize awareness of space-time in the 1^{st} dimension of awareness was 180° .

Minimum Joint Angle				
	Dimension	Minimum Angle		
	0	360°		
	1	180º		

Once the bones of the arms had completed preparation for symbolism of the 1^{st} dimension of awareness, there was only 1 joint of the body, on the arms, that would move in the symbolism.

The only joint to move was the elbow joint. The elbow joint could change the relationship of the upper arm to the forearm by only 1 angle, an angle of 180° .

The smallest angle of movement of any joint that was used in symbolism of the 1^{st} dimension of awareness was 180° .

Example Language that Orients to the 1st Dimension of Awareness

Chinese is an example of a language that orients to the 1st stage of human awareness, the stage of awareness of the 1st dimension, reflecting the fact that the ancestors of the modern speakers of Chinese left the homeland in Africa at the time in our history when our ancestors had already evolved to this dimension of awareness.

For this reason, time does not have an integrated representation in Chinese. Chinese grammar is all and only about representation of space.

For example, there is no way to distinguish tense in the form of the verb in Chinese. All verbs in Chinese reflect only the present tense.

All words in Chinese evolved out of what were originally very concrete nouns. Concrete nouns are words that are all about space, words that name objects in space. All words in Chinese are composed of a single syllable, as words composed of multiple syllables would not symbolize a single point. (Multiple words are often combined to form compound words in Chinese, in the same way that 'bedroom' in English is a word that is the combination of two other distinct words, 'bed' and 'room'.)

The Chinese writing system is completely oriented to space, unlike English, for example, which is much more oriented to time. The English writing system uses an alphabet. In order to understand a written word in English, it is necessary for the reader to read through the word one letter, or sound, at a time. This process takes time, and English orients primarily to time. Chinese writing, however, orients more to space. Each word in Chinese is written using a pictograph, a character that symbolizes a picture. Whereas alphabets symbolize time, pictographs symbolize space. A picture is designed to be seen all at once, not in pieces, and a picture does not change over time.

Orientation				
Dimension	Direction of Orientation			
1	None			

In order to symbolize their awareness of space and time, ancient people had to orient themselves in a direction with respect to space and time that enabled such awareness.

While in the homeland in Africa, people would orient to time. Upon leaving the homeland, people would instead orient to space.

Speakers of Chinese oriented to the point. During their time at the 1st dimension of awareness, and while in Africa, they did not orient to any specific point in space. They oriented to the point in time of the now. The point of the now changed continuously, and the only constant was that people oriented to the ever-changing point of the now.

Orientation to time involves orientation to the sun. In order to understand how the Chinese symbolically oriented, consider that the sun is the primary and most distinctive body of space-time in our part of the world. Instead of orienting to some spot on the earth, as cultures that oriented to subsequent dimensions came to do, while still in the homeland of mankind in the 1st dimension of awareness, people would instinctively constantly orient toward the sun. However, the relationship between the earth and the sun is not constant, because the earth rotates constantly on its axis, over the course of a cycle known as the day.

This required that people symbolically turn constantly over the course of the day in order to maintain their orientation to the sun. The body would symbolically mark out a 360° circle over the course of the day. The homeland of mankind is somewhere in the vicinity of the equator. At the equator, the sun would rise in the east, pass directly overhead, and then set in the west. People would rotate their bodies clockwise throughout the day, shifting their head as necessary forward to observe the sun as it rose in the east, upward as it passed directly overhead, back to forward as it set in the west, and then downward as the sun passed directly underneath as it crossed the back side of the earth.

People would symbolically reorient throughout the day toward the direction of the sun. Each time that a person would orient to a point, the point where the sun was now, there was no awareness that the point had a past, where it was before, or a future, where it would be after. There was only awareness of each point as long as it was here, now, because upon reorientation to another point, there would be a new point of the here, now, which would become the only point of their awareness and existence of the here and now.

After leaving Africa, and during later dimensions of awareness, the ancestors of the speakers of Chinese began to orient to a fixed point in space on the earth. The single most distinctive point in all of space to select as their point of awareness by which to orient themselves is the midpoint in the cycle of the day, the point of noon, when the sun is at the highest point in the heavens.

Because the sun passes through the heavens in the south (for speakers of Chinese, who were at this time in the northern hemisphere), speakers of Chinese began to orient to space-time by facing the south.

In Chinese, such notions as orienting oneself, attending a school orientation, and reading a device instructional guide all use words relating to 'south pointer', as does the Chinese word that is equivalent to 'compass'.



The 1st stage of evolution in awareness was to the awareness of existence. The object of the here and now might be Bill, for example, or it might not be Bill. Although other animals can be aware of an object that is at the point of the here and now, they do not have nouns that enable their minds to be aware of the existence of an object when it is not here, now. Out of sight is completely out of awareness.

In the 1st dimension of awareness, there was awareness of the existence of other than what was at the point of the here and now, through the use of the 1st dimension words of language, nouns.

There was still no awareness of change in an object each time that it came to occupy the point of the here and now, as nothing could be remembered about an object from its name other than that the object exists.



As an analogy to help understand the point, imagine a river of space-time, with rafts, in the form of circular black points, which symbolize objects that a person might experience, floating down the river. Consider a person lying on his back in the river with his face just below the surface of the water. All of his awareness of the entire river at any given point in time would be the point in space immediately in front of his nose, at which time he could have no awareness of any other point on the river.

Review Of The 1 st Dimension					
Dimension	Symbolism	Geometry	Unit Of Meaning	Type Of Word	Example
1 st	Existence	Point	Word	Noun	Bill

Let us review the symbolism of the 1st dimension of awareness. The 1st dimension is the dimension of awareness of existence, at the point. Each word is a point, and the simplest words are nouns, which describe space.

Religion

In the ancient Greek pantheon of gods, according to Hesiod, the 1st dimension was represented by 1 god. This god was female. Female relates to space. Male relates to time, but as yet there was no awareness of time, and there were at this time no primary male gods. There were some minor, secondary gods according to Hesiod, but these are not relevant to the primary gods that represent the dimensions of awareness of nature.

The 1 goddess of the 1st dimension was the goddess Gaea, the goddess of the earth. The earth symbolizes space, since everything that we know about space our ancestors would have seen here, on the earth.

Chapter 9

The 2nd Dimension: Position On A Ray Segment

Let us now examine the next major stage in the evolution of the awareness of nature of our ancestors, the 2^{nd} Dimension of Awareness.

In the 1st dimension of awareness, there was awareness of 1, space. In the 2^{nd} dimension of awareness, this awareness of 1 subdivided, and there was awareness of 2, space and time. In the 2^{nd} dimension of awareness, all aspects of nature could be subdivided into one or the other of these two distinctions. All aspects of nature of which mankind was aware at that time were completely similar to one of the distinction.

In order to recognize similarities and differences among aspects of nature, there must be awareness of subdivision within the unity of nature. Only with awareness of subdivision can similarities or differences be recognized. Awareness of subdivision requires awareness of a cycle of nature. A cycle is that which has stages, each of which can be recognized to be different. For example, a point cannot be subdivided, but a ray segment can be composed of 2 points, each of which occupies a different position. Once differences are recognized within the stages of a cycle of nature, then structurally similar similarities and differences can be recognized in other areas of awareness. It was the awareness of progressively more complex cycles of nature that enabled our ancestors to become aware of progressively more evolved distinctions, or subdivisions, within the unity of nature.



The notion from geometry that is analogous to the 2^{nd} dimension of awareness is the notion of the ray segment. In the 2^{nd} dimension of awareness, there are 2 points of awareness, as shown in the diagram.

In 1 dimensional geometry, known as linear geometry, the point and the line exist. In the 2^{nd} dimension of awareness, instead of the entire line of geometry, where a line extends in 2 directions, the extension is in a single direction only, in the form of a geometric ray. Furthermore, the ray does not extend infinitely, since the awareness of mankind is finite, such that we can recognize the ray as being a ray segment. On a ray segment, which we symbolize as shown in the diagram as being composed of 2 distinct points, an object that exists can be positioned either at one point or the other point on the ray segment. There are no other relationships that a ray segment can symbolize.

Numeric Symbolism 2

The 2^{nd} dimension of awareness can be represented in language by the number 2. This is reasonable, as this simple representation of a ray segment is composed of 2 points.

Language Evolution

During the stage of the 2^{nd} dimension of awareness, our ancestors evolved to the 2^{nd} dimension of language development. The form of word to evolve in the 2^{nd} dimension of awareness was the adjective. The adjective evolved in each subsequent stage, but during the 2^{nd} dimension of awareness, only the simplest form of adjectives existed. These were unidirectional adjectives. Unidirectional adjectives are adjectives that represent 2 states of a single object, 2 positions on the ray segment of time or space. An example is the pair of adjectives 'young' and 'old'. Bob can be young now, at this point in time. Or, Bob can be old now, such that he was young then, at a point in the past. During the 2nd dimension of awareness, language developed 2 new grammatical structures, the phrase and the sentence. Each was composed of 2 words. An example of a phrase is 'big man', where the adjective 'big' modifies the noun 'man'. An example of a sentence is 'Bill big(now)' or 'Bill small(past)'. Note that these adjectives would have reflected the tense, since there were as yet no verbs. As well, each word could be composed of 2 syllables, as a word broken into 2 syllables would symbolize 2 points on a ray segment.

A ray segment, in its simplest form as represented here, is composed of 2 points. An object can be positioned at the 1^{st} point on the ray segment, and then the object can later be positioned at the 2^{nd} point on the ray segment, at which time the time of being positioned at the 1^{st} point on the ray segment will lie in the past. With language, we can say the 1^{st} word of a phrase or a sentence, and then we can say the 2^{nd} word of the phrase or the sentence, at which time the saying of the 1^{st} word will lie in the past.



The 2nd dimension of awareness is represented in the analogy of geometry as the dimension of the ray segment.

In the 2^{nd} dimension of awareness, there was awareness of 2 facets of time, 2 tenses of time. There was awareness of the present tense, the point of the now in

time, and there was awareness of the past tense, and of the point that went before. Our ancestors would not have become aware of both the past and the future at the same time in their evolution, and it was still far in the future that mankind would be able to ponder the future as well.



The 2^{nd} dimension of awareness is represented in the analogy of geometry as the dimension of the ray segment.

In the 2nd dimension of awareness, there was awareness of 2 points in space, the point of the here and the point of the there. Each person, at that stage in our evolution, could become aware of something when that thing reached the point of the here in space, right in front of the person, and could then continue to be aware of that thing as it repositioned to the point of the there.

When a thing left the point of the here, such that it was no longer at the point of the here on the ray segment, it would move to the point of the there. Adjectives of language, unidirectional adjectives, were able to identify the position of the point on the ray segment.

Other than existence and position, nothing else could be recalled about a thing once it left the point of the here in space, because language had no other words that might express awareness of other relationships in space.

Structure of the Human Body

In the 2^{nd} dimension of awareness, awareness of the body subdivided, into 2. The body was recognized not to be a single, monolithic whole, but was recognized to be composed of 2 symmetrical sides, a left side and a right side.

Each side had an arm, such that there were 2 arms. Each arm was subdivided into 2, and upper arm and a lower arm (forearm). The forearm was subdivided into 2, an arm and a hand.

Let us focus on the hands. Awareness of each hand could now subdivide into 2, as there was awareness that the thumb could now separate from the rest of the hand, which remained as before as a closed fist. There were therefore 2 parts of the hand, the thumb and the rest of the hand.

The thumb is composed of 2 bones, or digits. The thumb could extend in 2 ways with respect to the rest of the hand; the thumb could extend forward, parallel to the rest of the hand, as it had before, or the thumb could extend away from the rest of the hand, and perpendicular to the rest of the hand.

In the 1^{st} dimension of awareness, only the arms were used in symbolism of awareness. In the 2^{nd} dimension, there was awareness of a 2^{nd} part of the body for use in symbolism. In the 2^{nd} dimension of awareness, 2 parts of the body were used for symbolism, the arms and the head.

The symbolism of the 2^{nd} dimension of awareness is all about recognizing distinction, or subdivision, within nature and within the human body, where such subdivision was always subdivision into 2.

Preparation for Finger Symbolism

To become aware of the 2^{nd} dimension required awareness of a cycle. The hands could symbolize the flow through the stages of this cycle. The cycle was itself subdivided into 2, such that there were 2 half cycles, each of which
symbolized the 2 ray segments that symbolize the 2 components of nature, space and time.

Let us prepare the hands for examining the finger signs that symbolize the 2^{nd} dimension of awareness.



To symbolize the 2^{nd} dimension of awareness using fingers signs, begin with the body as in the 1^{st} dimension of awareness.

The arms hang vertically downward along the side of the body. The hands are closed, and rest against the thighs. The thumbs lie along the index fingers, as they extend vertically downward.

This is the initial position to prepare for finger signs.

Whereas 2 steps were required to prepare for symbolism of the 1^{st} dimension of awareness, 3 steps will be required to prepare for symbolism of the 2^{nd} dimension of awareness.



In the 1^{st} step, both arms shift in the same way. Use both shoulders to shift the upper arms 90° forward and upward, such that the arms extend horizontally forward from the body.



At this point, extend the right thumb upward. The thumb is the 1st part of the hand to be distinguished from the rest of the hand. The thumb is appropriate to

symbolize the 2^{nd} dimension of awareness, as each thumb is composed of 2 bones. The right thumb shifts from a position together with the rest of the hand to a 2^{nd} position, perpendicular to the rest of the hand.

In the 2nd dimension of awareness, there are 2 possible positions of the thumb relative to the rest of the hand, orienting parallel to the rest of the hand or orienting perpendicular to the rest of the hand. One thumb will always orient one way, at which time the other thumb will orient the other. The thumb that orients to the point of the here will extend perpendicular to the rest of the hand, whereas the thumb that orients to one of the points of the there will orient parallel to the rest of the hand.



In the 3^{rd} step, the arms shift differently. Use the right elbow to shift the forearm 90° upward, such that the right thumb naturally touches the nose, at the point of the here. The left shoulder continues shifting the upper arm upward another 90° , such that the left arm extends vertically upward, toward the heavens.

This is the position of the arms and hands at the completion of a complete cycle of symbolism, ready to begin another cycle. From here, we can cycle through the entire cycle of the hands, and examine the symbolism. This cycle is the cycle of

awareness of space and time. Understanding the symbolism of the stages in the cycle of the hand requires awareness of a cycle of nature.

Cycle Of Nature Day

Cycle of light and darkness

Cycle of nature of which mankind became aware in the 2nd dimension.

Evolution to the 2^{nd} and subsequent dimensions of awareness, evolution of language, and evolution in understanding of relationships that exist in time and space all require awareness of cyclic changes in nature.

When mankind would develop awareness of cyclic changes in nature, such awareness would enable evolution of the human mind, since all relationships in nature follow the same fundamental pattern.

In the 1st dimension of awareness, there was awareness of the existence of light in the midst of what was otherwise darkness, symbolized by the presence of something at the point of the here. At that time, darkness was not recognized as something with its own existence, but was considered to be merely the absence of light, the absence of something that exists. As there was no awareness of any cycle of nature in the 1st dimension of awareness, there was no awareness of any pattern in the recurring presence of light and darkness, such that during a period of darkness the only awareness of light was that it exists, even though there was not light at the point of the here, now. In the 2nd dimension of awareness, mankind evolved to the awareness of a 2nd form of existence, darkness. In other words, darkness was not merely the absence of light, but had its own existence. Furthermore, the presence of light and darkness was recognized to follow a pattern that could be understood; in other words mankind became aware that their presence followed a cycle.

The first cycle of nature of which mankind became aware, the cycle that enabled mankind to become aware of the 2^{nd} dimension, was the cycle of light and darkness, which is known as the day. As the earth rotates about its axis, the space on the earth is bathed in light and then it is bathed in darkness. The cycle of nature of which mankind became aware in the 2^{nd} dimension of awareness is a 2 stage cycle. In this cycle, there is light, or day, and then there is darkness, or night, and then the cycle repeats.

There was awareness that if it was now at the point of darkness in the cycle of the day, that it had been at the point of light in the cycle of the day in the past, before. There was as yet no awareness of any points in the future.

The 1^{st} dimension of awareness began with the awareness of light at the point of the now. The 2^{nd} dimension will begin with the point of darkness at the point of the now, at which time the point of light will be in the past.

Geometric Structure of Awareness						
	Dimension	Geometric Structure	Number in Awareness	Composition of Structure		
	1	Point	1	1 point		
	2	Ray Segment	2	2 points		

In the 2^{nd} dimension of awareness, there is awareness of 2 ray segments. Each ray segment is composed of 2 points. The 2 ray segments extend in 2 directions, horizontally, forward-rearward, and vertically, upward-downward.



For each of the 2 ray segments, one of the points symbolizes the point of the here and now. These 2 points coincide, and represent the same point in space-time. The other point of each of the ray segments is different.

Therefore, in total, there are 3 distinct points on the 2 ray segments. The cycle of symbolism is subdivided into 2 half cycles, as each hand can represent the primary hand or the secondary hand. Each half cycle has 3 positions of the arms and hands, 1 position to symbolize each of the 3 points on the 2 ray segments of awareness.

Parts of Body Used in Symbolism						
	Dimension	Number of Parts	Part Added This Dimension			
	1	1	Arms			
	2	2	Head			

In the 2^{nd} dimension of awareness, 2 parts of the body were used in symbolism, once the body had prepared for symbolism. In addition to the arms, the head (the neck) was also used.

Joints of Arms Used in Symbolism					
	Dimension	Number of Joints	Joint Added In This Dimension		
	1	1	Elbow		
	2	2	Shoulder		

In the 1st dimension of awareness, after moving the arms into position to represent symbolism, only 1 joint of the arm could be used in symbolism. This was the elbow joint.

In the 2nd dimension of awareness, after moving the arms into position to represent symbolism, 2 joints of the arm could be used in symbolism. These are the elbow joint and the shoulder joint.

Motion of Head Used in Symbolism

Dimension	Number of Motions	Added Direction of Motion
2	1	Up/Down

In the 2nd dimension of awareness, in addition to the arms, the head was used in order to symbolize awareness of the ray segments of space-time. The neck could shift the head along 1 axis of orientation, upward-downward.

The head could orient forward, such that the eyes could look forward along the horizontal ray segment of space. The head could also orient upward, such that the eyes could look upward along the vertical ray segment of time. The head could then reorient downward, such that the eyes can again look horizontally forward.



At the time of the 2^{nd} dimension of awareness, there was awareness of 2 subdivisions within the unity of nature. As subdivision is subdivision into 2, there was therefore awareness of 2^2 subdivisions of nature. 2^2 , 2 multiplied by itself 2 times, is equal to 4. There was at this time awareness of a subdivision of nature into 4.

We can therefore consider awareness of the 360° circle of the horizon of our awareness as subdivided into 4, where one-fourth of 360 is 90, such that there was awareness of 90° .

This awareness was symbolized by an awareness of corresponding subdivision on the body. There was now awareness of distinct and separate parts of the body, just as there was awareness of subdivisions within all aspects of nature, such that there was awareness that parts of the body were able to move separately and distinctly from the rest of the body in their symbolism.

The minimum motion of any part of the body, relative to the other parts of the body, in order to symbolize awareness of space-time in the 2^{nd} dimension of awareness was 90° .

Minimum Joint Angle						
	Dimension Minimum Angle					
	0	360°				
	1	180º				
	2	90°				

Once the bones of the arms had completed preparation for symbolism of the 2^{nd} dimension of awareness, there was movement of the joints of the arms and the head (neck) in symbolism.

The smallest angle of movement of any joint that was used in symbolism of the 2^{nd} dimension of awareness was 90° .



To symbolize the 1st point in the 1st half of the cycle of symbolism of the 2nd dimension of awareness, use the left elbow to shift the forearm 90° downward and rearward, such that the forearm extends horizontally rearward and behind the head. In this position, the left hand is not visible, and so is not used in the symbolism.

Because only 1 hand is used in symbolism, only 1 point is symbolized. The right hand is positioned immediately in front of the nose, and so symbolizes the point of the here in space and the point of the now in time. This point symbolizes the point of the here and now.

At this stage in the awareness of mankind, objects would enter a person's awareness when they reached the point of the here and now. In other words, at some time, an object would be positioned right here, right now. From that time onward, the person could continue to be aware of that object, using a noun of language, such that even when no longer at the point of the here, the use of a noun would enable continued awareness of the object.

Because we can become aware of an object when it reaches the point of the here and now, we can consider that to be the point of light in the cycle of the day. There is light (day) at the point of the here in space, at the point of the now in time.



To symbolize the 2^{nd} point in the half cycle, use the left shoulder to shift the upper arm 90° forward and downward, such that the upper arm becomes horizontal and the forearm becomes vertical, and such that left thumb is positioned at the point of the here, right in front of the nose. At the same time, use the right elbow to shift the forearm 90° forward and downward, such that the upper arm and the forearm form an angle of 180°, extending the right hand to the point at the other end of the ray segment extending forward in space.

At this time, the left thumb shifts to extend away from the rest of the hand, perpendicular to the other fingers of the hand, such that the thumb touches the nose, at the point of the here. As well, the right thumb shifts to join the rest of the hand, parallel to the other fingers of the hand.

The left hand symbolizes the point of the here and now. The right hand symbolizes the point at the other end of the ray segment that symbolizes space, the point of the there and then.



Space and time seem to speakers of English, on the basis of their language, to be separate, but they are integrated in the mind, in the form of space-time. Let us consider what this means in terms of words that relate to space and time. The words in language that are used to position objects in space are the same as the words that are used to position objects in time.

An object would first enter a person's awareness by reaching the point of the person's here in space, at the point of the person's now in time. The person could then create a noun to represent the object once it left the point of the here and now.

The object could then move away from the person. The person could continue to observe the object as it moved away from the point of the here in space. Facing the object as it moved away, a person would watch the object move progressively farther before him in space, before the point of the here. As the object moved progressively farther in space, the ray segment of space would grow progressively longer.

Space and time seem to people to be separate, distinct, and unrelated, due to their separation in language, but space and time only exist in the mind of man in the integrated form of space-time. Therefore, as an object would move progressively before the point of the here in space, it would also move progressively before the point of the now in time.

What does this mean? The farther before the point of the here in space that an object could be observed to move, the farther before the point of the now in time the object moves. The farther before the point of the here that an object moves in space, the farther before the point of the now in time it becomes since the object was at the point of the here and now. In other words, the farther that an object moves before the person's point of the here in space, the farther before the point of the now it becomes since the object was at the point of the here and now. Notice that the word before is used in English to represent both in front in space and in the past in time.



To symbolize the 3^{rd} point in the half cycle, use the right shoulder to shift the upper arm 90° upward, such that the right arm becomes vertical.

The 2 hands form a ray segment that symbolizes time. The left hand still symbolizes the point of the here. The right hand symbolizes the point at the other end of the ray segment that symbolizes time, the point of the there and then.



The left thumb is positioned such that it touches the nose, at the point of the here and now. The left thumb at the point of the now symbolizes darkness (night) now. The right thumb extends to the other point in the ray segment of time, and symbolizes light (day) at the point of the past.

When there is light (day) at the point of the here, I can look horizontally along the ray segment of space and see points of light, points of distinction, of which I can be aware. If I look vertically upward along the ray segment of time, I can see no distinction in the heavens. The heavens seem homogenous, and there is no ability to recognize distinction within the heavens.

When there is darkness at the point of the here and now, I can look along the ray segment of space and can be aware of nothing, as there is no distinction possible within space due to the darkness. If I look up, to the point at the other end of the vertical ray segment, I can see light. When there is darkness at the point of the now, here, there is light visible in the heavens, enabling distinction at the point of the other end of the ray segment. There is no awareness of meaning in the light, but there is only awareness that it exists, and of its position along the ray segment.



The 2nd half of the cycle is symmetrical to the 1st half of the cycle.

1st, the right elbow shifts the forearm rearward and out of view, such that the left hand alone can symbolize the point of the now.

2nd, the right shoulder shifts the upper arm forward and downward, bringing the forearm forward, such that the hand is positioned at the point of the here, and the left elbow shifts the forearm and hand forward to the point of the there, along the horizontal ray segment of space.

At this time, the right thumb shifts to extend away from the rest of the hand, such that the thumb touches the nose, at the point of the here. As well, the right thumb shifts to join the rest of the hand.

This has similar symbolism to the 1st half of the cycle. However, we can understand this in a slightly different way. Instead of considering from the perspective of the object that is moving away from us, while we remain at the point of the here, we can consider from the perspective of us moving away from the point of the here, while another object remains at the point of the here. The ancestors of these people evolved in Africa. They then migrated northward out of Africa. With their bodies orienting southward toward the point of their origin in Africa, they could see from their current point of the here along the ray segment of space to their original point of the there in Africa. At the same time, from the current point of the now, they could be aware of a time in the past when their point of the here was there, in their homeland in Africa.

3rd, the left shoulder shifts the entire arm vertically upward to the point of the there along the vertical ray segment of time. At this time, the right hand symbolizes light (day) at the point of the here. When there is light at the point of the here, now, darkness (night) lies at the point of the there, in the past, at the previous point of awareness in the cycle of the day. There is awareness of distinction here, but there is no awareness of anything distinct at the point of the there, in the heavens.

Example Language that Orients to the 2nd Dimension of Awareness

Japanese is an example of a language that orients to the 2^{nd} stage of human awareness, the stage of awareness of the 2^{nd} dimension, reflecting the fact that the ancestors of the modern speakers of Japanese left the homeland in Africa at the time in our history when our ancestors had already evolved to this dimension of awareness.

Unlike Chinese, whose speakers orient to the 1^{st} dimension, and for which time does not have an integrated representation, in Japanese, whose speakers orient to the 2^{nd} dimension, time does have an integrated representation. Verbs in Japanese can reflect the past tense or the present tense. The future is represented in Japanese using the present tense, and not as a distinct tense, since there was no awareness of the future during the 2^{nd} dimension of awareness. As well, at the time in our history when there was only awareness of the 2^{nd} dimension, there were as yet no verbs in language. There were only adjectives. All true adjectives in Japanese can reflect both the present tense and the past tense.

Whereas all words in Chinese are composed of a single syllable, in Japanese words can be composed of 1 or 2 syllables, with compound words composed of 2 pairs of 1 or 2 syllables.

Whereas the word was the most complex grammatical structure during the 1^{st} dimension of awareness, during the 2^{nd} dimension of awareness there were 2

new structures, the phrase and the sentence. An example of a phrase is 'old man', where the adjective 'old' modifies the noun 'man'. An example of a sentence is 'man old', where the adjective 'old' is a predicate adjective, which also conveys the tense, old now or old in the past.

Orientation							
Dimer	Dimension Direction of Orientation						
1	1 None						
2		South					
-							

In order to symbolize their awareness of space and time, ancient people had to orient themselves in a direction with respect to space and time that enabled such awareness.

Speakers of Japanese oriented to the ray segment. The ray segment is composed of 2 points, the point of the here and now and the point of the there, in the past. Speakers of Japanese oriented to the point of the past.

And where was the past? During their time at the 2^{nd} dimension of awareness, and while in Africa, they oriented to the point of the past in time. This is the point of noon in the cycle of the day, which is the point of maximum light in the cycle of the day. In the 1^{st} dimension of awareness, awareness was to the point of light. Now, in the 2^{nd} dimension of awareness, awareness begins with darkness, at which time awareness of light lies in the past. The point of noon symbolizes the point of the past in time.

After leaving Africa, and during later dimensions of awareness, the ancestors of the speakers of Japanese began to orient to the point of the past in space. These people evolved in the homeland of mankind in Africa. Upon leaving the homeland, they migrated northward, along a path that follows the symbolism of a ray segment. At this time, these speakers would face their homeland, toward the point of their past. This point would lie in the south.

Speakers of Japanese oriented to the ray segment, the segment that extended from the point of the here in space, where they are now, to the point of their past in space, the point of the south, where they were in the past.



The 2^{nd} dimension of evolution in awareness was to the awareness of position. An object might be Bill as he is now, old, for example, or it might be Bill as he was in the past, young.

There are now 2 possibilities, as either something can be positioned at the point of the here and now or at a different point on the ray segment of human awareness, at a point of the there and then. In other words, nouns can refer to things that are currently at the point of the here and now, or they can refer to things that are not at the point of the here and now, but which were at the point of the here and now at some point in the past.



As an analogy to help understand the ray segment, imagine a river of spacetime, with rafts, in the form of circular black points, which symbolize objects that a person might experience, floating down the river. Consider a person standing in the middle of the river, facing downstream. All of his awareness of the entire river at any given point in time would be the points that extend like a ray segment in front of his eyes. The ray is of course a segment, because he cannot see infinitely downstream along the river. His first view of a raft floating along the river would be when it is at a position immediately in front of his nose, at the point of the here and now, and as time went by the raft would progressively be positioned at more and more distant points. The further before the point of the here that the rafts move in space, the further before the point of the now that the rafts will move in time, as it will be more in the past since the rafts were at the point of the here and now.

Review Of The 2 nd Dimension							
Dimension	Symbolism	Geometry	Grammatical Construction	Part Of Speech	Example		
1 st	Existence	Point	Word	Noun	Bill		
2 nd	Position	Ray	Phrase	Adjective	Young Man		

Let us review the symbolism of the 2^{nd} dimension of awareness. As the 1^{st} dimension evolved into the 2^{nd} dimension, awareness of existence evolved into awareness of position, awareness of the point evolved into awareness of the ray segment, awareness of words evolved into awareness of phrases, and awareness of nouns evolved into awareness of adjectives.

Religion

In the ancient Greek pantheon of gods, the 2^{nd} dimension was represented by 2 gods. One god was male and the other god was female. Male relates to time, and female relates to space.

According to Hesiod, the earth gave rise to the heavens. The 1 goddess of the 1^{st} dimension, the goddess Gaea, the goddess of the earth, in the 2^{nd} dimension gave rise to Uranus, the god of the heavens. The earth symbolizes space, since everything that we know about space our ancestors would have seen on the earth. The heavens symbolize time, since what we know about time, and the cycles of time in nature, we observe in the heavens.

In the 1^{st} dimension, the goddess of space was alone. In the 2^{nd} dimension, there is also a god of time. Although male gods came 2^{nd} , and although awareness of time came 2^{nd} , in the 2^{nd} dimension, time and male gods became primary, and space and female goddesses became secondary. In addition to awareness of space, here, on earth, symbolized by Gaea, there was now also awareness of time, there, in the heavens, symbolized by Uranus.

Chapter 10

The 3rd Dimension: Motion Along A Line Segment

Let us now examine the next major stage in the evolution of the awareness of nature of our ancestors, the 3rd Dimension of Awareness.

In the 3^{rd} dimension of awareness, the 2 of the 2^{nd} dimension subdivided again. The 2^{nd} of the 2, the one from the 2^{nd} dimension, subdivided within itself, making 2. This made a total of 3 in the 3^{rd} dimension.

In the 2^{nd} dimension, the primary finger that was used for symbolism was the thumb, where the thumb is a finger that is subdivided into 2 bones. In the 3^{rd} dimension, this focus on the fingers that were used for symbolism subdivided into 2, the thumb and the index finger, where the index finger is a finger that is subdivided into 3 bones. From now until the 5^{th} dimension of awareness, the thumb is used not for its own symbolism but only for touching bones, thereby marking them, of the other fingers.

In the 3^{rd} dimension of awareness, the 1 cycle of the 2^{nd} dimension subdivided into 2 cycles, a cycle of 3 stages and a cycle of 4 stages. Each of these cycles is subdivided into 2 cycles, a cycle of space and a cycle of time. The cycles of the 3^{rd} dimension are symbolized on the 2 index fingers, each of which has 3 bones.



The notion from geometry that is analogous to the 3^{rd} dimension is the notion of the line segment. In the 3^{rd} dimension, there are 3 points of awareness, as shown in the diagram.

In 1 dimensional geometry, known as linear geometry, the point and the line are represented. In the 3^{rd} dimension of awareness, instead of the unidirectional extension of the 2^{nd} dimension, the line extends in 2 directions. The line does not

extend infinitely, since the awareness of mankind is finite, so we can recognize the line as being a bidirectional line segment. On a line segment, which we symbolize as being composed of 3 distinct points, which form 2 distinct ray segments, an object that exists can be in motion at one point or from one point to another point on the line segment. There are no other relationships that a line segment can symbolize.

Numeric Symbolism

The 3^{rd} dimension of awareness can be represented in language by the number 3. This is reasonable, as this simple representation of a line segment is composed of 3 points.

Language Evolution

During the stage of the 3rd dimension of awareness, our ancestors evolved to the 3rd dimension of language development. The form of word to evolve in the 3rd dimension of awareness was the verb. The verb evolved in each subsequent dimension of awareness, but during the 3rd dimension of awareness, only the simplest form of verbs existed. These were intransitive verbs. Most intransitive verbs are verbs that represent motion. In the 3rd dimension, there are 3 forms of motion of an object, 3 forms of motion in time and space along a line segment that is composed of 3 points. There is motion at a point, motion from a point, and motion to a point. An example is the trio of verbs 'come', 'go', and 'sit'. Bob can come to this point, sit at this point, and go from this point.

In the 3rd dimension, language developed another new grammatical structure, the clause. A clause at this time was composed of 3 words. An example of a clause

is 'big man comes', where the adjective 'big' modifies the noun 'man' and the verb 'comes' indicates motion of the noun. These 3 words represent 3 points on a line segment.



The clause, the 3rd dimension unit of meaning, is composed of 3 parts, an adjective, a noun, and a verb. The structure of the clause is well represented by the line segment. The noun, the 1st dimension unit of meaning, symbolizes space, and is alone in the middle of the segment. The adjective and the verb, the 2nd and 3rd dimension units of meaning, symbolize time, and are at the ends of the segment. The noun symbolizes only space. The adjective has some symbolism of time. The verb has the greatest symbolism of time.



Another type of intransitive verb is the verb 'to be'. The various forms of this verb can represent nouns or adjectives that apply for a segment in time. An example sentence is 'man is teacher'. In this case, the man is a teacher at the point in time of the now, although he was not so at all points in his past, and although he will not be so at all points in his future. This verb can be considered to reflect motion, since he moved from not being a teacher in the past to being a teacher in the present, and he can move again to not being a teacher in the future. He is a teacher for a segment in time.



The 3rd dimension of awareness is represented in the analogy of geometry as the dimension of the line segment.

In the 3rd dimension of awareness, there was awareness of 3 facets of time, 3 tenses of time. There was awareness of the present tense, the point of the now in time, there was awareness of the past tense, and of the point that went before, and there was awareness of the future tense, of the point that will come after.

Time in the 3^{rd} dimension of awareness is symbolized using the index finger. The index finger is a finger that is composed of 3 bones. The index finger well symbolizes the 3 points of awareness in time of the 3^{rd} dimension of awareness.

Consider the index finger extending forward from the body. The middle bone of the index finger symbolizes the point of the now. The bone before the middle bone symbolizes the point of the past, of the time that went before. The bone after the middle bone symbolizes the point of the future, of the time that will come after.



The 3rd dimension of awareness is represented in the analogy of geometry as the dimension of the line segment.

In the 3rd dimension of awareness, there was awareness of 3 points in space, the point of the here, the point of the there before me in space, and the point of the there after me in space. Each person, at that stage in our evolution, could become aware of something before that thing reached the point of the here in space, right in front of the person, and could then continue to be aware of that thing as it moved to the point of the here, and as it moved from the point of the here to the other point of the there.

In other words, people could be aware at the point of the now in time of an event that would not occur until later, in their future. Based on awareness of their past and on their past experiences with nature, people would learn the behavior of nature, and on the basis of such experience with the past they could predict the future, as it is the nature of cyclic behavior that the future is like the past. It is the nature of cyclic behavior that cycles repeat, each time being like all of the times in the past, and therefore cycles can be expected to continue to be like they were in the past later, in the future. For example, if the point of the now were the point of light in the cycle of the day, then the point of the past would have been the point of darkness, before which would have been the point of light, and so on. Based on repeated experience with the cycle of the day, people could come to expect that the future would be like the past, such that the point of the future would again be the point of darkness in the cycle of the day. People could be aware of the future.

Verbs of language, intransitive verbs of motion, were able to identify the motion along the points on the line segment.

Other than existence, position, and motion, nothing else could be recalled about a thing once it left the point of the here in space, because language had no other words that might express awareness of other relationships in space.

Structure of the Human Body

In the 3^{rd} dimension of awareness, awareness of the body subdivided, into 3, such that there was awareness of a 3^{rd} part of the body for use in symbolism. In the 3^{rd} dimension of awareness, 3 parts of the body were used for symbolism, the arms, the head, and the body.

In the 3rd dimension, awareness of the arms subdivides into 3. The shoulder joints control the upper arms. The elbow joints control the forearms. Now, the wrist joints control the hands.

Let us focus on the hands. Each hand could now subdivide into 3, as the index finger could now symbolically separate from the rest of the hand, which remained as before as a closed fist. There were therefore 3 parts of the hand, the index finger, the thumb, and the rest of the hand.

The index finger is composed of 3 bones, which symbolize the 3 distinctions of the 3rd dimension of awareness. The thumb can be used to mark each of these 3 bones, and thereby to represent cyclic motion through the bones of the index finger.

The symbolism of the 3rd dimension of awareness is all about recognizing distinction, or subdivision, within nature and within the human body, where such subdivision is always subdivision into 3.

Preparation for Finger Symbolism

To become aware of the 3^{rd} dimension required awareness of a cycle of nature. The hands could symbolize the flow through the stages of this cycle. There were 2 such cycles, each, for the symbolism of time and space. These cycles symbolized the 3 line segments that symbolize the 3^{rd} dimension of awareness.

Let us prepare the hands for examining the finger signs that symbolize the 3^{rd} dimension of awareness.



To symbolize the 3^{rd} dimension of awareness using fingers signs, begin with the body as in the 1^{st} and 2^{nd} dimensions of awareness.

The arms hang vertically downward along the side of the body. The hands are closed, and rest against the thighs. The thumbs lie along the index fingers, as they extend vertically downward. This is the initial position to prepare for finger signs. In the 3rd dimension of awareness, 5 steps will be required to prepare for symbolism.



In the 1^{st} step, both arms shift in the same way. Use the elbows to shift the forearms 90° forward and upward, such that they extend horizontally forward from the body.



At this time, extend the index fingers forward. The thumbs drop alongside the index fingers, with the distal bone of each thumb resting on the proximal bone of the middle finger. The index finger is appropriate to symbolize the 3rd dimension of awareness, as each index finger is composed of 3 bones.



In the 3^{rd} step, use the shoulders to shift the upper arms 45° forward and upward.



In the 4th step, use the wrists to shift the hands 45° forward and downward, such that the index fingers orient horizontally forward.



In the 5th step, use the elbows to rotate the 2 bones of the forearms 90° inward, such that the bones of the forearm no longer orient up-down with respect to each other, but orient left-right, and such that both fingers orient inward to the same point, the point of the here in space, approximately 1 foot in front of the nose.

In the 1st dimension of awareness, the point of the here was symbolically located immediately in front of the nose, as the lack of symbolism of time meant that there was no time to look at the fingers and then at a later point in time to look at the space that the fingers symbolized. As our species evolved, the point of the here in space progressively became increasingly distant from the location immediately in front of the nose. In the 3rd dimension of awareness, the point of the here was still at the horizontal level of the nose, but was located somewhat forward from the nose. The point of the here will progressively relocate even further from the nose, along the up-down segment, in subsequent dimensions of awareness.



The cycle of nature of which mankind was aware that enabled awareness of the 3^{rd} dimension was the same cycle as the one that enabled awareness of the 2^{nd} dimension, the cycle of light and darkness, the cycle of the day. The cycle in the 3^{rd} dimension of awareness has subdivided again, and so is no longer a 2 stage cycle, but is a 4 stage cycle.

Geometric Structure of Awareness						
	Dimension	Geometric Structure	Number in Awareness	Composition of Structure		
	1	Point	1	1 point		
	2	Ray Segment	2	2 points		
	3	Line Segment	3	2 ray segments		

In the 3rd dimension of awareness, there is awareness of 3 line segments. Each line segment is composed of 2 ray segments.



In the 3rd dimension of awareness, there was awareness of 3 line segments of time and space. The segments extended forward-rearward, left-right, and up-down. In other words, as mankind oriented to space and time, from the point of the here,

which is the midpoint for each of the segments, the segments extended north-south, east-west, and up-down.

For each of the 3 line segments, 1 of the points symbolizes the point of the here and now. These 3 points coincide, and represent the same point in space-time. The other 2 points of each of the line segments are different.

Therefore, in total, there are 7 distinct points on the 3 line segments. The cycles of symbolism include cycles of space and cycles of time, each of which involves either 3 or 4 of the 7 points of awareness, such that together the pair of cycles that symbolize space and the pair of cycles that symbolize time involve each of the 7 points of awareness on the 3 line segments of awareness.

Parts of Body Used in Symbolism						
	Dimension Number of Parts Part Added This Dimension					
	1	1	Arms			
	2	2	Head			
	3	3	Body			
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In the 3rd dimension of awareness, 3 parts of the body were used in symbolism, once the body had prepared for symbolism. In addition to the arms and the head, the body (the spine) was also used.
Joints of Arms Used in Symbolism						
	Dimension	Number of Joints	Joint Added In This Dimension	Joints Changed In This Dimension		
	1	1	Elbow			
	2	2	Shoulder			
	3	3	Wrist	Elbow (2 nd Way)		

In the 2^{nd} dimension of awareness, after moving the arms into position to represent symbolism, 2 joints of the arm could be used in symbolism. These are the elbow joint and the shoulder joint.

In the 3rd dimension of awareness, after moving the arms into position to represent symbolism, 3 joints of the arm could be used in symbolism. These are the elbow joint, the shoulder joint, and the wrist joint.

Movement of the wrist joint for symbolism was new in the 3^{rd} dimension of awareness. The wrist could shift the hand 45° with respect to the forearm, such that the hand could extend in the same direction as the forearm, or such that the hand could reorient 45° with respect to the bones of the forearm. In this way, the hand could orient parallel to the 2 bones of the forearm, or the hand could shift inward toward the ulna bone (the forearm bone nearest the little finger), such that the hand is half way to being perpendicular to the bones of the forearm.

Furthermore, whereas heretofore each of the joints of the arm had been able to move in 1 way only, at this time the elbow developed a 2^{nd} form of movement.

In addition to the previous movement of the elbow, which repositioned the forearm in relationship to the upper arm, another movement of the elbow became possible in the 3^{rd} dimension of awareness. If the upper arm were oriented vertically downward, and the forearm were oriented horizontally forward from the upper arm, the elbow could shift the orientation of the 2 bones of the forearm, the radius (located nearest the thumb) and the ulna (located nearest the little finger), 90° , such that both of the bones of the forearm are equidistant from the upper arm and equidistant from the ground, and such that the 2 bones orient left-right with respect to each other, or the elbow could rotate the forearm, such that the radius bone is closer to the upper arm than the ulna bone, and such that the bones of the

forearm orient up-down with respect to each other. If the upper arm were oriented horizontally forward, and the forearm were oriented vertically upward from the upper arm, the elbow could rotate the forearm 90° , such that the bones of the forearm orient left-right with respect to each other or such that the bones of the forearm orient forward-rearward with respect to each other.

Motion of Head Used in Symbolism					
	Dimension	Number of Motions	Added Direction of Motion		
	2	1	Up/Down		
	3	2	Left/Right]	

In the 3rd dimension of awareness, the head was used in a 2nd way in order to symbolize awareness of the line segments of space-time. The neck could reorient the head with respect to the body in 2 ways, upward-downward or left-right.



In the 3^{rd} dimension of awareness, in addition to the arms and the head, a 3^{rd} part of the body was used in order to symbolize awareness of the line segments of space-time. The spine could rotate the body 90° to the right or left, and then the spine could rotate the body to return to its natural position.



At the time of the 3^{rd} dimension of awareness, there was awareness of 3 subdivisions within the unity of nature. As subdivision is subdivision into 2, there was therefore awareness of 2^3 subdivisions of nature. 2^3 , 2 multiplied by itself 3 times, is equal to 8. There was at this time awareness of a subdivision of nature into 8.

We can therefore consider awareness of the 360° circle of the horizon of our awareness as subdivided into 8, where one-eighth of 360 is 45, such that there was awareness of 45° .

This awareness was symbolized by an awareness of corresponding subdivision on the body. The minimum motion of any part of the body, relative to the other parts of the body, in order to symbolize awareness of space-time in the 3^{rd} dimension of awareness was 45° .

Minimum Joint Angle					
	Dimension	Minimum Angle			
	0	360°			
	1	180º			
	2	90°			
	3	45°			

Once the bones of the arms had completed preparation for symbolism of the 3^{rd} dimension of awareness, there was movement of the joints of the arms, the head (neck), and the body (spine) in symbolism.

The smallest angle of movement of any joint that was used in symbolism of the 3^{rd} dimension of awareness was 45° .

Orientation			
Dimension	Direction of Orientation		
1	None		
2	South		
3	North		

In order to symbolize their awareness of space and time, ancient people had to orient themselves in a direction with respect to space and time that enabled such awareness.

People who left the homeland in Africa during the period of awareness of the 3^{rd} dimension oriented to the line segment. The line segment is composed of 3 points, the point of the here and now and 2 points of the there, in the past and in the future. Such people tended to orient to the point of the future.

And where was the future? During their time at the 3rd dimension of awareness, and while in Africa, they oriented to the point of the future in time. This is the point of the sunrise in the cycle of the day, which is the point of beginning of light in the cycle of the day. In the 2nd dimension of awareness, the day began with darkness, such that their orientation was to the past, and the point of light in the cycle of the day, the point of noon. Now, in the 3rd dimension of awareness, the day also begins with darkness, at which time awareness to time is orientation to the light that lies in the future. The point of the sunrise symbolizes the point of the future in time.

After leaving Africa, and during later dimensions of awareness, the ancestors of the speakers of Turkish began to orient to the point of the future in space. These people evolved in the homeland of mankind in Africa. Upon leaving the homeland, they migrated northward, along a path that follows the symbolism of a ray segment. However, not only were they aware of the point of the here in space, where they were at the point of the now, and as well aware of their past, in the homeland of mankind in Africa, but they were also aware of their future, which lied in their continued direction of migration, toward the north. Furthermore, these people oriented to the point of their future in space, to the point where they would be in their future, in the north.

3 rd Dimension Cycles of Time and Space				
	Space/Time	Horizontal/Vertical		
	Space	Horizontal cycle of space		
	Time	Vertical cycle of time		
	Space	Vertical cycle of space		
	Time	Horizontal cycle of time		

In the 3rd dimension of awareness, there was awareness of 4 cycles of nature, 2 cycles of time and 2 cycles of space. One cycle each of space and time was a horizontal cycle, and one cycle each was a vertical cycle. One cycle each of space

and time was a 4 stage cycle, and one cycle each was a 3 stage cycle. Together, each pair of these 4 cycles symbolizes the 7 points of awareness of time and space in the 3rd dimension of awareness.

In the 3rd dimension of awareness, there is awareness of 4 cycles of space and time. The horizontal cycle of space has a primary symbolism of space, and the vertical cycle of time has a primary symbolism of time. However, both cycles symbolize space-time, as all points in space are also points in time, and vice versa. The vertical cycle of space and the horizontal cycle of time both have a primary symbolism of space-time. In other words, the focus of each point in these cycles is to represent the relationship of a point in space with a point in time.



The 1st cycle is the horizontal cycle of space. The horizontal cycle of space involves 2 segments, the 2 horizontal segments that subdivide the surface of the earth. These are the segments that extend forward-rearward and left-right as mankind symbolically oriented toward the north.

The midpoint of each segment is the point of the here, represented in the diagram by the 'I between the eyes'. The other 2 points of each of the 2 segments symbolize the 4 cardinal directions of awareness in space, the 4 primary points of awareness on the horizon on the earth, the points of the north, east, south, and west.

For cultures that orient to the 3rd dimension of awareness, the 1st point in the cycle is the point of the north in space, which at this time symbolizes the point of the past in time. Later, the point of the north will symbolize the point of the future in time, as motion in the 3rd dimension of awareness can be in 2 directions along the bidirectional line segment.

To symbolize the cycle, we will traverse both the forward-rearward segment and the left-right segment. This will make a total of 6 points in the cycle. As well, symbolism of each of the outer points is always followed by a return to the point of the here, at the midpoint of the segments.

The 2 index fingers, each with 3 bones, will symbolize these 2 segments, each with 3 points. The thumb will mark which of the 6 bones is used in the symbolism of each of the points on the line segments of awareness.



The cycle of space that symbolizes the 4 primary cardinal directions in space involves only 1 of the joints of the arm. This joint is the elbow joint, which rotates the forearm, changing the orientation of the radius and ulna bones from a left-right orientation with respect to each other to an up-down orientation, and back again, and at the same time changing the direction of orientation of the hand from an inward orientation to a forward orientation, and back again.

Begin with the arms as we left them in the preparation stage, oriented to the point of the here. Use the elbows to rotate the forearms 90° outward, such that the bones of the forearms are no longer oriented horizontally left-right with respect to each other but are instead oriented vertically up-down with respect to each other. The index fingers and thumbs retain their same relationship to each other. At this time, both of the index fingers orient to the point of the north. The point of the north is the 1st point in the cycle.

To symbolize this 1^{st} point, each of the index fingers extends forward in the form of 1 whole line segment, the symbol of the 3^{rd} dimension. Both index fingers are whole, orienting forward, together, with all 3 bones oriented in the same direction, toward the point of the north.

At this time, the bones of each thumb are bent into 2, with the proximal bone of the thumb orienting forward, the same as the index finger, and with the distal bone orienting 45° downward, such that the tip of the thumb rests on the proximal bone of the middle finger and such that the inside of the distal bone of the thumb touches the index finger just rearward of the crease at the base of the proximal bone of the index finger.

Points in space also symbolize relationships in time, as these points symbolize points in space-time. In the context of this half cycle, the point of the north in space will also symbolize the point of the past in time.

During this symbolism, the head would orient forward, such that the eyes would observe the hands, where both fingers orient to the point of the north. The eyes would then look beyond the fingers to the point of the north on the horizon that they symbolize. This refocusing of the eyes from near to far takes time, which is possible because there is now some awareness of time as well as space.



After symbolizing each of the 4 endpoints of the 2 line segments of awareness in this cycle of space, the fingers will return to the point of the here. Each of the evenly numbered positions, which follow the symbolism of an endpoint of a segment, will be the same, as the hands return to orient to the point of the here. The reason for this return to the point of the here after symbolizing each point in the cycle is that each point is an endpoint on a segment, and not a point on an area, such that the only way to get from one endpoint on a segment to another endpoint on the same or another segment is to return from the endpoint of the segment to the midpoint of both of the segments, the point of the here, and then to move onward to the next endpoint, to the next point of the there. Motion is always motion along a segment in space-time.

To return to the point of the here in this 2^{nd} position, use the elbows to rotate the forearms 90° inward, such that the bones of the forearms are no longer oriented vertically up-down with respect to each other but are instead oriented horizontally left-right with respect to each other. The index fingers and thumbs retain their same relationship to each other. At this time, the hands again orient to the point of the here.



From the middle point on the forward-rearward and left-right segments, the point of the here, we will expand outward along the 2^{nd} segment, the left-right segment.

In the 1st point in the cycle, the point of the north, the bones of the index fingers extended forward with all 3 bones orienting in the same 1 direction. At this time, the 2 bones of the thumbs oriented in 2 directions.

To symbolize the 2 other points in this half cycle, the bones of one or both of the thumbs extend to orient in 1 direction. As well, the bones of one or both of the index fingers change to orient in different directions.

To symbolize the point of the east, the left index finger is already in position. The bones of the left index finger are oriented in 1 direction, toward the right, toward the point of the east. The tip of the left thumb rests on the proximal bone of the middle finger. The bones of the right index finger bend to orient in 2 directions. Of the 3 bones of the index finger, 1 bone, the middle bone, shifts to orient along the 1st segment, the forward-rearward segment. The 2 separated bones, the proximal and distal bones, continue to orient along the 2nd segment, the left-right segment. These 2 bones orient to the 2nd segment in 2 ways. The proximal bone orients to the west and the distal bone orients to the east. At this time, the 2 bones

of the right thumb extend forward to orient in the same direction, such that the thumb touches the middle bone of the index finger.

After looking forward at the symbolism of the fingers, the spine rotates the body 90° to the right, such that the eyes are in position to observe the point of the east on the horizon.

In this half of the cycle, the point of the east in space, which expanded to the right from the point of the here, symbolizes the point of the now in time. When the hands orient to the point of the east, they no longer orient to the point of the north, the point in space where mankind oriented in the past during this half cycle.

There are 2 ways for the fingers to symbolize the point of the east in the symbolism of the cycle of space. In this 1st half of the cycle of space, the left index finger extends as 1 unified finger, pointing forward to the far side of the earth in space, due east, at which time the thumb rests on the proximal bone of the middle finger. The right index finger relaxes, and orients rearward, to the near side of the earth in space, due east, at which time the 2 bones of the thumb extend forward, in the same direction, such that the thumb touches the middle bone of the index finger. The bones of the right index finger orient in different directions. The point of the east symbolizes the midpoint of the north-south segment, as it is equidistant between the point of the north, where mankind oriented in the past during this half of the cycle, and the point of the south, where mankind will orient in the future during this half of the cycle.

To symbolize the 4th position in the cycle, the point of the east is followed by a return to the point of the here. The right index finger once again extends straight, such that both index fingers orient to the point of the here. The right thumb bends to touch the proximal bone of the middle finger. At this time, the head turns 90° to the left to return to observe the point of the here.



For this last position in the 1st half of the cycle of horizontal space, the bones of each of the index fingers bends to orient in 2 directions. Of the 3 bones of each of the index fingers, the distal and middle bones shift to orient along the 1st segment, the forward-rearward segment. The proximal bone continues to orient along the 2nd segment, the left-right segment. Both fingers orient in the same direction, rearward, toward the point of the south on the horizon.

At this time, the bones of each thumb extend forward, in the same direction, such that each thumb touches the distal bone of the index finger.

After looking at the symbolism of the fingers, the spine rotates the body 90° to the right, and then the neck rotates the head another 90° to the right, such that the eyes are in position to observe the point of the south on the horizon behind the body.

To symbolize the 6^{th} position in the cycle, the point of the south is followed by a return to the point of the here. The neck rotates the head 90° to the left, such that the head orients forward from the body, and then the spine rotates the body another 90° to the left, such that the body once again orients directly forward, and such that the eyes are in position once again to observe the point of the here. Both index fingers extend forward, and the bones of both thumbs orient in 2 directions, such that both hands orient to the point of the here. The point of the south in space symbolizes the point of the future in time. During this half of the cycle, when the hands orient to the point of the east, which is based on the finger position at the point of the here, the point of the east represents the point of the now, as mankind orients to the east now. At that time, the point of the north represents the point of the past, where mankind oriented in the past during this half of the cycle, and the point of the south represents the point of the future, where mankind will orient in the future during this half of the cycle.

This 3rd point on the segment completes a one-way traversal of the forwardrearward segment, which included a traversal of one-half of the left-right segment. This completes the 1st half of the horizontal cycle of space. We have traversed the forward-rearward segment from the north to the here to the south. As well, we have traversed the left-right segment from the point of the east to the point of the here. The right hand symbolizes motion along the bones of the index finger, touching in order the proximal bone, the middle bone, and then the distal bone. Now, we can begin the 2nd half of the cycle.



The 1st half cycle began with the point of the north. The 2nd half cycle begins with the point of the south. The point of the south was the last point in the forward traversal, and will now be the 1st point in the return traversal.

For this 1st position in the 2nd half of the cycle, the bones of both index fingers bend to orient in 2 directions. Of the 3 bones of each of the index fingers, 2 bones, the distal and middle bones, shift to orient along the 1st segment, the forward-rearward segment. The proximal bone continues to orient along the 2nd segment, the left-right segment. Both fingers orient in the same direction, rearward, toward the point of the south on the horizon.

At this time, the bones of each thumb extend forward, in the same direction, such that each thumb touches the distal bone of the index finger.

To begin this 2^{nd} half cycle, after looking at the symbolism of the fingers, the spine rotates the body 90° to the left, and then the neck rotates the head another 90° to the left, such that the eyes are in position to observe the point of the south on the horizon behind the body.

Whereas the head holds 1 orientation to the 1st point on the segment, the point of the north, it holds 2 orientations to the last point on the segment, the point of the south.

In the 2nd half cycle, the point of the south in space symbolizes the point of the past in time, because when we later orient to the point of the now in this half cycle, orientation to the point of the south will lie in the past.

To symbolize the 8th position in the cycle, the point of the south is followed by a return to the point of the here. The neck rotates the head 90° to the right, such that the head orients forward from the body, and then the spine rotates the body another 90° to the right, such that the body once again orients directly forward, and such that the eyes are in position once again to observe the point of the here. Both index fingers extend forward, and the bones of both thumbs orient in 2 directions, such that both hands orient to the point of the here.



From the middle point on the forward-rearward and left-right segments, the point of the here, the 2^{nd} point of the 2^{nd} half of the cycle will expand outward along the 2^{nd} segment, the left-right segment.

To symbolize the point of the west, the right index finger is already in position. The bones of the right index finger are oriented in 1 direction, toward the left, toward the point of the west. The tip of the right thumb rests on the proximal bone of the middle finger. The bones of the left index finger bend to orient in 2 directions. Of the 3 bones of the index finger, 1 bone, the middle bone, shifts to orient along the 1st segment, the forward-rearward segment. The 2 separated bones, the proximal and distal bones, continue to orient along the 2nd segment, the left-right segment. These 2 bones orient to the 2nd segment in 2 ways. The proximal bone orients to the east and the distal bone orients to the west. At this time, the 2 bones of the left thumb extend forward to orient in the same direction, such that the thumb touches the middle bone of the index finger.

After looking forward at the symbolism of the fingers, the spine rotates the body 90° to the left, such that the eyes are in position to observe the point of the west on the horizon.

In this half of the cycle, the point of the west in space, which expanded to the left from the point of the here, symbolizes the point of the now in time. When the hands orient to the point of the west, they no longer orient to the point of the south, the point in space where mankind oriented in the past during this half cycle.

To symbolize the 10th position in the cycle, the point of the west is followed by a return to the point of the here. The left index finger becomes straight, such that both index fingers orient to the point of the here. The left thumb bends to touch the proximal bone of the middle finger. At this time, the head turns 90° to the right to observe the point of the here.



The last point in the 2^{nd} half of the cycle of horizontal space is the same as the 1^{st} point in the 1^{st} half of the cycle, the point of the north.

In the 1st half of the cycle, for the 1st point in the cycle, the point of the north, the elbows shifted the forearms in order to reorient the bones of the forearms from left-right with respect to each other to up-down with respect to each other.

In the 2^{nd} half of the cycle, for the last point in the cycle, the point of the north, the arms will shift in the same way.

To symbolize the point of the north, use the elbows to rotate the forearms 90° , such that the bones of the forearms are no longer oriented horizontally left-right with respect to each other but are instead oriented vertically up-down with respect to each other.

The index fingers and thumbs retain the same relationship to each other. At this time, the hands orient both index fingers to the point of the north. The point of the north is the last point in the cycle. The head faces forward as the eyes look near at the hands and then look far to the point of the north on the horizon.

To symbolize this point, each of the index fingers extends forward in the form of 1 whole line segment, the symbol of the 3rd dimension. Both index fingers are whole, orienting forward, together, with all 3 bones oriented in the same direction, toward the point of the north.

At this time, the bones of each of the thumbs are bent into 2, with the proximal bone orienting forward, the same as the index finger, and with the distal bone orienting 45° downward, such that the bone rests on the proximal bone of the middle finger and the inside of the distal bone of the thumb touches the index finger just rearward of the crease at the base of the proximal bone of the index finger.

The point of the north in space symbolizes the point of the future in time. During this half of the cycle, when the hands orient to the point of the west, which is based on the finger position at the point of the here, the point of the west represents the point of the now, as mankind orients to the west now. At that time, the point of the south represents the point of the past, where mankind oriented in the past during this half of the cycle, and the point of the north represents the point of the future, where mankind will orient in the future during this half of the cycle.

Whereas the 1st half of the cycle traversed the forward-rearward segment from the point of the north to the point of the south, the 2nd half of the cycle traversed the segment from the point of the south to the point of the north. As well, whereas the 1st half of the cycle traversed the right half of the left-right segment, from the point of the east to the point of the here, the 2nd half of the cycle traversed the left half of the left-right segment, from the point of the west to the point of the here. Furthermore, the left hand symbolizes motion along the bones of the index finger, touching in order the distal bone, the middle bone, and then the proximal bone.

The cycle of space can flow in 2 directions. As mankind continues migration from the homeland in Africa toward the north, the north symbolizes where mankind will be in the future, and the south symbolizes where mankind was in the past. Space can flow from the past toward the future or from the future toward the past. For space, there are 2 points that symbolize the now, in the east and in the west. When symbolizing the east, at the point of the now, in the 1st half of the cycle, the point of the north, where the future of mankind lies, was symbolized in the past, and the point of the south, where the past of mankind lies, will be symbolized in the future. In other words, the motion of the cycle is from the north toward the south, and from the direction of the future to the direction of the past. Motion is from the future and toward the past. When symbolizing the west, at the point of the now, in the 2nd half of the cycle, the point of the south, where the past of mankind lies, was symbolized in the past, and the point of the north, where the future of mankind lies, will be symbolized in the future. In other words, the motion of the cycle is from the south toward the north, and from the direction of the past to the direction of the future. Motion is from the past and toward the future.

Motion through space can be from the past toward the future or from the future toward the past. Motion through space can be in 2 directions.

To symbolize the 12th position in the cycle, the point of the north is followed by a return to the point of the here. To return to the point of the here in this 2nd symbolism of the point of the north, use the elbows to rotate the forearms 90°, such that the bones of the forearms no longer orient vertically up-down with respect to each other but instead orient horizontally left-right with respect to each other. The index fingers and thumbs retain their same relationship to each other. At this time, the hands again orient to the point of the here.

This completes the 6 stage cycle of the primary cardinal directions of horizontal space. From this position of the hands, orienting to the point of the here, the hands are in position to continue with the next cycle of symbolism, the cycle of time of the day.



The 2^{nd} cycle is the vertical cycle of time, which symbolizes the cycle of the day. The cycle of the day in the 3^{rd} dimension includes 4 points in the cycle of the day, the points of the sunrise, noon, the sunset, and midnight.

The cycle of the day is represented by 2 of the 3 line segments of awareness, the segments that extend left-right and up-down. The midpoint of each segment symbolizes the point of the here, represented in the diagram by the 'I between the eyes'. The point to the right, in the east, symbolizes the point of the sunrise, as the sun rises over the horizon in the east. The point of up symbolizes noon, the point of maximum light in the cycle of the day. The point to the left, in the west, symbolizes the point of the sunset, as the sun sets on the horizon in the eyes of the day. The point darkness in the cycle of the day.

For cultures that orient to the 3rd dimension of awareness, the cycle of the day begins with the point of the sunrise.



The final stage in the horizontal cycle of space left the hands positioned at the point of the here. This is the same place where they started, and will be the end position of each of the 4 cycles. From this position, we can proceed through the stages in the cycle of the day.



The cycle of time that symbolizes the 4 stages in the cycle of the day, the 4 primary points of distinction throughout the day, does not require the involvement of any of the joints of the arm in the symbolism of the 1st point in the cycle.

To symbolize this 1st point, all that is required is that the thumb and index finger of the right hand shift their orientation. The fingers of the left hand are already in position.

With the left index finger, all of the bones extend in the same direction. The bones of the left thumb are bent into 2, with the proximal bone orienting forward, the same as the index finger, and with the distal bone orienting downward, such that the tip of the thumb rests on the proximal bone of the middle finger and the inside of the distal bone of the thumb touches the index finger just rearward of the crease at the base of the proximal bone of the index finger.

With the right index finger, the bones of the index finger bend to orient in 2 directions. Of the 3 bones of the index finger, 1 bone, the middle bone, shifts to orient along the 1st segment, the forward-rearward segment. The 2 separated bones, the proximal and distal bones, continue to orient along the 2nd segment, the east-west segment. These 2 bones orient to the 2nd segment in 2 ways. The proximal bone orients to the west and the distal bone orients to the east. Both of the bones of

the thumb of the right hand extend in the same direction, forward, such that the thumb touches the middle bone of the index finger.

At this time, both index fingers orient toward the point of the sunrise, the 1^{st} distinctive point in the cycle of the day, the beginning of the cycle of the day for cultures that orient to the 3^{rd} dimension. After looking at the symbolism of the fingers, the neck rotates the head 90° toward the right to observe the point of the sunrise during the cycle of the day.

The point of the sunrise is the point where the light of day has become equal to the darkness of the previous night.

Points in time also symbolize relationships in space, as these points symbolize points in space-time. The point of the sunrise in time also symbolizes the point of the east in space.

Sunrise in the cycle of the day does not occur at the same point on the horizon every day of the year. However, the perspective here is 2 specific days of the year, the 2 days known as the equinoxes, the spring equinox and the fall equinox. On these 2 days, the sunrise occurs directly to the east, and the sunset occurs directly to the west, for all people on the earth.

As with points in the cycle of horizontal space, points in the cycle of the day also symbolize relationships in time, as these points symbolize points in space-time. As with the cycle of space, the 1st point in the 1st half of the cycle symbolizes the past. When we later consider this half cycle in the context of all 3 of the points of the half cycle, the point of the sunrise in time will also symbolize the point of the past in time.



After symbolizing each of the 4 endpoints of the 2 line segments in this cycle of time, the fingers will return to the point of the here. The reason for this return to the point of the here after symbolizing each point in the cycle is that each point is an endpoint on a segment, and not a point on an area, such that the only way to get from one endpoint on a segment to another endpoint on the same or another segment is to return from the endpoint of the segment to the midpoint of both of the segments, the point of the here, and then to move onward to the next endpoint, to the next point of the there. Motion is always motion along a segment in space-time.

To return to the point of the here in this 2^{nd} position, extend the right index finger, such that the bones of the right index finger extend forward, in 1 direction, to the point of the here. Also, shift the right thumb, such that the bones of the thumb orient in 2 directions. At this time, both hands again orient to the point of the here.

The neck rotates the head 90° to the left, such that the head orients forward, and such that the eyes are in position once again to observe the point of the here.



From the middle point on the left-right and up-down segments, the point of the here, we will expand upward along the 3rd segment, the up-down segment.

In the 1st point in the cycle, the point of the sunrise in the east, the bones of the index fingers extended differently. The index finger of the left hand extended forward, with the bones orienting in 1 direction, at which time the bones of the thumb oriented in 2 directions. The right hand was symmetrical to this.

For the midpoint in the half cycle, the bones of both index fingers extend straight, together, to orient in 1 direction. At this time, the bones of the thumbs extend in 2 directions, to touch the proximal bones of the index fingers.

To symbolize the point of noon in the cycle of the day, the 2^{nd} point in the half cycle, 3 of the joints of the arm have to go in motion.

The elbows rotate the bones of the forearms 90°, such that the bones are no longer horizontal with respect to each other but are vertical.

The wrists shift the hands 45° upward, such that the hands are in line with the forearms.

The shoulders shift the upper arms upward 45° , such that the upper arms extend horizontally forward and the forearms extend vertically upward, and such that the index fingers of both hands orient to the point of up.

The neck shifts the head 90° upward, such that the eyes can look at the hands, where both fingers orient to the point of up. The eyes can then look beyond the fingers to observe the point of up in the heavens. People would do this when the heavens were maximally filled with light, at the point of noon in the cycle of the day.

The point of noon in the cycle of the day, which expanded upward from the point of the here, also symbolizes the point of the now in time. If we now consider this half cycle in the context of all 3 of the points in time of this half cycle, the point of noon in time also symbolizes the point of the now in time. At this time, the point of the sunrise lies in the past, and the point of the sunset lies in the future.

To symbolize the 4^{th} position in the cycle, the point of noon is followed by a return to the point of the here. The shoulders shift the upper arms 45° downward, the wrists shift the orientation of the hands to the arms 45° forward and downward, and the elbows rotate the bones of the forearm 90° inward, such that both index fingers again orient to the point of the here. At this time, the neck shifts the head 90° downward, such that they eyes once again observe the point of the here.



For this last position in the 1st half of the cycle, no shifts in the joints of the arms are required. The only movement is in the left index finger and thumb. The bones of both index fingers become different, and are symmetrical to the 1st point of the half cycle. The bones of the right index finger remain unchanged, while the bones of the left index finger bend to orient in 2 directions. Of the 3 bones of the left index finger, 1 bone, the middle bone, shifts to orient along the 1st segment, the forward-rearward segment. The 2 separated bones, the proximal and distal bones, continue to orient along the 2nd segment, the left-right segment. These 2 bones orient to the 2nd segment in 2 ways. The proximal bone orients to the east and the distal bone orients to the west.

At this time, the bones of the right thumb are bent into 2, with the proximal bone orienting forward, the same as the index finger, and with the distal bone orienting downward. The bones of the left thumb extend together as 1, extending forward to touch the middle bone of the index finger.

The right index finger extends whole toward the point of the west in space and the point of the sunset in time. The left index finger doubles rearward toward the left to orient as well to the point of the sunset.

At this time, both index fingers orient toward the point of the sunset, the 3rd distinctive point in the cycle of the day, the end of the 1st half of the cycle and the midpoint in the cycle of the day for cultures that orient to the 3rd dimension. After

looking at the symbolism of the fingers, the neck would rotate the head 90° toward the left to observe the point of the sunset during the cycle of the day.

At the point of the sunset, there is still the light of day, yet this is the point where the darkness of night has grown to become equal to the light of day.

Points in time also symbolize relationships in space, as these points symbolize points in space-time. The point of the sunset in time also symbolizes the point of the west in space.

As with points in the cycle of horizontal space, points in the cycle of time also symbolize relationships in time, as these points symbolize points in space-time. As with the cycle of space, the 3rd point in the 1st half of the cycle symbolizes the future. When we consider this half cycle from the context of all 3 of the points of the half cycle, when the hands orient to the point of noon, which represents the point of the now, the point of the sunrise symbolizes the point of the past in time and the point of the sunset symbolizes the point of the future, as the sunrise lies in the past and the sunset lies in the future for this half cycle of the day.

To symbolize the 6^{th} position in the cycle, the point of the sunset is followed by a return to the point of the here. The left index finger extends forward, and the thumb extends in 2 directions, such that both hands orient to the point of the here. The neck rotates the head 90° to the right, such that the eyes once again observe the point of the here.

This 3^{rd} point on the segment completes a one-way traversal of the left-right segment. This completes the 1^{st} half of the cycle of time of the day. We have traversed the left-right segment from the east to the here to the west. As well, we have traversed the up-down segment from the point of noon to the point of the here. Now, we can begin the 2^{nd} half of the cycle.



The 1^{st} half cycle began with the point of the sunrise. The 2^{nd} half cycle begins with the point of the sunset. The point of the sunset was the last point in the forward traversal, and will now be the 1^{st} point in the return traversal.

For the 1st position in the 2nd half cycle, no shifts in the joints of the arms are required. The only movement is in the left index finger and thumb. The bones of the right index finger remain unchanged, while the bones of the left index finger bend to orient to the point of the sunset.

After looking forward at the symbolism of the fingers, the neck rotates the head 90° to the left to observe the point of the sunset on the horizon.

Whereas the head holds 2 orientations to the 3^{rd} point on the segment in the cycle of space, the point of the south, it holds only 1 orientation to the 3^{rd} point on the segment in the cycle of time, the point of the sunset.

In the 2^{nd} half cycle, the point of the sunset in time symbolizes the point of the past in time, when considered in the context of the entire half cycle.

To symbolize the 8^{th} position in the cycle, the point of the sunset is followed by a return to the point of the here. The left index finger extends forward, and the bones of the thumb orient in 2 directions, such that both hands orient to the point of the here. The neck rotates the head 90° to the right, such that the eyes can once again observe the point of the here.



In the 1st point in the cycle, the point of the sunset in the west, the bones of the index fingers extended differently. The index finger of the right hand extended forward, with the bones orienting in 1 direction, at which time the bones of the thumb oriented in 2 directions. The left hand was symmetrical to this.

For the midpoint in the half cycle, the bones of both index fingers extend straight, together, to orient in 1 direction. At this time, the bones of the thumbs extend in 2 directions, to touch the proximal bones of the index fingers.

To symbolize the point of midnight in the cycle of the day, the 2nd point in this half cycle, 3 of the joints of the arms have to go in motion.

The elbows shift the bones of the forearms 90° outward, such that the bones are no longer horizontal with respect to each other but are vertical.

The shoulders shift the upper arms 45° downward, such that the upper arms extend vertically downward and the forearms extend horizontally forward.

The elbows shift the forearms 45° forward and downward, such that the index fingers of both hands orient to the point of down.

During this symbolism, the neck would shift the head 90° downward, such that the eyes would look at the hands orienting to the point of down in space. From there, the eyes would look beyond the index fingers to observe the point of down on the earth. People would do this when the heavens were maximally filled with darkness, at the point of midnight in the cycle of the day.

The point of midnight in the cycle of the day, which expanded downward from the point of the here, also symbolizes the point of the now in time. If we now consider this half cycle in the context of all 3 of the points in time of this half cycle, the point of midnight in time also symbolizes the point of the now in time. At this time, the point of the sunset lies in the past, and the point of the sunrise lies in the future.

To symbolize the 10^{th} position in the cycle, the point of midnight is followed by a return to the point of the here. The elbows shift the forearms 45° upward, the shoulders shift the upper arms 45° forward and upward, and the elbows shift the bones of the forearm 90° inward, such that the bones of the forearm no longer orient up-down with respect to each other, but orient left-right, and such that both index fingers orient to the point of the here. At this time, the neck shifts the head 90° upward, such that they eyes once again observe the point of the here.



For the next position in the 2^{nd} half cycle, no shifts in the joints of the arms are required. The only movement is in the right index finger. The bones of both index fingers become different, and are symmetrical to the 1^{st} point of the half cycle. The bones of the left index finger remain unchanged, while the bones of the right index finger bend to orient in 2 directions. Of the 3 bones of the right index finger, 1 bone, the middle bone, shifts to orient along the 1^{st} segment, the forwardrearward segment. The 2 separated bones, the proximal and distal bones, continue to orient along the 2^{nd} segment, the left-right segment. These 2 bones orient to the 2^{nd} segment in 2 ways. The proximal bone orients to the west and the distal bone orients to the east.

At this time, the bones of the left thumb are bent into 2, with the proximal bone orienting forward, the same as the index finger, and with the distal bone orienting downward, such that the bone rests on the proximal bone of the middle finger and the inside of the bone touches the index finger just rearward of the crease at the base of the proximal bone of the index finger. Both of the bones of the thumb of the right hand extend in the same direction, forward, such that the thumb touches the middle bone of the index finger. The left index finger extends whole toward the point of the east in space and the point of the sunrise in time. The right index finger doubles toward the right to orient as well to the point of the sunrise.

At this time, both index fingers orient toward the point of the sunrise, the 3^{rd} distinctive point in the 2^{nd} half of the cycle of the day, the end of the 2^{nd} half of the cycle, and the end of the cycle of the day for cultures that orient to the 3^{rd} dimension. The eyes look at the fingers at the point of the here, and then the neck rotates the head 90° toward the right, such that the eyes observe the point of the sunrise during the cycle of the day.

At the point of the sunrise, there is still the darkness of night, yet this is the point where the light of day has grown to become equal to the darkness of night. This point also symbolizes the beginning of another cycle of the day.

When we consider this half cycle from the context of all 3 of the points of the half cycle, when the hands orient to the point of midnight, which represents the point of the now, the point of the sunset symbolizes the point of the past in time, and the point of the sunrise symbolizes the point of the future, as the sunset lies in the past and the sunrise lies in the future for this half of the cycle of the day.

To symbolize the 12^{th} position in the cycle, the point of the sunrise is followed by a return to the point of the here. The right index finger extends forward, and the thumb extends in 2 directions, such that both hands orient to the point of the here. The neck rotates the head 90° to the left, such that the eyes can once again observe the point of the here.

This 3rd point on the segment completes a one-way traversal of the left-right segment. This completes the cycle of time of the day. We have traversed the left-right segment from the west to the here to the east. As well, we have traversed the up-down segment from the point of midnight to the point of the here.

Motion through the cycle of the day is motion from the past to the future, yet it is also motion from the future to the past. At the point of the now, where the point of the now is the point of noon, for example, the point of the sunrise lies in the past, and the point of the sunset lies in the future. And yet, we know from our experience with the cycle of the day that the point of the sunset lies in the future because the sunset lies in the past, in previous cycles of the day. In like manner, the point of the sunrise lies in the past, from which we know that the point of the sunrise will also lie in our future, in subsequent cycles of the day. The cycle of the day repeats, as that is the nature of a cycle. Motion is from the future to the past, and motion is from the past to the future.



Let us examine in more detail the cycle of the day in the 3rd dimension of awareness, because it will better enable us to understand later evolution.

As cultures that orient to the 3rd dimension oriented toward the point of the north in space, and as they observed the location of the sunrise and the sunset on the horizon toward the east or toward the west, they might have noticed that the position of the sunrise and the sunset to the right and left would change on a daily basis. In other words, the sunrise and the sunset would move progressively toward the north or toward the south every day. Furthermore, the position of the sunrise

and the sunset on the horizon would have also differed depending on the location on the earth of the observers.

When our ancestors in the homeland of mankind symbolized their awareness of the cycle of the day, their symbolism was from the perspective of a specific location on the earth and from the perspective of 2 specific days of the year.

The homeland of mankind in Africa was located more or less on the equator, and so this symbolism would have been from the perspective of the equator. Cultures that orient to the 3^{rd} dimension of awareness would have evolved to this awareness while still in the homeland, such that their symbolism of the cycle of the day would also have been from the perspective of the equator.

Symbolism at this time was from the perspective of 2 specific days of the year, the days that are known as the equinoxes. Later, we will explore in more detail what the equinoxes represent. On the days of the equinoxes, the direction of the sunrise is due east, and the direction of the sunset is due west.

In the 3rd dimension of awareness, there was still no awareness of the sun itself as following a path through an area of the heavens, but only of its location at key points in the cycle of the day. However, on the days of the equinoxes, the sun is always positioned directly above or directly below the equator on the earth, such that for peoples located on the equator, the sun passes directly overhead or directly below.

Because the sun is positioned directly above or below observers at the equator orienting to the sunrise, as mankind oriented toward the north, the sun would rise directly rightward, in the direction of due east, and the sun would set directly leftward, in the direction of due west. Therefore, we can symbolize our awareness of the equator as the segment that extends rightward to leftward from the point of the sunrise to the point of the sunset. The point of the sunrise lies in the east, and the point of the sunset lies in the west.

This right-left segment is crossed by another segment, the up-down segment. The up-down segment is perpendicular to the right-left segment. Since sunrise is followed by growing light, the point at the top of this segment, the point of up, symbolizes the point of maximum light during the cycle of the day, the point of noon. Since sunset is followed by growing darkness, the point at the bottom of this segment, the point of down, symbolizes the point of maximum darkness during the cycle of the day, the point of midnight. Down is the direction of the other side of the earth, where the source of the light would be at the point of noon from the perspective of people who are located on the opposite side of the earth.

The 4 endpoints of the left-right and up-down segments are symbolically positioned equidistant from each other. The 4 parts of the day represent equal durations in the cycle of the day, on the days of the equinoxes.



The vertical cycle of space symbolizes vertical space, and is represented by 1 of the 3 segments of awareness, the 1 segment that was not involved in the symbolism of horizontal space, the segment that extends up-down. The midpoint of the segment symbolizes the point of the here, represented in the diagram by the 'I between the eyes'. The point of up symbolizes the heavens, and the point of down symbolizes the earth.

The heavens symbolize time, and the earth symbolizes space. The point of the here is located between time and space, and represents a unification of time and space. The point of the here symbolizes space-time. The 3^{rd} dimension of the universe is the dimension of the creation. The 3^{rd} dimension of awareness is the
dimension of awareness of creation. The 3^{rd} dimension of awareness is the dimension of awareness of the self, and of awareness that mankind exists. To use a word that better reflects the awareness of mankind of himself, as the unification of time and space, as the unification of the heavens and the earth, as existing between the present and the past, and as the producer of this symbolism, we will symbolize the point of the here as the point of mankind.

Cultures that oriented to the 3^{rd} dimension of awareness oriented to the future, which was therefore the 1^{st} point in the cycle. The order of the points in the cycle is the point of the future, followed by the point of the past, and lastly the point of the present. In other words, the 1^{st} point symbolizes the earth, into which mankind will go in the future, after death. The 2^{nd} point symbolizes the heavens, where mankind came from in the past, before birth. The 3^{rd} point symbolizes the future and the past and as the unification of time and space.

In modern Chinese, this cycle is quite well-known and well understood, and follows a symmetrical pattern. This cycle is known in Chinese as 天地人, or tiān dì rén, which translates to heavens, earth, and mankind.



The 1st point in the cycle of motion through space is the point of down, also known as the point of the earth. Cultures that oriented to this dimension of awareness oriented to the future, and motion downward, into the earth, is where mankind will move after death, in the future. After death, mankind will be buried within the earth.

This cycle begins with the hands as always, at the point of the here. The bones of both index fingers extend straight, together, to orient in 1 direction. At this time, the bones of the thumbs extend in 2 directions, to touch the proximal bones of the index fingers.

To symbolize the 1st point in the cycle, the point of down, 3 of the joints of the arms have to go in motion.

The elbows shift the bones of the forearms 90° outward, such that the bones are no longer horizontal with respect to each other but are vertical.

The shoulders shift the upper arms 45° downward, such that the upper arms extend vertically downward and the forearms extend horizontally forward.

The elbows shift the forearms 45° forward and downward, such that the index fingers of both hands orient to the point of down.

During this symbolism, the neck would shift the head 90° downward, such that the eyes would look at the hands orienting to the point of down in space. From there, the eyes would look beyond the index fingers to observe the point of down on the earth.



The 2^{nd} point in the cycle of motion through space is the point of up, also known as the point of the heavens. Motion from the future, from the point of down,

toward the earth, is motion upward, toward the heavens, where the past of all life on earth lies. The creation of the universe that we know today, which ultimately gave rise to life on earth and mankind, occurred in the heavens.

From the point of down on the up-down segment, the point of the earth, the 2^{nd} point requires motion upward along the up-down segment to the point of up, in the heavens.

To symbolize the point of up in this cycle of space, the 2^{nd} point in the cycle, 3 of the joints of the arm have to go in motion.

The elbows shift the forearms 45° upward, such that the upper arms extend vertically downward and the forearms extend horizontally forward.

The wrists shift the hands 45° upward, such that the hands are in line with the forearms.

The shoulders shift the upper arms 90° upward, such that the upper arms extend horizontally forward and the forearms extend vertically upward, and such that the index fingers of both hands orient to the point of up.

During this symbolism, the neck would shift the head 180° upward, such that the eyes would look at the hands orienting to the point of up in space. From there, the eyes would look beyond the index fingers to observe the point of up in the heavens.



The 3rd point in the cycle of motion through space is the point of the here, also known as the point of mankind. Motion from the past, from the point of up, toward the heavens, is motion downward, toward the point of the here, where mankind (the observer) is now. The point of mankind symbolizes the point of the here, where mankind is now, between the heavens and the earth in space and between the past and the future in time. At the point of the here, now, mankind can become aware of himself. The 3rd dimension of awareness symbolizes human awareness of mankind, and of the self. The 3rd dimension of the universe is the dimension of the creation, and the 3rd dimension of awareness is the dimension of awareness that mankind had been created, and that mankind, the self, exists.

To shift the hands to symbolize the point of the here, the shoulders shift the upper arms 45° downward, the wrists shift the orientation of the hands to the forearms 45° forward and downward, and the elbows shift the bones of the forearms 90° inward, such that both index fingers orient to the point of the here. At this time, the neck shifts the head 90° downward to reorient the eyes to observe the point of the here.

The vertical cycle of space ends at the point of the here, in position for the final cycle of space and time.



The horizontal cycle of time symbolizes the tenses, and the cycle of motion through time.

The horizontal cycle of time is represented by 1 of the 3 segments of awareness, the 1 segment that was not involved in the symbolism of the vertical cycle of time, the segment that extends forward-rearward. The midpoint of the segment symbolizes the point of the here, represented in the diagram by the 'I between the eyes'. Cultures that oriented to this dimension of awareness no longer oriented toward the past, as in the 2nd dimension of awareness, but instead oriented to the future. The point of the future lies before us, and the point of the past lies behind us. The order of the points will be future, past, present.

This cycle has 2 differences in symbolism with the other cycles. 1^{st} , there is no return to the point of the here after the symbolism of each point. 2^{nd} , there is a 2^{nd} way to symbolize 2 of the points, the point of the here and the point of the past.

There are 3 bones of the index fingers, enabling each to symbolize 3 points. In the cycles of 4 stages, the 1^{st} 2 cycles, which symbolize 4 endpoints on 2

segments, the index fingers could not symbolize all 4 points from 1 position, and so had to change to symbolize the 4th point. The 3rd cycle has 3 points, but the index finger cannot symbolize 3 distinct points vertically without moving. The horizontal cycle of space is subdivided into 2 half cycles, such that the 3 bones of the index fingers can symbolize all 3 points of the half cycle without reorienting the hands, with the thumb moving from one bone to the next on the index finger. This last cycle also has 3 points, which orient horizontally, such that the 3 bones of the index finger can symbolize all 3 points of the cycle without reorienting the hands, with the thumb moving from one bone to the next on the index finger.



The 1st point in the cycle of motion through time is the point of the future. Cultures that oriented to this dimension of awareness oriented to the future, and motion through time begins with awareness of objects while they are still in the future. This cycle begins with the hands as always, at the point of the here. The bones of both index fingers extend straight, together, to orient in 1 direction. At this time, the bones of the thumbs extend in 2 directions, to touch the proximal bones of the index fingers.

To symbolize the 1st point in the cycle, the point of the future, 1 of the joints of the arm has to go in motion.

The elbows shift the bones of the forearms 90° outward, such that the bones are no longer horizontal with respect to each other but are vertical. The fingers now orient to the point of the north on the horizon in space, and the point in time of the future. At this time, the distal bones of the thumbs touch the proximal bones of the index fingers.

During this symbolism, the eyes would look forward at the hands orienting to the north, to the point of the future in time. From there, the eyes would look beyond the index fingers to observe the point in space of the future of mankind on the earth.



The 2nd point in the cycle of motion through horizontal time is the point of the past. Motion from the future is motion to the past. Objects that people are aware of while still in the future will eventually move into their past.

To symbolize the 2^{nd} point in the cycle, the point of the past, none of the joints of the arm has to go in motion. This is a 2^{nd} way to symbolize the point of the south.

The bones of the index fingers bend to orient in 2 directions. Of the 3 bones of the index finger, 1 bone, the middle bone, shifts to orient along the 2^{nd} segment, the left-right segment. The 2 separated bones, the proximal and distal bones, continue to orient along the 1^{st} segment, the forward-rearward segment. These 2 bones orient in 2 ways. The proximal bone orients forward and the distal bone orients rearward. The thumbs extend to touch the middle bones.

The distal bones of the index fingers orient rearward, to the point of the south in space, the site of the origin of mankind in space in the past. The bones of

the thumbs extend forward, in the same direction, to touch the middle bones of the index fingers.

The eyes would look forward at the hands orienting to the point of the south in space, to the point of the past in time. From there, the spine would rotate the body 90° to the right and then the neck would rotate the head 90° to the right, in order to observe the point of the past behind the body. This would be followed by returning the eyes to observe the fingers at the point of the here, and then looking in a symmetrical manner behind the body to the left.



The 3^{rd} point in the cycle of motion through horizontal time is the point of the present, at the point in space of the here.

Although this is the point of the here in space, which the hands have symbolized many times in these cycles, there is now a 2^{nd} way to orient to the here.

To move to the point of the here, the bones of the index fingers bend to orient in 2 directions. Of the 3 bones of the index fingers, 2 bones, the distal bone and the middle bone, extend in the same direction, inward, along the left-right segment, and 1 bone, the proximal bone, orients in a 2^{nd} direction, forward, along the forward-rearward segment. The distal bones of the index fingers orient to the point of the here. The thumbs extend to touch the distal bones.

At this time, the head can observe the fingers and also observe the point of the here.

In the 3 stages of this cycle, the thumb progressively moves along the bones of the index finger, from the proximal bone, to the middle bone, to the distal bone, as it symbolizes the points of the future, the past, and the present, until the cycle ends at the point of the here.

From here, it is possible to return to the point of the here in the normal symbolism, in order to symbolize all of the cycles again. Extend the index fingers, bend the thumbs, and rotate the elbows, such that the fingers orient once again to the point of the here.

Example Language that Orients to the 3rd Dimension of Awareness

Turkish is an example of a language that orients to the 3rd stage of human awareness, the stage of awareness of the 3rd dimension, reflecting the fact that the ancestors of the modern speakers of Turkish left the homeland in Africa at the time in our history when our ancestors had already evolved to this dimension of awareness.

Unlike Japanese, whose speakers orient to the 2^{nd} dimension of awareness, and for which time is represented in the form of the verb as past or non-past, verbs in Turkish can reflect the past tense, the present tense, and the future tense.

Whereas words in Japanese can be composed of multiple syllables, each syllable is itself indivisible. In Turkish, syllables can be further subdivided into 2 types of sounds, consonants and vowels.

Whereas the phrase was the most complex grammatical structure during the 2^{nd} dimension of awareness, during the 3^{rd} dimension of awareness there was a new structure, the clause. An example of a clause is 'old man comes', where a verb modifies a phrase with a component of motion.



The 3rd stage of evolution in awareness was to the awareness of motion. There could be motion from a point, at a point, or to a point. There could be awareness of motion from a point in the past, at a point in the present, and to a point in the future. There could also be awareness of motion from a point in the future, at a point in the present, and to a point in the past. For example, mankind at this time was moving from the point of the south, in his past, toward the point of the north, in his future. Mankind was moving into his future. As well, the sunset moved every day from the point of the future toward the point of the past. The cycles of the day moved from the future into the past.



As an analogy to help understand the line segment, imagine a river of spacetime, with rafts, in the form of circular black points, which symbolize objects that a person might experience, floating down the river. Consider a person standing in the middle of the river, facing downstream. Not only is he aware at any given point in time of the rafts at the points that extend before him on the river, those rafts that at a point in the past were at the point of the here, but he also recognizes that he can expect more rafts to appear at the point of the now, in the future. The line is of course a segment, because he cannot see infinitely upstream or downstream along the river. His first view of a raft floating along the river would be before it is at a position immediately in front of him, at the point of the here and now, as he could see rafts coming into his future.

Review Of The 3 rd Dimension					
Dimension	Symbolism	Geometry	Unit Of Meaning	Type Of Word	Example
1 st	Existence	Point	Word	Noun	Bill
2 nd	Position	Ray	Phrase	Adjective	Young man
3 rd	Motion	Line	Clause	Verb (intransitive)	Young man sits

Let us review the symbolism of the 3^{rd} dimension of awareness. As the 1^{st} dimension evolved into the 2^{nd} and then the 3^{rd} dimension, existence evolved into position and then into motion, the point evolved into the ray segment and then into the line segment, words evolved into phrases and then into clauses, and nouns evolved into adjectives and then into verbs.



Representation of religion in the 3^{rd} dimension of awareness will be covered in the section for the 4^{th} dimension.

Chapter 11

The 4th Dimension: Interaction On An Area

Let us now examine the next major stage in the evolution of the awareness of nature of our ancestors, the 4th Dimension of Awareness.

In the 4th dimension of awareness, the 3 of the 3rd dimension subdivided again. The 3rd of the 3, the one from the 3rd dimension, subdivided within itself, making 2. This made a total of 4 in the 4th dimension.

In the 4th dimension of awareness, the primary fingers that were used for symbolism were the 4 fingers of each hand, each of which is subdivided into 3 bones. The thumb is used not for its own symbolism but only for touching bones, thereby marking them, of the other fingers.



Models of nature become increasingly complex over time. Eventually, there is a significant shift in the structure of our models, leading again to simplicity.

For example, the Ptolemy's model of the epicycles had become increasingly complex over time, in order to enable users of this model to continue to be able to use it to model their understanding of nature, which had evolved significantly since the time of the model's introduction.

This complexity returned to simplicity when a newer, more organized model of nature was introduced that was more in line with the current level of understanding of nature of its users. Copernicus proposed placing the sun at the center of the solar system, rather than the earth. This enabled a much simpler model of nature.

As another example, the current models of physics, such as relativity, have become extremely complex, in order to enable our culture to model our highly evolved understanding of nature in spite of the necessary complexity of current approaches to understanding nature.

The time is due for another paradigm shift, a completely new type of model of nature that is in line with our current scientific level of understanding, and which will again enable a return to simplicity. The introduction of such a model is the goal of this book.

We are nearing the end of the cycle of evolution of human mental development, in terms of the stages in the evolution of human awareness, as the 4^{th}

dimension of awareness is the last stage before the 5th and final dimension of awareness. The 4th dimension of awareness is the most complex dimension. With increasing complexity comes power, but this complexity is not simplicity. Notice throughout this chapter how complex are all aspects of the organization of nature, compared with models based on previous dimensions of awareness. From the structure of the syllable to the structure of the representation of space and time, this chapter will demonstrate the greatest level of complexity.

The 5th dimension of awareness, which represents the end of the cycle, will once again represent a return to relative simplicity.



The notion from geometry that is analogous to the 4^{th} dimension of awareness is the notion of the area. In the 4^{th} dimension, the area is composed of 2 segments. This is shown on the left in the diagram. As we shall see, there is another way to represent the area of awareness, which is to show the area as composed of 4 segments, in the form of a square. This other way, as shown on the right in the diagram, is commonly used in geometry to symbolize an area.

Each of the segments that describes the area is composed of 3 points. The 3 points of each segment are represented on the symbol on the left, but not on the symbol of the right, although later the square will be redrawn such that each of the segments is composed of 3 points.

On a line segment, the symbol of the 3rd dimension of awareness, an object that exists can be in motion from a point, at a point, or to a point. On an area, the

4th dimension symbol of awareness, there can be simultaneous awareness of multiple line segments. Where there is a simultaneous awareness of multiple line segments, there can be awareness of interaction among the segments. The 4th dimension of awareness symbolizes awareness of interaction in space and time.

Numeric Symbolism

Speakers of Indo-European languages, such as Greek and English, orient to this dimension, the 4th dimension of awareness. The 4th dimension of awareness can be represented in these languages by the number 3. This is the same number symbolism as for the 3rd dimension of awareness. This is not what might be expected, based on the pattern that developed for the 1st, 2nd, and 3rd dimensions of awareness. The reason is that cultures that evolved with an orientation to this dimension of awareness do not begin with an orientation to the number 4, but rather end with such an orientation.

Numeric V	alue a	nd Dime	ension	Symbolism
	Number	Dimension S	Symbolized]
	Number	Time	Space	
	1	1 st	1 st	
	2	2 nd	2 nd & 3 rd	
	3	3rd & 4th	4 th	

Speakers of English and Greek orient to the 4th dimension. For these cultures, the number 4 is primary, as we shall see. However, there will be in all a total of 5 dimension of awareness. In order to end with an orientation to the number 4, it was necessary that speakers of these languages integrate 2 of the dimensions of awareness into 1.

In other words, in order to maintain orientation to the number 4, 2 of the dimensions must share symbolism. Furthermore, which dimensions share symbolism differs for time and space.

Because these cultures had an integrated awareness of the 4^{th} dimension, they were able to reconsider their symbolism of their awareness of earlier dimensions in order to satisfy the needs and capabilities of their orientation to the 4^{th} dimension.

For space, the 2^{nd} and 3^{rd} dimensions are integrated. Consider that in the ancient Greek model of space known as geometry, the ray and the line are not considered to represent 2 distinct dimensions, but are considered to be merely different forms of the same dimension. In other words, the symbolism of the ray segment, which represents the 2^{nd} dimension of awareness, is considered to be merely a subset of the line segment, which represents the 3^{rd} dimension of awareness. If we number the point as 1, as a symbol of the 1^{st} dimension, as it is symbolized in the mind of 4-dimensional mankind, the number 2 symbolizes the 2^{nd} dimension, the dimension of the ray segment and the line segment.

For time, the 3rd and 4th dimensions are integrated. We shall see that for cultures that orient to the 4th dimension of awareness, the cycles of time of the day and the month are both symbolized using the area, the symbol of the 4th dimension of awareness.

Later, we will explore preposition usage in English, and see a significant example of how the same preposition is used to symbolize the 2^{nd} dimension of space as is used to symbolize the 3^{rd} dimension, yet for time the same preposition is used for the 3^{rd} dimension as for the 4^{th} dimension.

Because of this integration of dimensions of awareness, the number 3 symbolizes the 4th dimension of awareness.

For one example, as we shall see, the gods that symbolize the 4^{th} dimension are siblings of the gods that symbolize the 3^{rd} dimension. In other words, they are of the same generation of gods.

For another example, the 4th dimension of awareness represents awareness of death, and of the end of a cycle. In Chinese, for example, death is represented by the number 4. In Chinese, the word for the number 4 is a homonym for the word for death. In English, it is the number 3 that symbolizes death.

In English, life is often considered to run through 3 stages, a beginning, a middle, and an end. Also, we can define a series as being composed of 3 stages, or

elements, which represent the beginning, middle, and end stages of the series. For example, we say a, b, c; do, re, mi; and so on. In Chinese, the corresponding series that evolved in China are always listed as groups of 4.

As another example, consider the counting of numbers. In English, we have 1, 10, and 100. These represent the beginning, the middle, and the end of a series used in counting. The next stage in this series begins with 1,000. We have 1, 10, and 100 thousand. The same holds for millions, etc. In Chinese, we count 1, 10, 100, and 1000. The next stage in the series begins with wan, which is equivalent to 10,000. We then have 1, 10, 100, and 1000 wan. This is followed by yi, or 10,000 10,000s, or 100 million. We have 1, 10, 100, and 1000 yi, and so on.

The number 3 represents a fundamental notion of the cycle of life and death in English, equivalent to the number 4 in Chinese.

Language Evolution

During the 4th dimension of awareness, our ancestors evolved to the 4th dimension of language development. The 4th type of word in language is the adverb. The adverb is like the adjective in that it can modify another type of word. Whereas adjectives modify 1 type of word, the 1st type of word, nouns, adverbs modify the later types of words; adjectives, verbs, and adverbs. An example using the adverbs 'quickly' and 'very' is 'he ran very quickly', where the adverb 'very' modifies the adverb 'quickly', and the adverb 'quickly' modifies the verb 'ran'.



The primary form of verb to evolve in the 4th dimension of awareness was the direct object transitive verb. Direct object transitive verbs are verbs that take a direct object. In other words, direct object transitive verbs are verbs that represent 2 objects at the same space and time. When there is awareness of 2 objects at the same space at the same time, the objects can interact, and transitive verbs represent the interaction of 2 objects in space and time.

An example is the sentence 'young man eats little bird', which represents the interaction of 2 objects, a man and a bird, at the same point in space and time.

The transitive verb clause, the 4th dimension unit of meaning, is composed of 2 segments. Each of the 2 segments represents a noun phrase as part of a clause. A transitive verb enables the 2 segments to interact, thereby forming an area of space-time.

Some New Grammatical Forms

Number (singular, dual, and eventually plural)

Gender (animate and inanimate) (eventually masculine, feminine, and neuter)

Voice (active, middle, and eventually passive)

Awareness of the 4 dimensional cycles of the sun and the moon, and of their observed interactions in the heavens, enabled mankind to develop many new grammatical forms.

Man associated with the sun, as the body of man is constant throughout the day, just as the sun is constant in its daily cycle across the heavens. For example, man is constant in his ability to reproduce throughout the day. Woman associated with the moon, as the body of woman changes over her monthly cycle, just as the moon changes during its monthly cycle across the heavens. For example, woman is inconstant in her ability to reproduce during the cycle of the month.

Man and woman interact on the earth, just as the sun and the moon interact in the heavens. Awareness of the interaction of the moon with the sun (this interaction will be discussed later) and woman with man led to 2 forms of words. This awareness later evolved into the awareness of a 3^{rd} form, as their understanding evolved.

Examples of these innovations are number (singular, dual, and eventually plural), gender (animate and inanimate, eventually becoming masculine, feminine, and neuter), and voice (active, middle, and eventually passive).



The 4th dimension of awareness is represented in the analogy of geometry as the dimension of the area.

In the 4th dimension of awareness, there was awareness of time that had come before, in the past. There was also awareness of time that will come after, in the future. There was awareness of time that is happening now, and there was awareness of 2 objects at the point of the now in time.

Time in the 4th dimension of awareness is symbolized using the 4 fingers of each hand. Using the 4 segment representation of the area, the symbol of the square, the 4 fingers of the hand when symbolized independently well symbolize the 4 segments of awareness in time of the 4th dimension of awareness.



The 4th dimension of awareness is represented in the analogy of geometry as the dimension of the area.

Using the 4 segment representation of the area, the symbol of the square, in the 4^{th} dimension of awareness, there was awareness of 4 segments in space. Of these, one pair of segments meets at the point of the there before me in space, the other pair of segments meets at the point of the there after me in space, and the other endpoints of each of the 4 segments meet at 2 points that represent the point of the here. The 2 segments that represent the point of the here represent awareness of 2 objects at the point of the here at the same time. When there is awareness of 2 objects at the same point at the same time, there is awareness that they can interact with each other, and the 4^{th} dimension of awareness is the dimension of awareness of interaction.

Verbs of language, transitive verbs of interaction, are able to symbolize the interaction of 2 objects that are at the point of the here on the area of awareness at the same time, at the point of the now.

Structure of the Human Body

In the 4th dimension of awareness, awareness of the body subdivided again, making a total of 4. In the 4th dimension, there was awareness of a 4th part of the body for use in symbolism. The 4 parts of the body that were used for symbolism were the arms, the head, the body, and the feet.

In the 4th dimension of awareness, awareness of the arms subdivides into 4. The shoulder joints control the upper arms. The elbow joints control the forearms. The wrist joints control the hands. Now, the finger joints control the fingers.

Let us focus on the hands. Each hand could now subdivide into 4, as there was awareness of 4 fingers of each hand. However, the 4 fingers of the hand were not each used individually for the symbolism of awareness of space, but were combined into pairs. There are 2 hands, each of which has 2 pairs of 2 fingers, making a total of 4 groups of fingers to use for symbolism of space. For time, as we shall see, the fingers were used slightly differently, and in a more evolved manner, since awareness of time is primary and awareness of space is secondary, and because awareness of time is unified and awareness of space is subdivided. The thumb was not used for distinct symbolism, but only for symbolizing interaction among the other fingers.

In the 3rd dimension of awareness, there was awareness of the extended index finger, 1 finger. There are 2 fingers on the 2 hands, but they always work together. In the 4th dimension of awareness, this awareness subdivides into 2 pairs of 2 fingers. Notice that the hand is slowly opening in each dimension of symbolism, rather than opening all at once.

There are 4 pairs of fingers on the 2 hands, and the fingers of each pair are composed of 3 bones. This enables the fingers of both hands together to symbolize 12 distinctions in space in the 4th dimension of awareness. The thumb of each hand can be used to mark each of these bones of the pairs of fingers on the same hand, and thereby to represent interaction among the fingers.

The symbolism of the 4th dimension of awareness is all about recognizing distinction, or subdivision, within nature and within the human body, where such subdivision is always into 4.

Cycle Of Nature

Month

Cycle of the moon

The cycle of nature of which mankind became aware that enabled mankind to become aware of the 4th dimension of awareness was the cycle of the moon, the cycle of the month. When our ancestors entered the 4th dimension of awareness, they learned to look along the segments of the area that extends upward-downward through the body of mankind and that extends forward-rearward as mankind oriented toward the east. By observing the segments of this area, mankind became aware of the moon, and learned that the changing shape of the moon as it followed its path along these segments in the heavens followed a pattern as well.

For cultures that orient to the 4th dimension of awareness, the cycle of this dimension, the cycle of the month, is a 4 stage cycle. For comparison, this is an 8 stage cycle for speakers of Chinese. The 4 stages in the cycle of the moon as it revolves around the earth are the period from the point of the new moon to the point of the 1st quarter, from the point of the 1st quarter to the point of the full moon, from the point of the full moon to the point of the 3rd quarter to the point of the new moon.

Geometric Structure of Awareness						
	Dimension	Geometric Structure	Number in Awareness	Composition of Structure		
	1	Point	1	1 point		
	2	Ray Segment	2	2 points		
	3	Line Segment	3	2 ray segments		
	4	Area	10	2 line segments		

In the 4th dimension of awareness, there is awareness of 4 primary areas. However, each of these areas is part of a pair of areas, where each pair is a pair composed of 2 areas. As well, there is another pair of areas that is formed from points that coincide with some of the points of the primary areas. In all, there is awareness of 10 areas of space and time. Each area is defined by 2 line segments. Each of these pairs of areas can also be considered to form the basis of a square, which is a symbol that can be represented as being bounded by 4 line segments.



In the 4th dimension of awareness, there is awareness of 4 pairs of vertical areas of space. As well, 1 of the segments of each of these pairs of areas combine to form another pair of areas, of horizontal space. In total, there are 10 areas of awareness of space.

The pair of horizontal areas is composed of 4 segments that extend across the surface of the earth. The primary vertical areas extend upward-downward through each of these horizontal segments. Each of these vertical areas is also part of a pair of areas.

One of these pairs of vertical areas also enables awareness of the cycles of time.

Each of the areas is composed of 2 line segments. The cycles of symbolism include cycles of the 2 horizontal areas of space, cycles of the 8 vertical areas of space, and the 2 cycles of time.

Parts of Body Used in Symbolism						
	Dimension	Number of Parts	Part Added This Dimension			
	1	1	Arms			
	2	2	Head			
	3	3	Body			
	4	4	Feet			

In the 4th dimension of awareness, 4 parts of the body were used in symbolism, once the body had prepared for symbolism. In addition to the arms, the head, the body, and the feet were also used.

Joir	nts of	Arms	s Used ii	n Symbol	ism
	Dimension	Number of Joints	Joint Added In This Dimension	Joints Changed In This Dimension	
	1	1	Elbow		
	2	2	Shoulder		
	3	3	Wrist	Elbow (2 nd Way)	
	4	4	Fingers (2 Ways)	Shoulder (2 nd Way) Wrist (2 nd Way)	

In the 3rd dimension of awareness, after moving the arms into position to represent symbolism, 3 joints of the arm could be used in symbolism. These are the elbow joint, the shoulder joint, and the wrist joint.

In the 4th dimension of awareness, after moving the arms into position to represent symbolism, 4 joints of the arm could be used in symbolism. These are the elbow joint, the shoulder joint, the wrist joint, and the finger joints.

Finger joints refer to the ability of the fingers of the hand to move, as a whole, with respect to the other fingers of the hand, within the same area of space.

Movement of the finger joints for symbolism is new in the 4th dimension of awareness. The fingers can move in 2 different ways. The finger joints can shift the

fingers with respect to each other to represent a span of 45° , and the finger joints can shift the fingers with respect to each other to represent a span of 22.5° .

Furthermore, whereas previously the elbow had developed a 2^{nd} form of movement, in the 4^{th} dimension of awareness, both the shoulder and the wrist developed a 2^{nd} form of movement.

In addition to the previous movement of the shoulder, which relocated the arm forward in relationship to the body, another movement of the shoulder became possible in the 4th dimension of awareness. The shoulder could relocate the arm to the left-right of the body.

As well, the wrist could orient the hand with respect to the forearm in 2 different ways, along the 2^{nd} segment of the same area as that represented by the bones of the forearm and now by forming the hand along a segment of a 2^{nd} area that is perpendicular to the area that is formed by the bones of the forearm, a segment of the other pair of areas.

Motion of Head Used in Symbolism					
	Dimension	Number of Motions	Added Direction of Motion		
	2	1	Up/Down		
	3	2	Left/Right		
	4	3	Both Together		

In the 4th dimension of awareness, the head was used in a 3rd way in order to symbolize awareness of the areas of space-time. The neck could reorient the head with respect to the body in 3 ways, upward-downward, left-right, and both at the same time.



In the 4th dimension of awareness, in addition to the arms, head, and body, a 4^{th} part of the body was used in order to symbolize awareness of the line segments in the areas of space-time. The feet could orient the body toward the east. (1) As well, one of the feet could shift its orientation away from the east by 90°. The left foot could shift leftward, toward the point of the north. (2) The right foot could shift rightward, toward the point of the south. (3) In this way, the feet would provide the body with an effective way to orient the body toward the north and toward the west, and toward the south and toward the west. The feet could also return the body to its original orientation toward the east.



At the time of the 4th dimension of awareness, there was awareness of 4 subdivisions within the unity of nature. As subdivision is subdivision into 2, there was therefore awareness of 2^4 subdivisions of nature. 2^4 , 2 multiplied by itself 4 times, is equal to 16. There was at this time awareness of a subdivision of nature into 16.

We can therefore consider awareness of the 360° circle of the horizon of our awareness as subdivided into 16, where one-sixteenth of 360 is 22.5, such that there was awareness of 22.5° .

This awareness was symbolized by an awareness of corresponding subdivision on the body. The minimum motion of any part of the body, relative to the other parts of the body, in order to symbolize awareness of space-time in the 4^{th} dimension of awareness was 22.5°.

Minimum Joint Angle					
	Dimension	Minimum Angle			
	0	360°			
	1	180°			
	2	90°			
	3	45°			
	4	22.5°			

Once the bones of the arms had completed preparation for symbolism of the 4^{th} dimension of awareness, there was movement of the joints of the arms, the head, the body, and the feet in symbolism.

The smallest angle of movement of any joint that was used in symbolism of the 4^{th} dimension of awareness was 22.5° .

Orientation			
Dimension	Direction of Orientation		
1	None		
2	South		
3	North		
4	East		

In order to symbolize their awareness of space and time, ancient people had to orient themselves in a direction with respect to space and time that enabled such awareness.

For the first 3 dimensions of awareness, the direction of orientation to space was some form of orientation along the north-south axis of the earth. This is natural, as most early people who migrated out of the homeland in Africa moved more or less northward or southward, such that the species as a whole was oriented along the north-south segment.

People who left the homeland during the period of awareness of the 4th dimension oriented to the area. The area can be symbolized in the form of a square.

By the time the ancestors of the speakers of English began their migration out of the homeland in Africa, the main population distribution of the planet had changed. By this time, a large number of people had already left Africa, and were distributed all across Asia. Therefore, our species had mainly a west to east orientation, across the area of the surface of the earth. The people leaving Africa at this time were in the west, and so oriented to the east. This orientation to the east enabled a more evolved orientation to time and space.

In modern English, there are numerous references to the east as the direction of orientation. For example, the orient refers to the east, and orientals are people who live in the east. The word 'orient' is related to a Latin word that refers to the sunrise, which occurs in the east.

Many speakers of English are quite aware of the fact that orientation, becoming aware of their surroundings, is symbolized by facing the east.

At this time, these people oriented toward the east. As well, their feet were able to reorient their bodies, such that they were able to orient at the same time to the north or south and to the west.

While still in Africa, orientation was to the vertical area of time, and the area began in the east, at the point of the sunrise. The east was the point of the future in time, the point of the sunrise in the future. The east was also the point of the past in time. The east is the point where the future and the past interact, where the future evolves into the past, and where the past evolves into the future. As we shall see, the 4th dimension is the dimension of awareness of interaction in space-time.

After leaving Africa, orientation was to the horizontal area of space. The area began in the east. As the awareness of mankind evolved over the area of space, the point of the east is again where the future interacts with the past, and where space interacts with time, since the point of the east is also the beginning of their area of time.

4 th Dimension Cycles of Space and Time				
	Space/Time	Horizontal/Vertical		
	Space	Horizontal areas of space		
	Space	Left-right vertical areas of space		
	Space	Forward-rearward vertical areas of space		
	Space	2 other pairs of vertical areas of space		
	Time	Cycle of day		
	Time	Cycle of month		

In the 4th dimension of awareness, there is awareness of 1 pair of areas of horizontal space and 4 pairs of areas of vertical space. As well, there is awareness of 1 pair of areas that symbolize the 2 cycles of time, 1 of the pairs of areas of vertical space.

The areas of space include 1 pair of horizontal areas and 4 pairs of vertical areas. The horizontal areas extend horizontally along the surface of the earth, and extend forward and rearward (east and west) and left and right (north and south) in space, as well as along the midpoints between these segments along the horizon, from the perspective of mankind orienting to space and time. The primary vertical areas extend vertically upward and downward through the segments that form the horizontal areas, passing through the midline of mankind at the sternum. Each of these vertical areas is part of a pair of areas, in a manner analogous to the pair of areas of horizontal space.

The areas of time are the pair of areas that enables awareness of the cycle of the day and the cycle of the month. The 1 pair of areas that enable awareness of the cycles of time extends forward and rearward (east and west).



An area of space is formed by 2 segments. Each segment is symbolized by 3 points. Each of these 2 segments is symbolized by 1 point of the here, the midpoint, and 2 points of the there, the endpoints. The 2 segments coincide at the point of the here. Other than the point of the here, there are 4 points that are symbolized by these 2 segments. These points lie on an area of space.


We can make each of the endpoints of the 2 segments that form the area the midpoint of another segment. This makes an additional 4 segments. We can then connect these 4 segments to form the shape of a square, which is a common symbol for an area.



We can think of the area of the 4^{th} dimension of awareness as being composed of 2 segments that are centered at the point of the here, or as being composed of the 4 segments that bound the outer edges of this area on the horizon, where each of these segments has as its midpoint one of the endpoints of the 2 original segments.

The area that is symbolized by 2 segments, to the left in the diagram, symbolizes the area from the perspective of man at the point of the here, looking outward to the ends of the segments of his awareness on the horizon. The area that is symbolized by 4 segments, to the right in the diagram, symbolizes the area from the perspective of the limits of mankind's awareness on the horizon, in the form of a square.

In order to symbolize the stages in the cycles of the areas of space, we will consider the areas as being composed of 4 segments. In other words, we will consider the areas in terms of the segments on the horizon at the outer edges of the areas of awareness.



Each of the areas is symbolized as a pair of areas. Each of the areas in the pair is symbolized by 2 segments. For the horizontal pair of areas, for example, one of the areas is defined by the 2 segments that extend forward-rearward and left-right. The outer points of these 2 segments form the midpoints of the segments that form the square at the outer bounds of the area. The other area is defined by 2 other segments, which extend to form the endpoints of the segments that form the square at the outer bounds of the area. These 2 diagrams show 2 ways to symbolize this pair of areas.

A square is a figure that is composed of 4 segments that are at right angles to each other. A right angle measures 90° . Four right angles measures 360° . Just as with a circle, the square has a measure of 360° . Each of the 4 segments of the outer square represents a portion of the area of the horizon that is equivalent to 90° . The fingers of the hand in 1 position can represent a span of 45° . To represent one side of the square of our awareness of space, we will have to represent 2 spans of 45° . In order to represent the 2^{nd} span, from the 1^{st} position, we can use the wrist to shift the hand 45° , to a 2^{nd} position.

Awareness in Each Dimension

In the 1st dimension of awareness, there was awareness of 1 point.

In the 2^{nd} dimension of awareness, there was awareness of 2 ray segments. These 2 ray segments met at a point, the point of the here.

In the 3rd dimension of awareness, there was awareness of 3 line segments. These 3 line segments met at a point, the point of the here.

In the 4th dimension of awareness, there is now awareness of 4 primary areas. These are areas of vertical space. These 4 areas meet at a line segment. There is only 1 possible candidate for a line segment where all 4 areas can meet. This is the vertical segment that passes through the midline of the body of mankind. The midpoint of each of the vertical segments, and the midpoint of each of the horizontal segments, is the point of the here.

In the 4th dimension of awareness, there was awareness of 4 primary areas of vertical space. These are the 4 vertical areas that extend vertically upward-downward through each of the 4 segments that form the pair of areas of horizontal space.

In other words, the 4 primary areas of vertical space are each defined by the common vertical segment that extends vertically through the body of mankind and 1 of the 4 segments of the 2 pairs of areas of horizontal space of which mankind was aware.

As well, each of these vertical areas was accompanied by a secondary area, which was analogous to the secondary area of horizontal space.

In total, there was awareness of 10 areas of horizontal and vertical space. Each area was composed of 2 segments. Each of these segments meets at the point of the here.



For cultures that orient to the 4th dimension of awareness, orientation to time was primary and orientation to space was secondary. Vertical relates to time and horizontal relates to space.

There was awareness of 4 primary areas of vertical space. Each of these areas shares a segment. This is the vertical segment that extends up-down through the body of mankind with the midpoint at the point of the here. This is symbolized by the vertical segment in the diagram. Each of these also contains a 2^{nd} segment. Each of these 2^{nd} segments corresponds to 1 of the segments in 1 of the pair of areas of horizontal space. One segment extends forward-rearward through the body of mankind. Another segment extends left-right through the body of mankind. The other pair of segments extends through the body to the left or right at an angle of 45° with respect to either of the segments in the primary pair of segments.

In other words, these 4 vertical areas also symbolize the 9 points on the surface of the earth that describe the 2 horizontal areas of space.

There are 2 major dimensions of awareness for cultures that orient to the 4th dimension. There is their primary dimension of awareness, the 4th dimension of awareness, and there is their next and final stage of evolution, the 5th dimension of awareness.

Cultures that orient to the 4th dimension are subdivided cultures. In other words, they are subdivided in their awareness. The number 4 represents the unity of the number 1, after it has subdivided into 2, 2 times. The feet subdivide symbolism into 2, in 2 ways. The fingers subdivide symbolism into 2 pairs of 2.

And so on. As well, for example, speakers of English subdivide time from space, and subdivide religion from science. Speakers of Chinese, for example, on the other hand, hold a unified representation of nature.

Because the culture of English holds a subdivided representation of nature, and does not hold a unified representation, its primary dimension of orientation begins with subdivision, which evolves toward unity in the next dimension of awareness. Therefore, in the 4th dimension of awareness, awareness of time, although primary, is subdivided, and awareness of space, although secondary, is unified. This will reverse in 5th dimension symbolism.

During the period of their awareness of the 4th dimension, there was awareness of 1 pair of areas for symbolism of horizontal space. The number 1 reflects unity.

At this time, there was awareness of 4 pairs of areas for symbolism of vertical space. The number 4 reflects subdivision, since 4 does not reflect unity. The 4 primary areas share a segment. Furthermore, subdivision in this dimension is in the form of pairs, and these 4 primary areas each subdivided to form a 2^{nd} vertical area, analogous to the 2^{nd} area of horizontal space, making 4 secondary areas of vertical space.

There were 4 pairs of areas of awareness of vertical space, for a total of 8 areas of awareness. Together with the 1 pair of areas of awareness of horizontal space, there were in total 5 pairs of areas of awareness of space, or 10 areas of awareness.



This is the shape of the hand to symbolize space. The thumb is hidden and is not used. The other 4 fingers are subdivided into 2 pairs of fingers. The index and middle fingers are held together, and the ring and little fingers are held together. The pairs of fingers are held maximally apart from each other, and are separated by a span of 45° .

Because each segment of the square that forms the bounds of the area spans 90° , 2 hand positions are required to symbolize an entire segment along the outer bounds of the square of the horizon.

To symbolize horizontal space, the hand is oriented horizontally, and the back of the hand is visible. To symbolize vertical space, the hand is oriented vertically, and the inside of the hand is visible.

Preparation for Finger Symbolism

To become aware of the 4th dimension required awareness of a cycle of nature. In the 4th dimension of awareness, awareness of this cycle of nature enabled awareness of 6 cycles of space and time, 4 for the symbolism of space and 2 for the symbolism of time. The hands could symbolize the flow through the stages in each of these 6 cycles.

Symbolism of the 1st of these cycles begins using only the right arm and hand. The left arm and hand will be used for later stages in the same cycle.

Let us prepare the hands for examining the finger signs that symbolize the 4^{th} dimension of awareness.



To symbolize the 4^{th} dimension of awareness using fingers signs, begin with the body as in the 1^{st} through 3^{rd} dimensions of awareness.

The arms hang vertically downward along the side of the body. The hands are closed, and rest against the thighs. The thumbs lie along the index fingers, as they extend vertically downward.

This is the initial position to prepare for finger signs. In the 4th dimension of awareness, 3 steps will be required to prepare for symbolism.



In the 1^{st} step, only the right arm moves. Use the right shoulder to shift the arm 90° forward and upward, such that the entire arm extends forward horizontally from the body.



In the 2nd step, open the right fist. The 4 fingers are oriented vertically with respect to each other, and are subdivided into 2 pairs of fingers. The ring and little

fingers touch each other, and extend forward and slightly downward. The index and middle fingers touch each other, and extend maximally upward from the other pair, such that they are separated from the lower pair of fingers by a span that forms an angle of 45° . The proximal bone of the thumb lies along the index finger, with the distal bone of the thumb extending downward into the hand.



In the 3rd step, use the elbow to rotate the forearm, such that the bones of the forearm and hand no longer orient up-down with respect to each other, but orient left-right.



This diagram shows the pair of horizontal areas of space from the perspective of mankind orienting toward the east. Each of the 2 areas in the pair is defined by 2 segments. Each of these 4 segments has as its midpoint the point of the here. For one of the areas, the outer 4 points of the segments are the 4 primary cardinal directions in space; east, south, west, and north. For the other area, the outer 4 points of the segments are the 4 secondary directions in space; northeast, southeast, southwest, and northwest.

The outer bounds of the areas, the extent of the areas that is visible to mankind on the horizon, can also be represented by 4 segments. Each segment is composed of 3 points. There are 8 points around the perimeter of these areas. These 8 points identify the 4 primary directions in horizontal space, which form the midpoints of the segments that form the sides of the square, and the 4 secondary directions in horizontal space, which form the endpoints of the segments that form the sides of the segments the segment the

Looking outward from the point of the here, this pair of areas can be symbolized as forming a square. This square represents the horizon, and the limits, or the outer bounds, of our awareness of space. Looking outward at the entirety of the square from the perspective of the point of the here, this square can be perceived as being subdivided into 8 parts. Each part takes the form of a triangle. A triangle is a geometric figure that occupies an area of space.

Each of the triangles symbolizes a section of the areas of our awareness, as we can be aware of the space from the point of the here, outward along the earth, until we reach the limit of our awareness on the horizon. The limit of each section, the limit of each triangle of our awareness, represents one half of one of the segments on the outer square of our awareness.

Each finger sign in the symbolism of this cycle will symbolize one of these parts of the square, one of the triangles in the areas of awareness of horizontal space.

In each stage in the cycle of symbolism of horizontal space, the 2 pairs of fingers will represent the 2 sides of a triangle that extends outward from the body toward the horizon. The 3^{rd} side of the triangle is one half of 1 side of the square, where the half ends at the midpoint of the segment that forms the side or where the half begins at the midpoint of the segment that forms the side.



When we prepared the right arm for symbolism by shifting from the initial position for symbolism, the hand was in position for orientation to the 1st half of the segment of the square that lies in front of the body, the segment with the midpoint at the point of the east.

The arm extends horizontally forward, with the back of the hand visible. The wrist extends the hand directly forward from the body. The ring and little fingers form a pair of fingers, which symbolize a segment that extends outward toward the point of the east. The index and middle fingers form a pair of fingers, which are separated from the other pair by an extent of 45° , such that they symbolize a segment that extends outward toward toward the point of the average of sight.

The 2 pairs of fingers symbolize the 2 sides of the triangle of space that is bounded by the 2 segments that extend outward from the fingers at the point of the here as far as the half of the segment on the horizon that extends from the point of the northeast to the point of the east, which forms the outer bounds of the square of awareness.

The eyes can observe the hand, and then the eyes can observe beyond the hand to the area of space that the hand symbolizes.



To symbolize the 2nd half of the 1st segment of the square of horizontal space using the right hand, use the wrist to shift the hand 45° rightward, toward the south. In this position, the pair of fingers formed from the index and middle fingers no longer orients to the beginning of the segment, to the beginning of the 1st half of the segment, to the point of the northeast, but instead orients to the midpoint of the segment, to the beginning of the 2nd half of the segment, to the point of the east. As well, the pair of fingers formed from the ring and little fingers no longer orients to the midpoint of the segment, to the end of the 1st half of the segment, to the point of the segment, to the point of the segment, to the end of the 2nd half of the segment, to the point of the segment, to the point of the segment, to the end of the 1st half of the segment, to the point of the segment, to the end of the segment, to the end of the 2nd half of the segment, to the point of the southeast. The fingers span an extent of 45° . By shifting the wrist 45° , these 2 positions of the hand together form an extent of 90° . This represents the entire segment of the square of horizontal space that has as its midpoint the point of the east.



The 2^{nd} segment of the square to symbolize is the segment with the midpoint at the point of the south. To symbolize this segment of the square, use the shoulder to shift the right arm 90° toward the right, such that the arm extends directly toward the south. Return the wrist to its original position.

The arm now extends horizontally rightward, with the back of the hand visible. The wrist extends the hand directly rightward from the body. The ring and little fingers form a pair of fingers, which symbolize a segment that extends outward toward the point of the south. The index and middle fingers form a pair of fingers, which are separated from the other pair by an extent of 45°, such that they symbolize a segment that extends outward toward the point of sight.

The 2 pairs of fingers symbolize the 2 sides of the triangle of space that is bounded by the 2 segments that extend outward from the fingers at the point of the here as far as the half of the segment on the horizon that extends from the point of the southeast to the point of the south, which forms the outer bounds of the square of awareness.

The neck rotates the head 90° toward the right, such that the eyes can observe the hand, and then the eyes can observe beyond the hand to the area of space that the hand symbolizes.



To symbolize the 2^{nd} half of the 2^{nd} segment of the square of horizontal space using the right hand, use the wrist to shift the hand 45° rearward, toward the west. In this position, the pair of fingers formed from the index and middle fingers no longer orients to the beginning of the segment, to the beginning of the 1st half of the segment, to the point of the southeast, but instead orients to the midpoint of the segment, to the beginning of the 2^{nd} half of the segment, to the point of the south. As well, the pair of fingers formed from the ring and little fingers no longer orients

to the midpoint of the segment, to the end of the 1^{st} half of the segment, to the point of the south, but instead orients to the end of the segment, to the end of the 2^{nd} half of the segment, to the point of the southwest.

The fingers span an extent of 45° . By shifting the wrist 45° , these 2 positions of the hand together form an extent of 90° . This represents the entire segment of the square of horizontal space that has as its midpoint the point of the south.



The 3^{rd} segment of the square to symbolize is the segment with the midpoint at the point of the west. To symbolize this segment of the square, use the spine to rotate the body 90° toward the right, such that the arm extends directly rearward, toward the west. Return the wrist to its original position.

The arm now extends horizontally rearward, with the back of the hand visible. The wrist extends the hand directly rearward from the body. The ring and little fingers form a pair of fingers, which symbolize a segment that extends outward toward the point of the west. The index and middle fingers form a pair of

fingers, which are separated from the other pair by an extent of 45° , such that they symbolize a segment that extends outward toward the point of the southwest. The thumb is tucked away out of sight.

The 2 pairs of fingers symbolize the 2 sides of the triangle of space that is bounded by the 2 segments that extend outward from the fingers at the point of the here as far as the half of the segment on the horizon that extends from the point of the southwest to the point of the west, which forms the outer bounds of the square of awareness.

The head, orienting 90° toward the right, together with the 90° rotation of the spine, orients rearward, such that the eyes can observe the hand, and then the eyes can observe beyond the hand to the area of space that the hand symbolizes.



To symbolize the 2nd half of the 3rd segment of the square of horizontal space using the right hand, use the wrist to shift the hand 45° rightward, toward the north. In this position, the pair of fingers formed from the index and middle fingers no

longer orients to the beginning of the segment, to the beginning of the 1st half of the segment, to the point of the southwest, but instead orients to the midpoint of the segment, to the beginning of the 2nd half of the segment, to the point of the west. As well, the pair of fingers formed from the ring and little fingers no longer orients to the midpoint of the segment, to the end of the 1st half of the segment, to the point of the point of the segment, to the point of the segment, to the end of the 1st half of the segment, to the point of the segment, to the end of the segment, to the point of the segment, to the point of the segment, to the point of the segment, to the end of the segment, to the end of the segment, to the point of the segment, to the point of the northwest.

The fingers span an extent of 45° . By shifting the wrist 45° , these 2 positions of the hand together form an extent of 90° . This represents the entire segment of the square of horizontal space that has as its midpoint the point of the west.



The right arm, and the right half of the body, have now symbolized three fourths of the entire square that represents the pair of areas of horizontal space. Next, the left arm, and the left half of the body, will symbolize the other side of the

square, in a symmetric manner. In other words, the left arm will also symbolize three fourths of the square, traversing in reverse order from the right hand.

In this way, the segments centered at the points of the east and the west will each be symbolized 2 times, once for each hand, and the segments centered at the points of the south and the north will each be symbolized 1 time.

The 1st segment symbolized by the left hand is the same as the 3^{rd} segment symbolized by the right hand, the segment of the square with the midpoint at the point of the west. To symbolize this segment of the square, use the spine to rotate the body back to its normal position, such that the right arm extends horizontally outward, toward the right. Close the fingers of the hand into a fist, and then use the shoulder to shift the right arm 90° downward, such that the arm returns to its initial position alongside the body.

Shift the left arm upward in a symmetric manner. Use the left shoulder to shift the arm 90° upward and outward, toward the left, such that the arm extends horizontally leftward. Open the hand, and spread the fingers into 2 pairs of fingers separated by an extent of 45° .

Next, use the spine to rotate the body 90° toward the left, such that the left arm extends directly rearward, toward the west. Whereas the right arm symbolized the 1st half of each segment with the wrist extending the hand straight, and shifted the wrist to symbolize the 2nd half of the symbolism, the left wrist is symmetric to this. Use the left wrist to shift the hand 45° toward the south. The left arm and hand are now in a position that is symmetric to the position that was previously held by the right arm and orienting in the same direction.

The arm now extends horizontally rearward, with the back of the hand visible. The wrist extends the hand rearward from the body and 45° leftward, toward the south. The ring and little fingers form a pair of fingers, which symbolize a segment that extends outward toward the point of the southwest. The index and middle fingers form a pair of fingers, which are separated from the other pair by an extent of 45° , such that they symbolize a segment that extends outward toward toward the point of sight.

The 2 pairs of fingers symbolize the 2 sides of the triangle of space that is bounded by the 2 segments that extend outward from the fingers at the point of the here as far as the half of the segment on the horizon that extends from the point of the southwest to the point of the west, which forms the outer bounds of the square of awareness. Use the neck to rotate the head 90° toward the left, which, together with the 90° rotation of the spine, orients the head rearward, such that the eyes can observe the hand, and then the eyes can observe beyond the hand to the area of space that the hand symbolizes.



To symbolize the 2^{nd} half of the 3^{rd} segment of the square of horizontal space using the left hand, use the wrist to shift the hand 45° rightward, toward the north, such that the wrist extends the hand directly rearward from the body. In this position, the pair of fingers formed from the ring and little fingers no longer orients to the beginning of the segment, to the beginning of the 1^{st} half of the segment, to the point of the southwest, but instead orients to the midpoint of the segment, to the beginning of the 2^{nd} half of the segment, to the point of the west. As well, the pair of fingers formed from the index and middle fingers no longer orients to the midpoint of the segment, to the end of the 1^{st} half of the segment, to the point of the west, but instead orients to the end of the segment, to the end of the 2^{nd} half of the segment, to the point of the northwest.

The fingers span an extent of 45° . By shifting the wrist 45° , these 2 positions of the hand together form an extent of 90° . This represents the entire segment of the square of horizontal space that has as its midpoint the point of the west.



The 2^{nd} segment symbolized by the left hand is the opposite segment to the 2^{nd} segment symbolized by the right hand, the segment of the square with the midpoint at the point of the south. This is the 4^{th} segment of the square of the horizon. This segment is the segment with the midpoint at the point of the north.

To symbolize this segment of the square, use the spine to rotate the body 90° forward, back to its normal position. As before, the shoulder extends the arm horizontally outward, such that it does not hold a rearward orientation but instead extends directly toward the left, and such that the arm extends directly toward the north. Use the left wrist to shift the hand 45° rearward, toward the west. The left

arm and hand are now in a symmetric position to the position previously held by the right arm and orienting in the opposite direction.

The arm now extends horizontally leftward, with the back of the hand visible. The wrist extends the hand leftward from the body and 45° toward the west. The ring and little fingers form a pair of fingers, which symbolize a segment that extends outward toward the point of the northwest. The index and middle fingers form a pair of fingers, which are separated from the other pair by an extent of 45° , such that they symbolize a segment that extends outward toward the point of sight.

The 2 pairs of fingers symbolize the 2 sides of the triangle of space that is bounded by the 2 segments that extend outward from the fingers at the point of the here as far as the half of the segment on the horizon that extends from the point of the northwest to the point of the north, which forms the outer bounds of the square of awareness.

The head remains oriented 90° toward the left, such that the eyes can observe the hand, and then the eyes can observe beyond the hand to the area of space that the hand symbolizes.



To symbolize the 2nd half of the 4th segment of the square of horizontal space using the left hand, use the wrist to shift the hand 45° forward, toward the east, such that the wrist extends the hand directly leftward from the body. In this position, the pair of fingers formed from the ring and little fingers no longer orients to the beginning of the segment, to the beginning of the 1st half of the segment, to the point of the northwest, but instead orients to the midpoint of the segment, to the beginning of the 2nd half of the segment, to the point of the north. As well, the pair of fingers formed from the index and middle fingers no longer orients to the midpoint of the segment, to the end of the 1st half of the segment, to the point of the north, but instead orients to the end of the segment, to the point of the north, but instead orients to the end of the segment, to the end of the 2nd half of the segment, to the end of the segment, to the end of the 2nd half of

The fingers span an extent of 45° . By shifting the wrist 45° , these 2 positions of the hand together form an extent of 90° . This represents the entire segment of the square of horizontal space that has as its midpoint the point of the north.



The 3rd segment symbolized by the left hand is again the 1st segment symbolized by the right hand, the segment of the square with the midpoint at the point of the east. The cycle ends at the beginning, at the segment with the midpoint at the point of the east.

To symbolize this segment of the square, use the shoulder to shift the arm 90° forward, such that the arm extends directly toward the east. Use the left wrist to shift the hand 45° leftward, toward the north. The left arm and hand are now in a position that is symmetric to the position that was previously held by the right arm and orienting in the same direction.

The left arm extends directly forward, with the back of the hand visible. The wrist extends the hand forward from the body and 45° toward the north. The ring and little fingers form a pair of fingers, which symbolize a segment that extends outward toward the point of the northeast. The index and middle fingers form a pair of fingers, which are separated from the other pair by an extent of 45°, such

that they symbolize a segment that extends outward toward the point of the east. The thumb is tucked away out of sight.

The 2 pairs of fingers symbolize the 2 sides of the triangle of space that is bounded by the 2 segments that extend outward from the fingers at the point of the here as far as the half of the segment on the horizon that extends from the point of the northeast to the point of the east, which forms the outer bounds of the square of awareness.

The neck rotates the head 90° rightward, such that the head once again orients forward, and such that the eyes can observe the hand, and then the eyes can observe beyond the hand to the area of space that the hand symbolizes.



To symbolize the 2nd half of the 1st segment of the square of horizontal space using the left hand, use the wrist to shift the hand 45° rightward, toward the south, such that the wrist extends the hand directly forward from the body. In this position, the pair of fingers formed from the ring and little fingers no longer orients to the beginning of the segment, to the beginning of the 1st half of the segment, to the point of the northeast, but instead orients to the midpoint of the segment, to the beginning of the 2nd half of the segment, to the point of the east. As well, the pair of fingers formed from the index and middle fingers no longer orients to the midpoint of the segment, to the end of the 1st half of the segment, to the point of the segment, to the point of the segment, to the point of the segment, to the end of the segment.

The fingers span an extent of 45° . By shifting the wrist 45° , these 2 positions of the hand together form an extent of 90° . This represents the entire segment of the square of horizontal space that has as its midpoint the point of the east.

This completes the symbolism of the cycle of horizontal space. The wrist can shift the hand to 2 different positions, which together can symbolize 1 entire segment of the outer bounds of the areas of horizontal space. The shoulder can extend this symbolism to a 2^{nd} segment. The spine can extend this symbolism to a 3^{rd} segment. The other arm can extend this symbolism to the 4^{th} segment, thereby completing the symbolism of the entire cycle of the areas of horizontal space.



This diagram shows the pair of vertical areas of space that extend left-right from the perspective of mankind orienting toward the east. There are 2 areas in the pair, in a manner that is analogous to the pair of areas of horizontal space. Each of the 2 areas in the pair is defined by 2 segments. Each of these 4 segments has as its midpoint the point of the here. For one of the areas, the outer 4 points of the segments are 2 of the primary cardinal directions in space, north and south, as well as the points directly above and below the point of the here, the points of up and down. For the other area, the outer 4 points of the segments are analogous to the 4 secondary directions in horizontal space; north-up, south-up, south-down, and north-down.

The outer bounds of the areas, the extent of the areas that is visible to mankind, can be represented by 4 segments. Each segment is composed of 3 points. There are 8 points around the perimeter of these areas. These 8 points identify the 4 primary directions in left-right vertical space, which form the midpoints of the segments that form the sides of the square, and the 4 secondary directions in left-right vertical space, which form the sides of the segments that form the sides of the square, and the segments that form the sides of the square.

Looking outward from the point of the here, this pair of areas can be symbolized as forming a square. Looking upward and downward at the entirety of the square from the perspective of the point of the here, this square can be perceived as being subdivided into 8 parts. Each part takes the form of a triangle.

Each of the triangles symbolizes a section of the areas of our awareness, as we can be aware of the space from the point of the here, outward, until we reach the limit of our awareness in the heavens or on the earth. The limit of each section, the limit of each triangle of our awareness, represents one half of one of the segments on the outer square of our awareness.

Each finger sign in the symbolism of the cycle will symbolize one of these parts of the square, one of the triangles in the areas of awareness of left-right vertical space.

In each stage in the cycle of symbolism of left-right vertical space, the fingers will represent the 2 sides of the triangle that extend outward from the body. The 3^{rd} side of the triangle is one half of 1 side of the square, where the half ends at the midpoint of the segment that forms the side or where the half begins at the midpoint of the segment that forms the side.

This pair of areas of vertical space is structurally identical to the pair of areas of horizontal space, and the symbolism will be correspondingly similar. However, it is symmetrical, in the sense that instead of observing the back of the hand, the inside of the hand will be observed.

Transition to Vertical Space

Now that the cycle of horizontal space has been completely symbolized, we can transition the arms in order to symbolize vertical space.

Just as the right arm began in order to prepare to symbolize horizontal space, the left arm can shift in reverse order, repositioning the left arm to its initial position by the side.

Use the elbow to rotate the forearm, such that the bones no longer have a horizontal orientation with respect to each other, but a vertical orientation. Close the fist. Use the shoulder to shift the arm 90° downward, returning the arm to its initial position for symbolism.

To position the arm for symbolism of left-right vertical space, the right arm moves in a way that is similar, yet symmetrical, to its positioning for horizontal space. Use the shoulder to shift the right arm 180° forward and upward, such that the arm no longer orients vertically downward, but orients vertically upward. Open the hand into 2 pairs of fingers. Use the elbow as before to rotate the bones of the forearm, such that the bones hold a left-right orientation with respect to each other. The inside of the hand is visible, and the inside of the hand faces forward.



After our transition, the right arm extends vertically upward, with the inside of the hand visible and orienting forward. The bones of the forearm orient left-right with respect to each other. The wrist extends the hand directly upward from the body. The ring and little fingers form a pair of fingers, which symbolize a segment that extends upward toward the point of up. The index and middle fingers form a pair of fingers, which are separated from the other pair by an extent of 45°, such that they symbolize a segment that extends upward toward the point of sight.

The 2 pairs of fingers symbolize the 2 sides of the triangle of space that is bounded by the 2 segments that extend upward from the fingers at the point of the here as far as the half of the segment in the heavens that extends from the point of north-up to the point of up, which forms the outer bounds of the square of awareness.

The neck shifts the head 90° upward, such that the eyes can observe the hand, and then the eyes can observe beyond the hand to the area of space that the hand symbolizes.

Note that the inside of the hand orients forward, and not rearward. This diagram shows the hand position from our perspective as external observers observing the inside of the hand. From the perspective of the person doing the symbolizing, with the inside of the hand orienting toward the east, the north is toward the left. From our perspective of looking forward at the inside of the hand, such that we are therefore orienting toward the west, the north is on our right.



To symbolize the 2nd half of the 1st segment of the square of left-right vertical space using the right hand, use the wrist to shift the hand 45° rightward, toward the south. In this position, the pair of fingers formed from the index and middle fingers no longer orients to the beginning of the segment, to the beginning of the 1st half of the segment, to the point of north-up, but instead orients to the

midpoint of the segment, to the beginning of the 2^{nd} half of the segment, to the point of up. As well, the pair of fingers formed from the ring and little fingers no longer orients to the midpoint of the segment, to the end of the 1^{st} half of the segment, to the point of up, but instead orients to the end of the segment, to the end of the segment, to the point of the segment, to the point of south-up.

The fingers span an extent of 45° . By shifting the wrist 45° , these 2 positions of the hand together form an extent of 90° . This represents the entire segment of the square of left-right vertical space that has as its midpoint the point of up.



The 2^{nd} segment of the square to symbolize is the segment with the midpoint at the point of the south. To symbolize this segment of the square, use the shoulder to shift the right arm 90° downward, toward the right, such that the arm changes from a vertical orientation to a horizontal orientation, and the arm extends directly toward the south. Return the wrist to its original position. The bones of the forearm orient up-down with respect to each other.

The arm now extends horizontally rightward, with the inside of the hand visible. The wrist extends the hand directly rightward from the body. The ring and little fingers form a pair of fingers, which symbolize a segment that extends

outward toward the point of the south. The index and middle fingers form a pair of fingers, which are separated from the other pair by an extent of 45° , such that they symbolize a segment that extends outward toward the point of south-up. The thumb is tucked away out of sight.

The 2 pairs of fingers symbolize the 2 sides of the triangle of space that is bounded by the 2 segments that extend outward from the fingers at the point of the here as far as the half of the segment in the heavens that extends from the point of south-up to the point of the south, which forms the outer bounds of the square of awareness.

The neck shifts the head 90° downward, such that it once again orients forward, and then the neck rotates the head 90° toward the right, such that the eyes can observe the hand, and then the eyes can observe beyond the hand to the area of space that the hand symbolizes.



To symbolize the 2nd half of the 2nd segment of the square of left-right vertical space using the right hand, use the wrist to shift the hand 45° downward, toward the point of down. In this position, the pair of fingers formed from the index and middle fingers no longer orients to the beginning of the segment, to the beginning of the 1st half of the segment, to the point of south-up, but instead orients

to the midpoint of the segment, to the beginning of the 2^{nd} half of the segment, to the point of the south. As well, the pair of fingers formed from the ring and little fingers no longer orients to the midpoint of the segment, to the end of the 1^{st} half of the segment, to the point of the south, but instead orients to the end of the segment, to the end of the segment, to the end of the segment, to the point of the segment, to the point of south-down.

The fingers span an extent of 45° . By shifting the wrist 45° , these 2 positions of the hand together form an extent of 90° . This represents the entire segment of the square of left-right vertical space that has as its midpoint the point of the south.



The 3^{rd} segment of the square to symbolize is the segment with the midpoint at the point of down. To symbolize this segment of the square, use the shoulder to shift the right arm 90° downward and inward toward the body, such that the arm extends directly toward the point of down. Return the wrist to its original position.

The arm now extends vertically downward, with the inside of the hand visible. The wrist extends the hand directly downward from the body. The ring and little fingers form a pair of fingers, which symbolize a segment that extends downward toward the point of down. The index and middle fingers form a pair of fingers, which are separated from the other pair by an extent of 45° , such that they

symbolize a segment that extends downward toward the point of south-down. The thumb is tucked away out of sight.

The 2 pairs of fingers symbolize the 2 sides of the triangle of space that is bounded by the 2 segments that extend outward from the fingers at the point of the here as far as the half of the segment on the earth that extends from the point of south-down to the point of down, which forms the outer bounds of the square of awareness.

The neck rotates the head 90° leftward, such that it once again orients forward, and then the neck shifts the head 90° downward, such that the eyes can observe the hand, and then the eyes can observe beyond the hand to the area of space that the hand symbolizes.



To symbolize the 2^{nd} half of the 3^{rd} segment of the square of left-right vertical space using the right hand, use the wrist to shift the hand 45° leftward, toward the north. In this position, the pair of fingers formed from the index and middle fingers no longer orients to the beginning of the segment, to the beginning of the 1^{st} half of the segment, to the point of south-down, but instead orients to the midpoint of the segment, to the beginning of the 2^{nd} half of the segment, to the

point of down. As well, the pair of fingers formed from the ring and little fingers no longer orients to the midpoint of the segment, to the end of the 1^{st} half of the segment, to the point of down, but instead orients to the end of the segment, to the end of the segment, to the point of the segment, to the point of north-down.

The fingers span an extent of 45° . By shifting the wrist 45° , these 2 positions of the hand together form an extent of 90° . This represents the entire segment of the square of left-right vertical space that has as its midpoint the point of down.



The right arm, and the right half of the body, symbolize three fourths of the entire square that represents the pair of areas of left-right vertical space. Next, the left arm, and the left half of the body, will symbolize the other side of the square, in a symmetric manner. In other words, the left arm will also symbolize three fourths of the square, traversing in reverse order from the right hand.

In this way, the segments centered at the points of up and down will each be symbolized 2 times, once for each hand, and the segments centered at the points of the south and the north will each be symbolized 1 time.

The 1^{st} segment symbolized by the left hand is the same as the 3^{rd} segment of the right hand, the segment of the area with the midpoint at the point of down.
To symbolize this part of the square, close the fingers of the right hand into a fist, and use the right elbow to rotate the bones of the forearm, such that the bones change their orientation with respect to each other from left-right to forward-rearward, and such that the arm returns to its initial position alongside the body.

Prepare the left arm in a symmetric manner. Use the left elbow to rotate the forearm 90°, such that the bones of the forearm orient left-right with respect to each other, and spread the fingers into 2 pairs of fingers separated by an extent of 45° .

Whereas the right arm symbolized the 1st half of each segment with the wrist extending the hand straight, and shifted the wrist to symbolize the 2nd half of the symbolism, the left wrist is symmetric to this. Use the left wrist to shift the hand 45° rightward, toward the south. The left arm and hand are now in a position that is symmetric to the position that was previously held by the right arm and orienting in the same direction.

The arm now extends vertically downward, with the inside of the hand visible. The wrist extends the hand downward from the body and 45° toward the south. The ring and little fingers form a pair of fingers, which symbolize a segment that extends downward toward the point of south-down. The index and middle fingers form a pair of fingers, which are separated from the other pair by an extent of 45° , such that they symbolize a segment that extends downward toward the point of south-down. The thumb is tucked away out of sight.

The 2 pairs of fingers symbolize the 2 sides of the triangle of space that is bounded by the 2 segments that extend outward from the fingers at the point of the here as far as the half of the segment on the earth that extends from the point of south-down to the point of down, which forms the outer bounds of the square of awareness.

The head remains oriented 90° downward, such that the eyes can observe the hand, and then the eyes can observe beyond the hand to the area of space that the hand symbolizes.



To symbolize the 2nd half of the 3rd segment of the square of left-right vertical space using the left hand, use the wrist to shift the hand 45° leftward, toward the north, such that the wrist extends the hand directly downward from the body. In this position, the pair of fingers formed from the ring and little fingers no longer orients to the beginning of the segment, to the beginning of the segment, to the beginning of the 2nd half of the segment, to the point of down. As well, the pair of fingers formed from the index and middle fingers no longer orients to the segment, to the end of the 1st half of the segment, to the point of fingers formed from the index and middle fingers no longer orients to the point of down. As well, the pair of fingers to the end of the 1st half of the segment, to the point of north-down.

The fingers span an extent of 45° . By shifting the wrist 45° , these 2 positions of the hand together form an extent of 90° . This represents the entire segment of the square of left-right vertical space that has as its midpoint the point of down.



The 2^{nd} segment symbolized by the left hand, the 4^{th} segment of the square of left-right vertical space, is the opposite segment to the 2^{nd} segment that is symbolized by the right hand, the segment of the area with the midpoint at the point of the south. This segment is the segment with the midpoint at the point of the north.

To symbolize this segment of the square, use the shoulder to shift the arm 90° upward, toward the left, such that the arm changes from a vertical orientation to a horizontal orientation, and such that the arm extends directly toward the north. The bones of the forearm orient up-down with respect to each other. Use the left wrist to shift the hand 45° downward, toward the point of down. The left arm and hand are now in a position that is symmetric to the position that was previously held by the right arm and orienting in the opposite direction.

The arm now extends horizontally leftward, with the inside of the hand visible. The wrist extends the hand 45° downward from the body. The ring and little fingers form a pair of fingers, which symbolize a segment that extends outward toward the point of the north-down. The index and middle fingers form a pair of fingers, which are separated from the other pair by an extent of 45° , such that they symbolize a segment that extends outward toward the point of sight.

The 2 pairs of fingers symbolize the 2 sides of the triangle of space that is bounded by the 2 segments that extend outward from the fingers at the point of the here as far as the half of the segment in the heavens that extends from the point of north-down to the point of the north, which forms the outer bounds of the square of awareness.

The neck shifts the head 90° upward, such that it once again orients forward, and then the neck rotates the head 90° toward the left, such that the eyes can observe the hand, and then the eyes can observe beyond the hand to the area of space that the hand symbolizes.



To symbolize the 2nd half of the 4th segment of the square of left-right vertical space using the left hand, use the wrist to shift the hand 45° upward, toward the point of up, such that the wrist extends the hand directly leftward from the body. In this position, the pair of fingers formed from the ring and little fingers no longer orients to the beginning of the segment, to the beginning of the 1st half of the segment, to the point of north-down, but instead orients to the midpoint of the north. As well, the pair of fingers formed from the index and middle fingers no longer orients to the midpoint of the segment, to the midpoint of the segment, to the midpoint of the segment, to the pair of fingers formed from the index and middle fingers no longer orients to the midpoint of the segment, to the end of the 1st half of the segment, to

the point of the north, but instead orients to the end of the segment, to the end of the 2^{nd} half of the segment, to the point of north-up.

The fingers span an extent of 45° . By shifting the wrist 45° , these 2 positions of the hand together form an extent of 90° . This represents the entire segment of the square of left-right vertical space that has as its midpoint the point of the north.



The 3rd segment symbolized by the left hand is again the 1st segment symbolized by the right hand, the segment of the square with the midpoint at the point of up. The cycle ends at the beginning, at the segment with the midpoint at the point of up.

To symbolize this segment of the square, use the shoulder to shift the left arm 90° upward and toward the right, such that the arm changes from a horizontal orientation to a vertical orientation, and the arm extends directly toward up. Use the left wrist to shift the hand 45° leftward, toward the north. The left arm and hand are now in a position that is symmetric to the position that was previously held by the right arm and orienting in the same direction.

The arm now extends vertically upward, with the inside of the hand visible. The wrist extends the hand 45° leftward from the body. The ring and little fingers form a pair of fingers, which symbolize a segment that extends upward toward the

point of north-up. The index and middle fingers form a pair of fingers, which are separated from the other pair by an extent of 45° , such that they symbolize a segment that extends upward toward the point of up. The thumb is tucked away out of sight.

The 2 pairs of fingers symbolize the 2 sides of the triangle of space that is bounded by the 2 segments that extend upward from the fingers at the point of the here as far as the half of the segment in the heavens that extends from the point of north-up to the point of up, which forms the outer bounds of the square of awareness.

The neck rotates the head 90° toward the right, such that it once again orients forward, and then the neck shifts the head 90° toward up, such that the eyes can observe the hand, and then the eyes can observe beyond the hand to the area of space that the hand symbolizes.



To symbolize the 2nd half of the 1st segment of the square of left-right vertical space using the left hand, use the wrist to shift the hand 45° rightward, toward the south. In this position, the pair of fingers formed from the ring and little fingers no longer orients to the beginning of the segment, to the beginning of the 1st half of the segment, to the point of north-up, but instead orients to the midpoint of

the segment, to the beginning of the 2^{nd} half of the segment, to the point of up. As well, the pair of fingers formed from the index and middle fingers no longer orients to the midpoint of the segment, to the end of the 1^{st} half of the segment, to the point of up, but instead orients to the end of the segment, to the end of the 2^{nd} half of the segment, to the point of south-up.

The fingers span an extent of 45° . By shifting the wrist 45° , these 2 positions of the hand together form an extent of 90° . This represents the entire segment of the square of left-right vertical space that has as its midpoint the point of up.

This completes the symbolism of the cycle of left-right vertical space. The wrist can shift the hand to 2 different positions, which together can symbolize 1 entire segment of the outer bounds of the areas of left-right vertical space. The shoulder can extend this symbolism to a 2^{nd} segment, and then to a 3^{rd} segment. The other arm can extend this symbolism to the 4^{th} segment, thereby completing the entire cycle of the areas of left-right vertical space.



This diagram shows the pair of vertical areas of space that extend forwardrearward from the perspective of mankind orienting toward the east. Each of the 2 areas in the pair is defined by 2 segments. Each of these 4 segments has as its midpoint the point of the here. For one of the areas, the outer 4 points of the segments are 2 of the primary cardinal directions in space, east and west, as well as the points directly above and below the point of the here, the points of up and down. For the other area, the outer 4 points of the segments are analogous to the 4 secondary directions in horizontal space; east-up, west-up, west-down, and east-down.

The outer bounds of the areas, the extent of the areas that is visible to mankind, can be represented by 4 segments. Each segment is composed of 3 points. There are 8 points around the perimeter of these areas. These 8 points identify the 4 primary directions in forward-rearward vertical space, which form the midpoints of the segments that form the sides of the square, and the 4 secondary directions in forward-rearward vertical space, which form the segments that form the sides of the square form the endpoints of the segments that form the square.

Looking outward from the point of the here, this pair of areas can be symbolized as forming a square. Looking upward and downward at the entirety of the square from the perspective of the point of the here, this square can be perceived as being subdivided into 8 parts. Each part takes the form of a triangle.

Each of the triangles symbolizes a section of the areas of our awareness, as we can be aware of the space from the point of the here, outward along the earth, until we reach the limit of our awareness in the heavens or on the earth. The limit of each section, the limit of each triangle of our awareness, represents one half of one of the segments on the outer square of our awareness.

Each finger sign in the symbolism of the cycle will symbolize one of these parts of the square, one of the triangles in the areas of awareness of vertical space.

In each stage in the cycle of symbolism of forward-rearward vertical space, the fingers will represent the 2 sides of the triangle that extends outward from the body. The 3^{rd} side of the triangle is one half of 1 segment of the square, where the half ends at the midpoint of the segment that forms the side or where the half begins at the midpoint of the segment that forms the side.

This pair of areas of vertical space is structurally different from the 2 other pairs of areas of space, and the symbolism will therefore follow a different path. We will consider this from the perspective of the 2 internal segments. The 1st segment is the segment of up-down. The right hand will traverse this segment in order, 1st up and 2nd down. The 2nd segment is the segment of forward-rearward.

This 2^{nd} segment we will also traverse in normal order, 1^{st} east and 2^{nd} west. The left hand will then traverse these segments in reverse order.

Transition to Forward-Rearward Vertical Space

Now that the cycle of left-right vertical space has been completely symbolized, we can transition the arms in order to symbolize forward-rearward vertical space.

Just as the right arm began in order to prepare to symbolize left-right vertical space, the left arm can shift in reverse order, repositioning the left arm to its initial position by the side.

Use the elbow to rotate the left forearm, such that the bones no long have a left-right orientation with respect to each other, but a forward-rearward orientation. Close the fist. Use the shoulder to shift the upper arm 180° forward and downward, such that the arm and hand return to their initial position by the side.

To position the arm for symbolism of forward-rearward vertical space, the right arm moves in a way that is similar, yet symmetrical, to its positioning for left-right vertical space. Use the shoulder to shift the right arm 180° forward and upward, such that the arm no longer orients vertically downward, but orients vertically upward. Open the hand into 2 pairs of fingers. The inside of the hand is visible, and the inside of the hand faces leftward.



After our transition, the right arm extends vertically upward, with the inside of the hand visible and orienting leftward. The bones of the forearm orient forward-rearward with respect to each other. The wrist extends the hand directly upward from the body. The ring and little fingers form a pair of fingers, which symbolize a segment that extends upward toward the point of up. The index and middle fingers form a pair of fingers, which are separated from the other pair by an extent of 45° , such that they symbolize a segment that extends upward toward the point of up. The thumb is tucked away out of sight.

The 2 pairs of fingers symbolize the 2 sides of the triangle of space that is bounded by the 2 segments that extend upward from the fingers at the point of the here as far as the half of the segment in the heavens that extends from the point of west-up to the point of up, which forms the outer bounds of the square of awareness.

The neck shifts the head 90° upward, such that the eyes can observe the hand, and then the eyes can observe beyond the hand to the area of space that the hand symbolizes.

Note that the inside of the hand orients leftward. This diagram shows the hand position from our perspective as external observers observing the inside of the hand. Unlike the previous time, our perspective is the same as the person doing the symbolizing.



To symbolize the 2^{nd} half of the 1^{st} segment of the square of forwardrearward vertical space using the right hand, use the wrist to shift the hand 45° forward, toward the east. In this position, the pair of fingers formed from the index and middle fingers no longer orients to the beginning of the segment, to the beginning of the 1^{st} half of the segment, to the point of west-up, but instead orients to the midpoint of the segment, to the beginning of the 2^{nd} half of the segment, to the point of up. As well, the pair of fingers formed from the ring and little fingers no longer orients to the midpoint of the segment, to the end of the 1^{st} half of the segment, to the point of up, but instead orients to the end of the segment, to the end of the 2^{nd} half of the segment, to the point of east-up. The fingers span an extent of 45° . By shifting the wrist 45° , these 2 positions of the hand together form an extent of 90° . This represents the entire segment of the square of forward-rearward vertical space that has as its midpoint the point of up.



The 2^{nd} segment of the square to symbolize is the segment with the midpoint at the point of down. To symbolize this segment of the square, use the shoulder to shift the right arm 180° forward and downward, such that the arm extends directly toward the point of down. Return the wrist to its original position.

The arm now extends vertically downward, with the inside of the hand visible. The wrist extends the hand directly downward from the body. The ring and little fingers form a pair of fingers, which symbolize a segment that extends downward toward the point of down. The index and middle fingers form a pair of fingers, which are separated from the other pair by an extent of 45°, such that they symbolize a segment that extends downward toward the point of east-down. The thumb is tucked away out of sight.

The 2 pairs of fingers symbolize the 2 sides of the triangle of space that is bounded by the 2 segments that extend outward from the fingers at the point of the here as far as the half of the segment on the earth that extends from the point of east-down to the point of down, which forms the outer bounds of the square of awareness.

The neck shifts the head 180° downward, such that the eyes can observe the hand, and then the eyes can observe beyond the hand to the area of space that the hand symbolizes.



To symbolize the 2nd half of the 2nd segment of the square of forwardrearward vertical space using the right hand, use the wrist to shift the hand 45^o rearward, toward the west. In this position, the pair of fingers formed from the index and middle fingers no longer orients to the beginning of the segment, to the beginning of the 1st half of the segment, to the point of east-down, but instead orients to the midpoint of the segment, to the beginning of the 2nd half of the segment, to the point of down. As well, the pair of fingers formed from the ring and little fingers no longer orients to the midpoint of the segment, to the end of the 1^{st} half of the segment, to the point of down, but instead orients to the end of the segment, to the end of the 2^{nd} half of the segment, to the point of west-down.

The fingers span an extent of 45° . By shifting the wrist 45° , these 2 positions of the hand together form an extent of 90° . This represents the entire segment of the square of forward-rearward vertical space that has as its midpoint the point of down.



The 3^{rd} segment of the square to symbolize is the segment with the midpoint at the point of the east. To symbolize this segment of the square, use the shoulder to shift the right arm 90° forward and upward, such that the arm changes from a vertical orientation to a horizontal orientation, and the arm extends directly toward the east. Return the wrist to its original position. The bones of the forearm orient up-down with respect to each other. The arm now extends horizontally forward, with the inside of the hand visible. The wrist extends the hand directly forward from the body. The ring and little fingers form a pair of fingers, which symbolize a segment that extends outward toward the point of the east. The index and middle fingers form a pair of fingers, which are separated from the other pair by an extent of 45°, such that they symbolize a segment that extends outward toward the point of sight.

The 2 pairs of fingers symbolize the 2 sides of the triangle of space that is bounded by the 2 segments that extend outward from the fingers at the point of the here as far as the half of the segment in the heavens that extends from the point of east-up to the point of the east, which forms the outer bounds of the square of awareness.

The neck shifts the head 90° upward, such that it once again orients forward, and such that the eyes can observe the hand, and then the eyes can observe beyond the hand to the area of space that the hand symbolizes.



To symbolize the 2^{nd} half of the 3^{rd} segment of the square of forwardrearward vertical space using the right hand, use the wrist to shift the hand 45° downward, toward the point of down. In this position, the pair of fingers formed from the index and middle fingers no longer orients to the beginning of the segment, to the beginning of the 1^{st} half of the segment, to the point of east-up, but instead orients to the midpoint of the segment, to the beginning of the 2^{nd} half of the segment, to the point of the east. As well, the pair of fingers formed from the ring and little fingers no longer orients to the midpoint of the segment, to the end of the 1^{st} half of the segment, to the point of east-down.

The fingers span an extent of 45° . By shifting the wrist 45° , these 2 positions of the hand together form an extent of 90° . This represents the entire segment of the square of forward-rearward vertical space that has as its midpoint the point of the east.



The 4th segment of the square to symbolize is the segment with the midpoint at the point of the west. To symbolize this segment of the square, use the shoulder to shift the right arm 90° toward the right, such that the arm orients toward the south. Next, use the spine to rotate the body 90° toward the right. This causes the arm to orient rearward, toward the west. Return the wrist to its original position. The bones of the forearm orient up-down with respect to each other.

The arm now extends horizontally rearward, with the inside of the hand visible. The wrist extends the hand directly rearward from the body. The ring and little fingers form a pair of fingers, which symbolize a segment that extends outward toward the point of the west. The index and middle fingers form a pair of fingers, which are separated from the other pair by an extent of 45°, such that they symbolize a segment that extends outward toward the point of sight.

The 2 pairs of fingers symbolize the 2 sides of the triangle of space that is bounded by the 2 segments that extend outward from the fingers at the point of the here as far as the half of the segment in the heavens that extends from the point of west-up to the point of the west, which forms the outer bounds of the square of awareness.

The neck rotates the head 90° rightward, such that together with the rotation of the spine the body orients rearward, and such that the eyes can observe the hand, and then the eyes can observe beyond the hand to the area of space that the hand symbolizes.

Notice that in the diagram the hands orient toward the left, just as in the diagram that represented the segment of the east. The reason is that when the spine rotates the body to orient rearward, the orientation of the area reverses as well, because the perspective from which we view the hand has reversed. In other words, instead of the inside of the hand facing the north, it now faces the south.



To symbolize the 2^{nd} half of the 4^{th} segment of the square of forward-rearward vertical space using the right hand, use the wrist to shift the hand 45°

downward, toward the point of down. In this position, the pair of fingers formed from the index and middle fingers no longer orients to the beginning of the segment, to the beginning of the 1^{st} half of the segment, to the point of west-up, but instead orients to the midpoint of the segment, to the beginning of the 2^{nd} half of the segment, to the point of the west. As well, the pair of fingers formed from the ring and little fingers no longer orients to the midpoint of the segment, to the end of the 1^{st} half of the segment, to the point of the segment, to the end of the 1^{st} half of the segment, to the point of the segment, to the end of the 2^{nd} half of the segment, to the end of the 2^{nd} half of the segment, to the point of west-down.

The fingers span an extent of 45° . By shifting the wrist 45° , these 2 positions of the right hand together form an extent of 90° . This represents the entire segment of the square of forward-rearward vertical space that has as its midpoint the point of the west.



The right arm, and the right half of the body, symbolized the entire pair of areas of forward-rearward vertical space. Next, the left arm, and the left half of the body, will symbolize the entire pair of areas again, in a symmetric manner. In other

words, the left arm will also symbolize the entire pair of areas, traversing in reverse order from the right hand.

In this way, each of the 4 segments of the square will be symbolized 2 times, once for each hand.

The 1^{st} segment symbolized by the left hand is the same as the 4^{th} segment of the right hand, the segment of the square with the midpoint at the point of the west. To symbolize this segment of the square, return the wrist to its original position, use the spine to rotate the body toward the left, returning to body to its natural position, close the fingers of the right hand into a fist, use the right elbow to rotate the bones of the forearm, such that the bones change their orientation with respect to each other from a left-right to a forward-rearward orientation, and use the shoulder to shift the arm 90° downward, such that the arm returns to its initial position alongside the body.

Prepare the left arm in a symmetric manner. Use the left shoulder to shift the arm 90° upward and outward, such that the arm is no longer vertical but is horizontal. Use the elbow to rotate the forearm 90° , such that the bones of the forearm no longer orient forward-rearward with respect to each other, but orient up-down. Spread the fingers into 2 pairs of fingers separated by an extent of 45° .

The 1st segment of the square symbolized by the left hand is the same as the 4^{th} segment symbolized by the right hand, the segment of the square with the midpoint at the point of the west. To symbolize this segment of the square, use the spine to rotate the body 90° toward the left, such that the arm orients directly rearward, toward the west. The wrist is in its original position. The bones of the forearm orient up-down with respect to each other.

The arm now extends horizontally rearward, with the inside of the hand visible. The wrist extends the hand directly rearward from the body. The ring and little fingers form a pair of fingers, which symbolize a segment that extends outward toward the point of the west. The index and middle fingers form a pair of fingers, which are separated from the other pair by an extent of 45°, such that they symbolize a segment that extends outward toward the point of sight.

The 2 pairs of fingers symbolize the 2 sides of the triangle of space that is bounded by the 2 segments that extend outward from the fingers at the point of the here as far as the half of the segment in the heavens that extends from the point of west-up to the point of the west, which forms the outer bounds of the square of awareness.

The neck rotates the head 90° leftward, such that together with the rotation of the spine the body orients rearward, and such that the eyes can observe the hand, and then the eyes can observe beyond the hand to the area of space that the hand symbolizes.

Notice in the diagram that the hands orient toward the right, in a manner that is symmetrical to the situation with the right hand.



To symbolize the 2nd half of the 4th segment of the square of forwardrearward vertical space using the left hand, use the wrist to shift the hand 45^o downward, toward the point of down. In this position, the pair of fingers formed from the index and middle fingers no longer orients to the beginning of the segment, to the beginning of the 1st half of the segment, to the point of west-up, but instead orients to the midpoint of the segment, to the beginning of the 2nd half of the segment, to the point of the west. As well, the pair of fingers formed from the ring and little fingers no longer orients to the midpoint of the segment, to the end of the 1^{st} half of the segment, to the point of the west, but instead orients to the end of the segment, to the end of the 2^{nd} half of the segment, to the point of west-down.

The fingers span an extent of 45° . By shifting the wrist 45° , these 2 positions of the left hand together form an extent of 90° . This represents the entire segment of the square of forward-rearward vertical space that has as its midpoint the point of the west.



The 2^{nd} segment symbolized by the left hand is the same as the 3^{rd} segment symbolized by the right hand, the segment of the square with the midpoint at the point of the east. To symbolize this segment of the square, use the spine to rotate the body 90° to return to its natural position, such that the arm orients outward, toward the north. Next, use the shoulder to shift the left arm 90° forward, such that the arm changes from a leftward orientation to a forward orientation, and the arm extends directly toward the east. Return the wrist to its original position. The bones of the forearm orient up-down with respect to each other.

The arm now extends horizontally forward, with the inside of the hand visible. The wrist extends the hand directly forward from the body. The ring and

little fingers form a pair of fingers, which symbolize a segment that extends outward toward the point of the east. The index and middle fingers form a pair of fingers, which are separated from the other pair by an extent of 45°, such that they symbolize a segment that extends outward toward the point of east-up. The thumb is tucked away out of sight.

The 2 pairs of fingers symbolize the 2 sides of the triangle of space that is bounded by the 2 segments that extend outward from the fingers at the point of the here as far as the half of the segment in the heavens that extends from the point of east-up to the point of the east, which forms the outer bounds of the square of awareness.

The neck rotates the head 90° rightward, such that it once again orients forward, and such that the eyes can observe the hand, and then the eyes can observe beyond the hand to the area of space that the hand symbolizes.

Notice that in the diagram the hands orient toward the right, just as in the diagram that represented the segment of the west. The reason is that when the spine rotates the body to orient forward, the orientation of the area reverses as well, because the perspective from which we view the hand has reversed. In other words, instead of the inside of the hand facing the west, it now faces the east.



To symbolize the 2^{nd} half of the 3^{rd} segment of the square of forwardrearward vertical space using the left hand, use the wrist to shift the hand 45° downward, toward the point of down. In this position, the pair of fingers formed from the index and middle fingers no longer orients to the beginning of the segment, to the beginning of the 1^{st} half of the segment, to the point of east-up, but instead orients to the midpoint of the segment, to the beginning of the 2^{nd} half of the segment, to the point of the east. As well, the pair of fingers formed from the ring and little fingers no longer orients to the midpoint of the segment, to the end of the 1^{st} half of the segment, to the point of east-down.

The fingers span an extent of 45° . By shifting the wrist 45° , these 2 positions of the hand together form an extent of 90° . This represents the entire segment of the square of forward-rearward vertical space that has as its midpoint the point of the east.



The 3^{rd} segment symbolized by the left hand is the same as the 2^{nd} segment symbolized by the right hand, the segment of the square with the midpoint at the point of down. To symbolize this segment of the square, use the shoulder to shift the right arm 90° downward, such that the arm extends directly toward the point of down. Return the wrist to its original position.

The arm now extends vertically downward, with the inside of the hand visible. The wrist extends the hand directly downward from the body. The ring and little fingers form a pair of fingers, which symbolize a segment that extends downward toward the point of down. The index and middle fingers form a pair of fingers, which are separated from the other pair by an extent of 45°, such that they symbolize a segment that extends downward toward the point of sight.

The 2 pairs of fingers symbolize the 2 sides of the triangle of space that is bounded by the 2 segments that extend outward from the fingers at the point of the here as far as the half of the segment on the earth that extends from the point of east-down to the point of down, which forms the outer bounds of the square of awareness.

The neck shifts the head 90° downward, such that the eyes can observe the hand, and then the eyes can observe beyond the hand to the area of space that the hand symbolizes.



To symbolize the 2^{nd} half of the 2^{nd} segment of the square of forwardrearward vertical space using the left hand, use the wrist to shift the hand 45° rearward, toward the west. In this position, the pair of fingers formed from the index and middle fingers no longer orients to the beginning of the segment, to the beginning of the 1^{st} half of the segment, to the point of east-down, but instead orients to the midpoint of the segment, to the beginning of the 2^{nd} half of the segment, to the point of down. As well, the pair of fingers formed from the ring and little fingers no longer orients to the midpoint of the segment, to the end of the 1^{st} half of the segment, to the point of down, but instead orients to the end of the segment, to the end of the 2^{nd} half of the segment, to the point of down. The fingers span an extent of 45° . By shifting the wrist 45° , these 2 positions of the hand together form an extent of 90° . This represents the entire segment of the square of forward-rearward vertical space that has as its midpoint the point of down.



The last of the 4 segments symbolized by the left hand is the same as the 1st segment of the right hand, the segment of the square with the midpoint at the point of up. To symbolize this segment of the square, use the shoulder to shift the left arm 180° forward and upward, such that the arm extends directly toward the point of up. Return the wrist to its original position.

The bones of the forearm orient forward-rearward with respect to each other. The wrist extends the hand directly upward from the body. The ring and little fingers form a pair of fingers, which symbolize a segment that extends upward toward the point of up. The index and middle fingers form a pair of fingers, which are separated from the other pair by an extent of 45° , such that they symbolize a

segment that extends upward toward the point of west-up. The thumb is tucked away out of sight.

The 2 pairs of fingers symbolize the 2 sides of the triangle of space that is bounded by the 2 segments that extend upward from the fingers at the point of the here as far as the half of the segment in the heavens that extends from the point of west-up to the point of up, which forms the outer bounds of the square of awareness.

The neck shifts the head 180° upward, such that the eyes can observe the hand, and then the eyes can observe beyond the hand to the area of space that the hand symbolizes.



To symbolize the 2nd half of the 1st segment of the square of forwardrearward vertical space using the left hand, use the wrist to shift the hand 45^o forward, toward the east. In this position, the pair of fingers formed from the index and middle fingers no longer orients to the beginning of the segment, to the beginning of the 1st half of the segment, to the point of west-up, but instead orients to the midpoint of the segment, to the beginning of the 2^{nd} half of the segment, to the point of up. As well, the pair of fingers formed from the ring and little fingers no longer orients to the midpoint of the segment, to the end of the 1^{st} half of the segment, to the point of up, but instead orients to the end of the segment, to the end of the segment, to the point of the segment, to the point of east-up.

The fingers span an extent of 45° . By shifting the wrist 45° , these 2 positions of the hand together form an extent of 90° . This represents the entire segment of the square of forward-rearward vertical space that has as its midpoint the point of up.

This completes the symbolism of the cycle of forward-rearward vertical space. The wrist can shift the hand to 2 different positions, which together can symbolize 1 entire segment of the outer bounds of the areas of forward-rearward vertical space. The shoulder can extend this symbolism to a 2nd segment, and then to a 3rd segment. Using the spine to rotate the body can extend this to the 4th segment. The other arm can also symbolize these 4 segments, thereby completing the entire cycle of the areas of forward-rearward vertical space.



There are 4 segments that form the pair of horizontal areas of space. Each of these segments is also paired with the vertical segment that extends up-down through the body of mankind to form a vertical area of space.

Each of these pairs of segments that forms a vertical area has a complementary pair of segments that forms another vertical area, in a manner that is analogous to the pair of areas of horizontal space, such that each of these vertical areas is part of a pair of areas.

Now that we have traversed the 2 vertical pairs of areas of left-right and forward-rearward vertical space, we will traverse the other 2 pairs of vertical areas of space. These pairs of areas are also pairs of areas that symbolize left-right and forward-rearward vertical space.



For the 2 pairs of areas represented so far, the feet oriented the body toward the east. From this perspective, left-right represented the north and the south, and forward-rearward represented the east and the west.

However, the feet can change the orientation of the body to a 2^{nd} orientation. The left foot can shift 90° to the left, shifting the front of the body 45° to the left, such that the body is oriented to the northeast.

An equivalent change in orientation could as well have been achieved by having the right foot shift 90° to the right, shifting the front of the body 45° to the right, such that the body is oriented to the southeast.

The flow through the stages in this cycle of symbolism is the same as for the previous pair of left-right vertical areas. There is no need to repeat the stages here.



The 4th pair of areas of vertical space is similar to the 2nd pair, the pair of areas of forward-rearward vertical space. Again, the feet orient the body to the northeast.

From this orientation, forward is the direction of the northeast, and rearward is the direction of the southwest.

The flow through the stages in this cycle of symbolism is the same as for the previous pair of forward-rearward vertical areas. There is no need to repeat the stages here.



This is a diagram that represents any pair of 2 areas of vertical space, with 2 squares of the same size overlaid to make it more in the form of a circle. The shape of the circle will make itself more apparent in the symbolism of the next dimension.

The diagram to the left overlays 2 squares, which symbolize 2 areas of space. The diagram to the right overlays the hands in the 8 positions that symbolize the 8 stages in the cycle of awareness. The diagram in the middle overlays the squares with the hands.

There are 8 stages that must be represented, either once or twice, in each cycle of vertical space. In the symbolism of space in the 4^{th} dimension of awareness, the fingers of the hands are subdivided into 2 pairs of 2 fingers. If we overlay the hands, one over the other, the 1^{st} pair of fingers of each hand coincides with the 2^{nd} pair of fingers of the hand that precedes it, such that there is awareness of and symbolism of 8 distinctions in space.

Areas of Time

Let us now discuss the areas of time. Time is tracked in the heavens, as the paths of the sun and the moon lie there.

Awareness of the cycle of the day was 1^{st} , from the 3^{rd} dimension of awareness. Awareness of the cycle of the month was 2^{nd} , from the 4^{th} dimension of awareness. Therefore, the cycle of the day is symbolized 1^{st} , and the cycle of the month is symbolized 2^{nd} .

Symbolism of the cycles of the day and the month are completely symmetrical, since these cycles are integrated in the unified awareness of the 4^{th} dimension.

Unlike the areas of space, which are symbolized along the earth in the form of a square, the areas of time are symbolized in the heavens, in the form of a circle.



This is the shape of the hand position to symbolize time. The thumb is hidden and is not used. The other 4 fingers are subdivided into 3 groups of fingers.

The index and little fingers are held maximally apart, and are separated by a span of 45° . The middle and ring fingers are held together, and are located midway between the index and little fingers. This subdivides the fingers of the hand into 3 distinct groups, each separated from the next by a span of 22.5° .

Like the square, the circle is a figure that is composed of 360° . Awareness of the circle is subdivided into 4 quadrants. Each quadrant spans 90° . Therefore, 2 hand positions will be required to symbolize an entire quadrant of the circle of awareness.

Unlike the stages in the cycle of time in the 3rd dimension of awareness, where the 1 finger of the hand would always orient to a single point in space, the fingers of the hand in the 4th dimension of awareness clearly orient to an area of space.



In the 4th dimension of awareness, the cycle of the day was symbolized in the form of an area, and no longer in the form of segments, as in the 3rd dimension of awareness.

In order to orient to time, cultures that orient to the 4th dimension would orient to the point of the east in space, which was the location of the sunrise. Alternatively, they might orient to the point of the west in space, which was the location of the sunset. Both forms have occurred in our past. In order to simply this, we will orient to the point of the sunrise, in the east.

Once these peoples had left Africa and migrated north, the position of the sunrise and sunset would change on a daily basis. The position of the sunrise and sunset would also have differed depending on the location on the earth of the observers.
However, at the time that these people evolved to become aware of the 4th dimension, they were still in the homeland of our species, which was located more or less on the equator, and so this discussion will assume the perspective of the equator.

Furthermore, symbolism at this time was from the perspective of 2 specific days of the year, the days that are known as the equinoxes. There are 2 equinoxes, the spring equinox and the fall equinox. Later, we will explore in more detail what the equinoxes represent.

On the day of each of the equinoxes, the path of the sun during the period of daylight takes it directly above the equator on the earth, and directly above the homeland of mankind.

As with cultures that orient to the 3^{rd} dimension, cultures that orient to the 4^{th} dimension of awareness symbolize from the perspective of the equinoxes, when the daylight and darkness portions of the day are equal, and when the sun rises directly to the east and sets directly to the west.

From the position of observers located at the equator and orienting to the point of the sunrise in the east, the sunrise would be at the point of the east, which can be considered to begin the 1st quarter of the cycle of the day. At noon, the sun would be directly overhead, at the point of up. The sunset would be at the point of the west. At midnight, the sun would be directly below, on the opposite side of the earth, at the point of down.

The cycle of the day can be symbolized by an area. This is a vertical area of space, and is the vertical area of space that we discussed previously as extending forward-rearward through the body of mankind, while orienting to the east, and that extends up-down through the body of mankind.

For the various ancient cultures that oriented to the 4th dimension of awareness, the cycle of the day began at various times. The most common times were at the sunrise or at the sunset. For simplicity, we will begin this cycle at the sunrise, although the symbolism would be simple to begin instead with the sunset.

Transition to Cycle of Day

Once we have completed symbolism of all of the cycles of space, we can continue with the cycles of time.

Return the left arm to its initial position for symbolism, by returning the wrist to its natural position, closing the hand, and shifting the arm 180° forward and downward. Shift the left foot to orient the body to face the east. Both feet orient to the east.

We can begin the symbolism of the cycle of the day while orienting to the east using either of the arms and hands. Since the sun passes directly overhead, we could begin with the right hand, and move toward the south. We could just as easily begin with the left hand, and move toward the north. Since the Indo-European cultures will later migrate northward, such that sun will lie in the south, we will orient from that perspective. We will begin with the right hand, and then continue with the left hand.

Preparation for Finger Symbolism

To symbolize the cycles of space, the fingers of the hand symbolize a span of 45° , and the elbow does not shift the forearm with respect to the upper arm.

To symbolize the cycles of time, the fingers of the hand symbolize a span of 22.5° , and the elbow will shift the forearm 22.5° with respect to the upper arm.

To prepare to symbolize the cycle of the day, use the right elbow to shift the forearm 180° forward and upward, such that the right forearm extends vertically upward, toward the point of up. Open the hand, and separate the fingers into 3 groups of fingers, which is the hand position used to symbolize the cycles of time. At this time, the middle pair of fingers orients directly to the point of up. The other fingers orient 22.5° forward or rearward from up.

Use the right elbow to shift the forearm 22.5° forward and downward. At this time, the middle pair of fingers extends directly forward from the hand, 22.5°

eastward from the point of up. The index finger, which is positioned 22.5° rearward from the middle pair of fingers, orients directly to the point of up. The little finger orients 45° eastward from the point of up, such that it orients exactly halfway between the point of up and the point of the east.

Lastly, use the wrist to shift the hand forward and downward 45° . In this position, the index finger now orients where the little finger previously oriented, 45° eastward from the point of up. The middle pair of fingers orients 22.5° forward and downward from this point, and the little finger orients 45° forward and downward, such that the little finger orients directly to the point of the east on the horizon.



This diagram shows the area of human awareness of time in the 4th dimension, in the shape of a circle. The area extends forward-rearward and upward-downward through the body of mankind, as mankind orients to the east.

The point of forward, on the horizon, is the point of the east, where the sun rises on the days of an equinox. The point of rearward, on the horizon, is the point of the west, where the sun sets on the days of an equinox. We can recognize the point of the east and the point of the west as the endpoints of a horizontal segment, where the midpoint is the point on the ground just below where mankind stands, at

the point of the here. This midpoint is also the midpoint of another segment, a vertical segment that extends upward-downward through the point of the here. The point of up is the point of noon, where the sun reaches maximum height in the heavens on the days of an equinox. The point of down is the point of midnight, where the sun reaches maximum depth beneath us, and in the heavens on the other side of the earth, on the days of an equinox.

In the cycle of the day, the position of the sun at the key points in the cycle, either on the horizon or in the heavens, determines the beginning and end points of each quarter of the cycle.

The diagram shows this area of the circle of human awareness, both with and without the segments drawn. Notice that as mankind stands at the midpoint of the segment that extends from east and west on the horizon, the hands are positioned above the ground and slightly above the segment. Therefore, in order to orient to the points of the sunrise and the sunset on the horizon, the little finger cannot extend directly forward or rearward, but must orient slightly downward, toward the endpoints of the segment of awareness on the horizon.



The circle shows the area of our awareness in the heavens. When the hands prepared for symbolism, the feet orient the body toward the east, and the little finger (of the hand to the left in the diagram) extends forward and downward, orienting to the point of the east on the horizon, which is the point of the sunrise on the days of an equinox.

The circle of awareness is subdivided into 4 quadrants, and the cycle of the day is subdivided into 4 quarters, which on the days of the equinoxes are equal in duration. Since the circle has a measure of 360° , each quarter of the day must span 90° .

The hand has a span of 45° . Therefore, 2 hand positions will be required to symbolize each quarter of the cycle of the day. The little finger orients to the point of the east, 0° above the horizon. The middle pair of fingers orients to the point on the circle 22.5° above that. The index finger orients to the point on the circle 45° above the point of the east.

To symbolize the 2^{nd} half of this stage of the cycle, the wrist shifts the hand 45° , returning the hand to its normal position with respect to the forearm.

After this shift, the little finger orients where the index finger oriented previously, to the point on the circle 45° up from the point of the east. The middle pair of fingers extends directly forward from the hand, and as the hand is positioned 67.5° upward from horizontal toward vertical, the pair of fingers orients 22.5° eastward of vertically upward. The index finger orients 22.5° above the middle pair of fingers, such that the index finger orients directly to the point of up.

The point of up symbolizes the point of noon in the cycle of the day. On the days of the equinoxes, the point of noon lies directly above the head of mankind, at the point of up.

The 1st quarter in the cycle of the day, from the point of the sunrise to the point of noon, is known as morning.



To symbolize the 1st quarter in the cycle of the day, the feet oriented the body toward the east, in the direction of the sunrise.

The 2^{nd} quarter in the cycle of the day extends from the point of noon, above, to the point of the sunset, on the horizon in the west. To symbolize the 2^{nd} quarter in the cycle of the day, the feet can no longer orient the body toward the east. The right foot shifts rightward, to orient to the point of the south. In this way, the feet provide the body with an effective way to orient toward the south, as the body naturally rotates to a point midway between the point of the east and the point of the south, 45° toward the right. The spine then rotates the body another 90° toward the right. The neck then rotates the head another 45° toward the rear, such that the eyes can easily observe rearward from the body, toward the west.



The 2^{nd} quarter in the cycle of the day is the quarter of the cycle that extends from the point of noon to the point of the sunset. The 2^{nd} quarter in the cycle of the day is known as afternoon. This quarter of the day spans 90° .

With the feet in their new orientation, and with the body rotated toward the west, the hands then symbolize the 2^{nd} quarter in the cycle of the day in a manner that is symmetrical to the 1^{st} quarter.

The hand has a span of 45° . Therefore, 2 hand positions will be required to symbolize this quarter of the cycle of the day.

The hand still orients, from before, to the upper half of the quadrant, with the index finger still orienting to the point of up. The middle pair of fingers extends directly forward from the hand, and as the hand is positioned 22.5° downward from

vertical toward horizontal, the pair of fingers orients 22.5° westward of vertically upward. The little finger orients 22.5° below the middle pair of fingers, such that the little finger orients to the point on the circle 45° above the point of the west.

To symbolize the 2^{nd} half of this stage of the cycle, the wrist shifts the hand 45° downward.

After this shift, the index finger orients where the little finger oriented previously, to the point on the circle 45° westward from the point of up. The middle pair of fingers extends 22.5° downward from the index finger, such that the middle pair of fingers orients 22.5° upward of due west. The little finger orients 22.5° below the middle pair of fingers, such that the little finger orients directly to the point of the west, 0° above the horizon.

The point of the west symbolizes the point of the sunset in the cycle of the day. On the days of the equinoxes, the point of the west lies directly rearward from the body of mankind.



To symbolize the 1^{st} quarter in the cycle of the day, both of the feet oriented to the east. To symbolize the 2^{nd} quarter in the cycle of the day, the right foot oriented the body 45° rightward from the east, toward the south. This enabled easy symbolism of the point of the sunset on the horizon in the west. To symbolize the 1^{st} half of the cycle of the day, the half of the cycle that is day as opposed to night,

the right hand is used, and the feet orient forward toward the east or the left foot orients forward and the right foot orients rightward.

The 2nd half of the cycle of the day, the half of the cycle that is night as opposed to day, is symbolized in a symmetrical manner to the 1st half of the cycle. For this half of the cycle, the left hand will be used, and the left foot will orient leftward, toward the north, and then both feet will orient forward, toward the east.



The 3^{rd} quarter in the cycle of the day is the quarter of the cycle that extends from the point of the sunset to the point of midnight. The 3^{rd} quarter in the cycle of the day is known as evening. This quarter of the day spans 90° .

The right foot returns to its normal position, such that both feet once again orient the body toward the east. Next, the left foot shifts leftward, to orient to the point of the north. In this way, the feet provide the body with an effective way to orient toward the north, as the body naturally rotates to a point midway between the point of the east and the point of the north, 45° toward the left. The spine then rotates the body another 90° toward the left. The neck then rotates the head another

 45° toward the rear, such that the eyes can easily see rearward from the body, toward the west.

The hands then symbolize the 3^{rd} quarter in the cycle of the day in a manner that is symmetrical to the 2^{nd} quarter. The wrist shifts the hand 45° upward, such that the hand returns to its normal relationship to the forearm.

The hand has a span of 45°. Therefore, 2 hand positions will be required to symbolize this quarter of the cycle of the day.

The hand orients, from before, to the upper half of the quadrant, with the index finger still orienting to the point of up. The elbow now shifts the forearm downward 90° , such that the arm no longer orients 22.5° below vertical, but instead orients 22.5° below horizontal.

In this way, the index finger orients 22.5° upward, to the point of the west on the horizon. The middle pair of fingers extends directly forward from the hand, and as the hand is positioned 22.5° downward from horizontal toward vertical, the pair of fingers orients 22.5° downward from horizontally rearward. The little finger orients 22.5° below the middle pair of fingers, such that the little finger orients to the point on the circle 45° below the point of the west.

To symbolize the 2^{nd} half of this stage of the cycle, the wrist shifts the hand 45° downward.

After this shift, the index finger orients where the little finger oriented previously, to the point on the circle 45° downward from the point of the west. The middle pair of fingers extends 22.5° downward from the index finger, such that the middle pair of fingers orients 22.5° upward of down. The little finger orients 22.5° below the middle pair of fingers, such that the little finger orients directly to the point of down.

The point of down symbolizes the point of midnight in the cycle of the day. On the days of the equinoxes, the point of down lies directly downward from the body of mankind, reflecting the fact that the sun is located in the heavens directly upward, at the point of up, from the perspective of people on the other side of the earth.



The 4^{th} quarter in the cycle of the day is the quarter of the cycle that extends from the point of midnight to the point of the sunrise. The 4^{th} quarter in the cycle of the day is known as night. This quarter of the day spans 90° .

To symbolize the 1^{st} quarter in the cycle of the day, the feet oriented the body toward the east. To symbolize the 2^{nd} and 3^{rd} quarters in the cycle, the feet oriented the body differently, with one foot oriented toward the right or toward the left. This enabled easy symbolism of the point of the sunset on the horizon in the west. To symbolize the 4^{th} quarter in the cycle, the feet once again orient the body toward the point of the east.

The left foot shifts rightward, to orient to the point of the east. The spine then rotates the body 90° toward the right. The neck rotates the head another 45° toward the right, such that the eyes can easily observe forward from the body.

The hands then symbolize the 4th quarter in the cycle of the day in a manner that is symmetrical to the 1st quarter.

The hand has a span of 45° . Therefore, 2 hand positions will be required to symbolize this quarter of the cycle of the day.

The hand still orients, from before, to the lower half of the quadrant, with the little finger still orienting to the point of down. The middle pair of fingers extends directly forward from the hand, and as the hand is positioned 67.5° downward from horizontal toward vertical, the pair of fingers orients 67.5° downward of horizontally forward. The index finger orients 22.5° above the middle pair of fingers, such that the index finger orients to the point on the circle 45° below the point of the east on the horizon.

To symbolize the 2^{nd} half of this stage of the cycle, the wrist shifts the hand 45° upward.

After this shift, the little finger orients where the index finger oriented previously, to the point on the circle 45° downward from the point of the east. The middle pair of fingers extends 22.5° upward from the little finger, such that the middle pair of fingers orients 22.5° downward of due east. The index finger orients 22.5° above the middle pair of fingers, such that the index finger orients directly to the point of the east, 0° below the horizon.

The point of the east symbolizes the point of the sunrise in the cycle of the day. On the days of the equinoxes, the point of the sunrise lies directly forward from the body of mankind, reflecting the fact that at the point of the sunrise the sun is located due east on the horizon, from the perspective of people who are located at the equator. The cycle of the day is now complete, ready to repeat the cycle once again.

Since the path of the sun is directly overhead on the days of the equinoxes, it is equally possible for cultures to symbolize the 1st half of the cycle, the half of the cycle that corresponds to day, using the left hand, orienting the body toward the north, instead of using the right hand, orienting the body toward the south. It is also possible for cultures to begin the cycle of the day from the point of the west, at the point of the sunset, instead of the point of the east, at the point of the sunrise.

Transition From Cycle Of The Day

Once symbolism of the cycle of the day has completed, the hands can return to the initial position for symbolism.

From here, symbolism can continue with the final cycle of the 4^{th} dimension, the 2^{nd} cycle of time, the cycle of the month.



In the 4th dimension of awareness, the cycle of the month was symbolized in the form of an area, in the same way that the cycle of the day was symbolized.

In order to orient to time, to both the cycle of the day and the cycle of the month, cultures that orient to the 4th dimension would orient to the point of the east in space, which was the location of the sunrise and the location of the moonrise.

Once again, at the time that these people evolved to become aware of the 4th dimension, they were still in the homeland of our species, which was located more or less on the equator, and so this discussion will assume the perspective of the equator, on the days that are known as the equinoxes.

On the day of each of the equinoxes, the path of the moon, like the sun, takes it directly above the equator on the earth, and directly above the homeland of mankind.

From the position of observers located at the equator and orienting to the point of the sunrise in the east, it is possible to understand the 4 quarters in the cycle of the moon, which are also known as the phases of the moon. The distinction in the phases is determined by the amount of light that is visible in the moon.

The 1st of the 4 quarters of the month begins with what is called new moon, or the new moon. New moon occurs when the moon, which was completely dark, first begins to reflect light from the sun, and ends when the moon is half light and half dark. The point in the cycle of the moon that is the endpoint of the 1st quarter is called the 1st quarter of the month, or the 1st half moon. The 2nd quarter of the month begins at the point of the 1st quarter, and ends when the moon is maximally light. This point in the cycle is called the full moon. The 3rd quarter of the month begins at the point of full moon, and ends when the moon is half light. This point in the cycle is called the 3rd quarter, or the 2nd half moon. The 4th quarter of the month begins at the point of the 3rd quarter, and ends when the moon is maximally light. This point in the cycle is called the 3rd quarter, or the 2nd half moon. The 4th quarter of the month begins at the point of the 3rd quarter, and ends when the moon is maximally light. This point in the cycle is called the 3rd quarter, or the 2nd half moon. The 4th quarter of the month begins at the point of the 3rd quarter, and ends when the moon is maximally dark. This point in the cycle is once again called the new moon.

Preparation for Finger Symbolism

Symbolism of the cycle of the month is the same as symbolism of the cycle of the day. Preparation is therefore the same as well.

To prepare to symbolize the cycle of the month, use the right elbow to shift the forearm 180° forward and upward, such that the right forearm extends vertically upward, toward the point of up. Open the hand, and separate the fingers into 3 groups of fingers, which is the hand position used to symbolize the cycles of time.

Use the right elbow to shift the forearm 22.5° forward and downward. At this time, the middle pair of fingers extends directly forward from the hand, 22.5° eastward from the point of up. The index finger, which is positioned 22.5° rearward from the middle pair of fingers, orients directly to the point of up. The little finger orients 45° eastward from the point of up, such that it orients exactly halfway between the point of up and the point of the east.

Lastly, use the wrist to shift the hand forward and downward 45° . In this position, the index finger now orients where the little finger previously oriented, 45° eastward from the point of up. The middle pair of fingers orients 22.5° forward and downward from this point, and the little finger orients 45° forward and downward, such that the little finger orients directly to the point of the east on the horizon.



This shows the area of human awareness of time in the 4th dimension, in the shape of a circle. The area extends forward-rearward and upward-downward through the body of mankind.

The point of forward, on the horizon, is the point of the east, where the moon rises on the days of an equinox. The point of rearward, on the horizon, is the point of the west, where the moon sets on the days of an equinox. We can recognize the point of the east and the point of the west as the endpoints of a horizontal segment, where the midpoint is the point on the ground just below where mankind stands, at the point of the here. This midpoint is also the midpoint of another segment, a vertical segment that extends upward-downward through the point of the here. The point of up is the point where the moon reaches maximum height in the heavens on the days of an equinox. The point of down is the point where the moon reaches maximum depth beneath us, and in the heavens on the other side of the earth, on the days of an equinox.

The diagram shows this area of the circle of human awareness, both with and without the segments drawn. Notice that as mankind stands at the midpoint of the segment that extends from east and west on the horizon, the hands are positioned above the ground and slightly above the segment. Therefore, in order to orient to the points of the sunrise and the sunset on the horizon, the little finger cannot extend directly forward or rearward, but must orient slightly downward, toward the endpoints of the segment of awareness on the horizon.



The circle shows the area of our awareness in the heavens. When the hands prepared for symbolism, the feet orient the body toward the east, and the little finger (of the hand to the left in the diagram) extends forward and downward, orienting to the point of the east on the horizon, which is the point of the moon rise when the 1st quarter in the cycle of the moon begins on the days of an equinox.

The circle of awareness is subdivided into 4 quadrants, and the cycle of the month is subdivided into 4 quarters, which on the days of the equinoxes are equal in duration. Since the circle has a measure of 360° , each quarter of the month must span 90° .

The hand has a span of 45° . Therefore, 2 hand positions will be required to symbolize each quarter of the cycle of the month. The little finger orients to the point of the east, 0° above the horizon. The middle pair of fingers orients to the point on the circle 22.5° above that. The index finger orients to the point on the circle 45° above the point of the east.

To symbolize the 2^{nd} half of this stage of the cycle, the wrist shifts the hand 45° , returning the hand to its normal position.

After this shift, the little finger orients where the index finger oriented previously, to the point on the circle 45° up from the point of the east. The middle pair of fingers extends directly forward from the hand, and as the hand is positioned 67.5° upward from horizontal toward vertical, the pair of fingers orients 22.5° eastward of vertically upward. The index finger orients 22.5° above the middle pair of fingers, such that the index finger orients directly to the point of up.

The quarters of the moon, the stages in the cycle of the month, can be determined by the location of the moon at the time when the sun is rising in the east or when the sun is setting in the west.

When the moon is new, when it is the new moon, the moon lies in the same direction away from the earth as the sun. In other words, at the point in the cycle of the month when the moon is new, the moon is located at the same point of the same segment of our area of awareness, the horizontal segment that extends from east to west, as the sun, at the point of the east. The moon rises when the sun rises, and the moon sets when the sun sets. At the time of a new moon, the moon is rising just as the sun is rising. Because the sun is located behind the moon, all of the light of the sun is hitting the back side of the moon, the side that is not visible from the earth, and none of the sunlight is hitting the front side of the moon, the side that is visible to the observers on the equator. At this time, there is no light visible on the moon, such that the moon is considered new. Since the cycle repeats every month, the new moon is considered to be the beginning of a new cycle of the month.

Many cultures considered the cycle not to begin when the moon is completely dark, but to end when the moon is completely dark, and instead to begin the new month when the first sliver of light is visible on the otherwise dark moon.

The 1st quarter in the cycle of the month begins when the point of the moonrise coincides with the point of the sunrise.

The 1st quarter of the month extends from the point of the new moon until the point of the 1st quarter of the month. On the day that the moon reaches the 1st quarter in the cycle of the month, the moon rises when the sun reaches the point of noon in the cycle of the day. When the sun sets in the west, the moon is located at the point of up, which is the point of the 1st quarter in the cycle of the moon. This is the point where the moon is half filled with light and half filled with darkness. Because the sun is located at this time at the point of the west, behind the observer, when the moon is directly above, all of the light of the sun is hitting the right side of the moon, and none of the sunlight is hitting the left side of the moon. At this time, the moon is half filled with light, and all of the light of the sun appears on the right half of the moon. This is the point of the 1st quarter, the point that ends the 1st quarter of the cycle of the month.



The 2^{nd} quarter in the cycle of the month is the quarter of the cycle that extends from the point of the 1^{st} quarter to the point of the full moon. This quarter of the month spans 90° .

To symbolize the 1st quarter in the cycle of the month, both of the feet oriented the body toward the east, in the direction of the moonrise at the point of the new moon. The point of the moonset lies on the horizon in the west.

To symbolize this quarter in the cycle of the month, the feet can no longer orient the body directly toward the east. The right foot shifts rightward, to orient to the point of the south. In this way, the feet provide the body with an effective way to orient toward the south, as the body naturally rotates to a point midway between the point of the east and the point of the south, 45° toward the right. The spine then rotates the body another 90° toward the right. The neck then rotates the head

another 45° toward the rear, such that the eyes can easily observe rearward from the body, toward the west.

The hands then symbolize the 2^{nd} quarter in the cycle of the month in a manner that is symmetrical to the 1^{st} quarter.

The hand has a span of 45°. Therefore, 2 hand positions will be required to symbolize this quarter of the cycle of the month.

The hand still orients, from before, to the upper half of the quadrant, with the index finger still orienting to the point of up. The middle pair of fingers extends directly forward from the hand, and as the hand is positioned 22.5° downward from vertical toward horizontal, the pair of fingers orients 22.5° westward of vertically upward. The little finger orients 22.5° below the middle pair of fingers, such that the little finger orients to the point on the circle 45° above the point of the west.

To symbolize the 2^{nd} half of this stage of the cycle, the wrist shifts the hand 45° downward.

After this shift, the index finger orients where the little finger oriented previously, to the point on the circle 45° westward from the point of up. The middle pair of fingers extends 22.5° downward from the index finger, such that the middle pair of fingers orients 22.5° upward of due west. The little finger orients 22.5° below the middle pair of fingers, such that the little finger orients directly to the point of the west, 0° above the horizon.

When the moon is at the point of the 1st quarter, when it is the beginning of the 2nd quarter in the cycle of the month, the moon is not at the same direction from the earth as the sun. In other words, at the point in the cycle of the month when the moon is at the 1st quarter, the moon is located at the endpoint of a different segment of our area of awareness than the sun, at the point of up on the vertical segment that extends from up to down, when the sun sets at the point of the west. The moon rises when the sun is at the point of noon, and the moon is at its maximum height in the heavens at the point of the sunset. The point of the 1st quarter is reached just as the moon reaches maximum height directly above, at the point of up. Because the sun is located at this time at the point of the sun is hitting the right side of the moon, and none of the sunlight is hitting the left side of the moon. At this time, the moon is half filled with light, and all of the light of the sun appears on the right half of the moon.

The point of up symbolizes the point of maximum height in the cycle of the month. On the days of the equinoxes, the moon reaches the point of up at the point when the moon is half light and half dark, at the point of the 1st quarter of the month.

The 2nd quarter of the month extends from the point of the 1st quarter until the point of the full moon. On the day that the moon reaches the full moon in the cycle of the month, the moon rises in the east when the sun reaches the point of the sunset in the cycle of the day. When the sun sets in the west, the moon is located at the point of the east, where the moon rises, which is the point of the full moon in the cycle of the month. Because the sun is located at this time at the point of the west, behind the observer, when the moon is directly forward, all of the light of the sun is hitting the front of the moon, the side of the moon that is visible to the observer. At this time, the moon is completely filled with light. This is the point of the full moon, the full moon, the cycle of the month.



The 3^{rd} quarter in the cycle of the month is the quarter of the cycle that extends from the point of the full moon to the point of the 3^{rd} quarter. This quarter of the month spans 90° .

To symbolize the 2^{nd} quarter in the cycle of the month, the right foot oriented the body 45° rightward from the east, toward the south. This enabled easy symbolism of the point of the sunset on the horizon in the west.

To symbolize the 1st half of the cycle of the month, the half of the cycle where the light of the moon is increasing as opposed to decreasing, the right hand is used, and the feet orient forward toward the east or the left foot orients forward and the right foot orients rightward. The 2nd half of the cycle of the month, the half of the cycle where the light of the moon is decreasing as opposed to increasing, is symmetrical to this. For this half of the cycle, the left hand will be used, and the left foot will orient leftward, toward the north, and then both feet will orient forward, toward the east.

The right foot returns to its normal position, such that both feet once again orient the body toward the east. Next, the left foot shifts leftward, to orient to the point of the north. In this way, the feet provide the body with an effective way to orient toward the north, as the body naturally rotates to a point midway between the point of the east and the point of the north, 45° toward the left. The spine then rotates the body another 90° toward the left. The neck then rotates the head another 45° toward the rear, such that the eyes can easily see rearward from the body, toward the west.

The hands then symbolize the 3^{rd} quarter in the cycle of the month in a manner that is symmetrical to the 2^{nd} quarter. The wrist shifts the hand 45° upward, such that the hand returns to its normal relationship to the forearm.

The hand has a span of 45° . Therefore, 2 hand positions will be required to symbolize this quarter of the cycle of the month.

The hand orients, from before, to the upper half of the quadrant, with the index finger still orienting to the point of up. The elbow now shifts the forearm downward 90° , such that the arm no longer orients 22.5° below vertical, but instead orients 22.5° below horizontal.

In this way, the index finger orients 22.5° upward, to the point of the west on the horizon. The middle pair of fingers extends directly forward from the hand, and as the hand is positioned 22.5° downward from horizontal toward vertical, the pair of fingers orients 22.5° downward from horizontally rearward. The little finger orients 22.5° below the middle pair of fingers, such that the little finger orients to the point on the circle 45° below the point of the west.

To symbolize the 2^{nd} half of this stage of the cycle, the wrist shifts the hand 45° downward.

After this shift, the index finger orients where the little finger oriented previously, to the point on the circle 45° downward from the point of the west. The middle pair of fingers extends 22.5° downward from the index finger, such that the middle pair of fingers orients 22.5° upward of down. The little finger orients 22.5° below the middle pair of fingers, such that the little finger orients directly to the point of down.

When the moon is at the point of the full moon, when it is the beginning of the 3^{rd} quarter in the cycle of the month, the moon is not in the same direction from the earth as the sun. At the point in the cycle of the month when the moon is full, the moon is located at the other endpoint of the same segment of our area of awareness as the sun, at the point of the east on the horizontal segment that extends from east to west, whereas the sun is at that time setting at the point of the west. In

other words, at the point in the cycle of the month when the moon is full, the moon is rising in the east as the sun is setting in the west.

The 3^{rd} quarter of the month extends from the point of the full moon until the point of the 3^{rd} quarter. On the day that the moon reaches the 3^{rd} quarter in the cycle of the month, the moon rises when the sun reaches its maximum depth below the earth, at the point of the down, at the point of midnight in the cycle of the day. One quarter of the day later, at the point of the sunrise, the moon is at its maximum height in the heavens. When the sun rises in the east, the moon is located at the point of up, which is the point of the 3^{rd} quarter in the cycle of the month. Because the sun is located at this time at the point of the sun is hitting the left side of the moon, and none of the sunlight is hitting the right side of the moon. At this time, the moon is half filled with light, and all of the light of the sun appears on the left half of the moon. This is the point of the 3^{rd} quarter, the point that ends the 3^{rd} quarter of the cycle of the month.



The 4th quarter in the cycle of the month is the quarter of the cycle that extends from the point of the 3^{rd} quarter to the point of the new moon. This quarter of the month spans 90° .

To symbolize the 1st quarter in the cycle of the month, the feet oriented the body toward the east, in the direction of the moonrise at the point of the new moon. The point of the moonset lies on the horizon in the west.

To symbolize the 2^{nd} and 3^{rd} quarters in the cycle of the month, the feet oriented the body differently, with one foot oriented toward the right or toward the left. To symbolize the 4^{th} quarter in the cycle of the month, the feet once again orient the body toward the point of the east.

The left foot shifts rightward, to orient to the point of the east. The spine then rotates the body 90° toward the right. The neck rotates the head another 45° toward the right, such that the eyes can easily observe forward from the body.

The hands then symbolize the 4th quarter in the cycle of the month in a manner that is symmetrical to the 1st quarter.

The hand has a span of 45°. Therefore, 2 hand positions will be required to symbolize this quarter of the cycle of the month.

The hand still orients, from before, to the lower half of the quadrant, with the little finger still orienting to the point of down. The middle pair of fingers extends directly forward from the hand, and as the hand is positioned 67.5° downward from horizontal toward vertical, the pair of fingers orients 67.5° downward of horizontally forward. The index finger orients 45° above the middle pair of fingers, such that the index finger orients to the point on the circle 45° below the point of the east on the horizon.

To symbolize the 2^{nd} half of this stage of the cycle, the wrist shifts the hand 45° upward.

After this shift, the little finger orients where the index finger oriented previously, to the point on the circle 45° downward from the point of the east. The middle pair of fingers extends 22.5° upward from the little finger, such that the middle pair of fingers orients 22.5° downward of due east. The index finger orients 22.5° above the middle pair of fingers, such that the index finger orients directly to the point of the east, 0° below the horizon.

When the moon is at the point of the 3^{rd} quarter, when it is the beginning of the 4^{th} quarter in the cycle of the month, the moon is not at the same direction from the earth as the sun. In other words, at the point in the cycle of the month when the moon is at the 3^{rd} quarter, the moon is located at the endpoint of a different segment of our area of awareness than the sun; the moon rises at the point of the east when the sun is at the point of down on the vertical segment that extends from up to down. The moon rises when the sun is at the point of midnight. As the day continues, the moon rises, to its maximum height in the heavens, to the point of up, at the point of the sunrise. Because the sun is located at this time at the point of the sun is hitting the left side of the moon, and none of the sunlight is hitting the right side of the moon. At this time, the moon is half filled with light, and all of the light of the sun appears on the left half of the moon.

The 4th quarter of the moon extends from the point of the 3rd quarter until the point of the new moon. On the day that the moon reaches the new moon in the cycle of the month, the moon rises when the sun rises in the cycle of the day. When the sun rises in the east, the moon is located at the point of the east, which is the point of the new moon in the cycle of the month. Because the sun is located at this

time at the point of the east, and the moon is directly forward, between the earth and the sun, all of the light of the sun is hitting the rear of the moon, the side of the moon that is not visible to the observer. At this time, the moon is completely filled with darkness. This is the point of the new moon, the point that ends the 4th quarter of the cycle of the month.

Subdivisions of Month and Day

The cycles of the sun and the moon, the cycles of the day and the month, follow the area in the form of a circle. This circle is evenly subdivided into 4 quadrants. Therefore, we can consider that each of these cycles is subdivided into 4 subdivisions.

The subdivisions of the month will later be called weeks, which are typically numbered, as the 1st week of the month, the 2nd week of the month, and so on.

The subdivisions of the day have no group name, but are often called by names such as morning, afternoon, evening, and night. These are not precise names for these periods of time, but are reasonably close.

Subdivisions of the units of time will be discussed in more detail in the context of the next dimension of awareness.

Religion

The ancestors of the speakers of English and Greek have a primary orientation to the 4th dimension of awareness. All dimensions before that are symbolized by lore and myths, which provide a historical context for the relationships among their primary groups of gods.

The 1st dimension of awareness was symbolized by a single female goddess, Gaea. The 2nd dimension of awareness was symbolized by 2 gods, a female goddess, Gaea, and a male god, Uranus. Gaea and Uranus were symbolic representations of their understanding of the early stages in their evolution, from the perspective of their orientation to the 4th dimension. It is not the case that they developed these symbols while still at the 1st or 2nd dimensions of awareness.

We described the 3^{rd} dimension of awareness previously. However, the discussion of religion then was not relevant to cultures that oriented to the 4^{th} dimension. It was previously stated that in order to maintain their orientation to the number 4, cultures that orient to the 4^{th} dimension integrated the religious symbolism of the 3^{rd} and 4^{th} dimensions. Therefore, religion of the 3^{rd} dimension was not represented by segments, but was instead symbolized by segments within the context of areas.

There were therefore 2 dimensions of gods that were symbolized by the area, 3rd dimension and 4th dimension gods. In order to represent their integrated awareness, these 2 dimensions of gods were understood to be siblings, both of the same generation of gods, as both were children of Gaea and Uranus.

Since orientation to the 4th dimension was primary for these people, the gods that represent the 4th dimension were understood to have been born 1st, and the gods that represent the 3rd dimension were understood to have been born 2nd. As well, the gods that symbolize the 4th dimension were considered to be more important and to have played a more important role in religion.

The gods that symbolize the 4th dimension of awareness were a full set of 12 siblings, known as the Titans. The Titans symbolize space. The gods that symbolize the 3rd dimension were a half set of 6 siblings, born in 2 groups of 3, known as the Cyclopes and the Hundred-Handers. These groups symbolize time.



One way to understand the symbolism of the hands is to consider the hands in their form to symbolize space, with their 2 groups of fingers, converting into their form to symbolize time, with their 3 groups of fingers. The 2 symbols in the groups of 2 symbolize time and space. The 3 symbols in the groups of 3 symbolize time, space, and mankind. In the symbolism of the 3 groups of fingers, half of the pair of fingers that symbolizes space and half of the pair of fingers that symbolizes time separate from the other in the pair and join together to form a 3rd symbolism, mankind, where mankind is positioned between time and space, and between the heavens and the earth.



In the 4th dimension of awareness, there is awareness of 3^{rd} dimension motion and 4th dimension interaction. As well, the 3 symbols of the 3^{rd} dimension, time, space, and mankind, subdivided into 4 symbols in the 4th dimension. The last of the 3 symbols, mankind, subdivided into 2. Because the 4th dimension of awareness is based on the number 4, which is composed of 2 x 2, or 2 subdivisions into 2, there are 2 subdivisions of awareness of mankind in the 4th dimension, each of which is further subdivided into 2. One of these subdivisions is the subdivision of awareness of mankind into male and female. The other subdivision is the topic of this section.

Let us consider the hands in their form to symbolize space in another way, with the 2 groups of fingers. The right hand symbolizes time, and the heavens. The left hand symbolizes space, and the earth.

We see that the left hand is subdivided into 2 pairs of fingers. These pairs symbolize the earth and mankind. Mankind is part of the earth, yet mankind is separate from the earth. The upper pair of fingers symbolizes mankind, as mankind resides above the earth.

Let us consider the world from the perspective of mankind that orients to the 4th dimension. Mankind is aware of himself as something that is different from all else on the earth, and recognizes that he is special, because mankind is aware of himself and mankind is aware of relationships that exist in nature. Mankind is symbolized on the left hand, as part of the earth, yet the part that is above and distinct from the earth.

In the 4th dimension of awareness, mankind is aware of motion, and mankind has become aware of interaction. Interaction requires awareness of 2 objects, an actor, who performs an action, and an actee, who is the recipient of the action. The

actor is mankind, and man, or woman, is the actor who causes an action to happen to the actee.

For example, consider the sentence 'man kills chicken'. Man is the actor, who interacts with a chicken. Consider another example: 'rock kills chicken'. Here, a rock interacts with the chicken. However, 'man threw rock'. In other words, 'man threw rock that killed chicken'. The 4th dimension of language enables the expression of such interaction, as language now contains direct object clauses and subordinate clauses. Therefore, man caused the interaction of rock with chicken. The rock certainly did not throw itself. Man throws the rock, causing the rock to go in motion, and man thereby causes the rock to interact with the chicken.

Therefore, it can be understood that all interaction requires an actor, and that the actor is mankind. Mankind on earth causes motion and interaction on earth. There is a lot of mankind on earth, with each individual causing small amounts of motion and interaction to occur on the earth.

However, there is a lot of motion and interaction that occurs that mankind on the earth does not cause. There are 3 locations where such interaction can occur. Interaction can occur in the heavens, such as when the moon interacts with the sun in a solar eclipse. Interaction can occur on the earth, such as when water floods land. Interaction can also occur with and among mankind.

Because all relationships that are recognized to exist in nature are considered to be structurally similar, and are recognized to follow the same pattern, all of these interactions are also considered to require an actor. There must be an actor that causes such interactions. Furthermore, such actors must be mankind, as only mankind has awareness of interaction.

Cultures that orient to the 4th dimension of awareness, here specifically referring to the Indo-European peoples, as reflected through their language originally subdivided all things that they recognized to exist into 2 groups, into 2 kinds of things, where the groups consisted of 1) mankind and 2) everything else. Mankind is special, and mankind is aware in a way that all else is not. Traditionally, this breakdown of all words that identify things, nouns, into mankind and everything else has come to be called animate (mankind) and inanimate (everything else), where mankind is recognized to have an anima, a soul, and all else does not.

We can further subdivide the pair of fingers that symbolizes mankind into 2 distinctions, man and woman, which can also be called male and female, or

masculine and feminine. This breakdown of the world into 3 in language is typically called gender, and the early Indo-European language evolved from classifying nouns as one of 2 genders, animate and inanimate, into classifying nouns into one of 3 genders, known as masculine, feminine, and neuter. The rules for the association of types of nouns with specific genders seem to have broadened greatly from this simple beginning. Some modern Indo-European languages, such as English, no longer associate all nouns with a gender.

Mankind is an interaction of time and space, and of the heavens and the earth. Mankind lives on the earth. When there is interaction on the earth, mankind is often the cause of it. Yet, there are some interactions that mankind does not cause. There are some interactions in the heavens, on the earth, and even of mankind that mankind does not cause. For example, who caused the interaction of the heavens and the earth that created mankind? On the earth, only mankind has awareness of interaction, and yet mankind cannot be the cause of all interaction.

There must be another mankind, in the heavens (or at least on top of the highest mountains), who has more control, and who is the cause of all interactions that are not caused by mankind on earth. Just like with the left hand, we see that we can subdivide the right hand into 2 pairs of fingers. The bottom of these symbolizes the heavens. What does the top pair symbolize? Given that the left and right hands are recognized to be completely symmetrical, and given that their symbolisms are considered to be completely symmetrical, the top pair of fingers of the right hand must symbolize something that is analogous to mankind, yet something that resides in the heavens. Such mankind has traditionally been called gods. Naturally, the gods take human form, as they are also mankind, yet of the heavens. There are some differences, of course. For example, whereas there are many individuals of mankind on the earth, there are few gods in the heavens. Also, mankind is about space, and so only symbolizes the time of the now. There is awareness of death, such that mankind is recognized to be mortal. The gods are about time, and so about all of time, such that the gods were considered to be immortal.

The primary gods are symbolized in pairs of 2 (like the gods and mankind) and in pairs of 2 (like man and woman), to symbolize each of the heavens, the earth, and mankind. There are therefore recognized to exist 12 primary gods that symbolize the 12 primary types of interaction of which mankind was at this time aware.

The gods control trees falling, and water flowing, and all other interactions that are not controlled by mankind. Mankind on earth does not cause interaction for no reason. There is always a reason. Mankind kills for food, or out of anger, or out of hate. All interaction by mankind has a reason. If we talk to people, we can sometimes influence their behavior, and change the interactions that they cause. In the same way, naturally, the gods are considered to have their own arbitrary reasons for the interactions that they cause, which mankind considered possible to influence by talking to the gods. The word 'god' reflects this, as the origin of the word seems to imply 'calling upon', or 'invoking'.

How many gods are there? In the 4th dimension of awareness, there were 2 primary gods of the heavens, 2 primary gods of the earth, and 2 primary gods of mankind, which symbolize the 6 primary types of interaction of which mankind was aware. Just as with mankind on earth, each of these is further subdivided into male and female. Male and female gods interact with each other, and the 2 pairs of each type interact with each other. These 12 gods are known as the Titans.

The rock is not aware of the man that throws it. The chicken is not aware of the man that kills it. The fact that we cannot see the gods in the heavens in their human form does not change the fact that they must at that time in our history be believed to exist, and that everything must be considered to have a cause, since everything on earth is recognized to follow the same pattern, and since this simple understanding of the pattern is all that 4 dimensional mankind could handle.

Christians, for example, often claim that everything must have a cause, and the cause must be purposeful, in other words a person. Everything that has been created must have a purposeful creator, a god.

The belief is natural that if there is a creation, there must be a creator. Furthermore, the creator must be sapient, and sentient, and special like mankind, and in the form of mankind. This makes sense, but only from the limited perspective of only 1 dimension, the current (4^{th}) dimension, with its emphasis on interaction. It also makes sense from a limited perspective of the next dimension. However, from the greater perspective of all dimensions, and of the entire process of evolution, a perspective that many people have attained with awareness of the 5^{th} dimension and science, it is now reasonable to consider, and it is becoming increasingly common for people to recognize, that there need not be a sapient, sentient creator, since the natural process of evolution itself can be accepted as enabling and causing the existence, motion, interaction, etc. of all that exists.

Titans

In the ancient Greek pantheon of gods, the 4th dimension of awareness was represented by 12 gods, which formed a unified group. This group was symbolized by the fingers of both hands. There were 6 males and 6 females. The left hand symbolized the male gods, and the right hand the symbolized female goddesses. Each finger has 3 bones, and these gods can be subdivided into 3 groups. There are 2 pairs of gods for each group, 2 males symbolized on the left hand and 2 females symbolized on the right hand. All of these gods symbolized subdivisions of their awareness of space.

According to Hesiod, the earth and the heavens, Gaea and Uranus, gave birth to a 2^{nd} generation of gods. These gods were known as the Titans. There were 12 Titans, 6 males and 6 females.

The Titans are symbolized using the hand position that is used in all cycles of awareness of 4 dimensional space. The hand is subdivided into 2 pairs of fingers, the pair of the index finger and the middle finger and the pair of the ring finger and the little finger.


During the 3rd dimension of awareness, there was awareness of 3, the 3 points of the line segment. A primary symbolism of these 3 points was the heavens, earth, and mankind. These can also be symbolized as time, space, and space-time. These symbols will be combined here.

The 1^{st} point symbolizes awareness of time, awareness of which is enabled by observing the heavens. The 2^{nd} point symbolizes awareness of space, awareness of which is enabled by observing the earth. The 3^{rd} point symbolizes awareness of mankind, who is located between the heavens and the earth, between time and space. The 3^{rd} point symbolizes awareness of self.



In the 4th dimension of awareness, this awareness of 3 subdivided. Time, space, and mankind each subdivided in the 4th dimension of awareness. Two segments define an area. The subdivision into 3 of the segment further subdivided into 6.

The 4^{th} dimension of awareness is the dimension of awareness of interaction. In order to symbolize interaction during the 4^{th} dimension of awareness, each point of the 3^{rd} dimension segment subdivided. As each 1 subdivided into 2, there could be interaction between the 2.

The 1 point of time, space, and mankind of the line segment each subdivided into 2 distinctions of time, space, and mankind on this area, and the 2 symbolized interaction, as 2 objects are required in order for there to be interaction. During the

4th dimension of awareness, there could be interaction in each of the 3rd dimension concepts of time, space, and mankind.

There are 12 bones on the 4 fingers of each hand, which are grouped into 6 pairs of 2 bones each. Each hand is subdivided into 2 pairs of fingers, where the fingers of each pair touch each other. Each pair of bones of a pair of fingers represents the 2 relationships that the 2 objects of an interaction can hold; each object can play the role of acting on the other or of being acted on by the other. These symbolize and correlate to the awareness of such linguistic relationships as the active and passive voices of language.



There are 6 Titans to symbolize each of 6 distinctions. Furthermore, because there are 2 hands, each distinction in space as symbolized in religion is represented on each of the 2 hands. This distinction is represented as a gender distinction; the male form of each god is represented on the left hand, and the female form of each god is represented on the right hand. Thus, each of the 6 distinctions among the Titans is symbolized by a pair of Titans, one male and one female.

Therefore, each male Titan has a corresponding female, and each female Titan has a corresponding male. There are 12 Titans. The Titans are brothers and sisters, who represent interactions with each other, interactions that people are aware of that exist in space-time.



The Titans symbolize the various aspects of the culture's awareness of space. The 1st group of Titans symbolizes interaction in time. Still, this awareness of time is time as a subdivision of awareness of space; in other words, this awareness of time is awareness of cycles of time that is enabled only by observing interactions that occur between objects in space.

The interaction in time involves the 2 distinctions in time, which enable awareness of the 2 cycles of time, the cycles of the sun and the moon. Observation of the sun in its path across the heavens enables awareness of the cycle of the day, and observation of the moon in its path across the heavens enables awareness of the cycle of the month.

An important differentiation between any 2 distinctions, such as the 2 distinctions in time, is whether there is constancy, or where the only constant is constant change. The sun, in following its daily cycle across the heavens, is constant, and does not change what part of it is visible. The moon, however, in following its monthly cycle across the heavens, is constantly changing, with differing amounts of the moon visible during different points in the cycle.

During their paths across the heavens, the sun and the moon can interact with each other. For example, the moon can seem to approach the sun in the heavens, and interact with the sun in what is known as a solar eclipse. This corresponds to the development of the so-called active voice of direct object verbs; example: Bill hit Joe. At the other end of the cycle, when the sun and the moon are far from each other, the moon seems to be able to interact with itself, in what is known as a lunar eclipse. This corresponds to the so-called middle voice of direct object verbs; example: Bill hit Bill (himself). Only later did these people come to realize that the sun is involved in the lunar eclipse, which led to the gradual abandonment of the middle voice for the 3rd voice, the passive voice; example: Bill was hit by Joe.



The interaction in space involves the 2 distinctions in space, water and land. The entire area of the surface of the earth, which mankind observes in order to be aware of space, is covered by water or by land. The water and the land on the surface of the earth can interact with each other. Land can evolve into water, such as by rain or high tide, and water can evolve into land, such as when water flows away or evaporates.

Water remains constant, and except for minor change to its surface seems unchanging. Land is in constant change. Some parts are covered with mountains, and other parts have valleys. Some parts are green, and others are brown. Some parts are green sometimes and brown other times, and so on.



The interaction of mankind involves the 2 distinctions of awareness of mankind, wisdom and labor. Mankind can interact with space, through labor, to change space. As well, mankind can interact with time, through wisdom (gained over time), to change space. To enable awareness of 4th dimension interaction, mankind uses experience gained in the past in time to interact with space now.

Labor is constant, as mankind has to labor every day, hunting, finding food, maintaining a living area, and so on. Wisdom is constantly changing, for any given person, wisdom continually increases with age.



In order to symbolize religion in the 4th dimension of awareness, in order to symbolize the Titans, the hands are oriented vertically, upward toward the heavens, as the heavens are where we look to observe time.

From the initial position of the hands for symbolism, use the shoulders to shift the arms 90° forward and upward, such that the arms extend horizontally forward. Use the wrists to shift the hands inward, along the entire length of the wrist. Both hands open up to form 2 pairs of fingers, with the index and middle fingers touching each other as a pair, and with the ring and little fingers touching each other as a pair. The thumbs are tucked away out of sight.

The 2 hands are clearly visible before the eyes. The hands are symmetrical to each other, as the left hand orients to the right, and the right hand orients to the left.



The distal bones of the fingers symbolize the gods of time. There are 4 pairs of distal bones. The upper pair of fingers of each hand symbolizes the sun, and the lower pair of fingers of each hand symbolizes the moon. The left hand symbolizes the male god related to the sun or moon, and the right hand symbolizes the corresponding female goddess.

The upper pair of fingers of the left hand, the pair that includes the index and middle fingers, symbolizes the male Titan god of the sun, Hyperion. The upper pair of fingers of the right hand, the pair that includes the index and middle fingers, symbolizes the female Titan goddess of the sun, Thia. The lower pair of fingers of the left hand symbolizes the male Titan god of the moon, Coeus. The lower pair of fingers of the right hand symbolizes the female Titan goddess of the moon, Phoebe.

Titans that Symbolize Space						
		Water	Land]		
	Male	Oceanus	Chronos			
	Female	Tethys	Rhea			
Chronos Coeus Phoebe Phoebe Phoebe Rhea						

The proximal bones of the fingers symbolize the gods of space. There are 4 pairs of proximal bones. The upper pair of fingers of each hand symbolizes water, and the lower pair of fingers of each hand symbolizes land. The left hand symbolizes the male god related to water or land, and the right hand symbolizes the corresponding female goddess.

The upper pair of fingers of the left hand symbolizes the male Titan god of water, Oceanus. The upper pair of fingers of the right hand symbolizes the female Titan goddess of water, Tethys. The lower pair of fingers of the left hand symbolizes the male Titan god of land, Chronos. The lower pair of fingers of the right hand symbolizes the female Titan goddess of land, Rhea.

The Titans symbolize space, and the most important of the Titan gods was the male god that symbolized space. The most important god of space was the god of the land in space. Chronos, the god of the land in space, was the head of the Titans.



The middle bones of the fingers symbolize the gods of mankind. There are 4 pairs of middle bones. The upper pair of fingers for each hand symbolizes labor, and the lower pair of fingers for each hand symbolizes wisdom. The left hand symbolizes the male god related to the wisdom or labor, and the right hand symbolizes the female goddess.

The upper pair of fingers of the left hand symbolizes the male Titan god of labor, Iapetus. The upper pair of fingers of the right hand symbolizes the female Titan goddess of labor, Themis. The lower pair of fingers of the left hand symbolizes the male Titan god of wisdom, Crius. The lower pair of fingers of the right hand symbolizes the female Titan goddess of wisdom, Eurybia.



The Titans were the 1^{st} group of children of the earth and the heavens, Gaea and Uranus. To symbolize the Titans, the fingers were used as in their symbolism of the cycles of space, with the fingers subdivided into 2 pairs of fingers, with a span of 45° .

According to Hesiod, Gaea and Uranus gave birth to 2 more groups of gods after the Titans. These 2^{nd} groups of children were born in 2 separate groups of 3. To symbolize these gods, the fingers were used as in their symbolism of the cycles of time, with the fingers subdivided into 3 groups of fingers, with a span of 22.5° between each group.

In other words, the 1^{st} born 1 group of 4^{th} dimension gods use the simpler hands, which enable awareness of subdivision into 45° , and the 2^{nd} born 2 groups of 3^{rd} dimension gods use the more evolved hands, which enable awareness of subdivision into 22.5° .

Whereas the Titans were subdivided into male and female, these later gods were all male. Whereas the Titans were symbolized using subdivided fingers, into individual bones, each of these later gods was symbolized using whole, unified fingers.

The Titans, who were born 1^{st} , and who were born in 1 group, symbolize the 4^{th} dimension, which is the primary dimension of awareness for cultures that orient to the 4^{th} dimension. These later gods, who were born 2^{nd} , and who were born in 2 groups, symbolize the 3^{rd} dimension, which is the secondary dimension of awareness for these cultures. Since the symbolism of the 3^{rd} dimension is

integrated with the symbolism of the 4th dimension for religion, these gods are not nearly as important in mythology as the Titans.

Cyclopes					
Greek	Translation/ Symbolism				
Κύκλωψ/Κύκλωπες	Round-Eyed				
Βρόντης	Thunder				
Στερόπης	Lightning				
Άργης	Brightness				
	Cyclopes Greek Κύκλωψ/Κύκλωπες Βρόντης Στερόπης Ἄργης				

The 1st born group of 3 gods to symbolize the 3rd dimension was symbolized on the fingers of the right hand. These are the Cyclopes (singular: Cyclops). The name Cyclops means round-eyed. The name comes from kyklos ($\kappa \nu \kappa \lambda o \zeta$; cycle, circle, or round) and ops ($\omega \psi$, eye).

The Cyclopes were born 1st. The Cyclopes symbolize time, as time was primary to cultures that orient to the 4th dimension. Their symbolism represents the notion of 1st, or 1, in ways such as by their having only 1 abnormality, with that abnormality being their having only 1 eye, located in the middle of their foreheads.

The names of the Cyclopes were Brontes, Steropes, and Arges. Brontes (Bpóvtης) was the personification of thunder (thunder in Greek is $\beta povt\eta$). Steropes ($\Sigma \tau \epsilon p \delta \pi \eta \varsigma$) was the personification of lightning (lightning in Greek is $\alpha \sigma \tau \rho \alpha \pi \eta$). Arges (Åpyης) means brightness, and was the personification of bright light. People could be aware of sometimes being blinded by the extremely bright light of the sun shining directly into their eyes on a hot cloudless day.

The Cyclopes symbolized, and personified, the powerful forces of nature that occur in the heavens, where time is observed. Thunder, lightning, and blinding brightness occur in the heavens. All of these symbols represent rapid motion, and all exist only in terms of time. If we look at any of these at a single point in time, none of them could even be recognized to exist, and once thunder or lightning stops, there is no evidence that it was ever there.

The Cyclopes also personified the forces of creation. Creation of the universe (the Big Bang), and creation of life in woman, occurred during the 3rd

dimension of the cycle of evolution, and awareness of creation occurred in the 3rd dimension of awareness, which these gods symbolize. Creation is 1st, preceding destruction, and these gods were the 1st of these 2 groups, and so symbolized creation. On the basis of this, for example, the Cyclopes were considered to be the blacksmiths of the gods, and to have created the most important symbols of the primary gods, including Zeus' thunderbolts, Poseidon's trident, and Hades' Helmet of Darkness.

The Cyclopes were the 1st born of these 2 groups of gods, and the cycle of the day was the 1st cycle of time of which these cultures were aware. The Cyclopes alone, in other words the right hand alone, representing only the 1 group of gods, could symbolize the stages in the cycle of the light of day. In other words, creation is half of the cycle of creation and destruction, the 1st group of gods is half of these 2 groups, and 1 of the 2 hands could symbolize them.

Hundred-Handers					
English	Greek	Translation/ Symbolism			
Hundred-Handers/ Hecatonkheires/ Centimani	Έκατόγχειρες	Hundred Hands			
Briareus _{or} Aegaeon	Βριάρεως Αἰγαίων	the Vigorous the 'sea goat' (Hurricane)			
Cottus	Κόττος	the Furious (Volcano)			
Gyges or Gyes	Γύγης Γύης	the Big-Limbed (Earthquake)			

The 2^{nd} born group of 3 gods to symbolize the 3^{rd} dimension was symbolized on the fingers of the left hand. These are the Hecatonkheires (spelled in various ways in English). The name Hecatonkheires (Ἐκατόγχειρες) means the Hundred-Handers, or the Hundred-Handed Ones. The name comes from hekaton (ἑκατόν, hundred) and kheir (χείρ, hand). Their Latinized name, Centimani, has the same meaning.

The Hundred-Handers were born 2^{nd} . The Hundred-Handers symbolize space (in the context of time), as space was secondary for cultures that orient to the 4^{th} dimension of awareness. Their symbolism represents the notion of 2^{nd} , or many, in ways such as by their having 2 abnormalities, with those abnormalities being their having 50 heads and 100 (2 times as many) arms.

The names of the Hundred-Handers were Briareus, who was also known as Aegaeon, Cottus, and Gyges, who was also known as Gyes.

The name Aegaeon (Aiyaí ω v) is derived from Aiyí ζ which perhaps implies the meaning of 'violent windstorm', making Aegaeon the personification of such as hurricanes. Cottus, the Furious, is a name that is perhaps a personification of the emotions reflected in an erupting volcano. Gyes ($\Gamma \dot{\upsilon} \eta \varsigma$) refers to the wood that controls a plowshare, which breaks up the land when plowing, perhaps implying a personification of earthquakes. The notion of big-limbed perhaps implied that when he walked, the earth beneath him quaked.

The Hundred-Handers symbolized, and personified, the powerful forces of nature that occur on the earth, where space is observed. Storms, volcanoes, and earthquakes occur on the earth. Once these stop, there is plenty of evidence that they were there.

The Hundred-Handers also personified the forces of destruction. Awareness of death, and of destruction, occurred during the 4th dimension of awareness. However, due to the merging of the 3rd and 4th dimensions of awareness, it is the number 3 that symbolizes death in Indo-European cultures, and not 4 as in Chinese, for example. Therefore, these 2 groups of gods symbolized creation and destruction. Death and destruction are 2nd, following creation. The Cyclopes symbolized 3rd dimension creation, and the Hundred-Handers symbolized 4th dimension destruction. These were giants of tremendous strength, as symbolized by their many hands, and myths including them typically involve destruction.

The Hundred-Handers were the 2^{nd} born of these 2 groups of gods, and the cycle of the month was the 2^{nd} cycle of time of which these cultures were aware. The Cyclopes and the Hundred-Handers together, in other words the right and left hands together, representing both of the group of gods, could symbolize all of the stages in the cycle of the month, as the month would have been symbolized by the fingers of both hands.

These 2 groups of gods do play a role in the mythology of ancient Greece, and, for example, they did play a prominent role in the upcoming war between the

Titans and later gods. Still, it is well-recognized by students of ancient Greek mythology that these gods were not nearly as important as other primary groups of gods that went before or that came later. The reason for the relatively minor importance of these gods, the gods that symbolize the 3rd dimension of awareness, will be discussed later.

Example Language that Orients to the 4th Dimension of Awareness

English is an example of a language that orients to the 4th stage of human awareness, the stage of awareness of the 4th dimension, reflecting the fact that the ancestors of the modern speakers of English left the homeland in Africa at the time in our history when our ancestors had already evolved to this dimension of awareness.

Whereas words in Turkish can be composed of multiple syllables, in English, syllables can contain both initial and final complex consonant clusters.

Whereas the intransitive clause was the most complex grammatical structure during the 3rd dimension of awareness, during the 4th dimension of awareness there was a new structure, the transitive clause. An example of a clause is 'man eats bird', where the verb eats identifies an interaction between 'man' and 'bird'.



The 4^{th} stage of evolution in awareness was to the awareness of interaction. There could be awareness of 2 objects at the point of the here and now, and where there are 2 objects at the same point in space and time, the 2 objects can interact with each other.



As an analogy to help understand the area, imagine a river of space-time, with rafts, in the form of circular black points, which symbolize objects that a person might experience, floating down the river. Consider a person along the side of the river looking at the entire area that forms the surface of the river. He could now be aware not only of rafts upstream and downstream, but he could also be aware that there are rafts on the other side of the river, and not only on this side.

Review Of The 4 th Dimension						
Dimension	Symbolism	Geometry	Unit Of Meaning	Type Of Word	Example	
1 st	Existence	Point	Word	Noun	Bill	
2 nd	Position	Ray	Phrase	Adjective	Young man	
3 rd	Motion	Line	Clause	Verb (intransitive)	Young man sits	
4 th	Interaction	Area	Subordinate Clause	Verb (direct object)	Young man who is sitting eats bird	

Let us review the symbolism of the 4^{th} dimension of awareness. As the 1^{st} dimension evolved into the 2^{nd} , the 3^{rd} , and then the 4^{th} dimension, existence evolved into position, into motion, and then into interaction, the point evolved into the ray segment, the line segment, and then the area, and words evolved into phrases, clauses, and transitive clauses, and nouns evolved into adjectives, verbs of motion, and then direct object verbs.

Chapter 12

The 5th Dimension: Perpetuation In A Volume

Let us now examine the next major stage in the evolution of the awareness of nature of our ancestors, the 5th Dimension of Awareness.

In the 5th dimension of awareness, there was further subdivision. In the 4th dimension of awareness, the primary finger breakdown that was used for symbolism was the pair of fingers, where each pair was subdivided into 3 bones. In the 5th dimension of awareness, this focus on the fingers that were used for symbolism subdivided into 2, where each of the fingers of the hand, other than the thumb, was considered separately. That makes a total of 4 fingers for use in symbolism. Each of the fingers is subdivided into 3 bones. During the 5th dimension of awareness, there were 12 distinctions on each hand. Furthermore, the thumb comes to be used for its own symbolism, and not only for marking bones of the other fingers.

Simplicity

As we progressed through the dimensions of awareness, complexity increased. The 4th dimension of awareness has produced the most complex organizations of our understanding of nature. Complexity leads to power, but not to simplicity.

The 5th dimension of awareness represents the end of this cycle of 5 dimensions of awareness. In a cycle, the end is like the beginning, as that is the nature of cycles, and the 5th dimension of awareness will again represent unity. However, it will represent a much more evolved form of unity. The 5th dimension of awareness will represent such a high degree of organization of understanding of nature that it again represents a return to simplicity. Cultures that orient to the 5th dimension of awareness have the most organized, and the simplest, models of nature.

Whereas the 1st dimension of awareness represents a unity of awareness of space, the 5th dimension of awareness represents a unity of awareness of time. It took a long evolution of our species, and a long history of experience with nature, for our species to be able to develop such a deep understanding of nature and such a powerful organization of this understanding of nature.

This simplicity refers to models developed by cultures that orient to the 5^{th} dimension of awareness as their primary dimension of awareness. Cultures that have a primary orientation to an earlier dimension of awareness, such as that of speakers of English, had to increase in complexity in order to support representation of greater dimensions of understanding from the perspective of their primary dimension of orientation.



The notion from geometry that is analogous to the 5^{th} dimension is the notion of the volume. The dimension of the volume can be symbolized in 2 different ways, the sphere and the cube, depending on the primary dimension of orientation of the people involved, and on whether it is symbolism of time or space.

In the 5th dimension of awareness, the volume symbolizes unity. The unity of the 1st dimension gave way to subdivision in subsequent dimensions, and now again there is a return to unity in the 5th dimension of awareness. For speakers of English and related languages, there are 2 symbols of the volume. The sphere symbolizes unity, and with the sphere there is only unity, as the sphere is a figure with only 1 side. The cube symbolizes unity, but the cube also symbolizes subdivision, as the cube is a figure that is composed of multiple sides. The volumes of the sphere and the cube are symbolized by the fingers of 1 or 2 hands; the sphere

can be formed by the fingers of 1 or 2 hands, and the cube can be formed by the fingers of 1 hand.

On an area, the symbol of the 4th dimension of awareness, objects can interact in space and time. The volume, the 5th dimension symbol of awareness, symbolizes awareness of perpetuation in space and time.

In the 5^{th} dimension of awareness, for speakers of English, who are currently in the 2^{nd} stage of their evolution to the 5^{th} dimension of awareness, the cube symbolizes awareness of space, and the sphere symbolizes awareness of time.

The 5th dimension of awareness symbolizes awareness of unity. For cultures that orient to the 5th dimension of awareness as their primary dimension of orientation, there is only 1 symbol, the sphere, which symbolizes unity. Since our story is about speakers of English, who orient to the 4th dimension of awareness, and for whom the 5th dimension is their 2nd dimension of unified awareness, there are 2 symbols of awareness of the 5th dimension, the sphere and the cube.



As the 4th dimension of awareness is represented in language by the number 3 for speakers of English, the 5th dimension is represented by the number 4. English, whose speakers orient to the 4th dimension of awareness, has 4 as the symbol of its awareness of all of the dimensions of space-time.

Once we have traversed all of the dimensions of the cycle of evolution, we can begin the cycle again. The number 4 symbolizes perpetuation.

We will shortly see that all primary subdivisions of space and all primary subdivisions of time in English are subdivisions into groups of 4. The set of 4 distinctions enables cyclic motion through the distinctions, and cyclic motion is the prerequisite for perpetuation, since perpetuation is the nature of cycles. For Chinese, on the other hand, for example, for which the number 5 symbolizes perpetuation, all primary subdivisions of space and time are subdivisions into groups of 5.

Numeric V	alue a	nd Dime	ension	Symbolism
	Number	Dimension Symbolized]
	Number	Time	Space	
	1	1 st	1 st	
	2	2 nd	2 nd & 3 rd	
	3	3 rd & 4 th	4 th	
	4	5 th	5 th]

Speakers of English and Greek orient to the 4th dimension. For these people, the number 4 is primary. During their awareness of the 5th dimension, the number that symbolizes all of their dimensions of awareness is 4.

By integrating their awareness of 2 dimensions, different dimensions for space and for time, these people can maintain their orientation to the number 4.

Because of this integration of dimensions of awareness, the number 4 symbolizes the 5^{th} dimension of awareness. In the diagram, the number 4 symbolizes both time and space in the 5^{th} dimension of awareness for speakers of English.

Language Evolution

During the 5th dimension of awareness, our ancestors evolved to the 5th dimension of language development. The primary form of verb to evolve in the 5th dimension of awareness was the indirect object transitive verb. These transitive verbs are verbs that take an indirect object as well as a direct object. In other words, these transitive verbs are verbs that represent more than 2 objects at the same space and time. When we can relate an object to 2 or more other objects that are at the same space at the same time, the action of the object can be perpetuated, and transitive verbs represent the perpetuation of objects in space and time. An example is the sentence 'young man gives small bird to woman', which represents

the perpetuation of the interaction of 3 objects at the same place and time, a man, a bird, and a woman.

Three areas, representing 3 objects in space and time, can perpetuate one to the next in a volume of space and time.



This is a diagram of a 5^{th} dimension indirect object clause, showing how it symbolizes a volume of space-time. There are 3 noun phrases within the clause, all of which are related by the verb 'give'. The 'young man' is the giver, the 'small bird' is what is given, and the 'woman' is the person to whom it is given.

Each noun phrase is a complete 4th dimension noun phrase, although here the phrases are not very complex.

It is possible to include more, any number, of nouns within the same sentence, by perpetuating the action of giving. For example, we could perpetuate this interaction to another noun, 'money', by the sentence 'young man gives small bird to woman for money'.

Conjunctions				
Clause	man gives bird to woman			
Conjunction	when			
Clause	woman goes to rock			

In the 4th dimension of awareness, there could only be 1 primary 4dimensional transitive verb clause in a sentence. There could be secondary transitive verb clauses, in the form of subordinate clauses. In the 5th dimension, there could be multiple, any number, of primary 4-dimensional transitive verb clauses in a sentence. The new type of word that enabled the perpetuation from one verb clause to the next in the sentence is called a conjunction.

For example, the 2 4-dimensional clauses 'man gives bird to woman' and 'woman goes to rock' can be combined into 1 5-dimensional sentence using the conjunction 'when', as in '(The) man gives (a) bird to (the) woman when (the) woman goes to (the) rock'. The words in parentheses were inserted to make the sentence sound more natural in English.

In the 5th dimension of awareness, conjunctions enable 2 or more distinct clauses (sentences) involving different nouns with different verbs at different times to be unified to form 1 complex sentence.



The cycles of nature of which our ancestors became aware that enabled them to become aware of the 5^{th} dimension of awareness were based on the cyclic motion of the earth around the sun.

When our ancestors entered the 5^{th} dimension of awareness, societies learned and individuals became aware that the changing pattern of stars visible in the heavens as the earth followed its path around the sun followed a pattern as well.

The 5^{th} dimension enabled awareness of 2 cycles of nature. As the earth travels around the sun, the stars in the night sky regularly appear and disappear, in the form of a cycle. This is the cycle of the year. Each year, the pattern of stars would repeat.

The 5th dimension also enabled awareness of a 2^{nd} cycle, the cycle of the hour. Not only did the stars that were visible in the night sky change during the cycle of the year, but they also changed during the cycle of the day (the night), as the earth rotates about itself. Ancient people learned to divide the day into parts, called hours.

The 5th dimension of awareness enabled awareness of 2 new cycles of nature, the cycles of the year and the hour. This brings the total number of cycles of awareness to 4, and 4 is the primary number for cultures that orient to the 4th dimension of awareness. For comparison, during ancient times, speakers of Chinese were aware of 5 primary cycles of time, and not 4 like the ancestors of speakers of English. The Chinese were also aware of the hour, the day, the month, and the year, and in addition were aware of a 60 year cycle based on the 12 year cycle of revolution about the sun of the planet Jupiter.

Geo	metri	c Struc	ture o	f Awarei	ness
	Dimension	Geometric Structure	Number in Awareness	Composition of Structure	
	1	Point	1	1 point	
	2	Ray Segment	2	2 points	
	3	Line Segment	3	2 ray segments	
	4	Area	10	2 line segments	
	5	Volume	1	2 areas	

In the 5th dimension of awareness, there is awareness of 1 volume. Each volume is composed of 1 sphere or, in the case of English and related languages, sometimes a cube, which is composed of multiple areas.

New Parts Used in Symbolism

In the 5^{th} dimension of awareness, for cultures that orient to the 5^{th} dimension of awareness, no additional parts of the body were used in symbolism.



At the time of the 5th dimension of awareness, where mankind is presently, there is awareness of 5 subdivisions within the unity of nature. As subdivision is subdivision into 2, there is therefore awareness of 2^5 subdivisions of nature. 2^5 , 2 multiplied by itself 5 times, is equal to 32. There is at this time awareness of a subdivision of nature into 32.

We can therefore consider awareness of the 360° circle of the horizon of our awareness as subdivided into 32, where one-thirty-second of 360 is 11.25, such that there is awareness of 11.25° .

This awareness was symbolized by an awareness of corresponding subdivision on the body. The minimum motion of any part of the body, relative to the other parts of the body, in order to symbolize awareness of space-time in the 5^{th} dimension of awareness is 11.25° .

Minimum Joint Angle					
	Dimension	Minimum Angle			
	0	360°			
	1	180º			
	2	90°			
	3	45°			
	4	22.5°			
	5	11.25°			

For cultures that orient to the 5^{th} dimension of awareness, once the bones of the arms had completed preparation for symbolism of the 5^{th} dimension of awareness, there was no movement of any parts of the body in symbolism. There was no motion at all, since the organization was so powerful that no motion was necessary.

For cultures that orient to the 5^{th} dimension of awareness, there was no need for motion, but the smallest angle of distinction of any joint used in symbolism was 11.25° .

For cultures that orient to the 4^{th} dimension of awareness, the smallest angle of movement of any joint that was used in symbolism of the 5^{th} dimension of awareness was 11.25° .

Orientation			
Dimension	Direction of Orientation		
1	None		
2	South		
3	North		
4	East		
5	East		

In order to symbolize their awareness of space and time, ancient people had to orient themselves in a direction with respect to space and time that enabled such awareness.

In the 1st dimension of awareness, while in Africa the ancestors of speakers of Chinese had no single direction of orientation to space or time, but instead oriented to the ever-changing point of the now. After leaving the homeland in Africa, they eventually came to orient to the point of the south in space.

In the 2nd dimension of awareness, while in Africa the ancestors of speakers of Japanese had a primary orientation to the ray segment to up for time, to the point of the past. After leaving the homeland in Africa, they oriented to the south along the ray segment in space that extends from the point of the here to the homeland of mankind in the south.

In the 3rd dimension of awareness, while in Africa the ancestors of speakers of Turkish had a primary orientation to the east-west segment for time, orienting toward the east, to the point of the future in time. After leaving the homeland in Africa, they oriented to the north-south segment for space, orienting toward the north, the direction of future continued migration from Africa.

In the 4th dimension of awareness, while in Africa the ancestors of speakers of English had a primary orientation to the vertical area that extends east-west and up-down for time, the area that begins in the east, where the future and the past in time interact. After leaving the homeland in Africa, they oriented to the horizontal

area that extends east-west and north-south for space, the area that begins in the east, where space and time interact and where the future and the past interact.

In the 5th dimension of awareness, while in Africa orientation to time evolved again. Furthermore, these peoples never left Africa, and never changed their primary orientation to time. The cultures that remained in the homeland of our species in Africa until evolution to the 5th dimension of awareness changed their orientation again, to the most evolved orientation to time and space among our species. These cultures oriented in 1 direction, toward the east. They came to orient to the volume of time, the volume that originated along the ecliptic. The ecliptic is a segment of the heavens that is the center of our complete volume of time, a segment that our species uses to symbolize an awareness of all of space and time. This orientation, to the ecliptic, requires no motion of the body at all to symbolize all awareness of time and space, for cultures that orient to the 5th dimension of awareness.

Speakers of languages that orient to earlier dimensions, such as speakers of English, also took advantage of awareness of the ecliptic, although they were unable to orient to it as directly. They had to adapt their current understanding of nature to somehow include their new-found awareness of the ecliptic.

5 th Dimension Cycles of Time and Spac					
Space/Time	Cycle				
Space	Volume of space				
Time	Cycle of month				
Time	Cycle of day				
Time	Cycle of year				
Time	Cycle of hour				
	Space/Time Space Time Time Time Time	Space/TimeCycleSpaceVolume of spaceTimeCycle of monthTimeCycle of dayTimeCycle of yearTimeCycle of hour			

In the 5th dimension of awareness, there was awareness of 5 cycles of time and space. There was 1 cycle of space, the 1 complete volume of space. There was

awareness of 4 cycles of time, the cycles of the year, the month, the day, and the hour.



A volume of space is formed by 2 areas. Humans are aware of 3 distinctions in space, and so there are 3 primary orientations of areas of space. The 3 are shown in the diagram. As well, there are various secondary areas of space.

The sphere is the symbol of unity. There is only 1 sphere.

The cube is the symbol of subdivided awareness. The cube is subdivided into 3 primary orientations of areas, each of which comes in pairs, or groups of pairs, each group of which can be defined by the 4 segments, the square, that form its outer bounds.

Preparation for Finger Symbolism

To become aware of the 5th dimension required awareness of a cycle. The hands could symbolize the flow through the stages of the cycle. There is awareness of 4 cycles of time, with 2 new cycles in this dimension of awareness.

Let us prepare the hands for examining the finger signs that symbolize the 5^{th} dimension of awareness for people that orient to the 5^{th} dimension.



To symbolize awareness of the 5^{th} dimension for cultures that orient to the 5^{th} dimension of awareness, the feet orient the body to the east, in order to orient the body to the vertical area that rises up and down from the segment that extends east-west, along which lies the area of the ecliptic. Now, the arms and hands can prepare for symbolism.



To symbolize the 5^{th} dimension of awareness using fingers signs, from the perspective of cultures that orient to the 5^{th} dimension of awareness, begin with the body as in the 1^{st} through 4^{th} dimensions of awareness.

The arms hang vertically downward along the side of the body. The hands are closed, and rest against the thighs. The thumbs lie along the index fingers, as they extend vertically downward.

This is the initial position to prepare for finger signs. In the 5th dimension of awareness, 5 steps will be required to prepare for symbolism. In the odd numbered steps, Steps 1, 3, and 5, both arms will shift. In the even numbered steps, Steps 2 and 4, only 1 arm will shift. The 1st step involves the shoulder joints. The 2nd and 3rd steps involve the elbows. The 4th and 5th steps involve the hands.



In the 1st step, both of the shoulder joints move. The shoulders shift the upper arms upward in the same direction, but they shift a different number of degrees.

The right shoulder shifts the entire right arm 90° forward and upward. The right arm now orients horizontally along the forward-rearward segment.

The left shoulder shifts the entire left arm 180° forward and upward. The left arm now orients vertically along the up-down segment.



In the 2^{nd} step, only the right arm moves. The elbow joint of the right arm reorients the bones of the forearm with respect to each other. The right elbow rotates the forearm 90° outward and to the right to change the orientation of the bones of the forearm from up-down with respect to each other to left-right. The inside of the forearm is now visible.



In the 3rd step, the elbow joints reorient the forearms with respect to the upper arms. The elbows shift the forearms in different directions, and they shift a different number of degrees.

The right elbow shifts the forearm 90° upward, changing the orientation of the right forearm from horizontal to vertical.

The left elbow shifts the forearm 45° rightward, changing the orientation of the left forearm from vertical to half vertical and half horizontal, orienting from the left upward and toward the right.


In the 4th step, only the left wrist moves. The wrist of the left arm reorients the hand with respect to the forearm. The wrist rotates the hand 45° forward and to the left to change the orientation of the hand from rightward, like the left forearm, more toward forward, like the right hand.



In the 5th step, the fingers of the 2 hands open. All 5 fingers of each hand are used whole, and when opened outward, each joins together with the corresponding finger of the other hand. The hands now form the shape of a sphere, the 5 dimensional symbol of the volume.

At this time, the segment formed by the connecting middle fingers lines up with the area that coincides with the ecliptic in the heavens. This finger symbolism is appropriate on the days of the equinoxes, when the ecliptic passes directly overhead and vertically downward through the body of mankind and the equator.



The fingers, which were completely closed to symbolize the 1st dimension of awareness, with the hands joining at the base of the proximal bones of the fingers, are completely open to symbolize the 5th dimension of awareness, with the hands touching at the tips of the distal bones of the fingers. The 5th dimension represents a return to simplicity. Orientation to the ecliptic enables such a high degree of organization that there is no longer any need at all for motion of any of the joints of the arms.

Time in the 5 th Dimension
From Before
Day
Month
<u>From the 5th Dimension</u> Year Hour

In the 3^{rd} dimension of awareness, there was awareness of 1 unit of time, the day.

In the 4th dimension of awareness, there was awareness of 2 units of time, the day and the month.

In the 5th dimension of awareness, awareness of time subdivided again. The 1 pair of subdivisions of time, the day and the month, subdivided, such that there was awareness of 2 pairs of units of time.

There are 2 ways for units of time to subdivide. 1^{st} , a unit of time can subdivide into multiple parts. 2^{nd} , several units of time can combine to form a larger unit of time, which is then by its very definition subdivided.

The day, from the 3rd dimension of awareness, did the 1st. The day subdivided to form another unit of time, the hour.

The month, from the 4^{th} dimension of awareness, did the 2^{nd} . The month combined to form another unit of time, the year.

Awareness of the hour and the year are related, as each enabled and required awareness of the other.



In the 4th dimension of awareness, there was awareness of the path of the sun and the moon across the heavens.

On the days of the equinoxes, from the perspective of the homeland of mankind on the equator, the path of the sun and the moon passed directly overhead, in the form of an area that extends forward-rearward and up-down through the body of mankind.

This diagram shows the path of the sun and the moon around the earth from the perspective of mankind at the equator and orienting to the east on the days of an equinox. The left diagram shows the view from the south, where the path across the equator follows the east-west segment from right to left. The right diagram shows the view from the west, where the path across the equator follows the eastwest segment from rearward to forward.

This circle in the heavens around which the sun and the moon travel is known as the ecliptic.



The 5th dimension of awareness represents evolution to a complete orientation to time. A single orientation of the hands can symbolize all cycles of time. Because awareness of time and space is unified, the symbolism of space is completely symmetrical to the symbolism of time.

The 5th dimension of awareness is unified in time. In order for time to unify with space, in order for the 2 to become 1, awareness of time subdivided 2 more times.

As our ancestors looked upward toward the heavens in the 4^{th} dimension of awareness, they were aware of 4 primary vertical areas of space that extend upward to the heavens. The 360° of the horizontal square of human awareness was subdivided into vertical areas that were separated from each other by 45° . These were the vertical areas that extended upward from the segments of east-west, north-south, northeast-southwest, and northwest-southeast.

This distinction of the heavens subdivides, to 22.5°. Another set of vertical areas subdivided each of these distinctions into 2, making a separation of 22.5°

between vertical areas. Between the areas that extend upward from the segment that extends to the east and the segments that extend to the northeast and to the southeast, there was now awareness of vertical areas that extend upward from the east-northeast and from the east-southeast. These areas, as shown in the diagram, are located 22.5° north or south of the area that extends upward from the segment that extends east-west. This span, 22.5° from east in each direction, is within 1° of the maximum range of what is known as the ecliptic, awareness of which is necessary to become aware of the cycle of the year. This 1° is such a small distinction that it would have been indistinguishable to human observers. When looking out into the heavens, the ecliptic is the path along which the sun, the moon, and the planets appear to move. The position of the ecliptic relative to the earth is not constant throughout the year, and the position differs with the location on the earth of the observers, but when observing from the perspective of the equator on the longest and shortest days of the year, in other words on the days with the longest and the shortest day as opposed to night, the days of the summer and winter solstices, the ecliptic is located within 1 degree of 22.5° north or south of east. In other words, human perspective was no longer restricted to the days of the equinoxes, but could also track the sun and the moon in the heavens on the days of the solstices, when their path would not begin due east, but would begin 22.5° north or south of due east.

Time then subdivides again. One half of 22.5° is 11.25° . Observing the ecliptic is not sufficient by itself to become aware completely of the cycle of the year. The reason is that the sun, moon, and planets do not follow the ecliptic exactly, but have a range of motion with respect to the ecliptic of some 17° , or 8.5° on either side of the ecliptic. This subdivision into 11.25° is very close to 8.5° , such that the difference would have been indistinguishable to ancient mankind.

The volume of the heavens that is centered along the ecliptic and that is bounded on both sides by these limits of the range of motion of the givers of awareness of time is known as the zodiac. The zodiac will be discussed in the next section.

In the 5th dimension of awareness, time is extremely well-organized in the human mind. The body is oriented to the ecliptic. In the 5th dimension of awareness, the 5 pairs of fingers mark out the 5 segments of the volume that enable mankind to be aware of the entire volume of space-time.



As mankind orients due east, the pair of middle fingers lines up with the 1st of the 4 quadrants of the vertical area that extends up-down through the segment that extends east-west. This is the vertical area that, in the previous dimension of awareness, the 4th dimension, gave awareness of the cycles of the sun and the moon on the days of the equinoxes, when the path of the ecliptic passed directly overhead. The east will now also enable awareness of the 2 new units of time, the year and the hour, on the days of the equinoxes. Along the ecliptic, there could be awareness of the 4 primary points that subdivide the cycle of the day, the 4 primary points that subdivide the cycle of the year.

Now that there was awareness of the cycle of the year, there was awareness of the 4 primary points that subdivide the cycle of the year. These include not only the 2 points of the equinoxes, but also the 2 points of the solstices, the points of the summer and winter solstices. The path of the ecliptic can stray as far as 23.5° to either side of the equator, from the perspective of people on the equator. The maximum extent of the path of the ecliptic to the north of east, to the east-northeast, on the day of the summer solstice, is known as the Tropic of Cancer. The

maximum extent of the path of the ecliptic to the south of east, to the eastsoutheast, on the day of the winter solstice, is known as the Tropic of Capricorn. The pair of little fingers line up with the Tropic of Cancer, and the pair of thumbs line up with the Tropic of Capricorn. In this way, mankind could be aware of the path of the ecliptic not only on the days of the equinoxes, but on all days as the equinox strayed as far as the Tropics of Cancer and Capricorn.

At this time, our ancestors were also aware that, even on the days of the equinoxes, for example, when the path of the sun and the moon lied directly above, the sun and the moon, and now the planets of which they were also aware, do not follow the ecliptic exactly, but can range on either side of the ecliptic, within a range now known as the zodiac. The zodiac extends some 8.5° on either side of the ecliptic. The angle of human awareness of 11.25° was not distinguishable from this. The pair of index fingers and the pair of ring fingers line up with the bounds of the ecliptic.

This perspective, supported by this 1 finger sign, enabled people who orient to the 5th dimension of awareness to track all of the cycles of time on the days of all primary subdivisions of the year, within the given range of motion of the givers of the awareness of time about the ecliptic.

This symbolism was so powerful that no motion of the hands was required, since experience with the past enabled awareness of the entire circle of awareness without actually having to physically move the hands and body to symbolize it.

The ecliptic will be discussed in greater detail later in this chapter, when we discuss the evolution to the 5^{th} dimension of awareness of cultures that orient to the 4^{th} dimension of awareness.

Notice that the human thumb is opposable, and orients in 1 direction, and the 4 fingers orient in a 2^{nd} direction. The inner fingers are progressively higher than the outer fingers, such that this clearly symbolizes a sphere, the 1 sided symbol of the 5 dimensional volume.

The whole hand symbolizes a span of 45° of the volume. The 5 fingers mark out 4 subdivisions of this 45° . Each successive pair of 2 fingers marks out 11.25° of the volume of awareness.



A view of the spherical volume of the hand enables awareness of the cycles of day, the month, the year, and the hour. The horizontal hand occupies 45° of our field of vision, which is 1/8 of the horizontal circumference of the 360° horizontal volume of the earth.

The vertical hand occupies 90° of our field of vision, which is 1/4 of the vertical circumference of the 360° vertical volume of the earth. The position of the hands in the diagram represents awareness of the ecliptic from the point of the sunrise, at the point of the east, at the base of the lower middle finger, to the point of noon, at the point of up, at the base of the upper middle finger.

The middle fingers line up with the ecliptic. If we look at the hands vertically, we see that the middle fingers symbolize the 1^{st} quadrant of the ecliptic, the path of the sun, the moon, and the planets, on the days of the equinoxes. The middle fingers are subdivided into 6 bones, which can be considered to form 3 pairs of 2 bones per pair. Each pair of bones spans 30° in extent. If we were to extend this to the entire circumference of the earth, there would be 12 pairs of bones, where each individual bone spans 15° .

There is awareness that the sun, moon, and planets do not follow the ecliptic exactly, but fall within a range on either side of the ecliptic, known as the zodiac.

We can now subdivide the day into 24 hours. During each hour of the day, the sun is located in 1 of the 24 subdivisions of the zodiac. It is possible to observe the positions of the stars in each part of the zodiac in the heavens, and observe when the stars rise and set, etc., in order to determine the current hour of the day.

We can combine each successive pair of subdivisions of the ecliptic into sections of 30° . For a month at a time, the sun will be positioned with 1 of these sections behind it, such that the stars in that part of the zodiac will not be visible at all during the day (or night). We can use this to determine the current month in the 12 month cycle of the year.

As well, no distinct hand positions are required to symbolize space. As space is unified with time, the organization of space is completely symmetrical to that of time. Therefore, this one motionless position of the arms and hands is sufficient to symbolize all 5 dimensions of time and space of which mankind is aware.

This horizontal and vertical organization of the hand, and the organization of time that they enable, are all that is required for an awareness of all of the cycles of time and space in the 5th dimension. The middle fingers of the hands line up with the equator, which is the giver of awareness of the hour, the day, the month, and the year in time on the days of the equinoxes. The little fingers and the thumbs line up with the east-northeast and east-southeast parts of the heavens, which are the givers of awareness of the range of the ecliptic over the cycle of the year, as far as the solstices. The ring and index fingers mark out the bounds of the ecliptic on the days of the equinoxes, defining the volume of the zodiac, which enables complete awareness of the cycles of the year and the hour in time.

The ecliptic enables awareness of the hour of the day and of the month of the year.

It is certainly possible for the arms to shift positions, such that the hands might mark out the entire volume of time and space. However, there is no need. The organization of the entire heavens is completely symmetrical, such that no other positions of the hands are required to enable awareness of this.

In the 1^{st} dimension of awareness, arm motion subdivided the 360° unity of nature into 180° . Over the 5 dimensions of awareness, there were 5 subdivisions of the unity of nature, which was symbolized as the entire 360° in the volume of awareness. These were subdivisions into 180° , 90° , 45° , 22.5° , and 11.25° . With the

subdivision of time and space into distinctions of 11.25° , it became possible to evolve to the awareness of 5 dimensions of distinctions in time and space, and to form a single, simple organization of all of space-time.

Example Language that Orients to the 5th Dimension of Awareness

Swahili is an example of a language that orients to the 5^{th} stage of human awareness, the stage of awareness of the 5^{th} dimension.

Swahili is a language that enables representation of a very large number of relatively quite complex relationships in space and time, reflecting the incredibly high degree of organization of space and time of the speakers of Swahili.

Whereas words in English can contain complex consonant clusters, such clusters are not required in Swahili. Syllables are once again simple.

The phrase and the clause in Swahili are more highly organized that the phrase and the clause in English.

 5^{th} dimension transitive verbs express awareness of from 3 up to any number of objects at multiple points in space-time. When an interaction can perpetuate in space-time. Perpetuation is the symbol of the 5^{th} dimension. The object that interacts is called the subject, the object that is acted upon is called the direct object, and the recipient of the action is called the indirect object. 5^{th} dimension indirect object transitive verbs enable expression of the perpetuation of the interaction of an object with another object involving a third object in a volume of space-time. 5^{th} dimension transitive verbs combine 3, or more, 4^{th} dimension clauses, in the form of a 5^{th} dimension clause, in order to express the perpetuation of the interaction of a noun with another noun involving a 3^{rd} noun in a volume of space-time. An example of the 5^{th} dimension type of word, an indirect object transitive verb, that is used in the expression of the interaction of the noun 'man' with the noun 'bird' and with the noun 'woman' in a volume is the clause 'man gives bird to woman'. An example of the potential of such verbs to perpetuate noun phrases indefinitely is the clause '(the) man gives (the) bird from (the) big tree by (the) lake to (the) woman for money'.

Verb Organization In Swahili						
Relationship	Suffix	Basic Form	Equivalent	New Form	Equivalent	
Active	а	sema	say			
Passive	wa	sema	say	semwa	be said	
Static	ika	sema	say	semika	be said	
Motion	ia	funga	close	fungia	close for	
Dual	ana	piga	hit	pigana	fight with	
Opposite	ua	funga	close	fungua	open	
Causative	ya	ona	see	onya	show	
Emphatic	za	sikia	hear	sikiza	listen	
Repetitive		piga	hit	pigapiga	hit repeatedly	
Potential	ikana	funga	close	fungikana	be closeable	

Swahili is a language with an extremely highly organized grammar. Let us examine the structure of verbs in Swahili in more depth as one example to explore what is meant by the claim that Swahili is highly organized. The high degree of organization of the verb in Swahili reduces the number of distinct words that are required in the language, thereby enabling a smaller and simpler set of syllables. In addition, this organization greatly clarifies the relationship among verbs that is less clear in other languages.

For example, English has a verb open, with its various related verbs and verb forms, such as opening and opened. Another verb is close, with its related verbs and verb forms, such as closed and enclose. The relationship between open and opening is very clear in English. The relationship between close and enclose is fairly clear, but less so. The relationship between open and close is not clear, as these seem like completely unrelated verbs. In the same manner, see and show, and hear and listen, seem to be unrelated pairs of verbs.

In Swahili, the relationships of such concepts are much more clear. Swahili has a relatively small number of verb roots, and each root can be subject to some ten types of relationships of which mankind has become aware that occur among nouns.

The verb root in Swahili is composed of one or two syllables, each of which is composed of at most one consonant and one vowel, and one final consonant, which is not followed by a vowel. The suffix combines with this final consonant. The suffix can be composed of one, two, or three syllables, of which the first syllable is composed of one vowel, such that the vowel can combine with the final consonant of the root. Sometimes the nature of the final consonant can affect the selection of the initial vowel of the suffix, and sometimes as well it can affect the selection of the consonant of the next syllable. The initial vowel for the suffix tends to be a, i, or u.

There is an active, or basic, form of each verb. The basic form is the root, to which has been attached the simplest of suffixes, the vowel a. Examples are the root sem, with the suffix a, which forms sema (say), the root let, with the suffix a, which forms leta (bring), and the root fung, with the suffix a, which forms funga (close, fasten, tie, bind, etc.).

The suffix wa includes the addition of the simple vowel sound u to the vowel a, which are combined into a single syllable; hence the spelling wa. The syllable wa is the form of expression of the passive. The verb sema (say) becomes semwa (be said), leta (bring) becomes letwa (be brought), and funga (close) becomes fungwa (be closed).

The suffix ika is a suffix that expresses a state or condition. The verb sema (say) becomes semika (be said). The static relationship differs from the passive in that the passive expresses an action, whereas the static expresses a resultant condition of an action. The verb funga (close) becomes fungika (be closed).

The suffix ia is a suffix that expresses motion to or from a noun. The English equivalent often requires a preposition to express the motion, as in to, for, in, with, about, etc. The verb funga (close) becomes fungia (close, as in close a door for someone).

The suffix and is a suffix that expresses an action that two nouns are doing with each other. The verb piga (hit) becomes pigana (fight with). The verb funga (fasten) becomes fungana (fasten together). The suffix ua is a suffix that expresses the opposite meaning. The verb funga (close) becomes fungua (open).

The suffix esha, or one of its variant forms, such as ya, is a suffix that expresses the causing of an action to occur, a causation. The verb ona (see) becomes onya (cause to see, or show). The verb waka (burn) becomes washa (light).

The suffix za is a suffix that expresses an action that is performed with an emphasis. The verb sikia (hear) becomes sikiza (listen).

If a verb root in the basic form is repeated, it expresses a repetitive action. The verb piga (hit) becomes pigapiga (hit repeatedly).

There are a number of possible forms that combine two different forms. For example, if the suffix of the static form ika is suffixed by the syllable na, the combination ikana expresses a potential for an action to occur. The verb funga (close) has a static form of fungika (be closed). This becomes fungikana (able to be closed, or closable).

Like all aspects of the grammar of Swahili, verbs are extremely highly organized. Whereas words in Chinese, which orients to the 1st dimension of awareness, tend to be abstractions of what were originally very concrete nouns, resulting in a language that is not highly organized, words in Swahili, which orients to the 5th dimension of awareness, tend to be concretions of what were originally very abstract verbs, resulting in a language that is extremely highly organized.



As an analogy to help understand the volume, imagine a river of space-time, with rafts, in the form of circular black points, which symbolize objects that a person might experience, floating down the river. Consider a person beneath the surface of the river. He could now be aware not only of rafts upstream and downstream, and of rafts on the near and the far side of the river, but he could also be aware that there are rafts not only on the surface of the river but at all depths of the river.

Review Of The 5 th Dimension						
Dimension	Symbolism	Geometry	Unit Of Meaning	Type Of Word	Example	
l st	Existence	Point	Word	Noun	Bill	
2 nd	Position	Ray	Phrase	Adjective	Young man	
3rd	Motion	Line	Clause	Verb (intransitive)	Young man sits	
4 th	Interaction	Area	Subordinate Clause	Verb (direct object)	Young man who goes to big rock eats bird	
5 th	Perpetuation	Voume	Conjuncted Clause	Verb (indirect object)	Young man eats bird while young man (he) talks to young woman	

Let us review the symbolism of the 5th dimension of awareness. As the 1st dimension evolved through the 5th dimension, existence evolved into position, motion, interaction, and perpetuation; the point evolved into the ray segment, the line segment, the area, and the volume; words evolved into phrases, and then simple, subordinate, and conjuncted clauses; and nouns evolved into adjectives, verbs, adverbs, and conjunctions. As well, intransitive verbs evolved into direct object transitive verbs.

Into the 5th Dimension of Awareness

All modern cultures and all modern healthy individuals are aware of all 5 dimensions of awareness. Cultures that orient to an earlier dimension of awareness had to find a way to superimpose their evolving awareness of the 5th dimension onto their primary dimension of orientation.

Evolution to the 5th dimension of awareness involved the awareness of 2 new distinctions, 2 new subdivisions in nature, that enabled awareness of these 2 new subdivisions in time. Those cultures that orient to the 5th dimension of awareness as their primary dimension of orientation evolved to the awareness of both distinctions in a single stage. Speakers of languages that orient to the 4th dimension of awareness evolved to the awareness of these 2 new distinctions separately, in 2 distinct stages.

Let us examine the 2 stages in the evolution to the 5th dimension of awareness of the ancestors of the speakers of English. In so doing, we will discover the evolution of religion from the Titans to modern monotheism, and the evolution of ancient science into modern science.

Into the 5th Dimension of Awareness

1st Stage

Orientation to the Ecliptic

Cultures that orient to the 5th dimension orient directly to the ecliptic.

Cultures that orient to the 4th dimension orient indirectly to the ecliptic.

Cultures that oriented to the 5th dimension of awareness remained in the homeland of mankind, and so lived in the vicinity of the equator. They oriented to the direction of the east, and therefore they oriented directly to the ecliptic on the days of the equinoxes.

Cultures that oriented to the 4th dimension of awareness left the homeland of mankind while still at the level of awareness of the 4th dimension. The ancestors of the Indo-Europeans migrated northward, to establish a new homeland. While the exact location of the homeland of the Indo-European peoples is still under debate, the general consensus is that it lies somewhere in the vicinity of the 45th parallel, near 45^o north latitude.

While these people were still in the homeland in Africa, evolving to the awareness of the 4th dimension, they learned to orient toward the east for their primary orientation to time and space.

In the 5th dimension of awareness, these people had to find a way to symbolize awareness of the ecliptic from the perspective of their primary orientation to the 4th dimension of awareness, and to the east.

They were able to integrate their symbolism into their new orientation with respect to the earth, and thereby to orient to the east, just as with people who orient to the 5th dimension of awareness.

From the perspective of their new location at the 45^{th} parallel, they had to find a way to orient to the ecliptic, throughout the cycle of the year, in order to be able to symbolize all subdivisions of all units of time and space of which they were aware. To orient to space, continued orientation to the east will be adequate. To orient to time, a 2^{nd} orientation must be found; a 2^{nd} way is required to orient to the east in order to symbolize all of the stages in all of the cycles of time.

The Indo-Europeans were no longer located at the equator, at 0° north latitude, but were located near 45° north latitude. They could therefore no longer orient from the perspective of the equator. However, orientation to time and space from the perspective of 45° north latitude is symmetrical to orientation from the perspective of the equator.

The solution is simply to orient to the east. Orientation of the body to this 1 direction is all that is required to symbolize both time and space. With the feet orienting the body directly to the east, extend both hands forward, oriented horizontally, and separated, with each hand representing an extent of 45° . Each hand spans 45° , which is subdivided into 3 groups of fingers that span 2 extents of 22.5° .

Although the hands are separated, each middle finger orients directly to the east. Unlike with cultures that oriented to the 5th dimension of awareness, a new series of motions of the hands and arms is required in order to learn how to symbolize all units of time from their new perspective.

Now, in the 5th dimension of awareness, only 1 direction of orientation is required for all awareness of time and space; orientation is to the east. This is the same direction as for cultures that orient to the 5th dimension of awareness, although there are significant differences. One such difference is that the left and right hands orient differently from each other, although symmetrically to each other. As well, space and time are symbolized differently from each other. Time is symbolized in the heavens, and space is symbolized with respect to the earth.



The 1st subdivision of awareness of time in the 5th dimension was to the awareness of motion along the ecliptic. During the 4th dimension of awareness, the areas that enabled people to be aware of time were the areas that gave awareness of the cycles of the day and the month. These areas of time were considered only from the perspective of 2 days of the year, the 2 days of the equinoxes. The cycles of the day and the month were enabled by subdividing the path of the sun and the moon into distinctions of 45°. Now, this awareness subdivided in 2, to enable awareness of distinctions of 22.5°. The ability to symbolize a span of 22.5° enabled the ability to consider the perspective of 2 other special days as well, the 2 days of the year. Awareness of motion along the ecliptic enables awareness of the cycle of the year, and of the 4 stages in the cycle of the year; winter, spring, summer, and fall. This awareness also enables awareness of the cycle of the hour.

The primary direction of orientation is to the point of the east. The hand can span 22.5° to either side of east, to the points of the east-northeast and the east-southeast.



This is a diagram of the right hand positioned horizontally and orienting to the point of the east. The left hand also orients to the point of the east, in a symmetrical manner.

The middle pair of fingers of each hand orients to the point of the east. The index finger of the right hand and the little finger of the left hand orient 22.5° to the south of east, to the point of east-southeast. The little finger of the right hand and the index finger of the left hand orient 22.5° to the north of east, to the point of east-northeast.

For all locations on the earth, the point of due east on the horizon is the direction of the ecliptic at the point of the sunrise on the days of the spring and fall equinoxes. However, there are 4 primary points in the cycle of the year, not only the points of the 2 equinoxes, but also the points of the summer and winter solstices.

On the day of the summer solstice, the sunrise on the ecliptic is not located due east, but is located 22.5° toward the east-northeast. On the day of the winter solstice, the sunrise on the ecliptic is not located due east, but is located 22.5° toward the east-southeast. Therefore, this 1 finger position enables the observer to

be aware of the location of the ecliptic and the sunrise on the eastern horizon at all 4 of the primary points in the cycle of the year.

Viewers might realize that the points of east-northeast and east-southeast, located 22.5° north or south of east, are not the exact locations of the ecliptic on the horizon, but are only approximate. In fact, these locations are off by almost a dozen degrees. However, in the next section, we will discover that this seemingly large discrepancy is at the extreme edge of what will be demonstrated to be an allowable discrepancy, and therefore that the actual location of the ecliptic on the eastern horizon, at the outermost edge of the allowable discrepancy, is what is to be expected, given that the solstices are the days of the year with the most extreme positioning of the ecliptic relative to the equator.



The earth does not rotate about an axis the orients exactly up-down with respect to the sun, such that the top and bottom of the earth are always equidistant from the sun. Instead, the axis of the earth is tilted, by an angle of 23.5° .

In the diagram, the yellow circle represents the apparent path of the sun across the heavens. The red circle represents an extension of the equator out to the limits of visibility in the heavens. This diagram shows that the sun moves up and down with respect to the equator of the earth, and that the sun does not pass directly over the equator for most of the year.

For half of the year, the sun passes overhead of people somewhere north of the equator, and it can pass overhead as far north as 23.5° north, a position known as the Tropic of Cancer. This is illustrated by the uppermost and rightmost point on

the yellow circle of the ecliptic on the diagram. For the other half of the year, the sun passes overhead somewhere south of the equator, and it can pass overhead as far south as 23.5° south, a position known as the Tropic of Capricorn. This is illustrated by the lowermost and leftmost point on the yellow circle of the ecliptic on the diagram. In other words, mankind at the equator would have to look 23.5° toward the north or toward the south of directly overhead in order to see the path of the sun and the moon on the days of the solstices.

For the symbolism of the 3^{rd} and 4^{th} dimensions, the perspective has been the days of the equinoxes, which are the points on the circles in the diagram where red and yellow cross. These are the points in the cycle of the year where the equator crosses the ecliptic, and the ecliptic passes directly overhead of the equator. For the symbolism of the 5^{th} dimension, the other 2 primary points in the cycle of the year, the summer and winter solstices, are also important. These are the points in the cycle of the year, toward the north or toward the south.

In the context of this discussion, there are 2 ways that we can consider the ecliptic. We can consider the ecliptic from the perspective of the homeland of our species in Africa, and from the perspective of the speakers of Swahili. This homeland is in the vicinity of the equator, at 0° north latitude. From our position on the equator, we can look outward toward the sunrise. On the days of the spring and fall equinoxes, the sun rises on the horizon directly to the east. On the day of the summer solstice, the sun rises on the horizon 23.5° north of east, in the east-northeast. On the day of the winter solstice, the sun rises on the horizon of awareness, our ancestors could symbolize a span of 22.5°, which is sufficiently close to 23.5° as to be indistinguishable to our ancestors.

We can also consider the ecliptic from the perspective of the homeland of the Indo-European peoples, the ancestors of the speakers of English and Greek, since they had already moved out of Africa prior to evolving to awareness of the 5^{th} dimension. The exact location of this homeland is still a subject of controversy. However, best estimates seem to place this homeland somewhere in the northern part of the Caucasus Mountains (hence the name Caucasian). This area is in the vicinity of 45° north latitude, approximately half way between the equator and the north pole. From there, we can look outward toward the sun rise. On the days of the spring and fall equinoxes, the sun rises on the horizon directly to the east. This

is true for all locations on earth. On the day of the summer solstice, the sun rises on the horizon approximately 23.5° north of east, in the vicinity of the east-northeast. On the day of the winter solstice, the sun rises on the horizon 23.5° south of east, in the vicinity of the east-southeast. These numbers are very approximate. There is actually a discrepancy, such that it is not exactly 23.5° north or south of east. This discrepancy will be explained in the next section.

The ecliptic never crosses the equator. From the perspective of people who are located at the equator, the ecliptic follows the equator, but it does not cross it. The sun sets at the same latitude as the sunrise. Therefore, the area of the ecliptic is not useful as a symbol of vertical space, but only of time.



We will begin with a discussion of symbolism of time. In order to symbolize time in the 5th dimension of awareness, for speakers of languages that orient to the 4th dimension of awareness, the feet orient as for symbolism of the 4th dimension of awareness, with both feet oriented to the east.

Initial orientation will be completely to the east, in order to calibrate the location of the sunrise on the days of the equinoxes and the solstices.

Now, the arms can prepare for symbolism.



To symbolize the 1st stage of the 5th dimension of awareness for speakers of Indo-European languages, begin with the body as in the other dimensions.

The arms hang vertically downward along the side of the body. The hands are closed, and rest against the thighs. The thumbs lie along the index fingers, as they extend vertically downward.

This is the initial position to prepare for finger signs. For those cultures that orient to the 4th dimension of awareness, 3 steps will be required to prepare for symbolism.



In the 1st step, the elbows shift the forearms 90° forward and upward, such that the upper arms remain orienting vertically downward, and the forearms extend horizontally forward.



In the 2^{nd} step, the elbows rotate the forearms 90° outward, such that the bones of the forearms no longer orient vertically with respect to each other, but orient horizontally with respect to each other.



In the 3^{rd} step, the hands open and the fingers extend. The hands open into 3 groups of fingers, with the index fingers separated from the little fingers by a span of 45° , and with the middle and ring fingers touching and located midway between the index and little fingers, separated from each by a span of 22.5 °. This is the same as the orientation of the fingers of the hands to symbolize time in the 4th dimension of awareness.

Cycles of Time				
Primary Cycles	Secondary Cycles			
Year	Seasons			
Month	Weeks			
Day	Parts of Day			
Hour				

Speakers of English orient to the 4th dimension of awareness. Cultures that orient to the 4th dimension have a primary orientation to the number 4.

Speakers of English are aware of 4 primary cycles of time. These are the cycles of the year, the month, the day, and the hour.

The 3 larger units of time are subdivided into secondary units of time. These secondary cycles are also subdivided into subdivisions of 4.

These cultures were able to symbolize the stages in each of the primary cycles of time and the stages in each of the secondary cycles of time of which they were aware.



Each hand has 4 fingers that are used for symbolism. These 4 fingers will be used to symbolize each of the 4 stages in each of the 4 cycles of time that are tracked by cultures that orient to the 4th dimension.

In order to symbolize time, it is necessary to symbolize the location of the ecliptic, from the perspective of the 4 primary points in the cycle of the year.

In order to symbolize the circle of the ecliptic, and in order to track the stages of the cycles of time along the ecliptic, it is necessary for the hands to leave their horizontal position along the horizon toward the east and to move into the heavens. As well, it is necessary for the feet to cease their complete orientation to the east, and to form a combined orientation.

The left foot remains oriented toward the east. However, the right foot reorients to the south. In this way, the body can more easily orient to the entire south side of the body and of the earth, along the entire segment that extends from the east to the west.

Areas of Time

Let us now discuss the areas of time. Time is tracked in the heavens.

Awareness of the cycle of the day was 1^{st} , from the 3^{rd} dimension of awareness. Awareness of the cycle of the month was 2^{nd} , from the 4^{th} dimension of awareness. Awareness of the cycles of the year and the hour were 3^{rd} and 4^{th} , from the 5^{th} dimension of awareness.



To cultures that orient to the 4th dimension of awareness, time is unified and space is subdivided. Because time is unified, the symbolism of time is unified. Therefore, the shape of the hand position to symbolize time in the 1st stage of evolution to the 5th dimension of awareness is the same as for the 4th dimension of awareness. The thumb is hidden and is not used. The other 4 fingers are subdivided into 3 groups of fingers. The index and little fingers are held maximally apart, and are separated by a span of 45°. The middle and ring fingers are held together, and are located midway between the index and little fingers. This subdivides the

fingers of the hand into 3 distinct groups, with 2 spans between them, between the middle pair and the index finger and between the middle pair and the little finger, each representing a span of 22.5° .

To symbolize motion around the entire perimeter of the area of human awareness, there will be motion through 360° . Because the hand can span 45° , 8 hand positions will be required to span the entire area. These hand positions are grouped into pairs, such that there are 4 stages in each of the cycles of time in the 5^{th} dimension of awareness, just as in the 4^{th} dimension of awareness.

We will now discuss how to symbolize each of the primary units of time, with the fingers of the hands organized as in the diagram. For each, we will also discuss the corresponding secondary unit of time, each based on the same finger organization.



The earth is more or less in the shape of a sphere. (1) If we draw a line segment to connect the north and south poles, through the center of the earth, we can consider this line segment an axis, with its midpoint at the center of the volume

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of the earth. (2) The earth rotates about this axis as the earth revolves around the sun. From the midpoint of the line segment that connects the poles, we can draw a segment that is perpendicular to the segment that connects the poles, until it touches the surface of the earth. If we draw such horizontal segments all around the earth, in other words every possible segment that is perpendicular to the segment that extends between the poles, expanding the midpoint of the earth outward in all directions, it forms the shape of an area, a circle. We can call where it touches the surface of the earth the equator, where the word 'equator' implies 'equal' distance from the north pole and the south pole. (3) We can also say that the earth rotates about the equator. The equator is an imaginary line segment around the middle of the earth, along the surface of the earth, that is located halfway between the north and south poles. We can continue to extend the circle of the equator outward, in the form of an area, extending to the limits of human awareness in the heavens. (4) The area that makes up this circle is called the equatorial plane.



The path of the sun across the heavens as the earth revolves around the sun forms the shape of an area. This area is more or less in the shape of a circle. The outer edge of this area in the heavens, the limits of human awareness of the path of the sun, is known as the ecliptic. From the perspective of ancient cultures, it appeared that it was the sun that travels around the earth, rather than that the earth travels around the sun, but this misunderstanding did not change the apparent path of the sun.

The circular areas of these 2 paths, the ecliptic and the equator, do not match exactly. They cross each other in their middles, but at their ends the circles are separated by an angle of 23.5° .

In other words, the earth does not rotate about an axis the orients exactly updown with respect to the sun, such that the top and bottom of the earth are always equidistant from the sun. Instead, the axis of the earth is tilted with respect to the path of the sun, by an angle of 23.5° .

In the diagram, the yellow circle represents the apparent path of the sun across the heavens. The red circle represents an extension of the equator out to the limits of human awareness in the heavens. This diagram shows that the sun moves up and down with respect to the equator of the earth, and that the sun is not directly over the equator for most of the year.

Twice a year, the equator of the earth exactly coincides with the path of the ecliptic. The days on which this occurs are called equinoxes, from the Latin 'equi' and 'nox', or 'equal night', since the day and night are equal in length at the equator at this time. The equinoxes are the 2 days in the cycle of the year where the path of the sun takes it directly overhead people who are located at the equator. The equinoxes do not occur on the same day every year, but occur around March 21 and September 21. In the United States, these are considered to signal the beginning of spring in the northern hemisphere, the Spring (or Vernal) Equinox falls near March 21, and the beginning of Autumn (or Fall), the Autumnal (or Fall) equinox falls near September 21.

The cycle of the year crosses the equinoxes with the daylight of the day in the process of increasing or decreasing in length on a daily basis.

Other than on the days of the equinoxes, the area that extends outward from the earth's equator does not coincide exactly with the path of the sun. For the half of the year following the Spring Equinox, the path of the earth falls below the path of the sun, causing the sun to appear to cross higher and higher in the north each day, as the sun rises each day progressively farther north of the equator.

From the perspective of people who are located at the equator, the sun can appear to rise as far north of the equator as 23.5° north. Eventually, the sun stops moving farther north each day. This happens around June 21, which is called the Summer Solstice, from the Latin 'sol' and 'stice', or 'sun stopped'. The summer

solstice is considered to be the beginning of summer in the northern hemisphere. The latitude in the northern hemisphere that represents the most northern point of the sun in its yearly path across the heavens, at the summer solstice, is known as the Tropic of Cancer.

In the other half of the year, following the fall equinox, the sun appears to rise progressively farther south of the equator each day. The sun can rise as far south as 23.5° south. Eventually, the sun stops moving farther south each day. This happens around December 21, which is called the Winter Solstice. The winter solstice is considered to be the beginning of winter in the northern hemisphere. The latitude in the southern hemisphere that represents the most southern point of the sun in its yearly path across the heavens, at the winter solstice, is known as the Tropic of Capricorn.

In the 5th dimension of awareness, given that the location of the ecliptic changes over the course of the year, it is necessary to be able to symbolize all of the stages in the various cycles of time from the perspective of each of the 4 primary subdivisions in the cycle of the year, from the perspective of the spring and fall equinoxes and from the perspective of the summer and winter solstices.
Subdivision of the Year					
	Number	Season			
	1	Winter			
	2	Spring			
	3	Summer			
	4	Autumn			

The year can be naturally subdivided into 4 parts, called seasons. In the northern hemisphere, the spring (or vernal) equinox is considered to be the beginning of spring, the summer solstice is considered to be the beginning of summer, the fall (or autumnal) equinox is considered to be beginning of fall, or autumn, and the winter solstice is considered to be the beginning of winter. Since the solstices and the equinoxes do not always fall on the same date every year, some countries have standardized the beginning of the seasons, such as to the beginning of the respective month. In the southern hemisphere, the seasons are the opposite of those in the northern hemisphere.

The beginning of any season could be considered to represent the beginning of the year, and different cultures do use the beginning of different seasons as the start of their year. Here, the winter solstice is used as the beginning of the year. The winter solstice is considered by many cultures to represent the birth of the year, since it is the shortest day of the year, and since the length of the day only grows longer from this day. The beginning of the year on the Gregorian calendar, which is currently the primary calendar in use throughout the world, has been standardized to January 1, but the beginning of this year was originally based on the winter solstice, which falls a week or so before this.



Looking at the sun from your position on the earth, where does the path of the sun take it during the course of the year? For example, if the reader were to look at the sun when it is at the highest point in the heavens during the cycle of the day, at the point of noon, where would you look?

We will consider the path of the sun from 2 perspectives, from the perspective of people who remained in the homeland of mankind as they evolved to awareness of the 5^{th} dimension, located at 0° north latitude, and from the perspective of the ancestors of the Indo-European peoples, who evolved to awareness of the 5^{th} dimension while located around the 45^{th} parallel, at 45° north latitude.

Note that although the range of difference between the equinoxes and the solstices is 23.5° , mankind at this time was not able to symbolize on the fingers a span of 23.5° , but only a span of 22.5° . The difference between these is not significant or distinguishable by early mankind using finger signs, and for this reason the diagram only identifies a subdivision into units of 22.5° .

As shown on the right of the diagram, from the perspective of people who are located on the equator, on the days of the 2 equinoxes, at the point of noon, the sun would be located directly overhead. On the day of the winter solstice, at the point of noon the sun would be located 22.5° to the south of directly overhead. On the day of the summer solstice, at the point of noon the sun would be located 22.5° to the south of directly overhead. On the day of the summer solstice, at the point of noon the sun would be located 22.5° to the north of directly overhead.

As shown on the left of the diagram, from the perspective of people who are located 45° north of the equator, at the point of noon, the sun would be located directly overhead the equator, which is located 45° to the south. Therefore, at the point of noon, the sun would be located 45° to the south of directly overhead. On the day of the winter solstice, at the point of noon the sun would be located 22.5° to the south of its location on the equinoxes, which would be 67.5° to the south of directly overhead, or 22.5° north of looking horizontally along the earth. On the day of the summer solstice, at the point of noon the sun would be located 22.5° to the north of its location on the equinoxes, which would be located 22.5° to the south of directly overhead, or 67.5° north of looking horizontally along the earth.

To be able to symbolize the path of the sun along the ecliptic on the days of the equinoxes and on the days of the solstices from the perspective of people located at 45° north latitude, it is necessary to be able to symbolize the path of the ecliptic at an angle of 22.5°, 45°, and 67.5°, relative to vertically upward or to horizontally southward.



How can the arms and hands symbolize a distinction of 22.5° , 45° , and 67.5° for the entire path of the sun along the ecliptic? The motion of the elbow must evolve.

The minimum motion of awareness of the 4^{th} dimension is at an angle of 22.5°. For this symbolism in the 5^{th} dimension of awareness, for the symbolism of the cycle of the year, the elbow will shift the lower arm with respect to the upper arm, in 2 ways.

With the upper arm oriented vertically downward, the elbow can orient the forearm horizontally forward, at an angle of 90° with respect to the upper arm. Now, the elbow can shift the forearm in increments of 22.5° . The elbow can shift

the forearm upward from the horizontal by 22.5° , 45° , or 67.5° . As well, the elbow can shift the forearm downward from the horizontal by 22.5° , 45° , or 67.5° .

The elbow can also shift the forearm left-right with respect to the upper arm. In addition to orienting the forearm directly forward from the upper arm, the elbow can now shift the forearm inward 22.5° or 45° .

Furthermore, these motions of the elbow can be combined, such that the forearm can be shifted both upward/downward and inward at the same time.



The 1st cycle of time that will be discussed is the cycle of the day. There are 4 primary stages in the cycle of the day; sunrise, noon, sunset, and midnight. We must be able to symbolize each of these 4 points from the perspective of each of the 4 primary days in the cycle of the year, the 2 equinoxes and the 2 solstices.



To symbolize the 1st half of the cycle of the day, from the perspective of the 2 equinoxes and the 2 solstices, the left foot will orient forward, toward the east, and the right foot will orient toward the south. This will enable the body to rotate toward the south, and to symbolize the southern half of the heavens, from the point of the east on the horizon to the point of the west on the horizon.

Cycle of the Day: Winter Solstice

The 1st season in the cycle of the year will be winter, the season that begins with the winter solstice. The winter solstice symbolizes the day of the year when the length of daylight of each day is at a minimum, and so can be considered the day in the cycle of the year that is the birth of the year and the beginning of the cycle.



The 1^{st} point in the cycle of the day is the point of the sunrise. As can be seen from the bottom of the diagram, when the hand is horizontal and orients to the east, the index finger orients to the point of the sunrise on the day of the winter solstice. The index finger orients 22.5° to the south of due east. The 1^{st} point in the cycle of the day requires the symbolism of the point 22.5° to the south of due east.

As stated earlier, on the day of the winter solstice, the elevation of the sun in the heavens at noon is 22.5° upward from the horizon toward the south. With the upper arms extending vertically downward and the forearms extending horizontally forward, with the bones of the forearm orienting left-right with respect to each other, use the elbows to elevate the forearms 22.5° , such that the hands orient due south and 22.5° upward from horizontal.

Open the fingers of the right hand, and close the fingers of the left hand. In this position, the middle pair of fingers of the right hand, the middle and ring fingers, orients directly to the south. The index finger orients 22.5° to the west of south. The little finger orients 22.5° to the east of south. Another way to state this is that the little finger orients 67.5° to the south of east.

As in the diagram, use the wrist to shift the right hand 45° leftward, toward the east. At this time, the index finger orients where the little finger previously oriented, 67.5° to the south of east. The middle pair of fingers now orients 45° to the south of east. The little finger now orients 22.5° to the south of east. As the hand shifts to the left, the fingers lower in altitude from 22.5° above the horizon, reaching the level of the horizon at the point symbolized by the little finger.

At this time, the little finger orients to the point on the horizon 22.5° to the south of east. This point, 22.5° to the south of east and directly on the eastern horizon, is where the sun will be located at the point of the sunrise on the day of the winter solstice, from the perspective of cultures located in the homeland of the Indo-Europeans, at 45° north latitude.



The 2^{nd} point in the cycle of the day is the point of noon. The point of noon in the cycle of the day always occurs when the sun is located directly to the south, for people who are located north of the equator.

To symbolize the point of noon, use the wrist to return the hand to its normal position, such that the middle pair of fingers of the hand orients directly toward the south.

At this time, open the fingers of the left hand, such that the left hand orients in the same way, and such that the middle pair of fingers of each of the hands orients directly toward the south. This point, due south and 22.5° above the

southern horizon, is where the sun will be located at the point of noon on the day of the winter solstice.



The 3^{rd} point in the cycle of the day is the point of the sunset. The point of the sunset in the cycle of the day always occurs when the sun is located directly to the opposite of the direction of the sunrise, somewhere on the western horizon.

To symbolize the point of the sunset, the right hand is no longer needed. Just as the point of the sunrise is symbolized only by the right hand, the point of the sunset is symbolized only by the left hand. Close the fingers of the right hand.

The middle pair of fingers of the left hand orients directly to the south. The index finger orients 22.5° to the east of south. The little finger orients 22.5° to the west of south. Another way to state this is that the little finger orients 67.5° to the south of west.

As in the diagram, use the wrist to shift the left hand 45° rightward, toward the west. At this time, the index finger orients where the little finger previously oriented, 67.5° to the south of west. The middle pair of fingers now orients 45° to the south of west. The little finger now orients 22.5° to the south of west.

At this time, the little finger orients to the point on the horizon 22.5° to the south of west. This point, 22.5° to the south of west and directly on the western horizon, is where the sun will be located at the point of the sunset on the day of the winter solstice.



This completes symbolism of the 1^{st} half of the cycle of the day. Of the 4 primary points in the cycle of the day, 3 have already been symbolized, although 2 of these 3 will be symbolized again in the 2^{nd} half.

Notice how much of the 360° circle of awareness has been symbolized. Both hands symbolized due south, as well as 22.5° either side of due south, for a total of 45° . As well, the wrist of each arm shifted the hand inward, to symbolize another 45° each. In total, there are 3 hands of 45° , symbolizing a total of 135° .

The winter solstice has the least amount of daylight of any day of the year. From the perspective of cultures located at 45° north latitude, 3/8 of the day would be daylight. The remaining 5/8 of the day will be darkness, and therefore will be symbolized in the 2^{nd} half of the cycle. This set of finger signs seems to fit exactly the experience of cultures located at the 45^{th} parallel.

Before continuing with the 2^{nd} half of the cycle of the day, let us continue with the 1^{st} half of the cycle on the days of the equinoxes and on the day of the summer solstice.

Cycle of the Day: Equinoxes

The 2^{nd} season in the cycle of the year will be spring, the season that begins with the spring (or vernal) equinox. The spring equinox symbolizes the day of the year when the length of daylight is equal to the length of night, at the equator.

The symbolism that follows is used not only for the spring equinox, but also for the fall (or autumnal) equinox as well, since both equinoxes are symbolized in the same way.

The 4th season in the cycle of the year will be fall, the season that begins with the fall (or autumnal) equinox. This also symbolizes a day of the year when the length of daylight is equal to the length of night, at the equator.



The 1st point in the cycle of the day is the point of the sunrise. As can be seen from the bottom of the diagram, when the hand is horizontal and orients to the east, the middle pair of fingers orients to the point of the sunrise on the day of the equinoxes. The middle pair of fingers orients due east. The 1st point in the cycle of the day requires the symbolism of the point of due east.

As stated earlier, on the day of the equinoxes, the elevation of the sun in the heavens at noon is 45° upward from the horizon toward the south. With the upper arms extending vertically downward and the forearms extending horizontally forward, use the elbows to elevate the forearms 45° , such that the hands orient due south and 45° upward from horizontal.

Open the fingers of the right hand, and close the fingers of the left hand. In this position, the middle pair of fingers of the right hand, the middle and ring fingers, orients directly to the south. The index finger orients 22.5° to the west of

south. The little finger orients 22.5° to the east of south. Another way to state this is that the little finger orients 67.5° to the south of east.

Before using the right wrist to shift the hand inward, there is 1 more step that is required. To symbolize the winter solstice, each of the hands symbolized due south, and also symbolized 22.5° to the east and to the west of south. In other words, there was an overlap of 22.5° that both hands symbolized. This overlap must now be eliminated. The reason is that if the wrist were to bend the hand now, it would only bend as far as 22.5° to the south of east. However, the sunrise on the days of the equinoxes is due east. Therefore, use the elbows to shift the forearms 22.5° inward. The right elbow shifts the forearm 22.5° leftward, toward the east. The left elbow shifts the forearm 22.5° rightward, toward the west. In this way, the right index finger now orients due south, the middle pair of fingers orients 67.5° to the south of east, and the little finger orients 45° to the south of east.

Next, as in the diagram, use the wrist to shift the right hand 45° leftward, inward, toward the east. At this time, the index finger orients where the little finger previously oriented, 45° to the south of east. The middle pair of fingers now orients 22.5° to the south of east. The little finger now orients due east. As the hand shifts to the left, the fingers lower in altitude from 45° above the horizon, reaching the level of the horizon at the point symbolized by the little finger.

At this time, the little finger orients to the point on the horizon due east. This point, due east and directly on the eastern horizon, is where the sun will be located at the point of the sunrise on the day of each of the 2 equinoxes, from the perspective of cultures located in the homeland of the Indo-Europeans, at 45° north latitude.



The 2^{nd} point in the cycle of the day is the point of noon. The point of noon in the cycle of the day always occurs when the sun is located directly to the south, for people who are located north of the equator.

To symbolize the point of noon, use the wrist to return the hand to its normal position, such that the index finger of the hand orients directly toward the south.

At this time, open the fingers of the left hand, such that the left hand orients in the same way, and such that the index fingers of both hands orient directly toward the south. This point, due south and 45° above the southern horizon, is where the sun will be located at the point of noon on the days of the equinoxes.



The 3^{rd} point in the cycle of the day is the point of the sunset. The point of the sunset in the cycle of the day always occurs when the sun is located directly to the opposite of the direction of the sunrise, somewhere on the western horizon.

To symbolize the point of the sunset, the right hand is no longer needed. Just as the point of the sunrise is symbolized only by the right hand, the point of the sunset is symbolized only by the left hand. Close the fingers of the right hand.

The index finger of the left hand orients directly to the south. The middle pair of fingers orients 22.5° to the west of south. The little finger orients 45° to the west of south. Another way to state this is that the little finger orients 45° to the south of west.

As in the diagram, use the wrist to shift the left hand 45° rightward, toward the west. At this time, the index finger orients where the little finger previously oriented, 45° to the south of west. The middle pair of fingers now orients 22.5° to the south of west. The little finger now orients due west.

At this time, the little finger orients to the point on the horizon due west. This point, due west and directly on the western horizon, is where the sun will be located at the point of the sunset on the day of the 2 equinoxes.



This completes symbolism of the 1^{st} half of the cycle of the day. Of the 4 primary points in the cycle of the day, 3 have already been symbolized, although 2 of these 3 will be symbolized again in the 2^{nd} half.

Notice how much of the 360° circle of awareness has been symbolized. Both hands symbolized due south, as well as 45° either side of due south, for a total of

 90° . As well, the wrist of each arm shifted the hand inward, to symbolize another 45° each. In total, there are 4 hands of 45° , symbolizing a total of 180° .

On the days of the equinoxes, there is the same amount of daylight as night. From the perspective of cultures located at 45° north latitude, 1/2, or 4/8, of the day would be daylight. The remaining 4/8 of the day will be darkness, and therefore will be symbolized in the 2nd half of the cycle. This set of finger signs seems to fit exactly the experience of cultures located at the 45^{th} parallel.

Let us now continue with the 1st half of the cycle on the day of the summer solstice.

Cycle of the Day: Summer Solstice

The 3^{rd} season in the cycle of the year will be summer, the season that begins with the summer solstice. The summer solstice symbolizes the day of the year when the length of daylight compared to night is the longest of any day of the year.



The 1^{st} point in the cycle of the day is the point of the sunrise. As can be seen from the bottom of the diagram, when the hand is horizontal and orients to the east, the little finger orients to the point of the sunrise on the day of the summer solstice. The little finger orients 22.5° north of due east. The 1^{st} point in the cycle of the day requires the symbolism of the point of 22.5° north of due east.

As stated earlier, on the day of the summer solstice, the elevation of the sun in the heavens at noon is 67.5° upward from the horizon toward the south. With the upper arms extending vertically downward and the forearms extending horizontally forward, use the elbows to elevate the forearms 67.5° , such that the hands orient due south and 67.5° upward from horizontal.

Open the fingers of the right hand, and close the fingers of the left hand. In this position, the middle pair of fingers of the right hand, the middle and ring fingers, orients directly to the south. The index finger orients 22.5° to the west of

south. The little finger orients 22.5° to the east of south. Another way to state this is that the little finger orients 67.5° to the south of east.

Before using the right wrist to shift the hand inward, there is 1 more step that is required. To symbolize the winter solstice, each of the hands symbolized due south, and also symbolized 22.5° to the east and to the west of south. In other words, there was an overlap of 22.5° that both hands symbolized. This overlap must be eliminated. Instead, this 22.5° cannot be symbolized, by either hand. The reason is that if the wrist were to bend the hand now, it would only bend as far as 22.5° to the south of due east. However, the sunrise on the day of the summer solstice is located 22.5° to the north of due east. Therefore, use the elbows to shift the forearms 45° inward. The right elbow shifts the forearm 45° leftward, toward the east. The left elbow shifts the forearm 45° rightward, toward the west. In this way, the right index finger now orients 22.5° east of due south, the middle pair of fingers orients 45° to the east of south, and the little finger orients 67.5° to the east of south. In other words, the little finger orients 22.5° to the south of east.

Next, as in the diagram, use the wrist to shift the right hand 45° leftward, toward the east. At this time, the index finger orients where the little finger previously oriented, 22.5° to the south of east. The middle pair of fingers now orients due east. The little finger now orients 22.5° to the north of east. As the hand shifts to the left, the fingers lower in altitude from 67.5° above the horizon, reaching the level of the horizon at the point symbolized by the little finger.

At this time, the little finger orients to the point on the horizon 22.5° to the north of east. This point, 22.5° to the north of east and directly on the eastern horizon, is where the sun will be located at the point of the sunrise on the day of the summer solstice, from the perspective of cultures located in the homeland of the Indo-Europeans, at 45° north latitude.



The 2^{nd} point in the cycle of the day is the point of noon. The point of noon in the cycle of the day always occurs when the sun is located directly to the south, for people who are located north of the equator.

To symbolize the point of noon, use the wrist to return the right hand to its normal position, such that the index finger of the hand orients 22.5° east of due south.

At this time, open the fingers of the left hand, such that the left hand orients in the same way, and such that the index fingers of both hands orient 22.5° to the east or west of south. This is shown in the upper pair of hands in the diagram.

Neither hand orients to the point of due south. Next, the wrist of each hand shifts the hand a 2^{nd} way. Instead of the wrists shifting the hands 45° toward the ulna bone of the forearm, as has heretofore always been the case, the wrists now shift the hands for the 1^{st} time in the opposite direction, toward the radius bone. The wrists are only able to shift 22.5° in this direction, but that is all that is needed. This is shown in the lower pair of hands in the diagram.

At this time, the index finger of each hand orients directly toward the south. This point, due south and 67.5° above the southern horizon, is where the sun will be located at the point of noon on the day of the summer solstice.



The 3^{rd} point in the cycle of the day is the point of the sunset. The point of the sunset in the cycle of the day always occurs when the sun is located directly to the opposite of the direction of the sunrise, somewhere on the western horizon.

To symbolize the point of the sunset, the right hand is no longer needed. Just as the point of the sunrise is symbolized only by the right hand, the point of the sunset is symbolized only by the left hand. Close the fingers of the right hand.

The index finger of the left hand orients directly to the south. The middle pair of fingers orients 22.5° to the west of south. The little finger orients 45° to the west of south. Another way to state this is that the little finger orients 45° to the south of west.

As in the diagram, use the wrist to shift the hand 22.5° rightward, toward the west, returning the hand to its normal position, such that the index finger orients 22.5° to the west of south, the middle pair of fingers orients 45° to the west of south, and the little finger orients 67.5° to the west of south. In other words, the little finger orients 22.5° to the south of west. Next, use the wrist to shift the left hand 45° rightward, toward the west. At this time, the index finger orients where the little finger previously oriented, 22.5° to the south of west. The middle pair of west. The middle pair of west.

At this time, the little finger orients to the point on the horizon 22.5° to the north of west. This point, 22.5° to the north of west and directly on the western horizon, is where the sun will be located at the point of the sunset on the day of the summer solstice.



This completes symbolism of the 1^{st} half of the cycle of the day. Of the 4 primary points in the cycle of the day, 3 have already been symbolized, although 2 of these 3 will be symbolized again in the 2^{nd} half.

Notice how much of the 360° circle of awareness has been symbolized. Both hands symbolized due south, by the wrists shifting the hands 22.5° toward the radius bone, for a total of 45° . As well, each hand symbolized 45° when the wrist extended the hand directly forward, for a total of 90° . As well, the wrist of each arm shifted the hand inward, to symbolize another 45° each. In total, there are 5 hands of 45° , symbolizing a total of 225° .

The summer solstice is the day of the year that has the greatest amount of daylight. From the perspective of cultures located at 45° north latitude, 5/8 of the day would be daylight. The remaining 3/8 of the day will be darkness, and

therefore will be symbolized in the 2^{nd} half of the cycle. This set of finger signs seems to fit exactly the experience of cultures located at the 45^{th} parallel.

Let us now continue with the 2^{nd} half of the cycle on the day.



To symbolize the 1st half of the cycle of the day, from the perspective of the 2 equinoxes and the 2 solstices, the left foot oriented forward, toward the east, and the right foot oriented toward the south. This enabled the body to rotate rightward, in order to symbolize the southern half of the heavens, from the point of the east on the horizon to the point of the west on the horizon.

To symbolize the 2nd half of the cycle of the day, from the perspective of the 2 equinoxes and the 2 solstices, the right foot will return to its normal orientation forward, toward the east. At this time, the left foot will reorient, toward the north. This will enable the body to rotate leftward, in order to symbolize the northern half of the heavens, from the point of the east on the horizon to the point of the west on the horizon.

Symbolism of the 2^{nd} half of the cycle of the day will be completely symmetrical to symbolism of the 1^{st} half of the cycle.

Cycle of the Day: Winter Solstice

Let us now symbolize the 2nd half of the cycle of the day on the 1st day of winter, the season that begins with the winter solstice.



The 1^{st} point in the 2^{nd} half of the cycle of the day is the point of the sunset, the 3^{rd} point in the cycle of the day. As can be seen from the bottom of the diagram, when the hand is horizontal and orients to the west, the little finger orients to the point of the sunset on the day of the winter solstice. The little finger orients 22.5°

south of due west. The 3^{rd} point in the cycle of the day requires the symbolism of the point of 22.5° south of due west.

As stated earlier, on the day of the winter solstice, the elevation of the sun in the heavens at noon is 22.5° upward from the horizon toward the south. However, now the body is oriented toward the north, and toward the night, such that everything is symmetrical to the light of day. With the upper arms extending vertically downward and the forearms extending horizontally forward, use the elbows to lower the forearms 67.5° , such that the hands orient due north and 67.5° downward from horizontal.

Open the fingers of the right hand, and close the fingers of the left hand. In this position, the middle pair of fingers of the right hand, the middle and ring fingers, orients directly to the north. The index finger orients 22.5° to the east of north. The little finger orients 22.5° to the west of north. Another way to state this is that the little finger orients 67.5° to the north of west.

Before using the right wrist to shift the hand inward, there is 1 more step that is required. The reason is that if the wrist were to bend the hand now, it would only bend as far as 22.5° to the north of due west. However, the sunset on the day of the winter solstice is located 22.5° to the south of due west. Therefore, use the elbows to shift the forearms 45° inward. The right elbow shifts the forearm 45° leftward, toward the west. The left elbow shifts the forearm 45° rightward, toward the east. In this way, the right index finger now orients 22.5° west of due north, the middle pair of fingers orients 45° to the west of north, and the little finger orients 67.5° to the west. In other words, the little finger orients 22.5° to the north of west.

Next, as in the diagram, use the wrist to shift the right hand 45° leftward, toward the west. At this time, the index finger orients where the little finger previously oriented, 22.5° to the north of west. The middle pair of fingers now orients due west. The little finger now orients 22.5° to the south of west. As the hand shifts to the left, the fingers lower in altitude from 22.5° above the horizon, reaching the level of the horizon at the point symbolized by the little finger.

At this time, the little finger orients to the point on the horizon 22.5° to the south of west. This point, 22.5° to the south of west and directly on the western horizon, is where the sun will be located at the point of the sunset on the day of the winter solstice, from the perspective of cultures located in the homeland of the Indo-Europeans, at 45° north latitude.



The 2nd point in the 2nd half of the cycle of the day, the 4th point in the cycle of the day, is the point of midnight. The point of midnight in the cycle of the day always occurs when the sun is located directly to the north, and below the earth, for people who are located north of the equator.

To symbolize the point of midnight, use the wrist to return the right hand to its normal position, such that the index finger of the hand orients 22.5° west of due north.

At this time, open the fingers of the left hand, such that the left hand orients in the same way, and such that the index fingers of both hands orient 22.5° to the west or east of north. This is shown in the upper pair of hands in the diagram.

Neither hand orients to the point of due north. Next, the wrist of each hand shifts the hand a 2^{nd} way. Instead of the wrists shifting the hands 45° toward the ulna bone of the forearm, the wrists now shift the hands toward the radius bone.

The wrists are only able to shift 22.5° in this direction, but that is all that is needed. This is shown in the lower pair of hands in the diagram.

At this time, the index finger of each hand orients directly toward the north. This point, due north and 67.5° below the northern horizon, is where the sun will be located at the point of midnight on the day of the winter solstice.



The 3rd point in the 2nd half of the cycle of the day is the 1st point in the cycle of the day, the point of the sunrise. The point of the sunrise in the cycle of the day always occurs when the sun is located directly to the opposite of the direction of the sunset, somewhere on the eastern horizon.

To symbolize the point of the sunrise, the right hand is no longer needed. Just as the point of the sunset is symbolized only by the right hand, the point of the sunrise is symbolized only by the left hand. Close the fingers of the right hand.

The index finger of the left hand orients directly to the north. The middle pair of fingers orients 22.5° to the east of north. The index finger orients 45° to the east of north. Another way to state this is that the little finger orients 45° to the north of east.

As in the diagram, use the wrist to shift the left hand 22.5° rightward, toward the east, returning the hand to its normal position, such that the index finger orients 22.5° to the east of north, the middle pair of fingers orients 45° to the east of north, and the little finger orients 67.5° to the east of north. In other words, the little finger orients 22.5° to the north of east. Next, use the wrist to shift the left hand 45° rightward, toward the east. At this time, the index finger orients where the little

finger previously oriented, 22.5° to the north of east. The middle pair of fingers now orients due east. The little finger now orients 22.5° to the south of east.

At this time, the little finger orients to the point on the horizon 22.5° to the south of east. This point, 22.5° to the south of east and directly on the eastern horizon, is where the sun will be located at the point of the sunrise on the day of the winter solstice.



This completes symbolism of the 2^{nd} half of the cycle of the day. All 4 of the primary points in the cycle of the day have now been symbolized, the sunrise and the sunset 2 times each and noon and midnight 1 time each.

Notice how much of the 360° circle of awareness has been symbolized in this half of the cycle. Both hands symbolized due north, by the wrists shifting the hands 22.5° toward the radius bone, for a total of 45° . As well, each hand symbolized 45° when the wrist extended the hand directly forward, for a total of 90° . As well, the wrist of each arm shifted the hand inward, to symbolize another 45° each. In total, there are 5 hands of 45° , symbolizing a total of 225° .

The winter solstice is the day of the year that has the least amount of daylight. From the perspective of cultures located at 45° north latitude, 5/8 of the

day would be night. The remaining 3/8 of the day will be light, and therefore was symbolized in the 1st half of the cycle.



Let us now symbolize the 2nd half of the cycle of the day on the 1st days of spring and fall, the seasons that begin with the spring and fall equinoxes.



The 1^{st} point in the 2^{nd} half of the cycle of the day is the point of the sunset, the 3^{rd} point in the cycle of the day. As can be seen from the bottom of the diagram, when the hand is horizontal and orients to the west, the middle pair of fingers

orients to the point of the sunset on the day of the equinoxes. The middle pair of fingers orients due west. The 1st point in the cycle of the day requires the symbolism of the point of due west.

As stated earlier, on the days of the equinoxes, the elevation of the sun in the heavens at noon is 45° upward from the horizon toward the south. However, now the body is oriented toward the north, and toward the night, such that everything is symmetrical to the light of day. With the upper arms extending vertically downward and the forearms extending horizontally forward, use the elbows to lower the forearms 45° , such that the hands orient due north and 45° downward from horizontal.

Open the fingers of the right hand, and close the fingers of the left hand. In this position, the middle pair of fingers of the right hand, the middle and ring fingers, orients directly to the north. The index finger orients 22.5° to the east of north. The little finger orients 22.5° to the west of north. Another way to state this is that the little finger orients 67.5° to the north of west.

Before using the right wrist to shift the hand inward, there is 1 more step that is required. The reason is that if the wrist were to bend the hand now, it would only bend as far as 22.5° to the north of west. However, the sunset on the days of the equinoxes is due west. Therefore, use the elbows to shift the forearms 22.5° inward. The right elbow shifts the forearm 22.5° leftward, toward the west. The left elbow shifts the forearm 22.5° rightward, toward the east. In this way, the right index finger now orients due north, the middle pair of fingers orients 22.5° to the west of north, and the little finger orients 45° to the west.

Next, as in the diagram, use the wrist to shift the right hand 45° leftward, toward the west. At this time, the index finger orients where the little finger previously oriented, 45° to the north of west. The middle pair of fingers now orients 22.5° to the north of west. The little finger now orients due west. As the hand shifts to the left, the fingers lower in altitude from 45° above the horizon, reaching the level of the horizon at the point symbolized by the little finger.

At this time, the little finger orients to the point on the horizon due west. This point, due west and directly on the eastern horizon, is where the sun will be located at the point of the sunset on the day of each of the 2 equinoxes, from the perspective of cultures located in the homeland of the Indo-Europeans, at 45° north latitude.



The 2nd point in the 2nd half of the cycle of the day, the 4th point in the cycle of the day, is the point of midnight. The point of midnight in the cycle of the day always occurs when the sun is located directly to the north, and below the earth, for people who are located north of the equator.

To symbolize the point of midnight, use the wrist to return the right hand to its normal position, such that the index finger of the hand orients directly toward the north.

At this time, open the fingers of the left hand, such that the left hand orients in the same way, and such that the index fingers of both hands orient directly toward the north. This point, due north and 45° below the northern horizon, is where the sun will be located at the point of midnight on the days of the equinoxes.



The 3rd point in the 2nd half of the cycle of the day is the 1st point in the cycle of the day, the point of the sunrise. The point of the sunrise in the cycle of the day always occurs when the sun is located directly to the opposite of the direction of the sunset, somewhere on the eastern horizon.

To symbolize the point of the sunrise, the right hand is no longer needed. Just as the point of the sunset is symbolized only by the right hand, the point of the sunrise is symbolized only by the left hand. Close the fingers of the right hand.

The index finger of the left hand orients directly to the north. The middle pair of fingers orients 22.5° to the east of north. The little finger orients 45° to the east of north. Another way to state this is that the little finger orients 45° to the north of east.

As in the diagram, use the wrist to shift the left hand 45° rightward, toward the east. At this time, the index finger orients where the little finger previously oriented, 45° to the north of east. The middle pair of fingers now orients 22.5° to the north of east. The little finger now orients due east.

At this time, the little finger orients to the point on the horizon due east. This point, due east and directly on the eastern horizon, is where the sun will be located at the point of the sunrise on the days of the 2 equinoxes.



This completes symbolism of the 2^{nd} half of the cycle of the day. All 4 of the primary points in the cycle of the day have now been symbolized, the sunrise and the sunset 2 times each and noon and midnight 1 time each.

Notice how much of the 360° circle of awareness has been symbolized. Both hands symbolized due north, as well as 45° either side of due north, for a total of 90° . As well, the wrist of each arm shifted the hand inward, to symbolize another 45° each. In total, there are 4 hands of 45° , symbolizing a total of 180° .

On the days of the equinoxes, there is the same amount of daylight as night. From the perspective of cultures located at 45° north latitude, 1/2, or 4/8, of the day would be night. The remaining 4/8 of the day will be light, and therefore was symbolized in the 1st half of the cycle.

Cycle of the Day: Summer Solstice

Let us now symbolize the 2nd half of the cycle of the day on the 1st day of summer, the season that begins with the summer solstice.



The 1st point in the 2nd half of the cycle of the day is the point of the sunset, the 3rd point in the cycle of the day. As can be seen from the bottom of the diagram, when the hand is horizontal and orients to the west, the index finger orients to the point of the sunset on the day of the summer solstice. The index finger orients 22.5° north of due west. The 3rd point in the cycle of the day requires the symbolism of the point of 22.5° north of due west.

As stated earlier, on the day of the summer solstice, the elevation of the sun in the heavens at noon is 67.5° upward from the horizon toward the south. However, now the body is oriented toward the north, and toward the night, such that everything is symmetrical to the light of day. With the upper arms extending vertically downward and the forearms extending horizontally forward, use the elbows to lower the forearms 22.5°, such that the hands orient due north and 22.5° downward from horizontal.

Open the fingers of the right hand, and close the fingers of the left hand. In this position, the middle pair of fingers of the right hand, the middle and ring fingers, orients directly to the north. The index finger orients 22.5° to the east of north. The little finger orients 22.5° to the west of north. Another way to state this is that the little finger orients 67.5° to the north of west.

As in the diagram, use the wrist to shift the right hand 45° leftward, toward the west. At this time, the index finger orients where the little finger previously oriented, 67.5° to the north of west. The middle pair of fingers now orients 45° to the north of west. The little finger now orients 22.5° to the north of west. As the hand shifts to the left, the fingers lower in altitude from 67.5° above the horizon, reaching the level of the horizon at the point symbolized by the little finger.

At this time, the little finger orients to the point on the horizon 22.5° to the north of west. This point, 22.5° to the north of west and directly on the western horizon, is where the sun will be located at the point of the sunset on the day of the summer solstice, from the perspective of cultures located in the homeland of the Indo-Europeans, at 45° north latitude.



The 2nd point in the 2nd half of the cycle of the day, the 4th point in the cycle of the day, is the point of midnight. The point of midnight in the cycle of the day always occurs when the sun is located directly to the north, and below the earth, for people who are located north of the equator.

To symbolize the point of midnight, use the wrist to return the right hand to its normal position, such that the middle pair of fingers of the hand orients directly toward the north. At this time, open the fingers of the left hand, such that the left hand orients in the same way, and such that the middle pair of fingers of both hands orient directly toward the north. This point, due north and 22.5° below the northern horizon, is where the sun will be located at the point of midnight on the day of the summer solstice.



The 3rd point in the 2nd half of the cycle of the day is the 1st point in the cycle of the day, the point of the sunrise. The point of the sunrise in the cycle of the day always occurs when the sun is located directly to the opposite of the direction of the sunset, somewhere on the eastern horizon.

To symbolize the point of the sunset, the right hand is no longer needed. Just as the point of the sunrise is symbolized only by the right hand, the point of the sunset is symbolized only by the left hand. Close the fingers of the right hand.

The middle pair of fingers of the left hand orients directly to the north. The index finger orients 22.5° to the west of north. The little finger orients 22.5° to the east of north. Another way to state this is that the little finger orients 67.5° to the north of east.

As in the diagram, use the wrist to shift the left hand 45° rightward, toward the east. At this time, the index finger orients where the little finger previously oriented, 67.5° to the north of east. The middle pair of fingers now orients 45° to the north of east. The little finger now orients 22.5° to the north of east.

At this time, the little finger orients to the point on the horizon 22.5° to the north of east. This point, 22.5° to the north of east and directly on the eastern

horizon, is where the sun will be located at the point of the sunrise on the day of the summer solstice.



This completes symbolism of the 2^{nd} half of the cycle of the day. All 4 of the primary points in the cycle of the day have now been symbolized, the sunrise and the sunset 2 times each and noon and midnight 1 time each.

Notice how much of the 360° circle of awareness has been symbolized. Both hands symbolized due north, as well as 22.5° either side of due north, for a total of 45° . As well, the wrist of each arm shifted the hand inward, to symbolize another 45° each. In total, there are 3 hands of 45° , symbolizing a total of 135° .

The summer solstice has the least amount of night of any day of the year. From the perspective of cultures located at 45° north latitude, 3/8 of the day would be night. The remaining 5/8 of the day will be light, and therefore was symbolized in the 1^{st} half of the cycle.

This completes the symbolism of the 4 primary subdivisions of the cycle of the day, sunrise, noon, sunset, and midnight, for each of the 4 primary points in the cycle of the year, winter, spring, summer, and fall.

Subdivision of the Day					
	Number	Part of day			
	1	Morning			
	2	Afternoon			
	3	Evening			
	4	Night			
			•		

The day can be naturally subdivided into 4 parts. These parts have no particular name in English, and so are called here parts of the day. The names of the parts of the day used here are not precisely defined terms, but certainly may be defined as used here.

Cultures vary widely on which part of the day is considered to be the 1st part of the day, but here the beginning of light is consistently considered to be the beginning of each unit of time.

Therefore, the 1st part of the day is morning, which begins with the sunrise and ends at noon. This is followed by afternoon, which begins at noon and ends at the sunset. This is followed by evening, which begins at the sunset and ends at midnight. The last part of the day is night, which begins at midnight and ends at the sunrise.
Cycle of the Month

Finger symbolism of the stages in the cycle of the month is the same as for the stages in the cycle of the day. This was demonstrated from the perspective of the equator in the 4th dimension of awareness.

For both the equinoxes and the solstices, the path of the moon is the same as the path of the sun. There is a small discrepancy, but that will be accounted for in later symbolism.

The point of the sunrise corresponds to the moonrise of the new moon, as when the moon is new, the moon rises at the same time as the sun, at the point of the sunrise in the cycle of the day. The point of noon corresponds to the rise of the moon at the 1st quarter, as when the moon is at the 1st quarter, the moon rises when the sun is at the point of noon in the cycle of the day. The point of the sunset corresponds to the rise of the full moon, as when the moon is full, the moon rises at the point of sunset in the cycle of the day. The point of midnight corresponds to the rise of the day. The point of midnight corresponds to the rise of the day.

The relationship between the stages in the cycle of the day and the stages in the cycle of the month is not constant, because the sun and the moon do not have equal periods. However, the basic symbolism remains the same.

There is no need here to discuss the finger symbolism of the stages in the cycle of the moon, since that was done in the 4th dimension of awareness, and the symbolism has not changed.

Subdivision of the Month							
	Number	Week					
	1	Week 1					
	2	Week 2					
	3	Week 3					
	4	Week 4					
			-				

The month can be naturally subdivided into 4 parts. These parts are called weeks in English. The weeks are not named, but are typically numbered. Furthermore, the month does not divide evenly into 4 weeks, such that this part of the calendar is often somewhat out of balance, in that every 4th week will not correspond to the same phase of the month.

Here the beginning of light is consistently considered to be the beginning of each unit of time. Therefore, the 1^{st} week of the month roughly extends from the new moon until the 1^{st} quarter, or the 1^{st} half moon. The 2^{nd} week of the month roughly extends from the 1^{st} quarter until the full moon. The 3^{rd} week of the month roughly extends from the full moon until the 3^{rd} quarter, or the 2^{nd} half moon. The 4^{th} week of the month roughly extends from the full moon until the 3^{rd} quarter until the next new moon.

Unlike other primary and secondary units of time, the week cannot be determined by precise astronomical observation of naturally occurring stages in the cycle of the month. The length of the week was determined by convenience, by astronomical skill, by cultural and historical needs, and so on. There were several variations on the length of the week that were in common use in ancient times. The 7 day week probably originated as far back as the ancient Babylonians. The ancient Greeks, among others, eventually borrowed the organization of the subdivision of the month into the 7 day week.

Note that the month that is symbolized here is the lunar month, and not the modern solar calendar month. Modern months have a fixed length, which come in

a variety of lengths, often determined more for political reasons that for purposes of an accurate calendar. Solar months are based on the standardized subdivisions of the year, and not on the basis of the phases of the moon. Cultures that orient to the 4th dimension place great importance on the phases of the moon, the 4th dimension unit of time, whereas cultures that orient to other dimensions place less importance on the phases of the moon place less importance on the phases of the more detail shortly.

Units of Time						
Primary Unit	Secondary Unit					
Year	Season					
Month	Week					
Day	Part of Day					
Hour						

For cultures that orient to the 4th dimension of awareness, there is awareness of 4 primary units of time. These are the cycles of the year, the month, the day, and the hour.

All but the smallest of these, the hour, can be subdivided. All subdivisions are subdivisions into groups of 4. The year is subdivided into 4 seasons. The month is subdivided into 4 weeks. The day is subdivided into 4 parts of the day.

Each of these secondary units of time can subdivide as well. The subdivision of each of the secondary units of time is into the next primary unit of time. Seasons subdivide into months. Weeks subdivide into days. Parts of the day subdivide into hours.

Each unit of time can flow into the next, in a symmetrical and unified manner. Awareness of time is perpetuated, and perpetuation is the 5^{th} dimension symbol of meaning.



For each of the primary cycles of time that can be subdivided, the cycles of the year, the month, and the day, there is subdivision into 4, for cultures that orient to the 4th dimension of awareness. These 4 can be symbolized as subdivisions of the ecliptic. The ecliptic is symbolized as subdivided into 4 quadrants, or quarters. These quarters are of equal size on the days of the equinoxes.

Each quadrant is symbolized using 2 hands, 1 hand with the wrist extending the hand straight and 1 hand with the wrist bending the hand 45°, such that the little finger of the 2nd hand orients perpendicularly to the index finger of the 1st hand. There are 4 quadrants, times 2 hands per quadrant, equals 8 hand positions.

In each position, the hand looks the same, as in the diagram. The hand is subdivided into 3 groups of fingers, which span 45° . These 3 groups of fingers can be symbolized as subdividing the 45° span of the hand into 3, where each span is a span of 15° . Therefore, the 4 quadrants of 2 hands, each of 3 subdivisions is capable of subdividing the whole of the ecliptic into 24, 4 x 3 x 2, distinctions. At

this time, cultures that orient to the 4^{th} dimension were capable of symbolizing 24 distinctions along the ecliptic, where each distinction spans 15° .

For each position of the hand, the 3 groups of fingers can subdivide the hand into 3 distinctions, each of 15°. The outer distinctions do not begin at the outside of the index or little finger, thereby symbolizing the entire finger, because there is overlap between each hand position and the next, such that half of each of these fingers is symbolized with each of the 2 hands that overlap.

From the midline of the index finger until the near side of the middle finger spans 1/3 of the hand, or 15° . From the midline of the little finger until the near side of the ring finger spans 1/3 of the hand, or 15° . Also, the middle pair of fingers, the middle and ring fingers, spans 15° .

1st, there was awareness of 1 subdivision, during the 4th dimension of awareness, of the month into the day. To symbolize subdivision of the month into the weeks and then into the days, each 1 subdivision of the hand will symbolize a distinction of 1 day within the month. This makes a total of 24 distinctions of days within the month.

2nd, there was awareness of 2 more subdivisions, during the 5th dimension of awareness, of the year into the month and of the day into the hour. To symbolize subdivision of each of these 2, each 2 subdivisions of the hand will symbolize a distinction of 1 month within the year or of 1 hour within the day. This makes a total of 12 distinctions of hours within the day or 12 distinctions of months within the year.



The year has a primary subdivision into 4 seasons. Each season has a secondary subdivision into 3 months. $4 \ge 12$. There are considered to be 12 months in a year. This is reasonable and natural, since there are approximately 12 lunar cycles in a solar year. The cycle of the year is not evenly divisible by the cycle of the month, and some years have more than 12 new moons, but the nearest whole number to the number of months of most years is 12. Remember that at this time in history, for cultures that oriented to the dimension of awareness of the month, the length of the month was determined by actually observing the phases of the moon itself. In modern times, the notion of the month has become much less related to the actual phases of the moon or dependent upon the moon itself.

There are 4 quadrants of the ecliptic, 1 of which symbolizes each of the 4 seasons. Symbolism of each quadrant requires 2 hands, 1 with the wrist straight

and 1 with the wrist bent. The hands are capable of symbolizing 2 hand positions, with 3 groups of fingers, for each of 4 quadrants, for a total of 24 (2 x 3 x 4) distinctions within the hands. Since it is necessary to symbolize 12 distinctions, 12 months per year, each adjacent 2 distinctions of the hand will symbolize 1 month. In other words, for each quadrant, or season, the 1st and 2nd distinctions of the 1st position of the hand will symbolize the 1st month. The 3rd distinction of the hand, followed by the bending or unbending of the wrist, together with the 1st distinction of the hand, will symbolize the 2nd month. The 2nd and 3rd distinctions of the 2nd position of the hand, will symbolize the 3rd month.

The 2 hands together in a quadrant represent 1 of the 4 seasons, and start and end on a solstice or on an equinox. Each distinction of the hands represents 1/2 of a month. There are 6 distinctions, enabling each quadrant to symbolize 3 months, which is the length of each season.

The 1^{st} hand of each pair of hands within a quadrant symbolizes half of the 3 months of a season, or a month and a half. The 2^{nd} hand symbolizes the remaining month and a half.

The solstices and the equinoxes are often referred to as quarters. The midpoints between each solstice and the following equinox, or between each equinox and the following solstice, are often called cross-quarters. Note that some ancient cultures considered the seasons to begin on the quarters, whereas other cultures considered them to begin on the cross-quarters. As shown in the diagram, whereas each pair of hands within a quadrant is considered to begin and end on a quarter, the 1st hand ends and the 2nd hand begins on a cross quarter.

Well-Known Holidays Tied to the Year									
	Quarter	r Holiday		Cross- Quarter	Holiday				
W	Winter	Christmas Yule Saturnalia Birth of Mithras Eostar Easter Passover		Mid- Winter	Groundhog Day				
				Mid-	May Day				
	Spring			Spring					
				Mid- Summer					
	Summer Stonehenge		Mid-	Halloween					
	Autumn Rosh Ha-Shana			Autumn					
						-			

The 2 hands symbolize 8 important points in the cycle of the year, the 4 quarters and the 4 cross quarters. These 8 points were often considered to be very symbolic in ancient times. Important religious holidays were often held at these times.

Some of the most well-known of these holidays are listed here. There were many more in ancient times, and often one or another was of greater importance to any given culture. For example, the beginning of the year is typically tied to one of these events. The modern Western New Year's Day is based on the winter solstice. The Jewish New Year's Day is based on the autumn equinox. The Persian New Year's Day falls on the spring equinox, the Hindu New Year's Day, Diwali, falls around the mid-autumn cross-quarter, and the Chinese New Year's Day falls around the mid-winter cross quarter.

The word Yule is still used around Christmas time, and was important to the Celts at the time of the winter solstice. The winter solstice has been important to many cultures. Spring is important for Easter and Passover, but before that was important to many cultures, under such names as Eostar, the Eastern Star. Stonehenge is not a holiday, but is considered to have been built in alignment with the summer solstice.

Chapter 12 Into the 5th Dimension of Awareness -1^{st} Stage

The cross-quarter days used to be very important, and still are in many countries. In the United States, these are no longer important national holidays, but most of them are still remembered with holidays that bear some resemblance, even if no longer clear or important to most people, with earlier holidays from times when they were considered to be very important.



It was possible at any given time to indicate the current month of the year on the hands, for oneself or to show to another person. The hands could symbolize the season (quarter) of the year, and the month within the season.

To indicate the current season, the right hand could extend upward and to the left to indicate the 2 halves of the 1^{st} quarter, with the wrist bent or straight. The left hand could extend upward and to the right to indicate the 2 halves of the 2^{nd} quarter, with the wrist straight or bent. The left hand could extend downward and to the right to indicate the 2 halves of the 3^{rd} quarter, with the wrist straight or bent. The left hand could extend downward and to the right to indicate the 2 halves of the 3^{rd} quarter, with the wrist straight or bent. The right hand could extend downward and to the left to indicate the 2 halves of the 4th quarter, with the wrist bent or straight.

To symbolize which month was the current month of the season, the thumb could mark the hand. As shown in the diagram, the thumb could mark the current span of the quarter. For example, the thumb could mark the 1^{st} and 2^{nd} spans of the 1^{st} hand of the quarter, or the 3^{rd} span of the 1^{st} hand and the 1^{st} span of the 2^{nd} hand after shifting the wrist, or the 2^{nd} and 3^{rd} spans of the 2^{nd} hand.



The month has a primary subdivision into 4 weeks. Why 4 weeks, and not some other number? The reason is that the number 4 is primary to cultures that orient to the 4th dimension. Cultures that orient to a different dimension often subdivide the month into a different number of weeks. There were several variations on the length of the week that were in common use in ancient times. The 7 day week probably originated as far back as the ancient Babylonians. The ancient

Greeks, among others, eventually borrowed the organization of the subdivision of the month into the 7 day week.

A lunar cycle, from one new moon to the next, is approximately 29.5 days. Since this number must be divided by 4 to accommodate subdivision into 4 weeks, division of 29.5 by 4 results in just under 7.4 days per week. Societies cannot make a week 7.4 days long, since a week must contain a whole number of days. The closest whole number to 7.4 is 7. Therefore, the week was considered to be 7 days long. This inevitably led to problems, since the week was not in exact phase with the month, but no length of the week could exactly subdivide the month, and anyway other units of time do not subdivide exactly into their subdivisions, causing calendars to grow progressively more out of balance and requiring continual adjustments to bring them back into better alignment.

Therefore, each week has a secondary subdivision into 7 days. $4 \ge 7 = 28$. There must be symbolism of 28 days in a month. However, there are only 24 distinctions within the hands over the cycle of the ecliptic.

There are 4 quadrants of the ecliptic, 1 of which symbolizes each of the 4 weeks. Symbolism of each quadrant requires 2 hands, 1 with the wrist straight and 1 with the wrist bent. The hands are capable of symbolizing 2 hand positions, with 3 groups of fingers, for each of 4 quadrants, for a total of 24 ($2 \times 3 \times 4$) distinctions within the hands. Since it is necessary to symbolize 28 distinctions, 7 days per week, each 1 distinction of the hand will symbolize 1 day of the week. In other words, for each quadrant, or week, the 1st distinction of the 1st position of the hand will symbolize the 1st day. The 2nd distinction of the hand will symbolize the 3rd day. The 3rd distinction of the hand will symbolize the 5th day. The 3rd distinction of the hand will symbolize the 5th day. The 3rd distinction of the hand will symbolize the 5th day.

The 6 distinctions of the hand for each quarter can symbolize the first 6 days of the week. How can the 7th day of the week be symbolized? To symbolize the 7th day of the week, after the 6th day of the week, and with the hand left in the same position, return the thumb to its initial position next to the index finger. In this way, the thumb does not mark any distinction. This 7th distinction, or lack of distinction, marks the 7th day of the week. Notice that this makes symbolism of the 7th day of the week, since to

symbolize this day, the thumb does not mark a distinction among the fingers of the hand, but instead simply 'rests'. Modern monotheistic religions often reflect this in their holy books, and use this as a justification for workers to work 6 days of the week, and then to rest, or abstain from work, on the 7th day of the week.



It was possible at any given time to indicate the current day of the week on the hands, for oneself or to show to another person. The hands could symbolize the week (quarter) of the month, and the day within the week.

To indicate the current week, the right hand could extend upward and to the left to indicate the 2 halves of the 1st quarter, with the wrist bent or straight. The left hand could extend upward and to the right to indicate the 2 halves of the 2^{nd} quarter, with the wrist straight or bent. The left hand could extend downward and to the right to indicate the 2 halves of the 3^{rd} quarter, with the wrist straight or bent. The left hand could extend downward and to the right to indicate the 2 halves of the 3^{rd} quarter, with the wrist straight or bent. The left to indicate the 2 halves of the 4^{th} quarter, with the wrist bent or straight.

To symbolize which day was the current day of the week, the thumb could mark the hand. As shown in the diagram, the thumb could mark the current span of the quarter. For example, the thumb could mark the 1st span of the 1st hand of the quarter to symbolize the 1st day of the week, or the thumb could mark the 1st span

of the 2^{nd} hand of the quarter to symbolize the 4^{th} day of the week. The thumb could mark the 2^{nd} span of the 1^{st} or 2^{nd} hand of the quarter to symbolize the 2^{nd} or 5^{th} day of the week. The thumb could mark the 3^{rd} span of the 1^{st} or 2^{nd} hand of the quarter to symbolize the 3^{rd} or 6^{th} day of the week. As well, the 2^{nd} hand of the quarter could leave the thumb at rest, in its initial position of not marking any distinction within the hand, thereby symbolizing the 7^{th} day of the week.

Symbolism of the Days of the Week

Because the week was considered to contain 7 days, the number 7 became important to cultures that orient to the 4^{th} dimension. There were many symbolisms that became associated with the number 7.

One of these associations that the 7 days of the week came to symbolize was the visible 'gods' of the heavens. There were 7 primary objects in the heavens, considered to be gods, that our ancestors learned to observe in order to be able to follow the cycles of time of which they were aware. These 7 objects included the sun and the moon, and as well the 5 planets that were visible in ancient times to the naked eye in the heavens at night; Mercury, Venus, Mars, Jupiter, and Saturn.

The ancient Babylonians named the 7 days of the week after their primary gods, which were identified with the sun, the moon, and the 5 visible planets. The ancient Greeks kept the ancient symbolism of the 7 days, but substituted the names of their own gods. As other cultures eventually adopted the 7 day week, each substituted its own names for the gods/planets. The modern names of the days of the week in English, Spanish, and many other languages still reflect their representation of the gods that were associated with each of these 7 objects in the heavens. In the case of English, the names of the days of the week correlate to the same gods as those of the ancient Greeks and Romans, but the Germanic names do not retain any symbolism of the corresponding planets.

For example, Monday in English is based on 'Moon Day', just as Lunes in Spanish is based on 'luna', the moon, as is Lundi in French. These are Dies Lūnae (day of the moon) in Latin and Selene's Day (ἡμέρα Σελήνης) in Greek. For another example, Thursday in English is based on 'Thor's Day', just as Jueves in

Spanish is based on 'Jove', which is another name for Jupiter, as is Jeudi in French. These are Dies Iovis (day of Jove) in Latin and Zeus' Day ($\eta\mu\epsilon\rho\alpha\Delta\iota\delta\varsigma$) in Greek.

Lunar Month vs Solar Month Length of the Week

There are many ways to consider the cycle of the month and its subdivision into the week. Let us examine two of these.

For cultures that orient to the 4th dimension, where the cycle of the moon is primary, the moon itself is the most important factor in determining the cycle of the month. In this case, the cycle of the month is called a lunar month, since the moon ('luna' in Latin) determines the cycle of the month and the stages within the cycle. The clearest way to subdivide the cycle of the month into stages is by subdividing the month into 4 distinct phases, based on the amount of light that is visible in the moon; where there is no light in the moon, half light in the moon, full light in the moon, or half light in the other half of the moon. These stages are known by such names as the New Moon, the First Quarter of the Moon, the Full Moon, and the Third Quarter of the Moon. Dividing the approximately 29.5 day cycle of the month into 4 parts, the nearest whole number is 7. The lunar month is subdivided into 4 weeks of 7 days. Each month begins with the new moon (or perhaps at another phase for some cultures), and ends when the new moon is again reached.

For cultures that do not orient to the 4th dimension, for whom the cycle of the moon is not primary, typically the cycle of the year is the most important factor in determining the most useful way to determine the beginning and ending of the month, as well as the stages in the cycle of the month. How the year is used for this will be discussed in the next section. In this case, the cycle of the month is called a solar month, since the sun ('sol' in Latin) determines the cycle of the month. The cycle of the year is equal in duration to approximately 12 lunar cycles. However, it is not exact. Since it is not exact, either the moon or the sun must be used to determine the start and end of each cycle of the month, as well as the stages within

the cycle. For cultures that do not orient to the 4th dimension, the sun is typically more important and more useful than the moon for this.

Therefore, for a solar month, the cycle of the year is subdivided into 12 more or less equal parts. Each of these corresponds to the time that the sun is located along 1 of 12 arbitrary monthly distinctions of the ecliptic, where each distinction occupies approximately 30° of the circle of the ecliptic. In this case, the cycle of the moon itself is secondary for the determination of the current month, as well as when it begins and ends. The moon is typically not in the same stage of its cycle at the beginning of each solar month. Since the sun is considered to be more useful and so more important than the moon, this difference is ignored due to necessity, and every once in a while an extra month is inserted into the cycle of the year, called an 'intercalary month', in order to keep the cycle of the year and the cycle of the month from getting too far out of coordination with each other.

For cultures where the month is based more on the cycle of the sun than on the cycle of the moon, the phases of the moon are not important for deciding the subdivision of the month into weeks. In such case, rather than subdividing the month into 4 weeks, it is more common to subdivide the month into 3 weeks, each of 10 days. The number 10, with 3 weeks of 10 days per month, gives 30, which subdivides the approximately 29.5 days of the lunar month even more evenly than the number 7, with 4 weeks of 7 days. This requires less frequent corrections of the calendar as the months get out of balance with the year. The Chinese and the Egyptians are examples of cultures that used a 10 day week.

In modern times, use of a purely solar calendar is much more common than use of a purely lunar calendar. China uses a luni-solar calendar, which is partly solar. In the United States, the phases of the moon are often considered to be interesting, and many people do like to know about the current moon phase or such as when the moon is full, but this is no longer at all important in the interests of timekeeping. The week of 7 days is still extremely important and in common use, but there is no longer any form of relationship between the week and the phase of the moon. As well, there is no longer any relationship between the month and the moon itself. In modern times, each month has been given a fixed length that is based more on history and politics than on the moon itself. Months can be 28, 29, 30, or 31 days in length. Weeks are a useful unit of time in modern times, but weeks are completely unrelated to months, as both are completely tied to the year.



Subdivision of the day into the hour is analogous to subdivision of the year into the month. The day has a primary subdivision into 4 parts of the day. These can be named morning, afternoon, evening, and night. Each part of the day has a secondary subdivision into 3 hours. $4 \times 3 = 12$. There were considered to be 12 hours in a day.

There are 4 quadrants of the ecliptic, 1 of which symbolizes each of the 4 parts of the day. Symbolism of each quadrant requires 2 hands, 1 with the wrist straight and 1 with the wrist bent. The hands are capable of symbolizing 2 hand positions, with 3 groups of fingers, for each of 4 quadrants, for a total of 24 (2 x 3 x 4) distinctions within the hands. Since it is necessary to symbolize 12 distinctions, 12 months per year, each adjacent 2 distinctions of the hand will symbolize 1 hour. In other words, for each quadrant, or part of the day, the 1st and 2nd distinctions of

the 1st position of the hand will symbolize the 1st hour. The 3rd distinction of the hand, followed by the bending or unbending of the wrist, together with the 1st distinction of the 2nd position of the hand, will symbolize the 2nd hour. The 2nd and 3rd distinctions of the 2nd position of the hand will symbolize the 3rd hour.

The 2 hands together in a quadrant represent 1 of the 4 parts of the day, and start and end at the sunrise, noon, the sunset, or midnight. Each distinction of the hands represents 1/2 of an hour of the day. There are 6 distinctions per quadrant, enabling each quadrant to symbolize 3 hours, which is the length of each part of the day.

The 1^{st} hand of each pair of hands within a quadrant symbolizes half of the 3 hours of a part of a day, or a part and a half. The 2^{nd} hand symbolizes the remaining part and a half.



It was possible at any given time to indicate the current hour of the part of the day on the hands, for oneself or to show to another person. The hands could symbolize the part of the day (quarter), and the hour within the part of the day.

To indicate the current part of the day, the right hand could extend upward and to the left to indicate the 2 halves of the 1st quarter, with the wrist bent or straight. The left hand could extend upward and to the right to indicate the 2 halves

of the 2^{nd} quarter, with the wrist straight or bent. The left hand could extend downward and to the right to indicate the 2 halves of the 3^{rd} quarter, with the wrist straight or bent. The right hand could extend downward and to the left to indicate the 2 halves of the 4^{th} quarter, with the wrist bent or straight.

To symbolize which hour was the current hour of the part of the day, the thumb could mark the hand. As shown in the diagram, the thumb could mark the current span of the quarter. For example, the thumb could mark the 1^{st} and 2^{nd} spans of the 1^{st} hand of the quarter, or the 3^{rd} span of the 1^{st} hand and the 1^{st} span of the 2^{nd} hand after shifting the wrist, or the 2^{nd} and 3^{rd} spans of the 2^{nd} hand.



Awareness of the year and the hour occurred together, in the 5th dimension of awareness. Of these, the year was primary, or 1^{st} , and the hour was secondary, or 2^{nd} .

Eventually, that which was 2nd, the hour, came to be symbolized in a 2nd way. Rather than 2 distinctions of the hands being used to symbolize each of the 12 hours of the day, it was found to be simpler to consider that there were 24 hours in a day, such that each 1 distinction came to symbolize 1 hour.

Eventually, and even now in modern times, there are considered to be 24 hours in a day.

Notice that this change in symbolism of the day was not a random change. The symbolism of the hour of the day changed from being the same as the symbolism of the month of the year, which requires the thumb to symbolize 12 distinctions among the fingers, to being the same as the symbolism of the day of the month, which requires the thumb to symbolize 24 distinctions among the fingers.



There is 1 more secondary unit of time to discuss. There are 4 primary units of time, yet so far we have only discussed 3 secondary units of time. Whereas the year, month, and day subdivide to produce smaller units of time, there is no subdivision of the hour. However, there is superdivision of the year. In other words, there is a way to count years.

When the ancient Greeks, who belonged to a culture that oriented to the 4th dimension of awareness, came to combine years in order to make a larger unit of time, they did not select a period of 10 years, the decade, as we do now. Instead, they chose a unit of time that consists of, naturally, 4 years, known as the Olympiad.

The 4 years of the Olympiad can be symbolized using the hand orienting to the 1st through 4th quadrant of the ecliptic, with the thumb in its position at rest alongside the index finger.

Perpetuation of Time

The ancient Greeks belonged to a culture that oriented to the 4th dimension. In order to symbolize a complete representation of their understanding of time at any given moment, they needed 4 finger positions.

These 4 finger positions would enable them to represent their awareness of the current time. They could represent on their fingers, using 4 finger positions, that the current time was what hour of what part of what day of what week of what month of what season of what year of the current Olympiad.

The hand could symbolize 1 unit of time, and then change to symbolize the 2^{nd} , then the 3^{rd} , and then the 4^{th} of the units of time. Each unit of time gives way to the next, enabling awareness of all of the units of time. Awareness of time is perpetuated.

The 1^{st} finger position would indicate the year within the current Olympiad. The 2^{nd} finger position would indicate the season of the year and the month of the season. The 3^{rd} finger position would indicate the week of the month and the day of the week. The 4^{th} finger position would indicate the part of the day and the hour of the part.



Although both hands are used in symbolism of the cycles of time and space, the left hand is the primary hand to symbolize awareness of space. In this 1^{st} stage of evolution to the 5^{th} dimension of awareness, there is awareness of 16 cardinal directions in space on the earth.

The fingers of the left hand are aligned symmetrically to the fingers of the right hand. Whereas the fingers of the right hand align right to left, the fingers of the left hand align left to right.

To achieve their symbolism, the fingers of the left hand orient in the same way with respect to each other as the fingers of the right hand. However, the fingers orient to complementary areas of space as the fingers of the right hand. Whereas the middle pair of fingers of both hands orients toward the east, the index finger of the left hand corresponds to the little finger of the right hand, and vice versa. To orient the hand to the cycles of space, the hands can be positioned horizontally, with the middle pair of fingers orienting forward, toward the horizon in the east, and with the other fingers orienting toward the north or south of east.

The hand is subdivided into 3 groups of fingers. The index finger and the little finger are separated from each other by a span of 45° . Halfway between the index and little fingers, there are a pair of fingers, the middle and ring fingers, which touch each other. This distance from this pair of fingers to the fingers on either side spans 22.5°.

The feet orient the body to the east. The hands orient forward toward the point of the east. For the left hand, the middle pair of fingers orients directly toward the east. The little finger is oriented along a segment that extends outward to 22.5° to the south of east. The index finger is oriented along a segment that extends outward to 22.5° to the north of east. The right hand is symmetrical to this.

The 2 hands orient symmetrically to each other in order to symbolize time and space. The hands symbolize symmetrical, yet different, parts of the heavens and the earth in space. Therefore, the symbolism of religion and science are symmetrical to each other as well in this stage of evolution. Each symbol of religion has a symmetrical, corresponding symbolism in science, and vice versa.

Awareness of Space

For cultures that orient to the 4th dimension of awareness, in the 1st stage of their transition to awareness of the 5th dimension, there was awareness of 8 primary areas of vertical space. Each of these areas shares a segment. This is the vertical segment that extends vertically through the body of mankind. Each of these also contains a 2^{nd} segment. Each of these segments corresponds to a segment of an area of horizontal space.

From the perspective of the 4^{th} dimension of awareness, one segment extends forward-rearward through the body of mankind. Another extends left-right through the body of mankind. Another pair extends through the body to the left or right at an angle of 45° .

Now, there are 2 more pairs of segments that lie midway between these other segments, offset by 22.5° .

In other words, these 8 vertical areas also symbolize the 17 points on the surface of the earth that describe the 4 horizontal areas of space.

During this period of their awareness of the 5th dimension, there was awareness of 2 pairs of areas for the symbolism of horizontal space.

The 2 pairs of areas of horizontal space contain 4 pairs of segments, such that at this time, there was awareness of 4 primary pairs of areas for the symbolism of vertical space. These 4 primary pairs of areas share a segment. Furthermore, as each area of vertical space is analogous to the areas of horizontal space, each area of vertical space is also composed of 2 pairs of areas.

The 2 pairs of areas of horizontal space are composed of 8 segments. Each of these gave rise to a vertical area that was symmetrical. Therefore, each of the 8 corresponding vertical areas was also composed of 2 pairs of areas. This makes 16 pairs of areas of awareness of vertical space plus 2 pairs of areas of awareness of horizontal space. There were in total 18 pairs of areas of awareness of space, or 36 areas of awareness.



This is the shape of the hand to symbolize space. The thumb is hidden and is not used. The other 4 fingers are subdivided into 3 groups of fingers. The index and little fingers are each separate, and the middle and ring fingers are held together. The pair of fingers is located midway between the index and little fingers, and is separated from each by one half of a span of 45° , by a span of 22.5° .

Because each segment of the square that forms the bounds of the area of horizontal space spans 90° , 2 hand positions are required to symbolize an entire segment along the outer bounds of the square of the horizon.

To symbolize horizontal space, the hand is oriented horizontally, and the back of the hand is visible. To symbolize vertical space, the hand is oriented vertically, and the inside of the hand is visible.



This diagram shows the 2 pairs of horizontal areas of space from the perspective of mankind orienting toward the east. Each of the 4 areas in the 2 pairs is defined by 2 segments. Each of these 8 segments has as its midpoint the point of the here.

For one of the areas, the outer 4 points of the segments are the 4 primary cardinal directions in space; east, south, west, and north. For the corresponding

area in the pair, the outer 4 points of the segments are the 4 secondary directions in space; northeast, southeast, southwest, and northwest.

The 2nd pair of areas has 4 segments whose endpoints lie midway between these points. These are the points of East-Northeast and East-Southeast, South-Southeast and South-Southwest, West-Southwest and West-Northwest, and North-Northwest and North-Northeast.

The outer bounds of the areas, the extent of the areas that is visible to mankind, can also be represented by 4 segments, in the form of a square. Each segment of the square is composed of 2 half segments. Each half segment is composed of 3 points. There are 16 points around the perimeter of these areas. These 16 points identify the 4 primary directions in horizontal space, which form the midpoints of the segments that form the sides of the square, the 4 secondary directions in horizontal space, which form the sides of the square, and the 8 tertiary directions in horizontal space, which form the midpoints of the 2 half segments that make up each of the segments that form the sides of the square.

Looking outward from the point of the here, these 2 pairs of areas can be symbolized as forming a square. Looking outward at the entirety of the square from the perspective of the point of the here, this square can be perceived as being subdivided into 16 parts. Each part takes the form of a triangle.

Each finger sign in the symbolism of the cycle will symbolize one of these parts of the square, one of the triangles in the areas of awareness of horizontal space.

In each stage in the cycle of symbolism of horizontal space, the fingers of the hand will represent the 2 sides of each of 2 triangles that extend outward from the body toward the horizon. The 3^{rd} side of the 2 triangles forms one half of 1 side of the square, where the half ends at the midpoint of the segment that forms the side or where the half begins at the midpoint of the segment that forms the side.

To prepare the right arm and hand for symbolism, begin from the initial position of the hands for symbolism. Use the right shoulder to shift the arm 90° forward and upward, such that the arm is completely horizontal. Open the hand into the 3 groups of fingers. Use the elbow to rotate the forearm inward and downward, toward the left, such that the bones of the forearm change their orientation from up-down with respect to each other to left-right.



Once preparation of the right arm and hand for symbolism is completed, the hand is already in position for orientation to the 1st half of the segment of the square that lies in front of the body, the segment with the midpoint at the point of the east.

The 5 points of this segment can be subdivided into 2 half segments, each of which is composed of 3 points. The 1^{st} half segment begins at the point of the northeast, and ends at the point of the east.

The arm extends horizontally forward, with the back of the hand visible. The wrist extends the hand directly forward from the body. The little finger symbolizes a segment that extends outward toward the point of the east. The index finger is separated from the little finger by an extent of 45° , such that it symbolizes a segment that extends outward toward the point of the northeast. The middle and ring fingers form a pair of fingers, which are separated from each of the outer fingers by an extent of 22.5° , such that they symbolize a segment that extends

outward toward the point of the east-northeast. The thumb is tucked away out of sight.

The 3 groups of fingers form the 3 sides of the 2 triangles of space that are bounded by the 3 segments that extend outward from the fingers at the point of the here as far as the half of the segment on the horizon that extends from the point of the northeast to the point of the east, which forms the outer bounds of the square of awareness.

The head orients 90° forward, such that the eyes can observe the hand, and then the eyes can observe beyond the hand to the area of space that the hand symbolizes.



To symbolize the 2nd half of the 1st segment of the square of horizontal space using the right hand, use the wrist to shift the hand 45° rightward, toward the south. In this position, the index finger no longer orients to the beginning of the segment, to the beginning of the 1st half of the segment, to the point of the northeast, but instead orients to the midpoint of the segment, to the beginning of the 2^{nd} half of the segment, to the point of the east. As well, the pair of fingers formed from the middle and ring fingers no longer orients to the midpoint of the 1^{st} half of the segment, to the point of the east-northeast, but instead orients to the midpoint of the 2^{nd} half of the segment, to the point of the point of the east-southeast. The little finger no longer orients to the midpoint of the 1^{st} half of the segment, to the point of the segment, to the point of the segment, to the point of the segment, to the east, but instead orients to the 1^{st} half of the segment, to the point of the segment.

The index and little fingers span an extent of 45° , with the ring and middle fingers lying midway between these 2, separating from both by a span of 22.5°. By shifting the wrist 45° , these 2 positions of the hand together form an extent of 90° . This represents the entire segment of the area of horizontal space that has as its midpoint the point of the east.



The 2^{nd} segment of the square to symbolize is the segment with the midpoint at the point of the south. To symbolize this segment of the square, use the shoulder to shift the right arm 90° toward the right, such that the arm extends directly toward the south. Return the wrist to its original position.

The arm extends horizontally rightward, with the back of the hand visible. The wrist extends the hand directly rightward from the body. The little finger symbolizes a segment that extends outward toward the point of the south. The index finger is separated from the little finger by an extent of 45° , such that it symbolizes a segment that extends outward toward the point of the southeast. The middle and ring fingers form a pair of fingers, which are separated from each of the outer fingers by an extent of 22.5° , such that they symbolize a segment that extends outward toward the point.

The 3 groups of fingers form the 3 sides of the 2 triangles of space that are bounded by the 3 segments that extend outward from the fingers at the point of the here as far as the half of the segment on the horizon that extends from the point of the southeast to the point of the south, which forms the outer bounds of the square of awareness.

The neck rotates the head 90° toward the right, such that the eyes can observe the hand, and then the eyes can observe beyond the hand to the area of space that the hand symbolizes.



To symbolize the 2^{nd} half of the 2^{nd} segment of the square of horizontal space using the right hand, use the wrist to shift the hand 45° rightward, toward the west. In this position, the index finger no longer orients to the beginning of the segment, to the beginning of the 1^{st} half of the segment, to the point of the southeast, but instead orients to the midpoint of the segment, to the beginning of the 2^{nd} half of the segment, to the point of the point of the south. As well, the pair of fingers formed from the middle and ring fingers no longer orients to the midpoint of the 1^{st} half of the segment, to the point of the segment. The midpoint of the segment, to the point of the segment. The midpoint of the segment, to the point of the segment.

little finger no longer orients to the midpoint of the segment, to the end of the 1^{st} half of the segment, to the point of the south, but instead orients to the end of the segment, to the end of the 2^{nd} half of the segment, to the point of the southwest.

The index and little fingers span an extent of 45° , with the ring and middle fingers lying midway between these 2, separating from both by a span of 22.5°. By shifting the wrist 45° , these 2 positions of the hand together form an extent of 90°. This represents the entire segment of the area of horizontal space that has as its midpoint the point of the south.



The 3^{rd} segment of the area to symbolize is the segment with the midpoint at the point of the west. To symbolize this segment of the square, use the spine to rotate the body 90° toward the right, such that the arm extends directly toward the west. Return the wrist to its original position.

The arm extends horizontally rearward, with the back of the hand visible. The wrist extends the hand directly rearward from the body. The little finger symbolizes a segment that extends outward toward the point of the west. The index finger is separated from the little finger by an extent of 45° , such that it symbolizes a segment that extends outward toward the point of the southwest. The middle and ring fingers form a pair of fingers, which are separated from each of the outer fingers by an extent of 22.5° , such that they symbolize a segment that extends outward toward the point of the west-southwest. The thumb is tucked away out of sight.

The 3 groups of fingers form the 3 sides of the 2 triangles of space that are bounded by the 3 segments that extend outward from the fingers at the point of the here as far as the half of the segment on the horizon that extends from the point of the southwest to the point of the west, which forms the outer bounds of the square of awareness.

The head, orienting 90° toward the right, together with the 90° rotation of the spine, orients rearward, such that the eyes can observe the hand, and then the eyes can observe beyond the hand to the area of space that the hand symbolizes.



To symbolize the 2nd half of the 3rd segment of the square of horizontal space using the right hand, use the wrist to shift the hand 45° rightward, toward the north. In this position, the index finger no longer orients to the beginning of the segment, to the beginning of the 1st half of the segment, to the point of the southwest, but instead orients to the midpoint of the segment, to the beginning of the 2nd half of the segment, to the point of the west. As well, the pair of fingers formed from the middle and ring fingers no longer orients to the midpoint of the 1st half of the segment, to the point of the west-southwest, but instead orients to the midpoint of the 2nd half of the segment, to the point of the segment, to the end of the 1st half of the segment, to the point of the west, but instead orients to the end of the segment, to the end of the 2nd half of the segment, to the point of the northwest.

The index and little fingers span an extent of 45° , with the ring and middle fingers lying midway between these 2, separating from both by a span of 22.5°. By shifting the wrist 45° , these 2 positions of the hand together form an extent of 90° .

This represents the entire segment of the area of horizontal space that has as its midpoint the point of the west.



The right arm, and the right half of the body, have symbolized three fourths of the entire square that represents the 2 pairs of areas of horizontal space. Next, the left arm, and the left half of the body, will symbolize the other side of the square, in a symmetric manner. In other words, the left arm will also symbolize three fourths of the square, traversing in reverse order from the right hand.

In this way, the segments centered at the points of the east and the west will each be symbolized 2 times, once for each hand, and the segments centered at the points of the south and the north will each be symbolized 1 time.

The 1st segment symbolized by the left hand is the same as the 3rd segment symbolized by the right hand, the segment of the square with the midpoint at the point of the west. To symbolize this segment of the square, use the spine to rotate the body back to its normal position, such that the right arm extends horizontally outward, toward the right. Close the fingers of the hand into a fist, and then use the

shoulder to shift the right arm 90° downward, such that the arm returns to its initial position alongside the body.

Shift the left arm upward in a symmetric manner. Use the left shoulder to shift the arm 90° upward and outward, toward the left, and spread the fingers into 3 groups of fingers separated by an extent of 22.5° .

Next, use the spine to rotate the body 90° toward the left, such that the left arm extends directly rearward, toward the west. Whereas the right arm symbolized the 1st half of each segment with the wrist extending the hand straight, and shifted the wrist to symbolize the 2nd half of the symbolism, the left wrist is symmetric to this. Use the left wrist to shift the hand 45° leftward, toward the south. The left arm and hand are now in a position that is symmetric to the position that was previously held by the right arm and orienting in the same direction.

The arm extends horizontally rearward, with the back of the hand visible. The wrist extends the hand rearward from the body, and 45° toward the south. The index finger symbolizes a segment that extends outward toward the point of the west. The little finger is separated from the index finger by an extent of 45° , such that it symbolizes a segment that extends outward toward the point of the southwest. The middle and ring fingers form a pair of fingers, which are separated from each of the outer fingers by an extent of 22.5° , such that they symbolize a segment that extends outward toward the point.

The 3 groups of fingers form the 3 sides of the 2 triangles of space that are bounded by the 3 segments that extend outward from the fingers at the point of the here as far as the half of the segment on the horizon that extends from the point of the southwest to the point of the west, which forms the outer bounds of the square of awareness.

Use the neck to rotate the head 90° toward the left, which together with the 90° rotation of the spine orients rearward, such that the eyes can observe the hand, and then the eyes can observe beyond the hand to the area of space that the hand symbolizes.



To symbolize the 2^{nd} half of the 3^{rd} segment of the square of horizontal space using the right hand, use the wrist to shift the hand 45° rightward, toward the north, such that the wrist extends the hand directly rearward from the body. In this position, the little finger no longer orients to the beginning of the segment, to the beginning of the 1^{st} half of the segment, to the point of the southwest, but instead orients to the midpoint of the segment, to the beginning of the 2^{nd} half of the segment, to the point of the west. As well, the pair of fingers formed from the middle and ring fingers no longer orients to the midpoint of the 1^{st} half of the segment, to the point of the west-southwest, but instead orients to the midpoint of the 2^{nd} half of the segment, to the point of the uses finger no longer orients to the midpoint of the segment, to the end of the 1^{st} half of the segment, to the point of the west, but instead orients to the midpoint of the 2^{nd} half of the segment, to the point of the segment, to the end of the 1^{st} half of the segment, to the point of the west, but instead orients to the end of the segment, to the end of the 2^{nd} half of the segment, to the point of the northwest.

The index and little fingers span an extent of 45° , with the ring and middle fingers lying midway between these 2, separating from both by a span of 22.5°. By shifting the wrist 45° , these 2 positions of the hand together form an extent of 90° .
This represents the entire segment of the area of horizontal space that has as its midpoint the point of the west.



The 2^{nd} segment symbolized by the left hand is the opposite segment to the 2^{nd} segment that is symbolized by the right hand, the segment of the square with the midpoint at the point of the south. This segment is the 4^{th} segment of the square, the segment with the midpoint at the point of the north.

To symbolize this segment of the square, use the spine to rotate the body back to its normal position. As before, the shoulder extends the arm 90° outward, such that it does not hold a rearward orientation but instead extends 90° toward the left, and such that the arm extends directly toward the north. Use the left wrist to shift the hand 45° rearward, toward the west. The left arm and hand are now in a position that is symmetric to the position that was previously held by the right arm and orienting in the opposite direction.

The arm extends horizontally leftward, with the back of the hand visible. The wrist extends the hand leftward from the body and 45° toward the west. The

index finger symbolizes a segment that extends outward toward the point of the north. The little finger is separated from the index finger by an extent of 45° , such that it symbolizes a segment that extends outward toward the point of the northwest. The middle and ring fingers form a pair of fingers, which are separated from each of the outer fingers by an extent of 22.5° , such that they symbolize a segment that extends outward toward the north-northwest. The thumb is tucked away out of sight.

The 3 groups of fingers form the 3 sides of the 2 triangles of space that are bounded by the 3 segments that extend outward from the fingers at the point of the here as far as the half of the segment on the horizon that extends from the point of the northwest to the point of the north, which forms the outer bounds of the square of awareness.

The head remains oriented 90° toward the left, such that the eyes can observe the hand, and then the eyes can observe beyond the hand to the area of space that the hand symbolizes.



To symbolize the 2^{nd} half of the 4^{th} segment of the square of horizontal space using the right hand, use the wrist to shift the hand 45° forward, toward the east, such that the wrist extends the hand directly leftward from the body. In this position, the little finger no longer orients to the beginning of the segment, to the beginning of the 1^{st} half of the segment, to the point of the northwest, but instead orients to the midpoint of the segment, to the beginning of the 2^{nd} half of the segment, to the point of the north. As well, the pair of fingers formed from the middle and ring fingers no longer orients to the midpoint of the 1^{st} half of the segment, to the point of the north-northwest, but instead orients to the midpoint of the 2^{nd} half of the segment, to the point of the north-northeast. The index finger no longer orients to the midpoint of the north, but instead orients to the end of the 1^{st} half of the segment, to the point of the north, but instead orients to the end of the segment, to the end of the 2^{nd} half of the segment, to the point of the north-northeast.

The index and little fingers span an extent of 45°, with the ring and middle fingers lying midway between these 2, separating from both by a span of 22.5°. By

shifting the wrist 45° , these 2 positions of the hand together form an extent of 90° . This represents the entire segment of the area of horizontal space that has as its midpoint the point of the north.



The 3rd segment symbolized by the left hand is again the 1st segment symbolized by the right hand, the segment of the square with the midpoint at the point of the east. The cycle ends at the beginning, at the segment with the midpoint at the point of the east.

To symbolize this segment of the square, use the shoulder to shift the arm 90° forward, such that the arm extends directly toward the east. Use the left wrist to shift the hand 45° leftward, toward the north. The left arm and hand are now in a position that is symmetric to the position that was previously held by the right arm and orienting in the same direction.

The arm extends horizontally forward, with the back of the hand visible. The wrist extends the hand forward from the body and 45° toward the north. The index

finger symbolizes a segment that extends outward toward the point of the east. The little finger is separated from the index finger by an extent of 45° , such that it symbolizes a segment that extends outward toward the point of the northeast. The middle and ring fingers form a pair of fingers, which are separated from each of the outer fingers by an extent of 22.5° , such that they symbolize a segment that extends outward toward toward

The 3 groups of fingers form the 3 sides of the 2 triangles of space that are bounded by the 3 segments that extend outward from the fingers at the point of the here as far as the half of the segment on the horizon that extends from the point of the northeast to the point of the east, which forms the outer bounds of the square of awareness.

The neck rotates the head 90° rightward, such that the head once again orients forward, and such that the eyes can observe the hand, and then the eyes can observe beyond the hand to the area of space that the hand symbolizes.



To symbolize the 2nd half of the 1st segment of the square of horizontal space using the left hand, use the wrist to shift the hand 45° rightward, toward the south, such that the wrist extends the hand directly forward from the body. In this position, the little finger no longer orients to the beginning of the segment, to the beginning of the 1st half of the segment, to the point of the northeast, but instead orients to the midpoint of the segment, to the beginning of the 2nd half of the segment, to the point of the east. As well, the pair of fingers formed from the middle and ring fingers no longer orients to the midpoint of the 1st half of the segment, to the point of the east-northeast, but instead orients to the midpoint of the 2nd half of the segment, to the point of the east-southeast. The index finger no longer orients to the midpoint of the segment, to the end of the 1st half of the segment, to the point of the east, but instead orients to the end of the 1st half of the segment, to the point of the segment, to the end of the 1st half of the segment, to the point of the east, but instead orients to the end of the 1st half of the segment, to the point of the east, but instead orients to the end of the 1st half of the segment, to the point of the east, but instead orients to the end of the 1st half of the segment, to the point of the east, but instead orients to the end of the segment, to the point of the segment, to the point of the southeast.

The index and little fingers span an extent of 45°, with the ring and middle fingers lying midway between these 2, separating from both by a span of 22.5°. By

shifting the wrist 45° , these 2 positions of the hand together form an extent of 90° . This represents the entire segment of the area of horizontal space that has as its midpoint the point of the east.



This diagram shows the 2 pairs of vertical areas of space that extend forward-rearward from the perspective of mankind orienting toward the east, toward the left in the diagram. Each of the 4 areas in the 2 pairs is defined by 2 segments. Each of these 8 segments has as its midpoint the point of the here. For one of the areas, the outer 4 points of the segments are the points of forward and rearward, as well as the points directly above and below the point of the here, the points of up and down. For another area, the outer 4 points of the segments are analogous to the 4 secondary directions in horizontal space; forward-up, rearwarddown, forward-down, and rearward-up. The points of the other pair of areas lie midway between these points.

The outer bounds of the areas, the extent of the areas that is visible to mankind on the horizon, can be represented by 4 segments. Each segment is

composed of 5 points. Each segment can be subdivided into 2 half segments, each of which is composed of 3 points. There are 16 points around the perimeter of these areas. These 16 points identify the 4 primary directions in forward-rearward vertical space, which form the midpoints of the segments that form the sides of the square, the 4 secondary directions in forward-rearward vertical space, which form the sides of the square, and the 8 tertiary directions in forward-rearward vertical space, which form the sides of the square, and the 8 tertiary directions in forward-rearward vertical space, which form the midpoints of the square space, which form the sides of the square space.

Looking outward from the point of the here, these 2 pairs of areas can be symbolized as forming a square. Looking upward and downward and forward and rearward at the entirety of the square from the perspective of the point of the here, this square can be perceived as being subdivided into 16 parts. Each part takes the form of a triangle.

Each finger sign in the symbolism of the cycle will symbolize one of these parts of the square, one of the triangles in the areas of awareness of vertical space.

In each stage in the cycle of symbolism of forward-rearward vertical space, the fingers of the hand will represent the 3 sides of 2 triangles that extend outward from the body. The 3^{rd} side of these triangles is one half of one side of the square, where the half ends at the midpoint of the segment that forms the side or where the half begins at the midpoint of the segment that forms the side.

These pairs of areas of vertical space are structurally identical to the pairs of areas of horizontal space, and the symbolism will be correspondingly identical. However, it is symmetrical, in the sense that instead of observing the back of the hand, the inside of the hand will be observed.

Transition to Vertical Space

Now that the cycle of horizontal space has been completely symbolized, we can transition the arms in order to symbolize forward-rearward vertical space.

Begin by relaxing the left arm. Use the left elbow to rotate the forearm 90° , such that the bones of the forearm are no longer horizontal with respect to each other, but are vertical. Next, close the left fist. Lastly, use the shoulder to shift the arm 90° downward, such that the left arm returns to the initial position by the side.

To position the right arm for symbolism of forward-rearward vertical space, use the right shoulder to shift the right arm 180° forward and upward, such that the right arm extends vertically upward. Next, open the fingers of the hand into 3 groups of fingers, separated by a span of 45° .



After our transition, the right arm extends vertically upward, with the inside of the hand visible and orienting leftward. The bones of the forearm orient forward-rearward with respect to each other. The wrist extends the hand directly upward from the body. The little finger symbolizes a segment that extends upward toward the point of up. The index finger is separated from the little finger by an extent of 45° , such that it symbolizes a segment that extends upward the point of rearward-up. The middle and ring fingers form a pair of fingers, which are separated from each of the outer fingers by an extent of 22.5° , such that they symbolize a segment that extends upward-up. The thumb is tucked away out of sight.

The 3 groups of fingers form the 3 sides of the 2 triangles of space that are bounded by the 3 segments that extend outward from the fingers at the point of the here as far as the half of the segment on the horizon that extends from the point of rearward-up to the point of up, which forms the outer bounds of the square of awareness.

The neck shifts the head 90° upward, such that the eyes can observe the hand, and then the eyes can observe beyond the hand to the area of space that the hand symbolizes.



To symbolize the 2nd half of the 1st segment of the square of forwardrearward vertical space using the right hand, use the wrist to shift the hand 45° forward. In this position, the index finger no longer orients to the beginning of the segment, to the beginning of the 1st half of the segment, to the point of rearward-up, but instead orients to the midpoint of the segment, to the beginning of the 2nd half of the segment, to the point of up. As well, the pair of fingers formed from the middle and ring fingers no longer orients to the midpoint of the 1st half of the segment, to the point of half-rearward-up, but instead orients to the midpoint of the 2nd half of the segment, to the point of half-forward-up. The little finger no longer orients to the midpoint of the segment, to the end of the 1st half of the segment, to the point of up, but instead orients to the end of the 2nd half of the segment, to the point of up, but instead orients to the end of the 2nd half of the segment, to the point of up, but instead orients to the end of the 2nd half of the segment, to half of the segment, to the point of forward-up. The index and little fingers span an extent of 45° . The ring and middle finger pair lie midway between the index and little fingers, separated by an extent of 22.5° from the index and little fingers.

By shifting the wrist 45° in this stage, these 2 positions of the hand together form an extent of 90° . This represents the entire segment of the square of forward-rearward vertical space that has as its midpoint the point of up.



The 2^{nd} segment of the square to symbolize is the segment with the midpoint at the point of down. To symbolize this part of the square, use the shoulder to shift the right arm 180° forward and downward, such that the arm changes from a vertical and upward orientation to a vertical and downward orientation, and the arm extends directly toward the point of down. Return the wrist to its original position.

The arm now extends vertically downward, with the inside of the hand visible. The wrist extends the hand directly downward from the body. The little finger symbolizes a segment that extends downward toward the point of down. The index finger is separated from the little finger by an extent of 45°, such that it symbolizes a segment that extends downward and forward toward the point of forward-down. The middle and ring fingers form a pair of fingers, which are

separated from each of the outer fingers by an extent of 22.5°, such that they symbolize a segment that extends downward toward the point of half-forward-down. The thumb is tucked away out of sight.

The 3 groups of fingers form the 3 sides of the 2 triangles of space that are bounded by the 3 segments that extend outward from the fingers at the point of the here as far as the half of the segment on the horizon that extends from the point of forward-down to the point of down, which forms the outer bounds of the square of awareness.

The neck shifts the head 180° downward, such that the eyes can observe the hand, and then the eyes can observe beyond the hand to the area of space that the hand symbolizes.



To symbolize the 2^{nd} half of the 2^{nd} segment of the square of forwardrearward vertical space using the right hand, use the wrist to shift the hand 45° rearward. In this position, the index finger no longer orients to the beginning of the segment, to the beginning of the 1^{st} half of the segment, to the point of forwarddown, but instead orients to the midpoint of the segment, to the beginning of the 2^{nd} half of the segment, to the point of forwardfrom the middle and ring fingers no longer orients to the midpoint of the 1^{st} half of the segment, to the point of half-forward-down, but instead orients to the midpoint of the 2^{nd} half of the segment, to the point of half-rearward-down. The little finger no longer orients to the midpoint of the segment, to the end of the 1^{st} half of the segment, to the point of down, but instead orients to the end of the segment, to the end of the segment, to the point of the segment, to the point of rearward-down.

The index and little fingers span an extent of 45° . The ring and middle finger pair lie midway between the index and little fingers, separated by an extent of 22.5° from the index and little fingers.

By shifting the wrist 45° to form this stage, these 2 positions of the hand together form an extent of 90° . This represents the entire segment of the square of forward-rearward vertical space that has as its midpoint the point of down.



The 3^{rd} segment of the square to symbolize is the segment with the midpoint at the point of forward. To symbolize this segment of the square, use the shoulder to shift the right arm 90° forward and upward, such that the arm changes from a vertical orientation to a horizontal orientation, and the arm extends directly forward. Return the wrist to its original position. The bones of the forearm orient up-down with respect to each other.

The arm now extends horizontally forward, with the inside of the hand visible. The wrist extends the hand directly forward from the body. The little finger symbolizes a segment that extends outward toward the point of forward. The index finger is separated from the little finger by an extent of 45°, such that it symbolizes a segment that extends outward and upward toward the point of forward-up. The middle and ring fingers form a pair of fingers, which are separated from each of the outer fingers by an extent of 22.5°, such that they symbolize a segment that extends outward the point of half-up-forward. The thumb is tucked away out of sight.

The 3 groups of fingers form the 3 sides of the 2 triangles of space that are bounded by the 3 segments that extend outward from the fingers at the point of the here as far as the half of the segment on the horizon that extends from the point of forward-up to the point of forward, which forms the outer bounds of the square of awareness.

The neck shifts the head 90° upward, such that it once again orients forward, and such that the eyes can observe the hand, and then the eyes can observe beyond the hand to the area of space that the hand symbolizes.



To symbolize the 2^{nd} half of the 3^{rd} segment of the square of forwardrearward vertical space using the right hand, use the wrist to shift the hand 45° downward. In this position, the index finger no longer orients to the beginning of the segment, to the beginning of the 1^{st} half of the segment, to the point of the forward-up, but instead orients to the midpoint of the segment, to the beginning of the 2^{nd} half of the segment, to the point of forward. As well, the pair of fingers formed from the middle and ring fingers no longer orients to the midpoint of the 1^{st} half of the segment, to the point of half-up-forward, but instead orients to the midpoint of the 2^{nd} half of the segment, to the point of the segment, to the end of the 1^{st} half of the segment, to the point of forward, but instead orients to the midpoint of the 2^{nd} half of the segment, to the point of the segment, to the end of the 1^{st} half of the segment, to the point of forward, but instead orients to the end of the 1^{st} half of the segment, to the point of forward, but instead orients to the end of the 1^{st}

The fingers span an extent of 45° . By shifting the wrist 45° , these 2 positions of the hand together form an extent of 90° . This represents the entire segment of the square of forward-rearward vertical space that has as its midpoint the point of forward.



The 4th segment of the square to symbolize is the segment with the midpoint at the point of rearward. To symbolize this segment of the square, use the shoulder to shift the right arm 90° toward the right. Next, shift the right foot 90° toward the right, such that the foot orients toward the south, and use the spine to rotate the body 90° toward the right. This causes the arm to orient rearward. Return the wrist to its original position. The bones of the forearm orient up-down with respect to each other.

The arm now extends horizontally rearward, with the inside of the hand visible. The wrist extends the hand directly rearward from the body. The little finger symbolizes a segment that extends outward toward the point of rearward. The index finger is separated from the little finger by an extent of 45°, such that it symbolizes a segment that extends outward and upward toward the point of rearward-up. The middle and ring fingers form a pair of fingers, which are separated from each of the outer fingers by an extent of 22.5°, such that they symbolize a segment that extends outward toward the point of half-up-rearward. The thumb is tucked away out of sight.

The 3 groups of fingers form the 3 sides of the 2 triangles of space that are bounded by the 3 segments that extend outward from the fingers at the point of the here as far as the half of the segment on the horizon that extends from the point of the rearward-up to the point of rearward, which forms the outer bounds of the square of awareness.

The neck rotates the head 90° rightward, such that together with the rotation of the spine the body orients rearward, and such that the eyes can observe the hand, and then the eyes can observe beyond the hand to the area of space that the hand symbolizes.

Notice that in the diagram the hand orients toward the left, just as in the diagram that represented the segment of forward. The reason is that when the spine rotates the body to orient rearward, the orientation of the area reverses as well, because the perspective from which we view the hand has reversed. In other words, instead of the inside of the hand facing the left from the perspective of the body facing forward, it now faces the right.



To symbolize the 2^{nd} half of the 4^{th} segment of the square of forwardrearward vertical space using the right hand, use the wrist to shift the hand 45° downward. In this position, the index finger no longer orients to the beginning of the segment, to the beginning of the 1^{st} half of the segment, to the point of rearward-up, but instead orients to the midpoint of the segment, to the beginning of the 2^{nd} half of the segment, to the point of rearward. As well, the pair of fingers formed from the middle and ring fingers no longer orients to the midpoint of the 1^{st} half of the segment, to the point of half-up-rearward, but instead orients to the midpoint of the 2^{nd} half of the segment, to the point of half-down-rearward. The little finger no longer orients to the midpoint of the segment, to the point of rearward, but instead orients to the 1^{st} half of the segment, to the point of the segment, to the end of the 1^{st} half of the segment, to the point of rearward, but instead orients to the end of the 1^{st} half of the segment, to the point of rearward, but instead orients to the end of the 1^{st} half of the segment, to the point of rearward, but instead orients to the end of the segment, to the end of the 2^{nd} half of the segment, to the point of rearward-down.

The index and little fingers span an extent of 45° . The ring and middle finger pair lie midway between the index and little fingers, separated by an extent of 22.5° from the index and little fingers.

By shifting the wrist 45° to form this stage, these 2 positions of the hand together form an extent of 90° . This represents the entire segment of the square of forward-rearward vertical space that has as its midpoint the point of rearward.



The right arm, and the right half of the body, symbolized all pairs of areas of forward-rearward vertical space. Next, the left arm, and the left half of the body, will symbolize all pairs of areas again, in a symmetric manner. In other words, the left arm will also symbolize all pairs of areas, traversing in reverse order from the right hand.

In this way, each of the 4 segments of the square will be symbolized 2 times, once for each hand.

The 1st segment symbolized by the left hand is the same as the 4th segment of the right hand, the segment of the square with the midpoint at the point of rearward. To symbolize this segment of the square, use the spine to rotate the body toward the left, returning to body to its natural position, shift the right foot to return it to its natural position, orienting to the east, close the fingers of the right hand into a fist, use the right elbow to rotate the bones of the forearm, such that the bones of the forearm no longer orient left-right with respect to each other, but orient forward-rearward, and use the shoulder to shift the arm 90° downward, such that the arm returns to its initial position alongside the body.

Prepare the left arm in a symmetric manner. Use the left shoulder to shift the arm 90° upward and outward, such that the arm is no longer vertical but is horizontal. Use the elbow to rotate the forearm 90° , such that the bones of the forearm no longer orient forward-rearward with respect to each other, but orient up-down. Spread the fingers into 3 groups of fingers separated by an extent of 22.5°. Shift the left foot 90° toward the left, such that the foot orients toward the north, and use the spine to rotate the body 90° toward the left, such that the arm orients directly rearward.

The 1st segment of the square symbolized by the left hand is the segment with the midpoint at the point of rearward. The wrist is in its original position.

The arm now extends horizontally rearward, with the inside of the hand visible. The wrist extends the hand directly rearward from the body. The little finger symbolizes a segment that extends outward toward the point of rearward. The index finger is separated from the little finger by an extent of 45°, such that it symbolizes a segment that extends outward and upward toward the point of rearward-up. The middle and ring fingers form a pair of fingers, which are separated from each of the outer fingers by an extent of 22.5°, such that they symbolize a segment that extends outward toward the point of half-up-rearward. The thumb is tucked away out of sight.

The 3 groups of fingers form the 3 sides of the 2 triangles of space that are bounded by the 3 segments that extend outward from the fingers at the point of the here as far as the half of the segment on the horizon that extends from the point of the rearward-up to the point of rearward, which forms the outer bounds of the square of awareness. The neck rotates the head 90° leftward, such that together with the rotation of the spine the body orients rearward, and such that the eyes can observe the hand, and then the eyes can observe beyond the hand to the area of space that the hand symbolizes.

Notice that in the diagram the hands orient toward the right, in a manner that is symmetrical to situation with the right hand.



To symbolize the 2nd half of the 4th segment of the square of forwardrearward vertical space using the left hand, use the wrist to shift the hand 45^o downward. In this position, the index finger no longer orients to the beginning of the segment, to the beginning of the 1st half of the segment, to the point of rearward-up, but instead orients to the midpoint of the segment, to the beginning of the 2nd half of the segment, to the point of rearward. As well, the pair of fingers formed from the middle and ring fingers no longer orients to the midpoint of the 1st half of the segment, to the point of half-up-rearward, but instead orients to the midpoint of the 2nd half of the segment, to the point of half-down-rearward. The little finger no longer orients to the midpoint of the 1st half of the segment, to the point of rearward, but instead orients to the end of the 1st half of the segment, to the point of rearward, but instead orients to the end of the 1st The index and little fingers span an extent of 45° . The ring and middle finger pair lie midway between the index and little fingers, separated by an extent of 22.5° from the index and little fingers.

By shifting the wrist 45° to form this stage, these 2 positions of the hand together form an extent of 90° . This represents the entire segment of the square of forward-rearward vertical space that has as its midpoint the point of the rearward.



The 2^{nd} segment symbolized by the left hand is the same as the 3^{rd} segment of the right hand, the segment of the square with the midpoint at the point of forward. To symbolize this segment of the square, use the spine to rotate the body 90° to return to its natural position, such that the arm orients outward, toward the left, and shift the left foot back to its natural position, orienting to the east. Next, use the shoulder to shift the left arm 90° forward, such that the arm changes from a leftward orientation to a forward orientation, and the arm extends directly toward forward. Return the wrist to its original position. The bones of the forearm orient up-down with respect to each other.

The arm now extends horizontally forward, with the inside of the hand visible. The wrist extends the hand directly forward from the body. The little finger symbolizes a segment that extends outward toward the point of forward. The index

finger is separated from the little finger by an extent of 45° , such that it symbolizes a segment that extends outward and upward toward the point of forward-up. The middle and ring fingers form a pair of fingers, which are separated from each of the outer fingers by an extent of 22.5° , such that they symbolize a segment that extends outward toward the point of half-up-forward. The thumb is tucked away out of sight.

The 3 groups of fingers form the 3 sides of the 2 triangles of space that are bounded by the 3 segments that extend outward from the fingers at the point of the here as far as the half of the segment on the horizon that extends from the point of the forward-up to the point of forward, which forms the outer bounds of the square of awareness.

The neck rotates the head 90° rightward, such that it once again orients forward, and such that the eyes can observe the hand, and then the eyes can observe beyond the hand to the area of space that the hand symbolizes.

Notice that in the diagram the hands orient toward the right, just as in the diagram that represented the segment of rearward. The reason is that when the spine rotates the body to orient forward, the orientation of the area reverses as well, because the perspective from which we view the hand has reversed. In other words, instead of the inside of the hand facing the left, it now faces the right.



To symbolize the 2^{nd} half of the 3^{rd} segment of the square of forwardrearward vertical space using the left hand, use the wrist to shift the hand 45° downward. In this position, the index finger no longer orients to the beginning of the segment, to the beginning of the 1^{st} half of the segment, to the point of forwardup, but instead orients to the midpoint of the segment, to the beginning of the 2^{nd} half of the segment, to the point of forward. As well, the pair of fingers formed from the middle and ring fingers no longer orients to the midpoint of the 1^{st} half of the segment, to the point of half-up-forward, but instead orients to the midpoint of the 2^{nd} half of the segment, to the point of half-down-forward. The little finger no longer orients to the midpoint of the segment, to the end of the 1^{st} half of the segment, to the point of forward, but instead orients to the end of the segment, to the end of the 2^{nd} half of the segment, to the point of forward, but instead orients to the end of the segment, to the end of the 2^{nd} half of the segment, to the point of forward, but instead orients to the end of the segment, to the end of the 2^{nd} half of the segment, to the point of forward-down.

The index and little fingers span an extent of 45° . The ring and middle finger pair lie midway between the index and little fingers, separated by an extent of 22.5° from the index and little fingers.

By shifting the wrist 45° to form this stage, these 2 positions of the hand together form an extent of 90° . This represents the entire segment of the square of forward-rearward vertical space that has as its midpoint the point of forward.



The 3^{rd} segment symbolized by the left hand is the same as the 2^{nd} segment symbolized by the right hand, the segment of the square with the midpoint at the point of down. To symbolize this segment of the square, use the shoulder to shift the left arm 90° downward, such that the arm extends directly toward the point of down. Return the wrist to its original position.

The arm now extends vertically downward, with the inside of the hand visible. The wrist extends the hand directly downward from the body. The little finger symbolizes a segment that extends downward toward the point of down. The index finger is separated from the little finger by an extent of 45°, such that it symbolizes a segment that extends downward and forward toward the point of forward-down. The middle and ring fingers form a pair of fingers, which are separated from each of the outer fingers by an extent of 22.5°, such that they symbolize a segment that extends downward toward the point of half-forward-down. The thumb is tucked away out of sight.

The 3 groups of fingers form the 3 sides of the 2 triangles of space that are bounded by the 3 segments that extend outward from the fingers at the point of the here as far as the half of the segment on the horizon that extends from the point of the forward-down to the point of down, which forms the outer bounds of the square of awareness. The neck shifts the head 90° downward, such that the eyes can observe the hand, and then the eyes can observe beyond the hand to the area of space that the hand symbolizes.



To symbolize the 2nd half of the 2nd segment of the square of forwardrearward vertical space using the left hand, use the wrist to shift the hand 45° rearward. In this position, the index finger no longer orients to the beginning of the segment, to the beginning of the 1st half of the segment, to the point of forwarddown, but instead orients to the midpoint of the segment, to the beginning of the 2nd half of the segment, to the point of down. As well, the pair of fingers formed from the middle and ring fingers no longer orients to the midpoint of the 1st half of the segment, to the point of half-forward-down, but instead orients to the midpoint of the 2nd half of the segment, to the point of half-rearward-down. The little finger no longer orients to the midpoint of the segment, to the end of the 1st half of the segment, to the point of down, but instead orients to the end of the segment, to the end of the 2nd half of the segment, to the point of rearward-down.

The index and little fingers span an extent of 45° . The ring and middle finger pair lie midway between the index and little fingers, separated by an extent of 22.5° from the index and little fingers.

By shifting the wrist 45° to form this stage, these 2 positions of the hand together form an extent of 90° . This represents the entire segment of the square of forward-rearward vertical space that has as its midpoint the point of down.



The last of the 4 segments symbolized by the left hand is the same as the 1^{st} segment of the right hand, the segment of the square with the midpoint at the point of up. To symbolize this segment of the square, use the shoulder to shift the left arm 180° forward and upward, such that the arm extends directly toward the point of up. Return the wrist to its original position. The bones of the forearm orient forward-rearward with respect to each other.

The arm now extends vertically upward, with the inside of the hand visible. The wrist extends the hand directly upward from the body. The little finger symbolizes a segment that extends upward toward the point of up. The index finger is separated from the little finger by an extent of 45°, such that it symbolizes a segment that extends upward toward the point of rearward-up. The middle and ring fingers form a pair of fingers, which are separated from each of the outer fingers by an extent of 22.5°, such that they symbolize a segment that extends upward toward toward the point of sight.

The 3 groups of fingers form the 3 sides of the 2 triangles of space that are bounded by the 3 segments that extend outward from the fingers at the point of the here as far as the half of the segment on the horizon that extends from the point of the rearward-up to the point of up, which forms the outer bounds of the square of awareness.

The neck shifts the head 180° upward, such that the eyes can observe the hand, and then the eyes can observe beyond the hand to the area of space that the hand symbolizes.



To symbolize the 2^{nd} half of the 1^{st} segment of the square of forwardrearward vertical space using the left hand, use the wrist to shift the hand 45° forward. In this position, the index finger no longer orients to the beginning of the segment, to the beginning of the 1^{st} half of the segment, to the point of rearward-up, but instead orients to the midpoint of the segment, to the beginning of the 2^{nd} half of the segment, to the point of up. As well, the pair of fingers formed from the middle and ring fingers no longer orients to the midpoint of the 1^{st} half of the segment, to the point of half-rearward-up, but instead orients to the midpoint of the 2^{nd} half of the segment, to the point of half-forward-up. The little finger no longer orients to the midpoint of the segment, to the end of the 1^{st} half of the segment, to the point of up, but instead orients to the end of the segment, to the end of the 2^{nd} half of the segment, to the point of forward-up.

The index and little fingers span an extent of 45° . The ring and middle finger pair lie midway between the index and little fingers, separated by an extent of 22.5° from the index and little fingers.

By shifting the wrist 45° to form this stage, these 2 positions of the hand together form an extent of 90° . This represents the entire segment of the square of forward-rearward vertical space that has as its midpoint the point of up.



There are 8 segments that form the 2 pairs of horizontal areas of space, as shown in the diagram. Each of these segments is also paired with the vertical segment that extends up-down through the body of mankind to form a vertical area of space.

The structure of vertical space is analogous to the structure of horizontal space. Therefore, each of these pairs of segments has 3 complementary pairs of

segments that form more areas, such that each of these vertical areas is part of a set of 2 pairs of areas. Just as there are 8 segments in the 2 pairs of areas of horizontal space, there are 8 segments in the 2 pairs of areas in each of the 8 sets of areas of vertical space.

There is awareness of 4 areas of horizontal space, and there is awareness of 8 x 4 areas, 32 areas, of vertical space, making a total of 36 areas of awareness of space.

We have now symbolized awareness of the areas of vertical space related to the segment that extends east-west (forward-rearward). In like manner, we can be aware of the other sets of areas of vertical space in this dimension of awareness due to symmetry with the sets of areas that we have already symbolized. We have previously, in the 4th dimension of awareness, symbolized the left-right segment in relation to the forward-rearward segment. As well, the ability to shift the foot 90° to the right or left, toward the south or the north, together with the increased ability this gives us to reorient the body toward any of the segments of horizontal space, enables symbolism of the areas of vertical space from the perspective of each of the segments of horizontal space.

There is no need to symbolize each of these sets of areas of vertical space on the hands. We recall the basic symbolism for the pair of areas of vertical space from our symbolism of the 4^{th} dimension. In this stage of awareness of the 5^{th} dimension, there is awareness of an additional pair of sets of areas of vertical space. Still, symmetry with what has already been symbolized enables understanding of the areas of vertical space without physically having to represent the stages in each of the cycles of vertical space on the hands.



This is a diagram that represents any set of 4 areas of vertical space, with 4 squares of the same size overlaid to make it more in the form of a circle. The shape of the circle is more apparent than before, and it will make itself even more apparent in the symbolism of the next stage of awareness of the 5^{th} dimension.

The diagram to the left overlays 4 squares, which symbolize 4 areas of space. The diagram to the right overlays the hands in the 8 positions that symbolize the 8 stages in the cycle of awareness. The diagram in the middle overlays the squares with the hands.

There are 8 stages that must be represented, either once or twice, in each cycle of vertical space. In the symbolism of space in the early 5th dimension of awareness, the fingers of the hands are subdivided into 3 groups of fingers. If we overlay the hands, one over the other, the 1 finger of each hand coincides with the last finger of the hand that precedes it, such that there is awareness of and symbolism of 16 distinctions in space.

Olympians

The Titans were replaced by the Olympians. The Titans were symbolically overthrown in a war known as the Titanomachy.

Let us now examine religion during the 1^{st} stage of evolution to the 5^{th} dimension of awareness. The 2^{nd} stage of evolution to the 5^{th} dimension of awareness is more evolved, and will be discussed later.

What was religion like during the 1^{st} stage of the 5^{th} dimension of awareness for cultures that orient to the 4^{th} dimension of awareness? According to Hesiod, the earth and the heavens, Gaea and Uranus, gave birth to a 2^{nd} generation of gods. The 1^{st} group of this 2^{nd} generation were the Titans. The youngest of the Titans, Chronos, and his sister Rhea, were the parents of a 3^{rd} generation of gods. These gods formed the core of the Olympians.

In ancient Greece, there was a symbolic war, in which the Titans were overthrown by the Olympians. The Titans fought from atop Mount Parnassus, the 2nd highest mountain in Greece, but the Olympians fought from atop Mount Olympus, the 1st highest mountain in Greece. The Greek religion of the Titans was replaced by a more evolved religion, reflecting the needs and capabilities of a more evolved society. The Olympians were a more evolved pantheon of gods. There were 12 primary gods of this new pantheon, known as the 12 Olympians. Each of these was symbolized on one of the 12 bones of the 4 fingers of the right hand, the hand that symbolizes time and religion.

In the 4th dimension of awareness, mankind was aware of interaction. The 12 Titans symbolized interaction in each of the first 3 dimensions of awareness; time, space, and mankind.

The 5th dimension of awareness is the dimension of awareness of perpetuation. The 12 Olympians symbolize the 6 distinctions in interaction of the Titans, and as well they symbolize another 6 distinctions in perpetuation. In other words, each of the distinctions of the Titans subdivided.

There are 3 pairs of Titans, which symbolize interaction in the 1^{st} , 2^{nd} , and 3^{rd} dimensions, and each of which consists of a male and a female pair of gods to share symbolism. There are 6 pairs of Olympians, a pair to symbolize interaction and a pair to symbolize perpetuation in each of the 1^{st} , 2^{nd} , and 3^{rd} dimensions of symbolism.



Each of the 12 bones of the 4 fingers of the right hand symbolizes 1 of the Olympian gods. As with the gods of the 4th dimension of awareness, the gods can be subdivided into 3 groups of gods, those gods that symbolize time, those gods that symbolize space, and those gods that symbolize mankind (space-time).

Which bones symbolize which is easy to determine when observing the hands with the fingers oriented vertically as in the photo. The distal bones are the closest to the heavens, where mankind looks to be aware of time, and so symbolize the gods of time. The proximal bones are closest to the earth, where mankind looks to be aware of space, and so symbolize the gods of space. The medial bones lie in the middle, and so symbolize mankind, who is located between time and space and who is a unification of time and space.

In order to symbolize religion and science, the right hand (which symbolizes religion) will orient leftward and the left hand (which symbolizes science) will orient rightward. The hands orient symmetrically leftward and rightward;

symmetrically yet differently. Still, the bones of the fingers that symbolize time, space, and mankind remain the same.



The left photograph shows the position of the hand to symbolize the Titans. The hand is subdivided into 2 groups of 2 fingers. For the Titans, any given pair of bones on the right hand symbolizes the female goddess of some symbolism. The corresponding pair of bones of the left hand symbolizes the male god of the same symbolism. With the Olympians, the right hand will have to merge male and female gods.

To symbolize the Olympians, the pairs of fingers subdivide. The top pair of fingers subdivides into 2, and the bottom pair of fingers subdivides into 2. This creates an intermediate pair of fingers, the middle pair of fingers, which forms a new symbolism that is related to the original symbolism, at another level of depth.

In the merging of male and female gods on the same hand, the male was symbolized by the top pair of fingers, since man, like the heavens, relates to time, and the female was symbolized by the bottom pair of fingers, since woman, like the earth, relates to space. The 1 pair of fingers that symbolized 1 male god, the top pair of fingers, subdivided to form 2 fingers that symbolized 2 male gods. As well, the 1 pair of fingers that symbolized 1 female god, the bottom pair of fingers, subdivided to form 2 fingers that symbolized 2 male gods.



In order to symbolize religion in the early 5th dimension of awareness, in order to symbolize the Olympians, the hands are oriented vertically upward toward the heavens, as the heavens are where we look to observe time.

From the initial position of the hands for symbolism, use the right shoulder to shift the arm 90° forward and upward, such that the arm extends horizontally forward. Open up the hand to form 3 groups of fingers, with the index finger at the top, the middle and ring fingers touching each other as a pair in the center, and with the little finger at the bottom. The thumb is tucked away out of sight. Use the wrist to shift the hand inward, along the entire length of the wrist.

The right hand is clearly visible before the eyes. The right hand symbolizes time and religion, and so the right hand orients to the left. The left hand symbolizes space and science, and so the left hand orients to the right. However, as science is symbolized differently from religion, the left hand is not shown at this time.



With religion, time is primary, as religion symbolizes time. We therefore discuss the gods of time 1st. We will begin with the 4 gods that symbolize time.

There are 4 gods that symbolize interaction and perpetuation in time. The gods are symbolized on the distal bones, which relate to awareness of time.

One pair of gods symbolizes 4th dimension interaction, and one pair symbolizes 5th dimension perpetuation. The pair of gods that relate to the Titan symbolism of the 4th dimension of awareness symbolize interaction, and the pair of gods that relate to the Olympian symbolism of the 5th dimension of awareness symbolize perpetuation.

The 1st pair of gods symbolizes interaction, the notions that were symbolized by the Titans in the 4th dimension of awareness.

The Titans had one pair of gods of time, which interact in the heavens. These are the gods of the sun and the moon. The distal bone of the upper and lower pairs of fingers of the left hand symbolized the male god of the sun and the moon, respectively, and the distal bone of the upper and lower pairs of fingers of the right hand symbolized the corresponding female goddess.

To form the corresponding Olympian pair of gods, the Titan pair of gods that symbolized the sun merged into a single god, and the Titan pair of gods that symbolized the moon merged into a single goddess. As well, the pair of fingers that symbolized each male or female merged into a single finger. The significant details that provide explanation will not be discussed here, but for most cultures, including that of the ancient Greeks, the sun became associated with the male god, and the moon became associated with the female goddess. Therefore, the distal bone of the index finger symbolized the sun god and the distal bone of the little finger symbolized the moon goddess.

The Titan gods of the sun and the moon were incorporated into the Olympians. Their names are now Apollo as the sun god and Artemis as the moon goddess. Apollo and Artemis are a very closely related pair, just as the sun and the moon are closely related in their symbolism in the heavens. Apollo and Artemis are twin brother and sister. Apollo and Artemis were known as Apollo and Diana to the Romans.

This pair of gods symbolizes 4th dimension interaction in time. The sun and the moon sometimes interact with each other in the heavens, resulting in what is known as an eclipse. There are 2 types of eclipse, eclipse of the sun and eclipse of the moon. During an eclipse, the sun or moon interacts with, or hides, the other.



The pair of 4th dimension gods of time subdivided in the 5th dimension into another pair of gods. The new pair of gods of time includes the gods of the year and the hour.

What gods symbolize the year and the hour? The god of the year is the king of the Olympian gods. The year is the greatest, the longest, of the cycles of time of which these people were aware, and religion symbolizes awareness of time, such that the god of the year represents the greatest Olympian god. This is in distinction to the Titans, where the greatest god was the greatest symbol of space. The god of
land in space, Chronos, was the greatest Titan god. Zeus, the god of the year in time, is the son of Chronos, which shows that the ancient Greeks clearly recognized that the Olympians were an evolutionary step beyond the Titans.

Zeus was the greatest god because he symbolized the planet Jupiter. Jupiter is not only a very bright planet in the heavens, but it revolves around the sun in a cycle of approximately 12 years, a cycle that ancient cultures recognized as an important source of awareness of the year. The Romans called the planet Jupiter, from 'dyeu pater', or 'father god'. The Babylonians called him Marduk, and he was their king god.

The gods of the sun and the moon, Apollo and Artemis, are symbols of 4 dimensional interaction. As such, they are not very involved in perpetuation. Artemis was a virgin, and did not perpetuate at all.

The pair to Zeus must be related, but with a different relationship, because they must symbolize perpetuation. The goddess of the hour was Hera (Juno to the Romans). Hera was the sister and wife of Zeus. As such, they could have offspring together, and perpetuate. With the discovery of the cycle of the year, units of time could be now be counted forever, and therefore perpetuate. As well, it is easier to count the cycle of mankind's life in units of years than in months.

The middle pair of fingers symbolizes the new pair of gods. The male god is symbolized by the middle finger, as the middle finger separated from the index finger, which also symbolizes a male god. The female goddess is symbolized by the ring finger, as the ring finger separated from the little finger, which also symbolizes a female goddess.

The Olympian gods of time symbolized perpetuation. Unlike with the Titans, with the Olympians, there were numerous offspring who became important gods in the pantheon, symbolizing the significance of perpetuation. Zeus and Hera each had many children, both together and apart.



Let us now consider the gods of space. There are 4 gods that symbolize interaction and perpetuation in space. The gods are symbolized on the proximal bones, which relate to awareness of space.

One pair of gods symbolizes 4^{th} dimension interaction, and one pair symbolizes 5^{th} dimension perpetuation. The pair of gods that relate to the Titan symbolism of the 4^{th} dimension of awareness symbolize interaction, and the pair of gods that relate to the Olympian symbolism of the 5^{th} dimension of awareness symbolize perpetuation.

The 1st pair of gods symbolizes interaction, the notions that were symbolized by the Titans in the 4th dimension of awareness.

The Titans had one pair of gods of space, which interact on the earth. These are the gods of the water and the land. The proximal bone of the upper and lower pairs of fingers of the left hand symbolized the male god of the water and the land, respectively, and the proximal bone of the upper and lower pairs of fingers of the right hand symbolized the corresponding female goddess.

To form the corresponding Olympian pair of gods, the Titan pair of gods that symbolized the water merged into a single god, and the Titan pair of gods that symbolized the land merged into a single goddess. As well, the pair of fingers that symbolized each male or female merged into a single finger. Water became associated with the male god, and land became associated with the female goddess. Therefore, the proximal bone of the index finger symbolized the water god and the proximal bone of the little finger symbolized the land goddess. The Titan gods of the water and the land were incorporated into the Olympians. Their names are now Poseidon as the water god and Demeter as the land goddess. Poseidon and Demeter are a very closely related pair, just as the water and the land are closely related in their symbolism on the earth. Poseidon and Demeter are brother and sister. Poseidon and Demeter were known as Neptune and Ceres to the Romans.

Poseidon rules the volume of water that covers much of the earth. Demeter rules the area of land that covers the rest of the earth.

This pair of gods symbolizes 4th dimension interaction in space. Water and land are symbols of interaction, as water and land interact on the surface of the earth. When it is wet, water floods, encroaching upon land. When it is dry, water evaporates, allowing land to encroach upon water.



This pair of 4th dimension gods subdivided in the 5th dimension into another pair of gods. The new pair of gods of space includes the gods of the air and fire.

This pair of gods symbolizes perpetuation in space. Hermes and Hestia are man and woman, and they symbolize perpetuation in space. Hermes (Mercury to the Romans) symbolizes air. Mercury is the closest planet to the sun, and so is the fastest moving of the planets around the sun. Hermes travels through the air on his winged sandals, along a segment of space, a segment being the shortest distance from one location to the next. Hermes symbolizes man, in motion, traveling far from home, where he interacts with many, and he perpetuates with many, such that he had many offspring.

Hestia (Vesta to the Romans) symbolizes fire. This fire is the fire of the hearth, which was the center of the home and which must be always kept burning. Hestia is woman, who tends the fire of the hearth, at home. Hestia is still, staying near home, where she interacts with few, and she perpetuates with few, such that she had few offspring. Hestia symbolizes the point, just as fire occurs at points on the earth. Hestia therefore symbolizes unity, the unity of the point. Hestia was the 1st Olympian to be born, and when born, she was the only 1, thereby symbolizing unity. Hestia never had any children, and so was never subdivided, always symbolizing unity. Hestia was the goddess of the hearth, such that her responsibility was to stay home and tend the fire. She never left, and so symbolized unity of location. There were no myths about Hestia, and so the only thing we know about her was that she exists, and existence is symbolized by the 1st dimension of awareness.

The middle pair of fingers symbolizes the new pair of gods. The male god is symbolized by the middle finger, as the middle finger separated from the index finger, which also symbolizes a male god. The female goddess is symbolized by the ring finger, as the ring finger separated from the little finger, which also symbolizes a female goddess.



Let us now discuss the gods of mankind. There are 4 gods that symbolize interaction and perpetuation of mankind. The gods are symbolized on the middle bones, which relate to awareness of mankind.

One pair of gods symbolizes 4th dimension interaction, and one pair symbolizes 5th dimension perpetuation. The pair of gods that relate to the Titan symbolism of the 4th dimension of awareness symbolize interaction, and the pair of gods that relate to the Olympian symbolism of the 5th dimension of awareness symbolize perpetuation.

The 1st pair of gods symbolizes interaction, the notions that were symbolized by the Titans in the 4th dimension of awareness.

The Titans had one pair of gods of mankind, which interact on earth. These are the gods of labor and wisdom. The middle bone of the upper and lower pairs of fingers of the left hand symbolized the male god of labor and wisdom, respectively, and the middle bone of the upper and lower pairs of fingers of the right hand symbolized the corresponding female goddesses.

To form the corresponding Olympian pair of gods, the Titan pair of gods that symbolized labor merged into a single god, and the Titan pair of gods that symbolized wisdom merged into a single goddess. As well, the pair of fingers that symbolized each male or female merged into a single finger. Labor became associated with the male god, and wisdom became associated with the female goddess. Therefore, the middle bone of the index finger symbolized the god of labor and the middle bone of the little finger symbolized the goddess of wisdom. The Titan gods of wisdom and labor were incorporated into the Olympians. Their names are now Hephaestus as the god of labor and Athena as the goddess of wisdom. Hephaestus and Athena were born as children of 1 parent. Hephaestus was a male, born of only a mother, Hera. Athena was a woman, born of only a father, Zeus. Hephaestus and Athena were known as Vulcan and Minerva to the Romans.

Hephaestus and Athena symbolize 4th dimension interaction of mankind. Labor represents mankind utilizing awareness of space, and wisdom represents mankind utilizing awareness gained with experience over time. Neither was involved in perpetuation, and neither had children.



The 4th dimension pair of gods subdivided in the 5th dimension into another pair of gods. The new pair of gods symbolizes perpetuation of mankind. These gods symbolize the creation and destruction of mankind.

What gods symbolize perpetuation of mankind? Ares and Aphrodite are man and woman, and they symbolize perpetuation of mankind. The goddess of creation is Aphrodite (Venus to the Romans). Just as Venus is the most beautiful of the planets, Aphrodite was the most beautiful of the goddesses. Aphrodite was the goddess of love and sex, which are necessary for the perpetuation of mankind. It is woman who bears children, perpetuating mankind. The god of destruction is Ares (Mars to the Romans). The planet Mars is the red planet, and red is the color of blood. Ares was the god of war and death, which are necessary for controlling and limiting the perpetuation of mankind. It is man who kills other people. Approvide and Ares had children both together and apart.

The middle pair of fingers symbolizes the new pair of gods. The male god is symbolized by the middle finger, as the middle finger separated from the index finger, which also symbolizes a male god. The female goddess is symbolized by the ring finger, as the ring finger separated from the little finger, which also symbolizes a female goddess.

Science				
Religion Science				
Subdivided	Unified			
Visible gods Formless words				

In the 4th dimension of awareness, the 1st of the 2 dimensions of awareness that cultures that orient to the 4th dimension passed through, there was awareness of 1 model of nature, religion. There was no distinct awareness of science. In the 2^{nd} of their stages of awareness, there was awareness of 2 models of nature, religion and science.

Religion was subdivided, into multiple gods. It was therefore visible in space, in the form of anthropomorphic gods. Several of the gods were associated with planets and other objects that were visible in the heavens. Science was unified, in the form of words of language, and therefore was not visible, but was formless. How could non-visible, formless concepts be organized? The 12 bones of the left hand symbolize awareness of space, and they symbolize 12 words, the 12 words of science that developed at the same time as the Olympians. Words are formless, as they exist only in time; if you stop speaking in the middle of a word, such that time stops, there is no word.

12 Words of Science							
1 st D 2 nd D 3 rd D 4 th D 5 th D							
Space	Space Time Mankind Interaction Perpetuation						
4 Nouns	4 Adjectives	4 Verbs	A pair (2 of the 4) involved in interaction	A pair (2 of the 4) involved in perpetuation			

Science is about awareness of space. Awareness of space is subdivided into 3 subdivisions; awareness of space, time, and mankind. Words symbolize this awareness. There are 12 words, 1 per bone of each of the 4 fingers of the hand, to symbolize this awareness.

The 12 words of science consist of 4 nouns, 4 adjectives, and 4 verbs. These can also be called the 4 elements, the 4 forces, and the 4 emotions.

Nouns are words that describe the awareness of relationships that exist in space. Adjectives are words that describe awareness of relationships that exist in time. Verbs are words that describe awareness of relationships that exist among mankind. Time, space, and mankind symbolize the first 3 dimensions of awareness. There are 4 of each, as there is a pair of each that symbolizes 4th dimension interaction and a pair that symbolizes 5th dimension perpetuation.

In the early 5^{th} dimension of awareness, religion and science symbolize similar concepts. The symbolism is quite different, but the concepts symbolized by religion and science are analogous to each other. This is unlike the 2^{nd} stage of awareness of the 5^{th} dimension, where the concepts symbolized by religion and science are quite different from each other.



In order to symbolize science in the early 5th dimension of awareness, in order to symbolize the 12 words of science, the hand is oriented horizontally, across the earth, as the earth is where we look to observe time.

From the initial position of the hands for symbolism, use the left elbow to shift the forearm 90° forward and upward, such that the forearm extends horizontally forward. Next, use the elbow to shift the orientation of the bones of the forearm 90° outward, such that the bones of the forearm no longer orient updown with respect to each other, but orient left-right. The hand opens up to form 3 groups of fingers, with the index finger farthest toward the left, the middle and ring fingers touching each other as a pair in the center, and with the little finger toward the right. The thumb is tucked away out of sight. Last, use the wrist to shift the hand inward, along the side of the wrist.

The left hand is clearly visible before the eyes. The left hand symbolizes space and science, and so the left hand orients to the right. The right hand symbolizes time and religion, and so the right hand orients to the left. However, as religion is symbolized differently from science, the right hand is not shown at this time.



When we discussed religion, time was primary, as time symbolizes religion. We therefore discussed the gods of time 1st. Since we are now discussing science, space is primary, as science symbolizes space. We will begin with the 4 nouns. Nouns are words that describe space.

There are 4 nouns that symbolize interaction and perpetuation in space. The nouns are symbolized on the proximal bones, which relate to awareness of space.

One pair of nouns symbolizes 4th dimension interaction, and one pair symbolizes 5th dimension perpetuation. The pair of nouns that relate to the Titan symbolism of the 4th dimension of awareness symbolize interaction, and the pair of nouns that relate to the Olympian symbolism of the 5th dimension of awareness symbolize perpetuation.

The 1st pair of distinctions symbolizes interaction, the notions that were symbolized by the Titans in the 4th dimension of awareness.

As we have already seen, there is a pair of notions that symbolize 4th dimension interaction in space. The nouns that correspond to these notions are land and water. Land and water cover the earth, and the earth is where mankind is aware of space. Land and water sometimes interact with each other in space. The word earth is often used as a synonym for land.

To symbolize the Titans, the 4 fingers of the hand were subdivided into 2 pairs. One of the pair symbolized land, and the other of the pair symbolized water.

In terms of the stages of awareness, land symbolizes the 4th dimension, the dimension of the area. Land symbolizes the area of the surface of the earth, as much of the earth is covered with land.

Water symbolizes the 5th dimension of awareness, the dimension of the volume. Water also covers much of the surface of the earth. Unlike land, water has depth. In other words, in addition to the surface of water, fish and other food live below the surface of the water, sunken ships lie within the water, and so on. There is awareness of water as a volume in space.

Water and land are symbols of interaction, as water and land interact on the surface of the earth. When it is wet, water floods, encroaching upon land. When it is dry, water evaporates, allowing land to encroach upon water.

Water corresponds to the Olympian god Poseidon, and land corresponds to the goddess Demeter.



The 2nd pair of distinctions symbolizes perpetuation, the notions that were symbolized by the Olympians in the 5th dimension of awareness.

The nouns that correspond to these notions are air and fire. Fire symbolizes the 1^{st} dimension, the dimension of the point, as fires occur at individual points on the surface of the earth. Air symbolizes the 2^{nd} dimension of the segment, and air is always in motion from one point to another.

To symbolize the 5th dimension symbols, the 2 pairs of fingers used to symbolize the 4th dimension subdivided into 3 groups of fingers to symbolize the

 5^{th} dimension. In other words, 1 finger from each of the 2 pairs separated from their pair and joined to form a 3^{rd} group of fingers located between the index and little fingers.

Fire corresponds to the Olympian goddess Hestia, and air corresponds to the Olympian god Hermes.

Fire is a symbol of perpetuation, as the hearth fire represents the center of the family, and therefore symbolizes the perpetuation of life on earth, the perpetuation of things that occupy space. As well, fire on land clears the land, preparing it for new life, thereby symbolizing perpetuation. Fire occurs at points on the earth. Air is a symbol of perpetuation, as air is perpetually in motion from one point on a segment to the next above the surface of the earth.



The 4 nouns symbolize scientific awareness of space. The ancient Greeks believed that everything that exists in space is composed of combinations of the 4 nouns, known as the 4 elements. Notice that the noun earth is usually used in English instead of land, but these nouns are synonyms.

The 4 elements symbolize the 4 dimensions of awareness of cultures that orient to the 4th dimension. Fire symbolizes the point, air symbolizes the segment, land symbolizes the area, and water symbolizes the volume.

The 4 elements also symbolize the 4 states of matter that objects in space can hold that 4 dimensional people recognize; earth is solid, water is liquid, air is gas, and fire is energy.

The ancient Greeks discovered the symbolic importance of the 4 elements one at a time over a period of some 250 years, from Thales, who in approximately 550 B.C. hypothesized that water was the fundamental source of all things, to Empedocles, who in approximately 300 B.C. hypothesized that earth was the fundamental source of all things.

The order in which the elements were discovered is the same order as the fingers on the hand. The index finger symbolizes water, which was discovered 1st, by Thales, who considered water to be the most fundamental element. The middle finger symbolizes air, which was discovered 2nd, by Anaximenes, who considered air to be the most fundamental element. The ring finger symbolizes fire, which was discovered 3rd, by Heraclitus, who considered fire to be the most fundamental element. The little finger symbolizes earth, which was discovered 4th, by Empedocles, who considered earth to be the most fundamental element.



When discussing science, we began with words that describe space. Nouns were the 1st type of word in language, and the 4 nouns were the 1st symbols of awareness of space.

The 2^{nd} type of word in language was adjectives. Adjectives are words that describe time. Whereas nouns symbolize space, adjectives symbolize changes in space, and change in space requires time. The 4 adjectives form the 2^{nd} set of symbols of space.

There are 4 adjectives that symbolize interaction and perpetuation in time. The adjectives are symbolized on the distal bones, which relate to awareness of time.

One pair of adjectives symbolizes 4th dimension interaction, and one pair symbolizes 5th dimension perpetuation. The pair of adjectives that relate to the Titan symbolism of the 4th dimension of awareness symbolize interaction, and the pair of adjectives that relate to the Olympian symbolism of the 5th dimension of awareness symbolize perpetuation.

The 1st pair of distinctions symbolizes interaction, the notions that were symbolized by the Titans in the 4th dimension of awareness.

As we have already seen, there is a pair of notions that symbolize 4th dimension interaction in time. The gods that correspond to these notions relate to the sun and the moon. The sun and the moon sometimes interact with each other in the heavens, resulting in what is known as an eclipse. There are 2 types of eclipse, eclipse of the sun and eclipse of the moon. During an eclipse, the sun or moon interacts with, or hides, the other.

To symbolize the Titans, the 4 fingers of the hand were subdivided into 2 pairs. One of the pair symbolized the sun, and the other of the pair symbolized the moon.

The adjectives of science that correspond to the gods of the sun and the moon are the adjectives hot and cold. Hot corresponds to the Olympian god Apollo, and cold corresponds to the Olympian goddess Artemis. Hold and cold symbolize interaction in time.

When there is light of the sun during the day, it is hot. Hot is a symbol of interaction. Hot is symbolized on the index finger. Hot symbolizes the 2^{nd} dimension segment. When it is hot, things in space tend to separate, and to move away from each other, like 2 points on a segment.

When there is darkness during the night, the time when the moon shines, it is cold. Cold is a symbol of interaction. Cold is symbolized on the little finger. Cold symbolizes the 1st dimension point. When it is cold, things in space tend to come together, and to move toward each other, as in merging 2 points into a single point.



The 2^{nd} pair of distinctions symbolizes perpetuation, the notions that were symbolized by the Olympians in the 5^{th} dimension of awareness.

The adjectives that correspond to these notions are wet and dry. Dry symbolizes the 3^{rd} dimension, the dimension of the area. Wet symbolizes the 4^{th} dimension of the volume.

The adjectives that symbolize perpetuation are wet and dry. Wet and dry cause perpetuation in time.

To symbolize the 5^{th} dimension symbols, the 2 pairs of fingers that were used to symbolize the 4^{th} dimension subdivided into 3 groups of fingers to symbolize the 5^{th} dimension. In other words, 1 finger from each of the 2 pairs separated from its pair and joined to form a 3^{rd} group of fingers located between the index and little fingers.

Dry corresponds to the Olympian goddess Hera, and wet corresponds to the Olympian god Zeus.

Wet and dry are symbols of perpetuation. Wet, as rain, gives life to the earth, and enables the earth to perpetuate. Dry is required between periods of wet, in the cycle of perpetuation.

When it is wet, when it rains, life on earth can perpetuate, as water is necessary for life. Wet is symbolized on the middle finger.

When it is dry, the sun can shine on the earth, and sunshine is also necessary for life on earth. Dry is symbolized on the ring finger.

The 4 Forces				
Ancient Forces	Modern Forces			
Hot	Electromagnetism			
Wet	Strong Force			
Dry	Weak Force			
Cold	Gravity			

The 4 adjectives symbolize scientific awareness of time. The ancient Greeks believed that everything that exists in space is subject to the influence of the 4 adjectives. The 4 adjectives are known in modern times as the 4 forces.

Indo-European cultures, such as those of speakers of English and Greek, have since the beginning of awareness of the 5th dimension recognized 4 forces that affect objects in space. The 4 forces were known to the ancient Greeks as hot, cold, wet, and dry.

The names of the 4 forces have changed over time. However, their number and their symbolism are the same in modern times. In modern times, the force of cold is called gravity, the force of hot is called electromagnetism, the force of wet has been renamed the strong nuclear force, and the force of dry is the weak nuclear force.

How can we understand the nature of these forces? As an analogy to aid in understanding the nature of the 4 forces in both ancient and modern times, let's examine these forces in the context of the life of the family, in the manner that the ancient Greeks might have symbolized them. In this analogy, it is recognized that the man in the family would typically travel around to do business and interact with the world, and the woman's place was in or close to the home. Let us begin with hot. When the sun rises and it becomes day, it becomes hot. People who were horizontal, and asleep, become vertical, people who were still become active, as the man goes in motion far from home to interact with many.

As man leaves home, the home subdivides, such that the family subdivides into 2. Hot is a force of repulsion, as it causes things to move apart from each other. Hot is the force that causes subdivision. Hot corresponds to the modern force of electromagnetism. Electromagnetism is a force that can cause repulsion as well as attraction, and the family can be both together and apart. For example, this principle can be recognized with magnets in that like poles exert a repulsive force on each other, while opposite poles exert an attractive force.

When the sun sets and it becomes night, it becomes cold. Man returns home, interacts with few, becomes horizontal, and becomes still, asleep.

As man returns home, the home unifies, such that the family unifies into 1. Cold is a force of attraction, as it causes things to move together. Cold is the force that causes unity. Cold corresponds to the modern force of gravity. Gravity is a force of attraction.

These are the primary forces. Between them are the secondary forces. What are these?

Dry is a force that symbolizes subdivision within unity. At night, people are inactive, horizontal, and interact with few. However, if it is dry, then people become thirsty. In spite of conditions that would be expected to cause inactivity, people become vertical, active, go in motion, outside, to get water to quench their thirst. When it is dry, there can be activity when the conditions otherwise call for inactivity. There is subdivision within the house (people leave) when conditions otherwise call for people to stay within the unity of home. Dry is the force that causes subdivision within unity, and corresponds to the weak force in physics. The weak force also causes motion within the nucleus of the atom when stillness would be expected. The weak force is the force that breaks apart pieces of the nucleus of atoms in spite of their tendency to remain together, in a process known as decay. The dry force in space corresponds to the goddess of time Hera. Hera is the goddess of marital discord. Discord within the marriage, man and woman fighting at night, can cause man to leave the home at night, causing subdivision when unity would be expected.

Wet is a force that symbolizes unity within subdivision. During the day, people are active, vertical, and the man leaves home to interact with many.

However, if it is wet, then man wants to avoid the rain and stay home. In spite of conditions that would be expected to cause motion and separation, man returns home, becomes horizontal, inactive, inside to avoid the water. When it is wet, there can be inactivity when the conditions otherwise call for activity. There is unity within the house, people are home, when conditions otherwise call for subdivision, when man would be expected to go out. Wet is the force that causes unity within subdivision, and corresponds to the strong force in physics. The strong force also causes stillness within the nucleus of the atom when motion would be expected. The strong force is the force that keeps the nucleus of atoms together in spite of the powerful force of repulsion of the positively-charged protons in such close proximity to each other. Zeus is the god of rain. Rain can cause man to remain home when he would otherwise be expected to leave home and go out.

The 4 Forces				
Adjective	Dimension			
Hot	Segment			
Wet	Volume			
Dry	Area			
Cold	Point			

The 4 forces symbolize the 4 dimensions of awareness of cultures that orient to the 4th dimension. Cold symbolizes the point, hot symbolizes the segment, dry symbolizes the area, and wet symbolizes the volume.

Cold symbolizes the 1st dimension, the dimension of the point. When it is cold in space, there is contraction into a point. Cold is the force of unity, and when it is cold, 2 unite into 1.

Hot symbolizes the 3rd dimension, the dimension of the segment. Hot is the force of subdivision, and when it is hot, 1 subdivides into 2.

Dry symbolizes the 4th dimension, the dimension of the area. When it is dry, there is activity on the area of the earth.

Wet symbolizes the 5^{th} dimension, the dimension of the volume. When it is wet, when it rains, there is also activity on the volume of space that lies above the earth.



The sun and the moon are the most ubiquitous symbols of the gods of time, since everyone who looks up into the heavens can see the sun and the moon. The sun is symbolized on the index finger and the moon is symbolized on the little finger.

Electromagnetism and gravity are the most ubiquitous of the 4 forces, since they have unlimited extent.

Electromagnetism is a more powerful force than gravity, and the index finger is a more powerful finger than the little finger. The little finger is the weakest of the fingers, and gravity is the weakest force. Electromagnetism relates to the sun god Apollo, and like Apollo is symbolized on the index finger, and gravity relates to the moon goddess Artemis, and like Artemis is symbolized on the little finger.

The other 2 fingers are the inner fingers, and symbolize the inner forces. These are the nuclear forces, which occur only within the nucleus of the atom.

Zeus is the strongest of the gods, and is symbolized by the middle finger, which is the strongest of the fingers. The middle finger symbolizes what is known as the strong force, which is the strongest of the 4 forces of modern science, which is analogous to the force of wet.

Hera is the weaker of this pair of gods, and is symbolized by the ring finger. The ring finger is the weaker of this pair of fingers, and symbolizes what is known as the weak force, which is analogous to the force of dry.

The 4 fingers symbolize the relative strength of the 4 forces. The middle finger is the most powerful finger, and symbolizes the most powerful of the forces. The next most powerful finger, the index finger, symbolizes the next most powerful of the forces. The ring finger is the 3rd most powerful finger, and symbolizes the 3rd most powerful force. The little finger is the weakest of the 4 fingers, and symbolizes the weakest of the 4 forces.



The 3rd type of word in language was verbs. Verbs are words that describe things that happen in space over time. The last set of 4 words describes mankind. Mankind is symbolized by 4 verbs, which are the 3 dimensional type of word. Whereas adjectives symbolize the 4 forces in space, verbs symbolize time within space, and the 4 emotions of mankind. The 4 verbs form the 3rd set of words of science. The 4 verbs symbolize the forces of space in time, the forces of space-time.

As verbs symbolize time within space, they will be positioned between the nouns and the adjectives, on the middle bones of the fingers.

One pair of verbs symbolizes 4th dimension interaction, and one pair symbolizes 5th dimension perpetuation. The pair of verbs that relate to the Titan symbolism of the 4th dimension of awareness symbolize interaction, and the pair of verbs that relate to the Olympian symbolism of the 5th dimension of awareness symbolize perpetuation.

The 1st pair of distinctions symbolizes interaction, the notions that were symbolized by the Titans in the 4th dimension of awareness.

As we have already seen, there is a pair of notions that symbolize 4th dimension interaction of mankind. The gods that correspond to these notions are the gods of labor and wisdom. Labor utilizes awareness of space, and labor is how mankind causes change in space. Wisdom utilizes awareness gained with experience over time, and wisdom is how mankind changes over time.

To symbolize the Titans, the 4 fingers of the hand were subdivided into 2 pairs. One of the pair symbolized labor, and the other of the pair symbolized wisdom.

The verbs of science that correspond to the gods of labor and wisdom are the verbs know and believe. The verbs know and believe symbolize the interactions of mankind in space.

The verb know symbolizes mankind's understanding of space. People know what they can see, about the earth. When a person knows something about nature, the person need not dwell on that knowledge, but will leave it and move away to something else. The verb know symbolizes subdivision. People who know about the earth will be still, and people do not need to devote a large amount to time to that knowledge. Know is symbolized by the index finger.

The verb believe symbolizes mankind's experience gained over time. People believe what they cannot see, about the heavens. When a person has a belief, the person is attracted to that belief, and behaves in accordance with beliefs about religion in the heavens. Belief requires constant energy and reconfirmation. Belief attracts energy. If a person believes in religion, the person cannot ignore that belief, but will devote a large amount of energy to it. Believe is symbolized on the little finger.



The 2^{nd} pair of distinctions symbolizes perpetuation, the notions that were symbolized by the Olympians in the 5^{th} dimension of awareness.

The verbs that correspond to these notions are love and hate. Hate symbolizes the 3^{rd} dimension, the dimension of the area. Love symbolizes the 4^{th} dimension, the dimension of the volume.

The verbs that symbolize perpetuation of mankind are love and hate. Love and hate cause perpetuation of mankind.

To symbolize the 5th dimension symbols, the 2 pairs of fingers used to symbolize the 4th dimension subdivided into 3 groups of fingers to symbolize the 5th dimension. In other words, 1 finger from each of the 2 pairs separated from their pair and joined to form a 3rd group of fingers located between the index and little fingers.

Love corresponds to the Olympian goddess Aphrodite, and hate corresponds to the Olympian god Ares.

Love and hate are symbols of perpetuation. When there is love between man and woman, mankind perpetuates by having children. When there is hate, hate results in death, and mankind decreases in number.

The 4 Emotions				
Forces of mankind	Ancient forces in space	Modern forces in space		
Believe	Cold	Gravity		
Know	Hot	Electromagnetism		
Love	Wet	Strong force		
Hate	Dry	Weak force		

The 4 verbs symbolize scientific awareness of mankind. The ancient Greeks recognized that the behavior of mankind is subject to the influence of the 4 verbs. The 4 verbs are also known as the 4 emotions. The 4 emotions are love, hate, believe, and know.

Believe and know symbolize interaction of mankind in space. These words symbolize mankind's learned experience with time and space.

Believe corresponds to the force of gravity and to cold. Believe is a force of attraction. When people believe, in religion, they are attracted to, and follow, that religion.

Know corresponds to the force of electromagnetism and to hot. Know is a force of repulsion. When people know something, such as a skill, they need not dwell on that knowledge, but can focus their energy on other things. For example, people do not usually devote much energy to pondering the fact that 2+2=4. Instead, they can move on to more complex arithmetic, or to other things.

Therefore, belief causes motion toward the object of the belief, whereas knowledge causes motion both toward and away from what is known.

Love and hate symbolize perpetuation of mankind in space. This includes such as reproduction. Love leads to perpetuation of mankind. Hate results in death, and death is a necessary step to enable space for more creation.

Love corresponds to the strong force and to wet. Love is a force of attraction, but it is attraction within repulsion. Love symbolizes attraction based on belief in good, despite what the eyes enable a person to know may contain some evil. Love attracts people to do what might otherwise repulse. Hate corresponds to the weak force and to dry. This is the force of repulsion, but it is repulsion within attraction. Hate symbolizes repulsion based on knowledge of evil, despite what time has taught a person to believe may contain some good.

The 4 Emotions				
	Adjective	Dimension		
	Believe	Point		
	Know	Segment		
	Love	Volume		
	Hate	Area		

The 4 emotions symbolize the 4 dimensions of awareness of cultures that orient to the 4th dimension. Believe symbolizes the point, know symbolizes the segment, hate symbolizes the area, and love symbolizes the volume.

Believe symbolizes the 1st dimension, the dimension of the point. When there is belief, in religion, there is attraction to the religion. This results in unity, symbolized by the point. Believe is the force of unity, and when there is belief, mankind unites with that belief and spends time with it.

Know symbolizes the 3rd dimension, the dimension of the segment. When there is knowledge, about space, there is repulsion to the knowledge. In other words, there is no great urging to be driven by this knowledge. This results in subdivision, symbolized by the segment. Know is the force of subdivision, and when there is knowledge, mankind separates with that knowledge and does not dwell on it.

Hate symbolizes the 4th dimension, the dimension of the area. When there is hate, there is death on the area of the earth.

Love symbolizes the 5^{th} dimension, the dimension of the volume. When there is love, it reaches out to the heavens, the volume of space that lies above the earth.



Wisdom and labor are the results of mankind's experience with space over time. These result from experience of the head over time. Wisdom comes from learning to understand nature over time, and to come to hold beliefs about the organization of nature. Knowledge also comes from learning to understand nature over time, and to come to develop knowledge about the organization of nature, based on experience changing space.

Know is symbolized on the index finger and believe is symbolized on the little finger. It is recognized that many people express these emotions using the fingers of their hand.

Know is symbolized on the index finger. People often point their index finger, along the left-right axis of their bodies, at the level of their head, to their temple, in order to symbolize that they know.

Believe is symbolized on the little finger. People often point their little finger, along the left-right axis of their bodies, at the level of their heart, in order to symbolize that they believe. In such case, it is common for 2 people to do this at the same time, joining fingers, to symbolize that they believe, or trust, each other.

The other 2 fingers are the inner fingers, and symbolize the inner emotions. These are the emotions that develop only within the heart.

Love and hate are the results of mankind's experience with space over time. These result from experience of the heart over time. Love represents a belief in good, in spite of any knowledge of bad. Hate represents a belief in bad, in spite of any knowledge of good.

Hate is symbolized on the middle finger and love is symbolized on the ring finger. It is recognized that many people express these emotions using the fingers of their hand.

Hate is symbolized on the middle finger. People often point their finger, along the forward-rearward axis of their bodies, at the level of their heart, toward another person, in order to symbolize that they hate.

Love is symbolized on the ring finger. People often point their finger, along the forward-rearward axis of their bodies, at the level of their heart, toward another person, in order to symbolize that they love. In such case, it is common to place a ring on the extended finger as a visible symbol of that love.

	The 12	Words of Science	ļ -	
	4	The 4 Elements		
	Nouns	(composition of things in space)		
	4	The 4 Forces		
	Adjectives	(time influencing the elements in space)		
	4	The 4 Emotions		
	Verbs	(mankind influencing the elements in space)		
These symbolize the 4 dimensions of awareness of 4 dimensional mankind.				

The 4 nouns, the 4 adjectives, and the 4 verbs each symbolize all of the 4 dimensions of awareness of people who have a primary orientation to the 4^{th} dimension. The 4 nouns have been known throughout history as the 4 elements, and symbolize the 4 dimensions and the composition of space. The 4 adjectives have been known as the 4 forces, and symbolize the 4 dimensions and how time influences the 4 elements of space. Although the 4 adjectives are associated with some physical changes in space, the 4 verbs are formless, and cannot be seen. The

4 verbs represent the 4 emotions, and symbolize the 4 dimensions and how mankind influences the 4 elements of space.

English Subdivisions of Space					
Geometry:	Point	Line	Plane	3D Space	
Elements:	Air	Earth	Fire	Water	
States:	Gas	Solid	Energy	Liquid	
Forces:	Hot	Cold	Wet	Dry	
Forces:	Gravity	Electromagnetism	Strong	Weak	
Directions:	North	South	East	West	
Tastes:	Sweet	Sour	Salty	Bitter	

It should be becoming clear from this discussion that for languages that orient to the 4th dimension of awareness, such as English, ALL primary subdivisions of space and ALL primary subdivisions of time are subdivisions into groups of 4. Let's explore this concept further, looking at space first.

The ancient Greek model of space, geometry, recognizes 4 distinctions in space: the point, the line, the plane, and 3 dimensional space.

The ancient Greeks recognized 4 elements that combined to make up all that exists in space: air, earth, fire, and water.

Among other things, these 4 elements symbolize the 4 states of matter that speakers of English traditionally recognize: gas, solid, liquid, and energy.

The ancient Greeks recognized 4 forces that affect things that occupy space: hot, cold, wet, and dry.

The names have long since changed, but modern science still recognizes that there are 4 forces of nature: gravity, electromagnetism, and the 2 nuclear forces, the strong force and the weak force.

What native English speaker would ever think to challenge the idea that the space of the earth is naturally divided into 4 directions: north, south, east, and west?

When things that occupy space are put in the mouth, they can produce a taste. Speakers of English recognize, not coincidentally, 4 tastes: sweet, sour, salty, and bitter.

English Subdivisions of Time					
Cycles:	Year	Month	Day	Hour	
Seasons:	Spring	Summer	Fall	Winter	
Weeks:	1 st Qtr	Full Moon	3 rd Qtr	New Moon	
Hours:	Morning	Afternoon	Evening	Night	
Years:	Olympiad	cycle	4	years	

Let us now take a look at time.

The grammar of English enables its speakers to recognize 4 primary subdivisions of time: the year, the month, the day, and the hour.

Each year is divided into 4 seasons: spring, summer, fall, and winter.

Each month is divided into 4 weeks.

Each day can be divided into 4 parts. These parts of the day roughly corresponded to morning, afternoon, evening, and night.

The ancient Greeks were so oriented to the number 4 that when they grouped years to make a larger unit of time, they did not use the decade of 10 years like we use now, but instead used the Olympiad, which is a period of 4 years.

Can There Be Any Serious Doubt?

Is it possible that this is not really reality?

These examples should seem so natural to native speakers of English that many readers will think it not serious even to question these as being the reality of how nature is "really" organized.

This subdivision of all primary aspects of time and space into groups of 4 seems so natural to speakers of English that it is difficult even to imagine that this might not be an absolute and universal truth of nature, but that it could somehow be dependent upon the language that we speak.

If so, perhaps readers will be surprised to learn that for speakers of Chinese, for example, none of these subdivisions of time or space are considered natural. What is so natural, and obvious, for speakers of English is not necessarily so for the rest of the world.

Chinese Space-Time Subdivisions							
Space							
Directions:	North	South	East	West	Center		
Elements:	Wood	Fire	Earth	Metal	Water		
Weather:	Hot	Cold	Wind	Wet	Dry		
Tastes:	Sweet	Sour	Spicy	Salty	Bitter		
	Time						
Cycles:	Life-Span	Year	Month	Day	Hour		
Life-Span:	5	Cycles	of	planet	Jupiter		
Year:	Spring	Summer	Long-Summer	Fall	Winter		
Month:	Each	Month	Was	6	Weeks		
Week:	Each	Week	Was	5	Days		

Although naturally so for the first example of the subdivisions of geometry above, because geometry is a 4 dimensional invention and therefore could not ever have developed in a linguistic environment such as exists in China, none of these subdivisions into 4 exists as such in Chinese, because Chinese does not orient to 4 dimensions of space-time. Chinese orients to the 1st dimension of space-time, the dimension of the point, and all of these subdivisions of space and time are recognized naturally to exist as subdivisions into groups of 5 in Chinese.

The primary Chinese model of nature that is equivalent to Western science, the Dao, recognizes 5 dimensions of space-time. For example, all students of traditional Chinese medicine, which is based on the model of the Dao, learn only about subdivisions of space and time into 5, not 4. All primary subdivisions of both time and space in Chinese are subdivisions into 5. Speakers of Chinese quite naturally subdivide all of time and space, in fact Chinese subdivides everything in nature, into groups of 5, because the Chinese language recognizes 5 dimensions, and not 4 like English. Each of these 5 subdivisions symbolizes the 5 dimensions of space or time that speakers of Chinese recognize, in the same way that each of the subdivisions into 4 for English symbolizes the 4 dimensions of space that speakers of English recognize.

Into the 5th Dimension of Awareness

2nd Stage

For speakers of languages that orient to the 4^{th} dimension of awareness, such as Greek and English, evolution to the 5^{th} dimension of awareness occurred in 2 distinct stages.

In the 2^{nd} stage of their evolution, these cultures evolved to the awareness of 1 more subdivision of nature, which led to the evolution of religion into monotheism and science into what we recognize science to be today.



Whereas speakers of the ancestor language of Swahili, for example, who orient to the 5^{th} dimension of awareness, became aware of the 2 subdivisions of time and space in the 5^{th} dimension together, speakers of the ancestor language of English became aware of them separately.

1st, speakers of the ancestor language of English evolved to the awareness of 1 additional subdivision of time and space, awareness of the ecliptic. This led to the awareness of 36 areas of space on the earth. It also led to the 12 Olympians of religion and the 12 words of science.

Later, these people evolved again, to their 2^{nd} stage of evolution to the 5^{th} dimension of awareness, as our ancestors became aware of the second subdivision of time and space of the 5^{th} dimension. This 2^{nd} subdivision was to the awareness of 2 additional distinctions, the 2 bounds of the ecliptic. The planets, the givers of awareness of the year and the hour, do not precisely follow the segment at the top of the area of the ecliptic, but wander around either side of the ecliptic within a given bounds, within a volume of space.

Evolution of society to the 2nd stage of awareness of the 5th dimension, as with evolution to previous dimensions of awareness, did not occur as soon as the leaders of religion or science 1st became aware of the bounds of the ecliptic, but only as such awareness began to filter down to the common man and became integrated into daily awareness and daily life. It was agriculture that made the cycle of the year, the cycle of the harvest, become important to society, and that encouraged greater understanding of the cycle of the year for the common man. Agriculture only became common in the most recent 10,000 years or so, after the end of the last ice age. Agriculture gave rise to cities, and to governments. Agriculture enabled a steady and abundant food supply, so as to enable certain members of society to avoid the necessity of conducting a daily search for food, but instead to dedicate their lives to tracking the givers of time in the heavens, in order to understand better both time and religion.



People who oriented to the 4th dimension of awareness evolved to the 2nd stage of the 5th dimension of awareness as they came to realize that the sun, the moon, and the planets do not move along a path that precisely follows the ecliptic, but that they can range anywhere within a volume of space that extends 8.5° to either side of the ecliptic.

The diagram shows the earth in its orbit around the sun. The orbit is shown in light yellow, whereas the ecliptic, the extension of the orbit of the earth out beyond the solar system, is shown in darker yellow. The universe is filled with stars. Ancient cultures cared most about the stars in a volume of space in the vicinity of the ecliptic, since that is where the sun, the moon, and the 5 visible planets range. The planets look just like the others stars, yet they seemed to wander among the other stars, whereas the other stars always keep their same position relative to each other. There are exceptions to this constancy among the stars, such as comets.

The most reliable way to track the hours of the day and the months of the year was to observe the location along the ecliptic of the sun, moon, and planets among the stars as they appeared in the heavens at night.

To enable easy identification of where within this 17° volume of space in the heavens the sun, the moon, and the planets were at any given time, ancient societies (societies that flourished some 2,000 to 6,000 years ago) grouped the stars

within this volume into 12 groups of stars, with each group having an approximately equal span of 30° across the heavens, as $12 \times 30^{\circ}$ equals 360° , which is the number of degrees in a circle and the approximate number of days in a year. To the ancients, it seemed as though the sun, the moon, and the planets were all revolving around the earth, rather than around the sun, but their measurements were not so precise that this misunderstanding had a significant impact on their measurements.

Groupings of stars came to be called constellations. The 12 groups of stars centered along the ecliptic came to be imagined as representing different animals. Therefore, this volume of space came to be known in Greek as the zodiac (from $\zeta \varphi \delta \iota \alpha \kappa \delta \zeta$, zodiakos, which, like the word 'zoo', has a meaning related to animal). The constellations of the zodiac that are so important in astronomy are often also called signs, and are important as well in astrology.

Note in the diagram that the earth is nearest to the constellation Sagittarius. At this time of the year, all of the constellations will become visible at some time during the night sky, except for the constellation Gemini. Gemini will not be visible at all in the night sky at this time, because the constellation of Gemini is behind the sun and so is completely hidden by the sun. At this time, we say that the sun is in Gemini.

This 8.5° range along either side of the ecliptic is referred to in this text as the bounds of the ecliptic. Different cultures were able to symbolize this extent differently. For cultures that orient to the 4th dimension of awareness, this extent was symbolized by a subdivision of the fingers that covered an extent of 11.25° . Given the high margin of error that was inevitably present in ancient measurements, this finger symbolism of 11.25° was quite close to 8.5° , and it was able to symbolize the bounds of the ecliptic very well.

Certain constellations are visible at different parts of the night as the earth revolves around the sun in the cycle of time of the year. Also, depending on the stage in the cycle of the year, certain constellations are visible at different parts of the night as the earth rotates around itself in the cycle of time of the day. People within a society could observe and track the constellations as they rose each night in the sky, crossed the heavens, and set.

Ancient cultures developed myths and legends around the constellations, imagining how such constellations came to appear in the heavens, and what they 'mean' to society.



Let us revisit this slide from the 1^{st} stage of awareness of the 5^{th} dimension, where it was stated that on the day of the summer solstice, the sunrise on the ecliptic is not located due east on the horizon, but 22.5° toward the east-northeast. As well, on the day of the winter solstice, the sunrise on the ecliptic is not located due east, but 22.5° toward the east-southeast.

Furthermore, it was stated that the points of east-northeast and east-southeast, located 22.5° north or south of east, are not the exact locations on the ecliptic on the horizon on these days, but are only approximate locations, which are in fact off by almost a dozen degrees.

Now that we are aware of the bounds of the ecliptic, the range alongside the ecliptic within which the sun, moon, and planets are observed to wander, we can realize that the seemingly large discrepancy of the ecliptic on the days of the solstices from the finger positions orienting to the east-northeast or to the east-southeast is at the extreme edge of what is an allowable discrepancy, the bounds of the ecliptic, and that the actual location of the ecliptic on the eastern horizon, at the outermost edges of the bounds of the ecliptic, some 11.25° outward from the east-northeast or from the east-southeast, is actually entirely is to be expected, given that the solstices are the days of the year with the most extreme positioning of the ecliptic relative to the point of the east.
Subdivisions of Time				
1 st Subdivision	2 nd Subdivision			
Time subdivided	Time unified			
(symbolized time & space)	(no symbolism of space)			
Religion visible (Olympians)	Religion invisible (monotheism)			
Space unified	Space subdivided (space can now symbolize time with space)			
Early development of science	Development of science			
12 words of science	Science increasingly			
include space only	incorporates time			

The mind of 4 dimensional mankind evolved again as our ancestors entered the 2nd stage of 5 dimensional awareness. Time, which had been subdivided, and so symbolized both time and space, became unified, and only symbolized time alone. Space, which had been unified, and so symbolized only space, now became subdivided, and symbolized time together with space. During this stage, awareness of space has progressively unified with awareness of time, evolving into awareness of space-time.

Unification of Time and Space

Unification in the 5th dimension is a 5 stage cycle (not yet completed).

Each stage is symbolized by a significant, recognizable shift in western consciousness in recent history.

1 stage for the unification of time, and 4 stages for the unification of space.

The unification of awareness of time, alone and of itself, and the unification of awareness of space, into awareness of space-time, for all 5 dimensions in the 2^{nd} stage of the 5th dimension of awareness is itself subdivided into a 5 stage cycle. There has been 1 stage to unify time, followed by 4 stages to unify space. The minds of most Indo-Europeans have evolved through the 1 stage of unification of time and through the 1^{st} or 2^{nd} stage of unification of space. Because this unification has been relatively recent, each of these 5 stages can be symbolized by a well-recognized shift in the consciousness of 4 dimensional mankind that occurred in recent history.

5 Stages 1st, Time unified in 1 stage 2nd, Space unified in 4 stages

1st, time unified in 1 stage as 1, awareness of time only. 2nd, space unified in 4 stages as 2, awareness of space and time, progressively evolving toward unification in the form of awareness of space-time.



To symbolize the 2^{nd} stage of the 5^{th} dimension of awareness for speakers of Indo-European languages, begin with the body as in the other dimensions.

The arms hang vertically downward along the side of the body. The hands are closed, and rest against the thighs. The thumbs lie along the index fingers, as they extend vertically downward. This is the initial position to prepare for finger signs. For those cultures that orient to the 4th dimension of awareness, the same 2 steps will be required to prepare both hands for symbolism. Once prepared, symbolism for time and space will be separate and different.



To prepare for symbolism, the 2 hands prepare together, in 2 steps. In the 1^{st} step, the elbows shift the forearms 90° forward and upward, such that the upper arms remain orienting vertically downward, and the forearms extend horizontally forward.



In the 2^{nd} step, the elbows rotate the forearms 90° outward, such that the bones of the forearms no longer orient vertically with respect to each other, but orient horizontally with respect to each other. Opening of the fingers of the hands for symbolism will occur later, and will be different for each hand.



There are 2 geometric symbols of the 5^{th} dimension of awareness, the sphere and the cube.

The symbol of time is the sphere. The sphere is a symbol that represents unity, as a sphere is a symbol with only 1 side. Awareness of religion is unified during this stage of evolution.

The symbol of space is the cube. The cube is a symbol that represents subdivision, as there are many sides of a cube. Awareness of space is subdivided during this stage of evolution.



Time unified 1^{st} , and in 1 stage. The right hand opens 1^{st} , and all fingers open together, in a unified manner, as the right hand symbolizes time. When the fingers of the right hand open, and extend outward, the hand orients horizontally forward, toward the horizon. All 5 fingers are extended, and are used together, unlike the use of less than all 5 fingers previously. All 5 fingers are symbolized as whole fingers, unified fingers, and no longer as fingers subdivided into multiple bones. As before, the span of the entire hand is 45° . There are 5 fingers, such that there are 4 spans between the fingers. Since the sum of the spans is 45° , there is a span of 11.25° between any 2 adjacent fingers, as the right hand, one half of the pair of hands, is curved to symbolize a half sphere.

The right hand also symbolizes religion, as religion symbolizes human awareness of time. The sphere is a symbol of unity. The ancient Greeks abandoned the many, subdivided gods, the subdivided forces of nature that they recognized before, in favor of a single, unified god. This was the rise of monotheism.

There is no representation of space or of motion through space in the symbolism of religion, as there is for science, reflecting the fact that the basic tenets of religion are not subject to the significant stages of change that science has continued to undergo.



As we orient our right hand to the eastern horizon and upward into the heavens on the days of the equinoxes, we can look along the 3 areas that were understood from before and that extend vertically through our fingers to the appropriate part of the heavens. There, we can see the ecliptic.

Now, there is awareness of 2 additional areas of vertical space, the areas that rise vertically upward from the horizontal segments that are symbolized by the index and ring fingers. These areas enable awareness of the bounds of the ecliptic, which bound the volume of space within which the sun, the moon, and the planets were recognized to wander. The representation of each individual cycle begins with the bones of the associated finger.



The 5th dimension of awareness is the dimension of awareness of perpetuation. The hand in this position, with an orientation to the ecliptic, enables simple symbolism of all primary and all secondary cycles of time. The symbolism of each cycle perpetuates into the next. This symbolism is more evolved, and so simpler, than the symbolism demonstrated in the 1st stage of awareness of the 5th dimension.

Unlike the early stage of the 5th dimension of awareness, there is no need physically to symbolize the various stages of each of the cycles of time, since we can recall all finger positions from the previous stage of awareness. Therefore, we will now discuss how to symbolize each of the primary units of time, and each of the corresponding secondary units of time, using a single, simple organization that is based on the fact that the hand is composed of 4 fingers, each of which is composed of 3 bones. Previously, the left or the right hand would physically reposition to orient upward or downward to 1 of the 4 quadrants, with the wrist orienting the hand in either of the 2 positions, in order to symbolize 1 of the 3 distinctions of the hand. Now, time will be symbolized using only the right hand. The right hand has a simple way to symbolize both the quadrant and the distinction within the quadrant, as it is a more evolved symbolism than the previous symbolism.

The 12 bones of the 4 fingers enable us to symbolize the stages in the perpetual cycle of the year, and then into the perpetual cycle of the month, and then into the perpetual cycle of the day, and then into the perpetual cycle of the hour.

The units of time are now interrelated. Hours roll into parts of days, which roll into days, which roll into weeks, which roll into months, which roll into seasons, which roll into years. Time can now perpetuate, indefinitely. The 5th dimension of awareness is the dimension of awareness of perpetuation.

There are 4 fingers on the hand, other than the thumb, which the thumb can use to mark off and count the bones of the fingers in order to symbolize the current status of the cycles of time. We can use the 4 fingers to mark off the current state of the 4 sets of primary units of time and of their secondary subdivisions of time. We will symbolize the year, with its subdivisions into seasons and months; the month, with its subdivision into weeks and days; and the day, with its subdivision into parts of the day and hours.



Let us examine the structure of the thumb, and how it relates to each of the fingers. Each of the 4 fingers is composed of 3 bones. The thumb is composed of 2 bones, which can hold 3 positions with respect to the 3 bones of the other fingers.

When the thumb is interacting with a given finger, the finger will move forward from the other fingers, to become slightly closer to the thumb.

1. Both of the 2 bones of the thumb can be fully extended, such that the thumb reaches the crease at the base of the distal bone of the finger.

2. The proximal bone of the thumb can be fully extended, and the distal bone can be bent, such that the thumb reaches the crease at the base of the middle bone of the finger.

3. Both of the 2 bones of the thumb can be bent, such that the thumb reaches the crease at the base of the proximal bone of the finger.

As needed, the fingers can move forward, through the 5 dimensional volume of space, to make it easier for the thumb to reach them.



Counting of the bones on the fingers is now unified. Therefore, for all cycles of time, the counting will be the same. The index finger will be 1^{st} , and counting will begin with the distal bone and count down to the proximal bone. The middle finger will be 2^{nd} , and counting will be in reverse order, beginning with the proximal bone and counting up to the distal bone. The ring finger will be 3^{rd} , and counting will be in reverse order, beginning bone. The little finger will be 4^{th} , and counting will be in reverse order, beginning with the proximal bone and counting will be in reverse order, beginning with the proximal bone and counting will be in reverse order, beginning with the proximal bone.



Let us begin with the cycle of the day. There are 4 parts in the cycle of the day, each of which is subdivided into 6 hours. There are 4 fingers on the right hand, each of which is subdivided into 3 bones. The hand can hold 2 orientations, with the wrist extending the hand straight forward, or with the wrist extending the hand 90° inward, toward the left.

The cycle of the day is subdivided into 4 parts, which we can call morning, afternoon, evening, and night. We begin the cycle with morning, the beginning of light, although other starting points have been in common use by various cultures. We will begin with the index finger, followed by the other finger of the pair, the middle finger. The index finger will be traversed in normal order, from the distal bone to the proximal bone, whereupon the middle finger will be traversed in reverse order, from the proximal bone to the distal bone. The other pair of fingers will be traversed in a similar manner. The ring finger will be traversed in normal order, from the distal bone to the proximal bone to the proximal bone, whereupon the little finger will be traversed in normal order, from the distal bone to the proximal bone, whereupon the little finger will be traversed in normal order, from the distal bone to the proximal bone, whereupon the little finger will be traversed in normal order, from the proximal bone to the proximal bone, whereupon the little finger will be traversed in normal order, from the proximal bone to the proximal bone, whereupon the little finger will be traversed in normal order, from the distal bone to the proximal bone, whereupon the little finger will be traversed in normal order, from the distal bone to the proximal bone to the distal bone.

The 4 fingers of the hand, each of which is composed of 3 bones, which can be oriented in either of 2 possible orientations, symbolize the 6 hours that make up each of the 4 parts of the cycle of the day. The wrist extends the hand forward for the 1^{st} half of the cycle, the half of the day where there is light, and the wrist extends the hand inward for the 2^{nd} half of the day, where there is darkness.



This shows an example of how the thumb would symbolize the subdivisions of a given finger. The finger being represented moves forward through a volume of space from the other fingers, such that it is slightly closer to the thumb.

The thumb can extend both of its bones forward, such that it can reach the distal bone of the finger. The thumb can extend its proximal bone, but bend its distal bone, such that it can reach the middle bone of the finger. The thumb can bend both of its bones, such that it can reach the proximal bone of the finger.



Let us continue with the cycle of the month. Symbolism of the cycle of the month is similar to symbolism of the cycle of the day. However, just as in the 1^{st} stage of awareness of the 5^{th} dimension, we have to account for the 7^{th} day of each week.

The 4 fingers of the hand, each of which is composed of 3 bones, which can be oriented in either of 2 possible orientations, symbolize 6 of the 7 days that make up each of the 4 weeks in the cycle of the month. The wrist extends the hand forward for the 1st half of the cycle, the half of the day where there is growing light in the moon, and the wrist extends the hand inward for the 2nd half of the day, where there is growing darkness in the moon.

There are 4 weeks in the cycle of the month, each of which is subdivided into 7 days. There are 4 fingers on the right hand, each of which is subdivided into 3 bones. The hand can hold 2 orientations, with the wrist extending the hand straight forward, or with the wrist extending the hand 90° inward, toward the left. As well, we can symbolize the 7th day, the day of rest, by having the thumb rest, and not mark any of the bones of the fingers. The thumb can simply hover between the 2 fingers that symbolize each week, on the palm of the hand below the fingers.

The cycle of the month is subdivided into 4 parts, which we can call week 1, week 2, week 3, and week 4. Each pair of fingers symbolizes 1 week of the month.

We begin the cycle with week 1, the new moon, which symbolizes the beginning of light, although other starting points may have been in use by various cultures. The 1st pair of fingers, the index and middle fingers, symbolizes the 1st week of the month, the week that begins with light, the week of the new moon, and ends at the 1st quarter of the month.

We will begin with the index finger, followed by the other finger of the pair, the middle finger. The index finger will be traversed in normal order, from the distal bone to the proximal bone, whereupon the middle finger will be traversed in reverse order, from the proximal bone to the distal bone. Lastly, the thumb rests, hovering above and between the pair of fingers that symbolize this week, not interacting with any bone.

The 2^{nd} pair of fingers, which symbolizes the 2^{nd} week of the month, begins with the ring finger, and is followed by the little finger. This roughly coincides with the period from the 1^{st} quarter of the month to the full moon.

This pair of fingers will be traversed in a similar manner. The ring finger will be traversed in normal order, from the distal bone to the proximal bone, whereupon the little finger will be traversed in reverse order, from the proximal bone to the distal bone. Lastly, the thumb rests, hovering above and between the pair of fingers that symbolize this week, not interacting with any bone.

To symbolize the last 2 weeks of the month, the wrist must shift the orientation of the hand from a forward orientation to an inward, a leftward, orientation.

The 3rd pair of fingers, which symbolizes the 3rd week of the month, begins again with the index finger, traversed in normal order, followed by the middle finger, traversed in reverse order. Lastly, the thumb rests, hovering above and between the pair of fingers that symbolize this week, not interacting with any bone. This roughly coincides with the period from the full moon to the 3rd quarter.

The 4th pair of fingers, which symbolizes the 4th week of the month, begins with the ring finger, traversed in normal order, followed by the little finger, traversed in reverse order. Lastly, the thumb rests, hovering above and between the pair of fingers that symbolize this week, not interacting with any bone. This roughly coincides with the period from the 3rd quarter to the new moon.

The 4 fingers of each of the 2 hands can be subdivided into 4 pairs of fingers, each pair of which is composed of 6 bones, which symbolize 6 of the 7 days in each of the cycles of the week in the cycle of the month. The thumb alone

symbolizes the 7th day of each week, which is symbolized differently from the other 6 days.



This diagram shows how the thumb and fingers interact to symbolize the 1st week of the month. Symbolism of this week involves the index and middle fingers, as well as the thumb.

To symbolize Day 1, the bones of the thumb extend straight, such that the thumb extends to the distal bone of the index finger.

To symbolize Day 2, the distal bone of the thumb bends, such that the thumb extends to the middle bone of the index finger.

To symbolize Day 3, both bones of the thumb bend, such that the thumb extends to the proximal bone of the index finger.

To symbolize Day 4, both bones of the thumb bend, such that the thumb extends to the proximal bone of the middle finger.

To symbolize Day 5, the proximal bone of the thumb straightens, such that the thumb extends to the middle bone of the middle finger.

To symbolize Day 6, the bones of the thumb extend straight, such that the thumb extends to the distal bone of the middle finger.

There remains 1 more day of the week to symbolize. For this, the thumb is used alone. The bones of the thumb extend the thumb straight. The thumb does not make contact with either of the fingers, but is above and apart from them. In this position, the thumb does not interact with any of the bones of the fingers, but can 'rest'.

This symbolism of the week correlates with the belief in the major monotheistic religions that the 7th day of the week should be considered to be different from all other days. Just as the thumb works to symbolize 6 days and then rests to symbolize the 7th day, such that the 7th day is symbolized differently from the other 6 days, it is often believed by followers of monotheistic religions that the 7th day of the week should be treated differently, and that people should work for 6 days of the week and that they should then rest on the 7th day.



Let us continue with the cycle of the year. There are 4 stages, or seasons, in the cycle of the year, each of which is subdivided into 3 months. There are 4 fingers on the hand, each of which is subdivided into 3 bones.

The cycle of the year is subdivided into 4 seasons, which we can call winter, spring, summer, and fall. We begin the cycle with winter, at the winter solstice, the beginning of light (as it is the shortest day of the year), although other starting points have been in common use by various cultures.

We will begin with the index finger, which is traversed in normal order, and which symbolizes the winter, followed by the other finger of the pair, the middle finger, which is traversed in reverse order, and which symbolizes the spring. The other pair of fingers will be traversed in similar order. The ring finger symbolizes the summer, and is traversed in normal order, and the little finger symbolizes the fall, and is traverse in reverse order.

The 4 fingers of the hand, each of which is composed of 3 bones, symbolizes the 3 months that make up each of the 4 seasons in the cycle of the year.



The 4 years of the Olympiad can be symbolized using the 4 fingers of the right hand. The thumb can mark the proximal bone of one of the 4 fingers of the hand, thereby identify what is the current year of the Olympiad.

Perpetuation of Time

Now, 4 simple finger signs can indicate the current time, including the year within the current Olympiad, the month within the year, the day within the month, and the hour within the day.

The ancient Greeks belonged to a culture that oriented to the 4th dimension. In order to symbolize a complete representation of their understanding of time at any given moment, they needed 4 finger positions.

The 1^{st} finger position would indicate the year within the current Olympiad. The 2^{nd} finger position would indicate the season of the year and the month of the season. The 3^{rd} finger position would indicate the week of the month and the day of the week. The 4th finger position would indicate the part of the day and the hour of the part.



Speakers of English recognize 4 primary units of time. These are the units of the hour, the day, the month, and the year.

These 4 units of time symbolize the 4 dimensions of awareness of people whose primary orientation is to the 4^{th} dimension of awareness. These are the dimensions of the point, the segment, the area, and the volume.

The hour is symbolized as a point, as the hour is the smallest primary unit of time and cannot be subdivided into a smaller primary unit of time. The day is symbolized as a segment of points, where the segment is composed of the points that symbolize each of the hours of the day. The month is symbolized as an area of segments, where the area is composed of the segments that symbolize each of the days of the month. The year is symbolized as a volume of areas, where the volume is composed of the areas that symbolize each of the months of the year.

	Point	Segment	Area	Volume
Time	At	On	In	In
Space	At	On	On	In

Prepositions: Positioning in Time and Space

Speakers of English learn to use 3 prepositions to position objects in time and space. These prepositions are at, on, and in. The word 'at' positions at a point in time or space. The word 'on' positions on a segment of time or space. The word 'in' positions in a volume of time or space. The word 'on' positions on an area of space, whereas the word 'in' positions in an area of time.

It is certainly possible for individuals to use in instead of on to position something in space in a given example, reflecting their symbolism in the given example not in the form of an area but in the form of a volume.

Time Examples

Point (hour): Bob has an appointment <u>at</u> 10:00. Segment (day): The appointment is <u>on</u> Monday. Segment (day): The appointment is <u>on</u> the 1st of May. Area (month): The appointment is <u>in</u> May. Volume (year): The appointment is <u>in</u> 2014.

Space Examples

Volume: The appointment is <u>in</u> New York. Area: The appointment is <u>on</u> the West Side, <u>on</u> the water. Segment: The appointment is <u>on</u> West Houston Street. Point: The appointment is <u>at</u> number 500 <u>on</u> Houston.

Awareness of Space

For cultures that orient to the 4th dimension of awareness, in the 2nd and final stage of their transition to awareness of the 5th dimension, there was awareness of 16 primary areas of vertical space. Each of these areas shares a segment. This is the vertical segment that extends through the body of mankind. Each of these also contains a 2nd segment. Each of these segments corresponds to a segment on an area of horizontal space.

From the 4th and early 5th dimensions of awareness, one segment extends forward-rearward through the body of mankind. Another extends left-right through the body of mankind. Another pair extends through the body to the left or right at an angle of 45°. As well, there were 2 more pairs of segments that lie midway between these other segments, offset by 22.5°. This makes a total of 4 pairs of segments.

Now, there are 4 more pairs of segments that lie midway between these other segments, offset by 11.25° .

In other words, these 16 vertical areas also symbolize the 33 points on the surface of the earth that describe the 8 horizontal areas of space.

During this period of their awareness of the 5th dimension, there was awareness of 4 pairs of areas for symbolism of horizontal space.

The 4 pairs of areas of horizontal space contain 16 segments. Each of these gave rise to a vertical area that was symmetrical. Therefore, each of the 16 corresponding vertical areas was also composed of 4 pairs of areas. This makes 64 pairs of areas of awareness of vertical space plus 4 pairs of areas of awareness of horizontal space. There were in total 68 pairs of areas of awareness of space, or 136 areas of awareness.



This is the shape of the hand to symbolize space. All 5 fingers are open and extended. The fingers are separated by an equal distance. The entire span of the hand is 45° . Given that there are 5 fingers, the span between any 2 fingers is 11.25° , which is half of the previous minimum of 22.5° .

Because each segment of the square that forms the bounds of the area spans 90° , 2 hand positions are required to symbolize an entire segment along the outer bounds of the square of the horizon.

To symbolize horizontal space, the hand is oriented horizontally, and the back of the hand is visible. To symbolize vertical space, the hand is oriented vertically, and the inside of the hand is visible.



This diagram shows the 4 pairs of horizontal areas of space from the perspective of mankind orienting toward the east. Each of the 8 areas in the 4 pairs is defined by 2 segments. Each of these 16 segments has as its midpoint the point of the here.

In addition to the 4 areas from before, with their 8 segments, there are now an additional 4 areas, and 8 segments, of awareness, where these new areas subdivide the previous distance between the endpoints of the segments from 22.5° to 11.25° .

The outer bounds of the areas, the extent of the areas that is visible to mankind, can also be represented by 4 segments, in the form of a square. Each segment of the square is composed of 2 half segments. Each half segment is composed of 5 points. There are 32 points around the perimeter of these areas. These 32 points identify the 4 primary directions in horizontal space, which form the midpoints of the segments that form the sides of the square, the 4 secondary

directions in horizontal space, which form the endpoints of the segments that form the sides of the square, the 8 tertiary directions in horizontal space, which form the midpoints of the 2 half segments that make up each of the segments that form the sides of the square, and 16 additional points on the square of horizontal space, which form the midpoints of the 2 quarter segments that make up each of the 2 half segments that make up each of the segments that form the sides of the square.

Looking outward from the point of the here, these 4 pairs of areas can be symbolized as forming a square. Looking outward at the entirety of the square from the perspective of the point of the here, this square can be perceived as being subdivided into 32 parts. Each part takes the form of a triangle.

Each finger sign in the symbolism of the cycle will symbolize one of these parts of the square, one of the triangles in the areas of awareness of horizontal space.

In each stage in the cycle of symbolism of horizontal space, the fingers of the hand will represent the 2 sides of each of 4 triangles that extend outward from the body toward the horizon. The 3^{rd} side of the 4 triangles is one half of 1 side of the square, where the half ends at the midpoint of the segment that forms the side or where the half begins at the midpoint of the segment that forms the side.



When we prepared the right arm for symbolism by shifting from the initial position for symbolism, the hand was in position for orientation to the 1st half of the segment of the square that lies in front of the body, the segment with the midpoint at the point of the east.

The 9 points of this segment can be subdivided into 2 half segments, each of which is composed of 5 points. The 1^{st} half segment begins at the point of the northeast, and ends at the point of the east.

The arm extends horizontally forward, with the back of the hand visible. The wrist extends the hand directly forward from the body. The little finger symbolizes a segment that extends outward toward the point of the east. The thumb is separated from the little finger by an extent of 45° , such that it symbolizes a segment that extends outward toward the point of the northeast. The middle finger is separated from each of the outer fingers by an extent of 22.5° , such that it symbolizes a segment that extends outward toward toward the point of east-northeast. The

index and ring fingers are positioned on either side of the middle finger, separated from the middle finger and the thumb or little finger by an extent of 11.25°, such that they symbolize segments that extend outward toward the points of northeast by east and east by north. The thumb is tucked away out of sight.

The 5 fingers form the 5 sides of the 4 triangles of space that are bounded by the 5 segments that extend outward from the fingers at the point of the here as far as the half of the segment on the horizon that extends from the point of the northeast to the point of the east, which forms the outer bounds of the square of awareness.

The head orients forward, such that the eyes can observe the hand, and then the eyes can observe beyond the hand to the area of space that the hand symbolizes.

Horizontal Areas: Other Stages

There are 12 stages in the cycle of horizontal space. These are the same 12 stages as those to symbolize 4 dimensional horizontal space and early 5 dimensional horizontal space. There is no need to repeat each of the stages here, since the stages are structurally the same as before, and differ only in the organization of the fingers on the hand.

Vertical Areas of Space

There are 16 segments of horizontal space. Each of these segments rises vertically to form a vertical area of space. That makes 16 primary vertical areas of space. As before, each of these vertical areas has a structure that is analogous to the horizontal areas of space. Each of these vertical areas is itself part of a set of 8 vertical areas, composed of 16 segments, each with 2 endpoints, making 32 points along the square that symbolizes the bounds of the area.

There are 16 sets of areas of vertical space, each of which is composed of 8 areas, totaling 128 areas of vertical space. Together with the 8 areas of horizontal space, there was awareness of 136 areas of space in the 5th dimension.

There is no need to traverse the stages here, because they are analogous to those for horizontal space, and are symbolized just as we saw with the vertical areas of space in the 4th and early 5th dimensions of awareness.



This is a diagram that represents any set of 8 areas of vertical space, with 8 squares of the same size overlaid to make it more in the form of a circle. The shape of the circle is now clearly apparent.

The diagram to the left overlays 8 squares, which symbolize 8 areas of space. The diagram to the right overlays the hands in the 8 positions that symbolize the 8 stages in the cycle of awareness. The diagram in the middle overlays the squares with the hands.

There are 8 stages that must be represented, either once or twice, in each cycle of vertical space. In the symbolism of space in the 2^{nd} stage of the 5^{th} dimension of awareness, the current stage of awareness, the fingers of the hands are subdivided into 5 fingers. If we overlay the hands, one over the other, the 1^{st} finger of each hand coincides with the last finger of the hand that precedes it, such that there is awareness of and symbolism of 32 distinctions in space.



In the 5th dimension of awareness, the current dimension of awareness, time is unified and space is subdivided. For example, modern religions represent nature as a single god, a single force, yet science subdivides nature into 4 forces.

Vertical space is represented by 8 areas that overlap in each group of areas. We can use these here to represent awareness of time.

As time is unified, all of the overlapping squares are observed as 1. Looking at the inside of the overlapping squares, they clearly form a circle. As well, there are 16 groups of such areas, forming a complete circle of circles of vertical space, as each rises from the point of the here and each is separated from the next by a span of 11.25°. Here, for simplicity, only the horizontal and 2 of the 16 sets of vertical circles have been drawn. If we imagine all 16 sets of vertical areas, 16 vertical circles, then together, all of these circles are clearly able to represent a sphere.



Time is unified. Hold the right hand extended as used in the symbolism, with the fingers apart from each other.

Since time is unified, it takes only 1 motion of all of the fingers of the hand to bring the hand together as in the diagram to form the shape of a sphere.



In the 5th dimension of awareness, the current dimension of awareness, time is unified and space is subdivided.

Horizontal space is represented by 4 pairs of overlapping areas. Vertical space is represented by 4 pairs of areas that overlap in each group of areas. We can use these to represent awareness of space.

As space is subdivided, each of the overlapping squares is observed as distinct and separate. Looking at the outside of the overlapping squares, and considering each in isolation, each clearly forms a square.

Consider 1 horizontal area, 1 square, together with its symmetric vertical pair of areas, with its corresponding square. We thus have a horizontal square, and 2 vertical squares, where the vertical squares orient forward-rearward and left-right. This clearly forms the shape of a cube.

As well, there are 8 groups of such areas, forming the complete bounds of a cube.



Space is subdivided. Hold the left hand extended as used in symbolism, with the fingers apart from each other.

Since space is subdivided, it takes 4 motions of all of the fingers of the hand to bring the hand together to form the shape of a cube.

Each finger is composed of 3 bones. Each finger also has a metacarpal bone, which is buried within the palm. The 4 bones can all orient in the same direction, or the 3 joints of each of the fingers can reorient the bones in 2, 3, or 4 directions, representing the 4 segments of an area.

The picture to the left in the diagram shows the fingers outstretched.

The next picture shows the 1^{st} motion, the fingers bending 90° at the proximal joint of the fingers, such that the 3 bones of the fingers orient in a direction perpendicular to the metacarpal bone of the hand.

The middle picture shows the 2^{nd} motion, the fingers bending 90° at the middle joint of the fingers, such that the proximal bones of the fingers orient in a 2^{nd} direction, and the other 2 bones of the fingers orient in a 3^{rd} direction, perpendicular to the proximal bones of the fingers of the hand.

The next picture shows the 3^{rd} motion, the fingers bending 90° at the distal joint of the fingers, such that the proximal bones of the fingers orient in a 2^{nd} direction, the middle bones of the fingers orient in a 3^{rd} direction, and the distal bones of the fingers orient in a 4^{th} direction, perpendicular to the middle bones of the fingers of the hand, such that the 4 bones of the fingers of the hand orient in 4 directions.

The right picture shows the 4th motion, where the thumb joins the fingers, crossing left-right as opposed to the finger orientation of forward-rearward and updown. At this time, the 5 fingers of the hand clearly form the shape of a cube.

Unification of Time

There is no longer any symbolism of awareness of space in religion.

With the unification of the entire right hand, to symbolize all 5 of the dimensions of time, awareness of time was now completely unified in the mind of mankind. However, time is unified as 1; this symbolism of time contains no symbolism of space at all, as symbolism of space as well as time would entail 2. Awareness of time is unified in all 5 dimensions, but time is only unified within itself.

Unification of Religion

Monotheism

This unification of time corresponded to a unification of religion in the mind of 4 dimensional mankind. The Olympians of the ancient Greeks, and the other pantheons of gods of early 5 dimensional religions of cultures that orient to the 4th dimension, unified. Moses, Jesus, and Mohammed are the 3 most well-known introducers of unified, monotheistic religions to 4 dimensional groups of mankind. Note that this unification was a gradual process, and did not happen all at once within each group. As well, different cultures unified their religions at different times in history.

Unification of Religion

Time is unified.

For religion, there is only time, and no space.

There is no longer any motion in space of the fingers to observe time.

Now, there are 2 symmetrical types of 4 dimensional mankind, and there are numerous shades of gray between them; those who focus primarily on religion and those who focus primarily on science. Most 4 dimensional people who focus on religion now have 1 unified god. People no longer have to separate in the mind their awareness of the givers of time into 12 bones. We no longer need the individual bones. Mankind can be aware of time, and, for those who focus on religion, god, as a unity.

Symbolism of Unified Religion			
Religion	Science		
Abstract	Concrete		
Formless	Visible		
Illogical	Logical		
Religion is not	Science (like logic) is		
modeled on language	modeled on language		

How does modern mankind understand the teachings of religion? One way to understand religion, and to teach others about religion, is through the use of language. However, language is modeled not on religion, but on science. This makes language a less than perfect way to understand religion. Unlike religion, language has structure, and language has form.

Mankind understands science and logic by observing the grammar of language. Language, and science, which is based on the model of language, are not able to express or explain well the truths of religion, as religion is too abstract, illogical, and formless, and science can only follow the concrete, logical, visible model of space.

Religion has been unable to express itself fully in language, and recognizes that the model of science is inadequate to express its truths. Because religion does not follow the model of language, followers of religion have been unable to interpret fully the symbolism of their holy books, which were written using language.

The holy books of the primary monotheistic religions were written between approximately 1,400 and 3,000 years ago. They contain extremely powerful symbolism about the nature of the world from the perspective of a unified understanding of time. To followers of science, as well as to followers of religion, the exact meaning of the symbolism can be extremely difficult to recognize. This is so because religion is about time completely devoid of space and science.

This new model of nature makes it possible to recognize that religion and science, although symmetrically opposite in all respects, are interrelated sides of the same coin, and can be recognized to represent complementary models of nature.

Religion			
Profound	As is science		
Difficult to express in words	Language is modeled on space		
Illogical	Logic is based on space		
Formless	God is not visible in space		

Religion understands many profound truths of nature. However, religion is unified only within itself, and has no unification with or symbolism of space.

Followers of science can find it extremely difficult to understand or appreciate the symbolism of religion.

Because the basic tenants of religion, and the sacred religious texts, are understood and described using words, and because the structure of words models the structure of science, it can also be difficult for followers of religion to understand their religion in a concrete manner or communicate their understanding with others. Religion remains illogical to science, as logic is also based on the structure of language; religion is abstract and formless.

Christianity Compared to Geometry

Monotheistic religion and geometry evolved at approximately the same time in history. Religion evolved 1st, before science, in the 5 dimension of awareness, although not in Greece. Judaism was the 1st primary Western form of monotheism that still has significant followers. Christianity evolved shortly after the rise of geometry, but their difference in time was not great.

Christianity represents a complete unification of time, and only time. Geometry represents a complete unification of space, and only space. For religion, the 1 stage to the evolution of monotheism was the only stage of evolution. For science, geometry represented only the 1^{st} stage of 4 stages in the evolution of science.

The verbs believe and know were previously introduced as representing awareness of time and space. The verb 'believe' symbolizes mankind's experience gained over time. Believe is used to represent awareness of time. Time is subjective and intangible. Understandings of time cannot be demonstrated, but can only be believed or not believed. The verb 'know' symbolizes mankind's understanding of space. Know is used to represent awareness of space. Space is objective, tangible, and can be demonstrated.

In geometry, there is no representation of time. Therefore, the only dimension of time that is represented is the time of the now. Other than people who have a particular interest in history, people who have an interest in geometry typically do not feel it necessary to read the original Euclid. People realize that societal understanding of geometry has evolved greatly over the past 2,000 years,
as has the ability to explain the principles of geometry in modern language. People want to know about geometry now. Science is about objective and demonstrable truths. If people were to disagree, for example, about whether or not vertical angles measure the same number of degrees, it is simple enough to draw a picture in space, and demonstrate objectively that they do. Furthermore, other people are typically quite welcome to attempt to demonstrate in an objective manner that commonly accepted assumptions or conclusions should be reconsidered.

In Christianity, there is no representation of space. Therefore, the only dimensions of time that are represented are times other than the now. Christianity, like other forms of monotheism, is about stories that originated long, long ago. People who have an interest in Christianity feel it necessary to read the original writings from long ago, or their translations. Religion is about subjective truths, which are not demonstrable. There is no representation of space, and so there is nothing tangible. A person can either believe in Christianity or not believe. There is no ability to demonstrate truths, and other people are typically not at all welcome to attempt to demonstrate that commonly accepted assumptions or conclusions should be reconsidered.



Geometry is a relatively simple model of nature, and is based on 3 fundamental presuppositions about the nature of the world:

- 1. The only component of nature is space.
- 2. Space exists in 3 dimensions.
- 3. In each dimension, space is infinite.

Let us examine these presuppositions more closely:

1. The only component of nature is space:

In other words, it is considered meaningful to consider space outside of the context of time. This is a valid assumption, given that this is a simple, early model of space, the 1st stage in a cyclic flow through progressively more evolved models of space,

in which time is completely ignored. It is important to be aware of the position of geometry within the evolution of science, and not to think that it is equal in its symbolism to all other prevalent models of science. This 1st model of science is about 1, space only. Over time, time will be progressively integrated into later models of space.

3. In each dimension, space is infinite:

This is a valid assumption. Given that there is no representation of time in geometry, there can be no representation of motion in space, since motion in space requires time. With no representation of motion in space, there can be no consideration of the possibility of any end to space, since no end to space could possibly be reached without motion through space. Therefore, given the previous presupposition that space be considered outside of any context of time, space can and should indeed be considered to be infinite. Furthermore, science is all about the time of the now. We are now in the 3rd dimension of the universe. In the 3rd dimension, space is expanding outward from the Big Bang. There is no apparent end to this expansion, if viewed only from the perspective of the now, and there will not even be apparent slowing of this expansion until the 4th dimension of the universe, which is not within the scope of science that focuses on the now.

2. Space exists in 3 dimensions:

Geometry represents awareness of 4 dimensions, but these dimensions are counted as 3. This is valid. Since space is considered to be infinite, and therefore the point is considered to be infinitely small in all dimensions, the point should not be considered to count as a distinct dimension.

Christianity

Christianity is a relatively simple model of nature that is based on a unified awareness of the dimensions of time. It is a powerful model, like geometry, but it is an ancient model, which has not evolved significantly since its inception in ancient times. Christianity unifies all of the dimensions of time into one unified representation and understanding. As well, it unifies all of the gods of the Olympians into a single, unified god, known as God.

Christianity has no representation of space. Therefore, although religion is about time, it is about time other than the time of the now. Christianity represents an understanding of the origin and evolution of the world, past and future.

Although many powerful insights are available through Christianity, they can be quite confusing and unclear. There are many different representations of religion, and each presents its truths in a subjective and abstract way that makes it difficult to understand and impossible to examine and challenge. One can either believe the tenets of a religion, or not. One can trade one set of religious tenets for another set. Each has a different representation of understandings of time, but each is equally subjective and difficult to interpret.

Let us examine some of the understandings of Christianity in light of this new model of nature.

Religion is all about representation of time. Indo-European cultures are anthropomorphic cultures, and so time is symbolized as a human-like male, known as God. God is a personification of time. Whereas Christianity considers that mankind was created in the image of God, it is clear that God was created in the image of mankind, on the basis of the recognition of the symmetrical forms of mankind on the earth and in the heavens, as discussed previously. God is the personification of time.

Christianity considers that God is infinite. We know that time is infinite in the universe.

Christianity considers that there is 1 god. This is reasonable, as there is only 1 time, which exists through each generation of the cycle of the universe. The Christian god is a fully unified god, just as awareness of time is also now completely unified.

Christianity considers that God is everywhere. Time is everywhere, and always, and currently is integrated with all of space, everywhere.

Christianity considers that God created all that exists in the universe. Time gave rise to space, in the 2^{nd} dimension of the universe. This giving rise to space by time can also be considered creation.

Christianity considers that God created the universe, in an act known as the Creation. Time caused the current state of the universe of space-time to come into existence in an act known by such names as the Creation or the Big Bang.

Christianity considers that God is a 3 part god. The 3 parts are known as the Father, the Son, and the Holy Spirit. We know that in the universe now, where all that we know exists, there are 3; time, space, and space-time. The Father represents time, the Son represents space-time, and the Holy Spirit represents space.

Christianity considers that the world was created in 6 days. This is discussed in the first chapter of Genesis, the first book of the Old Testament. Why 6? Why days? Why is the number 6, and not some other number? Why is the unit of time days, and not one of the other units of time, either months or years? It was with the creation of light that the 3rd dimension of the universe, the present dimension of the universe, was created. It was in the 3rd dimension of awareness that mankind became aware of his existence, and aware that he had been created. In the 3rd dimension of awareness, the only unit of time of which mankind was aware was the cycle of light and darkness, the cycle of the day. Mankind at that time was aware of no other unit of time than the day. The cycle of the day in the 3rd dimension of awareness was a cycle of 6 stages. The first motion in the universe, the birth or creation of the universe, occurred in the first complete cycle of motion of time in the 3rd dimension of awareness, and so is symbolized as the 6 stage cycle of the day.

Let us examine the symbolism of each of the 6 days of creation, as described in Genesis Chapter 1. As with the 6 stage cycle of the day described in the section on the 3^{rd} dimension of awareness, this cycle of 6 stages can be subdivided into 2 half cycles of 3 stages each. The stages in the 1^{st} half of the cycle symbolize subdivision of our awareness of nature, and the stages in the 2^{nd} half of the cycle symbolize population of the subdivisions. The stages in the 1^{st} half of the cycle symbolize awareness of the point, the segment, and the area, and the stages in the 2^{nd} half of the cycle symbolize awareness of the volume. The stages in the 1^{st} half of the cycle symbolize awareness of part of the geometric symbols, those of the point, the segment, and the area, whereas the stages in the 2^{nd} half of the cycle symbolize awareness of all of the geometric symbols, those of the point, the segment, the area, and the volume.

Day 1 is about the creation of awareness. The creation of light within the darkness of our awareness was the beginning of human awareness of nature. This symbolizes distinction within what theretofore had been only chaos. In terms of geometric symbolism, this day symbolizes the point, as there is awareness of the point of light within the chaos of our darkness.

Day 2 is about a vertical subdivision of awareness of the world into the heavens above and the earth below. In terms of geometric symbolism, this day symbolizes the segment, as there is awareness of the segment extending to the heavens above from the earth below.

Day 3 is about a horizontal subdivision of awareness of the earth into water and land. Furthermore, the land is populated with plant life, such that there are 2, life and non-life. In terms of geometric symbolism, this day symbolizes awareness of the area, as there is awareness of the vertical segment from before, and now a horizontal segment on the earth, where 2 segments define an area.

The 1st half of the cycle of creation is about awareness of space. Day 1 is about awareness of existence in space, and awareness of the point of the here. Day 2 is about awareness of position and motion in space, and awareness of the segment that extends from the earth to the heavens. Day 3 is about awareness of interaction in space, and awareness of the vertical area that extends along the surface of the earth from east to west and upward into the heavens.

The 2^{nd} half of the cycle of creation is about awareness of the volume of time and space. 1^{st} , there is 1 day about time (which is 1^{st} , and primary). 2^{nd} , there are 2 days about space (which is 2^{nd} , and secondary).

Day 4 is about population of the heavens with the givers of awareness of time. The volume of the heavens (along the zodiac alongside the ecliptic) is populated with the sun, the moon, and the stars. These objects in the heavens are the enablers of awareness of all of the units of time, such as the day, the month, and the year.

Day 5 and day 6 are about population of the earth with life on earth, the givers of awareness of perpetuation in space. This awareness is subdivided into 4, awareness of the point, the segment, the area, and the volume. We can recognize these as fire, air, land (earth), and water.

Day 5 is about awareness of life within the volume of space, the volume of the waters. There is life in the volume of the oceans, in the form of fish. It is also about awareness of life along the segment of space, the segment of the air. There is life in the segment of the air, in the form of birds.

Day 6 is about awareness of life on the area of space, the area of the land. There is life on the area of the land, in the form of animals. It is also about awareness of life at the point in space, the point of fire. There is life at the point of fire, in the form of man. Mankind is aware of himself at the point of the here, and the hearth fire symbolizes the point of the here for the family of mankind.

Genesis Chapter 2 then continues with Day 7, which is different from the other days, and is a day of rest. Whereas the cycle of the day, in the 3rd dimension of awareness, is a 6 stage cycle, at the time of development of Christianity, there was awareness of the cycle of the week. The lunar month is approximately 29.5 days long. If we divide the lunar month into 4 parts, as everything in nature is subdivided into 4 distinctions by cultures that orient to the 4th dimension, the closest whole number of days to the result of this division is 7. A week is composed of 7 days. Since only 6 were needed for the cycle of creation, nothing is required for the 7th day, and so it is designated a day of rest. Furthermore, the days of the week were named after the objects in the heavens that enabled awareness of the cycles of time, and there are 7 of these; the sun, the moon, and the 5 planets that are visible to the naked eye and that were known in ancient times.

The Book of John in the New Testament (as translated) begins with the sentence "In the beginning was the Word." Word is written $\lambda \delta \gamma \circ \varsigma$, or logos. As with many languages, the word logos in Greek could also be understood to mean language in general. In the beginning, of awareness, there was language, which enabled human awareness of time and space.

Christianity considers that the great adversary of God is Satan. The word Satan comes from a Hebrew word meaning 'adversary'. Satan is also symbolized as a man, as though a man could somehow compete successfully with a god. Satan symbolizes space, and the finite nature of space, in the same way that God symbolizes time, and the infinite nature of time. Where there are 2, time and space, and where there are 2, good and evil, God is the personification of time and good, and Satan is the personification of space and evil. Time is infinite, but space is not, and ultimately Satan, like space, will die. Christianity considers that people have the choice to be with God or to be with Satan. Mankind symbolizes space-time. If people align their space-time with time (God), then after death they will be with God, symbolized by heaven, which is located in the heavens, where time is tracked. If people align their space-time with space (Satan), then after death they will be with Satan, symbolized by hell, which is located in the earth, where space is located.

Christianity considers that after death people will either be with God or be separate from god. The Book of Revelation, at the end of the New Testament, writes of the end of the world and the joining with God. At the end of the 4^{th} dimension of the universe, time and space will separate. Mankind, associated with space-time while alive, cannot in the 5^{th} dimension of the universe remain associated with both space and time, but can only associate with one or the other, at least symbolically, in the after death. Space will eventually die, at the end of the 5^{th} dimension of the universe, leaving only time to live on infinitely. Once space finally dies, everything that exists will exist only as time.



Just as with the right hand, the left hand can now open, in order to symbolize space. In order to symbolize the volume of space, open the fingers of the left hand, and extend the fingers outward, horizontally forward, toward the horizon. All 5 fingers are extended, and are used together. All 5 fingers are symbolized as whole fingers, unified fingers, and no longer as fingers subdivided into multiple bones. There is a span of 11.25° between the fingers. The hand is flat, symbolically forming the base of a cube.

The left hand has a similar orientation to the east as the right hand. The orientation is not identical, but is symmetric, as the thumb orients to the east-northeast and the little finger orients to the east-southeast.

Although we can use this orientation of the 5 fingers to understand the overall evolution of awareness of space, we shall see that the extension of the fingers to reach this position is not achieved all at once, but evolves over stages, in order to symbolize the stages in the evolution of modern science.



The left hand has 5 fingers, each of which extends outward from the hand in the form of a segment. The middle finger orients to the point of the east. The outer fingers, the thumb and little finger, orient to space in a section that extends from the east-northeast to the east-southeast.

Each finger represents a segment, which can be recognized to extend outward to the horizon. Each segment extends from the point of the here outward to the horizon at the limits of our awareness of the earth, which are the limits of our awareness of horizontal space.

These 5 segments span 45° , which is 1/8 of the full area of horizontal space, which spans 360° . The area of horizontal space extends forward and rearward from the point of the here, and it also extends leftward and rightward from the point of the here. In all, there is awareness of 16 segments that subdivide the area of the earth and that pass through the point of the here.

We do not need to actually symbolize separately each of the 32 segments of horizontal space. By recognizing the 5 segments of this 1 section of the entire area of horizontal space, and by awareness that there are 7 other symmetrical

subdivisions of the area of the surface of the earth, we can be aware of the entire square of horizontal space as being subdivided into 32 sections.

Each of the 8 sections of the area of the earth is represented by 5 segments. Of each section of 5 segments, 1 of the segments overlaps with the adjoining section. This leaves 4 distinct segments that subdivide each section of horizontal space, extending outward to the horizon from the point of the here.

The surface of the earth can be subdivided into 8 sections, each of which can be further subdivided into 4 sections, making a total of 32 subdivisions of horizontal space.



There is awareness of 16 line segments that subdivide the area of the surface of the earth, the area of horizontal space.

We can recognize that each of these line segments is composed of 2 ray segments, such as there are 32 points of awareness around the square of awareness. For each of these line segments, there is awareness that the line segment can be extended vertically, upward and downward, to form a corresponding vertical area of space.

There is also awareness that we can subdivide each of these 16 vertical areas of space into the same 32 ray segments as the area of horizontal space. We do not need to symbolize on the fingers each of the 32 ray segments of each area, and we do not need to symbolize each of the 8 areas. We can be aware of the symmetry of space, and we can be aware that the 1 primary subdivision into 5 ray segments, oriented to the ecliptic, enables us to be aware of all of the volume of horizontal and vertical space.

For example, we could use the left elbow to rotate the forearm 90° toward the right, such that the bones of the forearm orient up-down with respect to each other, rather than orient left-right with respect to each other. Maintaining the same position of the hand, the 5 fingers mark out a 45° section of the vertical area of space that extends up-down and forward-rearward. This section is analogous to the equivalent section of horizontal space. By extension, we can be aware that this vertical area could be subdivided into 8 such sections, just as the area of horizontal space can be subdivided into 8 such sections.

In like manner, we could use the wrist to rotate the hand 90° inward, such that the hand orients toward the right. Maintaining the same position of the hand, the 5 fingers mark out a 45° section of the vertical area of space that extends updown and left-right. This section is analogous to the equivalent section of horizontal space. By extension, we can be aware that this area could be subdivided into 8 such sections, just as the area of horizontal space can be subdivided into 8 such sections.

At our current stage of awareness, we have evolved to the awareness of 32 ray segments that extend outward from mankind at the point of the here. These can be recognized to form 16 line segments that cross the surface of the earth, with the center point of each of the segments passing through the midline of mankind, at the point of the here. These segments can subdivide our awareness of horizontal space into 32 distinctions. We can also be aware of each of these 16 line segments as the mid-segment of an area of vertical space, which extends upward and downward, forming 16 areas of vertical space. For each of these 16 areas of vertical space, we can be aware that the area can be subdivided into the same 32 ray segments that we recognized with horizontal space.

Evolution of Science

Awareness of space is also about awareness of science. For cultures that orient to the 4th dimension of awareness, science is evolving through the same 4 stages as is recognized for everything else in nature.

Whereas the right hand, in order to symbolize time, symbolizes the awareness of 5 points of time in the proximity of the eastern horizon, the representation of space in the symbolism of science symbolizes only 1 point in space, the 1 point of the east on the horizon. Therefore, the right hand begins open, and the fingers are located separate and apart from each other, in order to symbolize 5 distinct points, with each finger symbolizing 1 point. However, the left hand begins closed, and will open slowly, whereupon the fingers of the hand will be located together, next to each other, in order to symbolize the same 1 point of the east, the same 1 point in space, with 4 different symbolisms.

Unification of Space Once Time has unified, 1st, in 1 stage, Space begins to unify, 2nd, in 4 stages.

Once time unified, 1st, space then began to unify, 2nd. Space has not yet unified completely. However, what unification there has been consists of unification of space together with time, such that the 2, space and time, which were completely separate in the mind, have been progressively unifying to become 1, space-time. It is the progressive unification of space with time, as space-time, that has made science become visible in the mind.

The unification of space is, quite naturally, a 4 stage process for cultures that orient to the 4th dimension. These 4 stages correspond to the 4 dimensions of the point, the segment, the area, and the volume, which are the 4 dimensions of space that cultures that orient to the 4th dimension recognize and symbolize.



There are 5 dimensions of awareness, and there are 5 fingers that can be used to symbolize them. However, as there is a primary orientation by people who orient to the 4^{th} dimension to the number 4, there are 4 primary models of science that these 5 fingers can symbolize. Therefore, 2 of the 5 fingers must integrate in their symbolism of 1 of the models of science, such that the 5 fingers can symbolize 4 models of science.

It was previously stated that in order for cultures that orient to the 4^{th} dimension to maintain a primary orientation to the number 4, given that there is awareness of 5 dimensions of space-time, there must be integration of awareness of 2 of the dimensions. As shown in the diagram, there are 3 possible ways to integrate any 2 of the original 4 dimensions of awareness.

Time is primary, or 1^{st} , for these cultures, such that there was 1 way to integrate 2 dimensions of awareness of time. Time, and religion, have an integrated awareness of the 3^{rd} and the 4^{th} dimensions. For example, the gods that symbolize the 3^{rd} and the 4^{th} dimensions of awareness were symbolized by the ancient Greeks as siblings, which were both symbolized by the 4 dimensional area.

Space is secondary, or 2nd, for these cultures, such that there were 2 ways to integrate 2 dimensions of awareness of space and science. We already saw

integration of the 2nd dimension with the 3rd. In geometry, for example, the ray segment is not considered to be fundamentally different from the line segment.

Now, we will consider a 2^{nd} way to integrate 2 dimensions of awareness. Of the original 4 dimensions of awareness, there is only 1 remaining possible pair of dimensions to integrate. This time, the 1^{st} and 2^{nd} dimensions will integrate.

The 1^{st} model of science that we discuss, geometry, symbolizes both existence and position, the symbols of the 1^{st} and 2^{nd} dimensions of awareness.



Our ancestors evolved in their understanding of science in stages. Science creates models of nature, and so there have been 4 stages in the evolution of scientific models of nature. Therefore, rather than opening the left hand all at once, as with the right hand and awareness of time, we will open the hand in stages, corresponding to the stages in the evolution of science and awareness of space.

There are 5 fingers on the hand. Yet, there are only 4 stages to symbolize. The thumb will be used to symbolize the 4 stages by interacting in turn with each of the other 4 fingers. The 4 fingers will be extended 1 at a time, in order to symbolize each of the 4 scientific models of nature.

We have recognized all of the fingers other than the thumb as being composed of 3 distinct bones. The thumb, however, is composed of only 2 bones. Still, if we look deeply at the thumb, we can see that, unlike with the other fingers, there is another bone that can move the thumb in relation to the rest of the hand, a 3^{rd} bone, the metacarpal bone, buried within the palm. Therefore, we can observe the thumb in relation to the other 4 fingers in 4 distinct ways, where none of the bones of the thumb move, or where the 1^{st} , the 2^{nd} , or the 3^{rd} of the bones of the thumb moves. The bones of the thumb in motion will symbolize our 4 stages in the evolution of science.

Awareness of space is subdivided. We will see this reflected in the symbolism in that as each of the bones of the thumb can shift toward the other fingers in 2 ways, with either a half shift or a full shift.

Evolutio	on of Mod	els of S	cience
	Model	Dimension	
	Euclidean Geometry	1	
		2	
	Newtonian Physics	3	
	Einsteinian Relativity	4	
	New Physics	5	

As English orients to the 4th dimension of awareness, and as there is awareness of everything in nature as being subdivided into groups of 4 for cultures that orient to the 4th dimension of awareness, there will naturally be 4 stages in the evolution of models of science. These 4 stages will symbolize all 5 of the dimensions of awareness. The representative scientific models of nature that symbolize these 4 stages in the evolution of science are as follows:

Euclidean geometry symbolizes the 1^{st} and 2^{nd} dimensions, the dimensions of existence and position.

Newtonian physics symbolizes through the 3^{rd} dimension, the dimension of motion.

Relativity symbolizes through the 4th dimension, the dimension of interaction.

The new physics that is being introduced in this book symbolizes through the 5^{th} dimension, the dimension of perpetuation.



To symbolize the 1st model of science, Euclidean geometry, 2 of the 5 fingers will extend, but they will do so separately.

In the initial position for symbolism, the thumb naturally extends forward, whereas the other 4 fingers naturally extend rearward.

Therefore, without moving any of the fingers of the hand, the thumb already extends forward, alone.

The thumb symbolizes the 1st dimension of awareness, the dimension of existence. Since there is only 1 point of awareness, there is no other symbolism other than existence that the thumb could possibly represent. There is awareness

that the thumb exists, since there is 1 point that is symbolized by the fingers of the hand, but there can be no other awareness other than that the point exists.



To symbolize each of the 4 stages in the evolution of science, 1 of the 4 fingers will extend forward, toward the point of the east, and the thumb will shift its bones, as necessary, in order to symbolize a relationship with the other extended fingers.

To symbolize the 1^{st} of the 4 stages, the index finger extends forward. The index finger is the 1^{st} of the 4 fingers. Now, there are 2 fingers that extend forward, the thumb and the index finger. Each finger symbolizes 1 point. These 2 points symbolize the 2^{nd} dimension of awareness, the awareness of position.

At this time, the thumb does not move at all. In other words, none of the bones of the thumb needs to move in order to symbolize a relationship with the index finger. The thumb was already positioned alongside the index finger, and extending the index finger did not break this contact. No motion is symbolized by these 2 points. The only relationship that they can symbolize is that the thumb is positioned to the left of the index finger, and that the index finger is positioned to the right of the thumb. In other words, in addition to symbolism of existence, there is also symbolism of position.

These 2 positions of the left hand, extending only the thumb and extending both the thumb and index finger, correspond to the era in the history of science that is symbolized by the model of nature known as Euclidean geometry. The thumb does not move any of its bones in its relationship to the extending of the index finger, and so the thumb is involved in no motion in space. Motion of the thumb through space would symbolize time, in some form, since motion through space requires time. At this stage of science, there is no symbolism of time.

Geometry is a model of nature that has no symbolism of time. Although geometry recognizes the point, the point is considered to be infinitely small, and is not visible. The point is therefore not recognized as a dimension in geometry. The other 3 fingers, symbolizing the other 3 dimensions, are still bent in 4 directions, facing rearward.

Notice that with Euclidean geometry, which symbolizes the 1st dimension of space-time, only the simplest usage of numbers is required or possible. Only simple arithmetic is used to represent the relationships that can be symbolized when discussing parts of one or more of the infinities of geometry.

Euclidean geometry unifies 1 dimension of space-time. This is fairly easy for most modern people to understand, because it is very natural. Many speakers of 4 dimensional languages have evolved to this stage of awareness. (By this, it is not meant that many people understand Euclidean geometry specifically, but only that they recognize as natural the same relationships that geometry symbolizes.)

Prei	mises	That Underlie Euclidean Geometry
	1	Nature is only about space.
	2	Space exists in 3 dimensions.
	3	Space is infinite in all dimensions.

The basic tenets of Euclidean Geometry have already been discussed. The model of Euclidean Geometry is based on 3 fundamental notions: It is meaningful to talk about space outside of the context of time, space exists in 3 dimensions, and space is infinite in each of the 3 dimensions.

Based on this, it follows that there are 4 states of existence in geometry. All 3 of the dimensions can be infinitely small, or 1, 2, or 3 of the dimensions can be infinitely large. The point represents space in which all 3 dimensions are infinitely small, the line represents space where 1 dimension is infinitely large and 2 dimensions are infinitely small, the plane represents space where 2 dimensions are infinitely large and 1 dimension is infinitely small, and 3 dimensional space represents space where all 3 dimensions are infinitely large.

In the following discussion, these 4 dimensions will be represented using 1, 2, 3, and 4 points. Although space is considered to be infinite in geometry, all representations in diagrams here will use linguistic points, and not geometric points, and so of course the size of the points will be finite.



Let us begin with the case where all of the infinities are infinitely small. This is symbolized by the point. The point is defined to be infinitely small in all 3 dimensions.

Nothing can be known about a single point other than that it exists. No measurements can be done with it, no relationships can be recognized with it, and nothing else can be done with it. Either a point exists here or it does not exist here.



Let us now consider the case where 1 of the infinities is infinitely large. This is symbolized by the line. The line is considered to extend infinitely in 1 pair of directions. We will use only a line segment here to symbolize the line. A line segment can be represented by 2 points.

We can call geometry of 1 dimension linear geometry, where the word 'linear' reflects its relationship to the word 'line'. Linear geometry is quite simple. The 2 endpoints of the line segment can hold a single relationship, which we will call position. Position requires that there be awareness of more than 1 point. Any given 2 points are separated from one another. Otherwise, they would not constitute distinct points. The degree of separation between any 2 points can be called distance, as there is distance from one point to the other. The measurement of the 1st dimension is called the length, and the length is a measure of distance. In order to measure distance, there must exist 2 distinct points.

The relationship between 2 points enables us to identify the position of each point in relationship to the other. In the symbolism of this model, the hand extends 2 fingers, each of which symbolizes a single point, such that this hand symbolizes 2 points of awareness. The hand with 2 fingers extended symbolizes awareness of position.



In addition to the awareness of the existence of a point, we can also be aware of its position. Position requires a 2^{nd} point with which to relate the point. A point in 1 dimensional geometry can be identified by 1 number. The diagram shows a number line. There is a point in the diagram that is at the position identified by the number 4. In order for the number 4 to have any meaning, we must understand that the point is positioned at a distance of 4 units from our origin on the number line, which is the point that is identified by the number 0.



Instead of using the point of the origin as one of the 2 points, we can just as well draw 2 points anywhere along our number line, and join them with a line segment.

We can now measure the distance from one point to the other. In the diagram, the distance is 2 units, or simply 2. The measure of distance is known as the length. The segment in the diagram has a length of 2.



Let us now consider the case where 2 of the infinities are infinitely large. This is symbolized by the plane. The plane is considered to extend infinitely in 2 pairs of directions. We will use only a finite area here to symbolize the plane. An area can be represented by 3 points that do not all lie on the same segment.

We can call geometry of 2 dimensions planar geometry, where the word 'planar' reflects its relationship to the word 'plane'. Planar geometry is more complex than linear geometry. We can make an additional measurement, which we will call area.

In planar geometry, each point is identified by 2 numbers on a coordinate graph that is composed of 2 number lines. One number describes the distance along a 1^{st} horizontal axis (the x axis), which extends rightward from the origin, and the other number describes the distance along a 2^{nd} horizontal axis (the y axis), which extends forward from the origin. (When only these 2 axes are visible, the y axis is often called the vertical axis, and is said to extend upward from the origin.) We shall call these 2 distances the length and the width.

As before, we can measure the position of any point, with respect to another point or with respect to the origin. We can also measure the length of any line segment.

In addition, a minimum of 3 points that are not all on the same segment can be connected by a minimum of 3 line segments, which can outline a 2 dimensional section of space. We can measure the amount of space bounded by these segments. The measure of this bounded space is called the area. In the diagram, we can measure the area of the triangle.



Let us now consider the case where all 3 of the infinities are infinitely large. This is symbolized by what is known as 3 dimensional space. In geometry, 3 dimensional space is considered to extend infinitely in all 3 directions. We will use only a finite volume here to symbolize 3 dimensional space. A volume can be represented by 4 points that do not all lie on the same area.

We can call geometry of 3 dimensions solid geometry. Solid geometry is more complex than planar geometry. We can make an additional measurement, which we will call the volume.

In solid geometry, each point is identified by 3 numbers on a coordinate graph that is composed of 3 number lines. One number describes the distance

along the x axis, one number describes the distance along the y axis, and one number describes the distance along a 3^{rd} axis, the z axis, which extends (or as shown here attempts to appear to extend) vertically upward from the ground or paper. We will call these 3 distances the length, the width, and the height.

As before, we can measure the position of any point, with respect to another point or with respect to the origin. We can also measure the length of any line segment or the area of any planar figure.

In addition, a minimum of 4 points that are not all on the same plane can be connected by a minimum of 4 areas, in this case 4 triangles, which can outline a 3 dimensional section of space. We can measure the amount of space bounded by these areas. The measure of this bounded space is called the volume. In the diagram, we can measure the volume of the tetrahedron.

Geometry & the Structure of Space

It might be tempting to believe that geometry concerns things that actually exist in the real world. However, geometry has nothing to do with content in space.

Even if space were indeed infinite, humans are completely unable to be aware of or even to conceptualize infinity. The mind does not, and cannot, relate to space as being infinite.

Yet everything in geometry is based on the notion of infinity. Nothing in the real world could actually exist in 0 dimensions, such that it is infinitely small in all 3 dimensions. Nothing in the real world could actually exist in 1, 2, or 3 dimensions, infinitely small or infinitely large in all dimensions.

Things cannot exist even in 3 dimensional geometric space. Nothing in the real world can exist without time, and time is not represented in geometry. Nothing can exist if there is no motion in space, and motion is not represented in geometry.

Euclidean geometry is a very useful model of nature, which is why it remains in very common use after thousands of years. It is useful due to its simplicity. However, the geometric model of space is not a model that represents in any way what actually exists in space. Geometry is a model only of the structure of space, and of the types of relationships that can exist within this structure.

Matter

The Notion of Existence within the Universe

Matter is a term that is commonly used to represent that which exists in space. We will explore the evolution of the concept of matter through the various models of science.

The model of geometry does not deal with content in space. In geometry, space is the framework, and geometry concerns existence and position within the framework that is space. In other words, in geometry, there can be no representation of matter in space, and space itself is not matter.

In geometry, points and constructions made of points can have existence and they can have position in space, but geometry does not concern itself with objects that exist in the real world. Geometry is only about the structure of space itself, and not about any content within it. Although objects within the framework of space can have area and they can have volume, there is no content to the objects, due to the infinite nature of the objects. For example, there is no notion of mass. Therefore, the concept of matter is not useful and is not used in geometry.

Mass & Force

Notions that Relate to Matter

In each stage of the evolution of science, we will talk about the words mass and force.

In simple terms, mass relates to the amount of matter in an object. Force is that which can cause a change in a mass.

Mass

Mass Relates to the Amount of Matter

In Euclidean geometry, there is no representation of matter in space. There is therefore no notion of mass. In geometry, space is composed of point particles that are without mass and that are without matter.

Force

Force Acts on Mass

Force acts on mass, and is able to cause a change in mass.

Normally, when we talk about Euclidean geometry, the terms mass and force are not used. Geometry recognizes no mass in space, and so recognizes no force that can act on mass.

This discussion about matter, mass, and force is not designed to provide useful information about geometry. It is designed to introduce a framework for understanding mass and force that will provide a basis for comparing and relating our understanding of these terms in the subsequent stages of awareness of science.

Geometry – Nature of Space			
Nature of Space			
Existence	Euclidean Geometry		
Position			
Motion			
Interaction			
Perpetuation			

In geometry, space is recognized as a framework for existence. This existence takes the form of infinitely small points. Points can be positioned anywhere within this framework, such that geometry is also about the position of points within the framework of space. A single point can only represent the 1st dimension of the point. Multiple points can symbolize the 2nd dimension of the segment, the 3rd dimension of the area, or the 4th dimension of the volume. Multiple points can represent various relationships, known as length, area, or volume.

Geometry is a model of nature that represents awareness of existence and position within the framework of space. There is no awareness of motion through space, or of interaction or perpetuation in space. There is no representation of awareness of change in space. Therefore, there is no need for time within this model of space, and there is no representation of awareness of time.

Light has no meaning except by virtue of its motion, yet motion is not represented in geometry, and therefore there is no special place for the concept of light within geometry.

Force is that which affects mass, yet mass is not represented in geometry, and therefore force is not represented within geometry.



To symbolize the 2^{nd} of the 4 stages in the evolution of science, the 2^{nd} finger, the middle finger, extends forward. Since there is no distinct symbolism of the 2 dimensional ray segment, this 2^{nd} finger symbolizes the 2^{nd} dimension for 4 dimensional mankind, the dimension of the line segment. The segment is the symbol of motion.

When the fingers of the right hand opened to symbolize time and religion, the fingers were opened and apart. The reason is that the fingers had to symbolize 5 locations in space at the same time, beginning with the east and locations to the north and south of east. Now, to symbolize science, the fingers only need to orient to the east, and not to 5 different points in space. Therefore, space symbolizes unity at 1 point, rather than the unity of all points, as with time. The fingers are held together, and touching, in order for all fingers to symbolize the same point, the point of the east.



Altogether, 3 fingers are extended, such that this position of the hand symbolizes the 3^{rd} dimension of space-time. Other than the thumb, 2 fingers are extended, such that this position symbolizes the 2^{nd} model of science.

The 2^{nd} stage of unification, the unification of 3 dimensions of space-time, correlates to what is known as Newtonian physics.

To symbolize Newtonian physics, extend the thumb, index, and middle fingers forward. This hand position will symbolize the 2^{nd} model of science. Yet, there are 3 fingers. The thumb will be used differently from the other fingers of the hand. The thumb will go in motion, to symbolize the symbolism of the 3^{rd} dimension, motion.

Notice in the leftmost photo that there are 3 fingers extended, which symbolize 3 points along a line segment.

Next, shift the thumb at the 1st bone, the distal bone, such that the thumb extends rightward. The thumb now needs to move 1 of its bones in order to touch the index and middle fingers, and so the thumb is involved in motion in space. Motion of the thumb through space symbolizes time, since motion requires time.

Since space is subdivided in this dimension of awareness, and as subdivision is symbolized as subdivision into 2, each bone of the thumb, when it moves, will move in 2 distinct ways, as a half movement and as a full movement.

When the distal bone of the thumb bends through half of its range of motion, it reaches a 2^{nd} point, the proximal bone of the index finger. When the distal bone of the thumb bends through its full range of motion, it reaches a 3^{rd} point, the proximal bone of the middle finger. The thumb now symbolizes motion along the points of a segment. The thumb can return as well, symbolizing bidirectional motion.

Now that the thumb has begun to go in motion, it will no longer symbolize a point of its own, but will instead be used only to mark the bones, or points, of the other fingers.

Newtonian Physics Symbolizes 3 Dimensional Motion

Newtonian physics is a model of nature that has some symbolism of time.

Newtonian physics is all about motion. Newton invented a new branch of mathematics, calculus, specifically in order to be able to describe the motion of objects through space. Newtonian physics measures motion using vectors, which are symbols that are drawn in the shape of a segment.

Notice also that in Newtonian physics, which symbolizes the 2^{nd} dimension of space-time, mathematical statements are organized in a linear arrangement, in the shape of a segment.

Newtonian physics unifies 2 dimensions of space-time. This is sufficiently easy that many modern people can understand the principles behind it, because it seems very natural. Many speakers of 4 dimensional languages have evolved to this stage of awareness. (By this, it is not meant that many people understand Newtonian physics specifically, but only that they recognize as natural the same relationships that Newtonian physics symbolizes.)

Nature of Space			
Euclidean Geometry			
		Newtonian Physics	

In Newtonian physics, as with Euclidean geometry, space is recognized only as a framework for existence and position. Unlike geometry, where this existence takes the form of infinitely small points, in Newtonian physics real objects occupy the framework of space. Objects that exist within the framework of space can be positioned anywhere within this framework, such that Newtonian physics is also about both existence and position of objects in space.

Newtonian physics symbolizes awareness of the 3rd dimension. There are 3 dimensions of space, as per geometry (length, width, and depth/height).

In like manner, there are 3 dimensions of awareness of space that are represented in Newtonian physics. As with geometry, there is awareness of existence in space and position in space. In addition, there is awareness of motion through space. There is still no representation of interaction of space with time or of perpetuation of space-time.

Awareness of motion through space requires awareness of change in space. Therefore, there is a need for time within this model of space, and so there is representation of awareness of time in Newtonian physics.

Newton's Laws of Motion

1. Motion through space is constant unless a force is applied

2.

F = ma

3. For every action, there is an equal and opposite reaction

Newton formulated 3 laws that describe the motion of objects through space. The First Law states that the rate of motion of an object through space is

constant and unchanging unless the object is acted upon by a force.

The Second Law states that the amount of a force that is acting on an object can be described in terms of the mass of the object and the change in the rate of motion that the mass is undergoing.

The Third Law states that for every force, there is an opposing force of equal strength.

Velocity

A Measure of the Rate of Motion through Space

The term velocity is used as a measure of the rate of motion through space of something that exists in space. Velocity is always a measure of the rate of motion relative to the rate of motion of something else that exists in space.

Acceleration

A Measure of Change in Rate of Motion through Space

The term acceleration is used as a measure of change in the relative rate of motion through space of something that exists in space. Acceleration is a measure of change in velocity.

Force

Force is the Cause of Acceleration

In Newtonian physics, force is that which causes a change in motion through space. Force is that which causes acceleration.

This understanding of force is clear from Newton's First Law of Motion. The First Law states that the rate of motion of an object through space is constant and unchanging unless the object is acted upon by a force. Therefore, a force is defined as that which causes acceleration.



In Newtonian physics, which represents awareness of the 3rd dimension, Newton recognized 3 forces that affect motion in space. The 3 forces are gravity, electricity, and magnetism.

It is now considered that electricity and magnetism are related forces, which are known as electromagnetism. However, in Newton's time and long afterward, electricity and magnetism were considered to be distinct forces.

Matter

The Content of Existence within the Universe

As with Euclidean geometry, the model of Newtonian physics does not deal with existence or position of space, but only within space. In Newtonian physics, space is the framework, and Newtonian physics concerns existence and position within the framework that is space. In other words, in Newtonian physics, matter exists in space, but space is not the matter. Unlike Euclidean geometry, there is content to objects that exist within the framework of space.

In Newtonian physics, matter is a term that is commonly used to describe the content of objects that occupy space.

Mass

A Measure of Resistance to Acceleration

In Newtonian physics, mass is understood as a property of objects in space that represents the resistance of objects to a change in their rate of motion through space. Mass is a property of objects that exist in space that relates to resistance to acceleration.

Newton considered mass to be the same as matter. The more massive that an object is, the more matter that it contains, and the more matter that an object contains, the more mass that it has. Consider a basketball and a bowling ball, which have approximately the same volume. It takes much more force to throw a bowling ball than to throw a basketball, as a bowling ball has more mass and contains more matter.

In Newtonian physics, the mass of an object is considered to be invariant and unchanging.

Newton's Second Law of Motion Force vs. Mass

Force Causes Acceleration

Mass Resists Acceleration

Newton's First and Third Laws of Motion will be discussed later.

Newton's Second Law of Motion states that force equals mass times acceleration, written as F=ma. This states that the amount of force (f) applied to matter is that amount of force that is able to cause the given acceleration (a) to the given amount of mass (m). Let us consider what this means, by varying each quantity and seeing what happens to the other two.

F=ma: If we isolate the force, then ma (mass times acceleration) is constant. Therefore, if we double the mass, the acceleration goes down by half. With double
the mass, the same force will accelerate matter only half as much. In other words, mass is that which causes resistance to acceleration.

a=F/m: If we isolate the acceleration, then F/m (force divided by mass) is constant. Therefore, if we double the mass, the force required to achieve the same acceleration doubles. With double the mass, a given force accelerates the mass half as much. In other words, force is that which causes the acceleration of mass.

m=F/a: If we isolate the mass, then F/a (force divided by acceleration) is constant. Therefore, if we double the acceleration, the force required to achieve that acceleration doubles. In other words, acceleration is proportional to the amount of force applied.

Time in Newtonian Physics

Time is a way to measure motion through space.

In Newtonian physics, space is considered only in terms of itself. In other words, there is no notion of space-time, and there is no notion of an independent significance of time.

Newtonian physics is a model of space that represents the motion of objects through space. Motion through space requires time, and so Newtonian physics introduces time into this model of nature. However, the sole function of the concept of time is as a way to measure motion through space. Time is not a property of space, but is about objective cycles of nature that can be used to measure changes in position, hence motion, through space.

Unlike with Euclidean geometry, time does exist in Newtonian physics. However, the sole role of time is as a way to measure the rate of motion through space. Time is used in the measurement of both velocity and acceleration.

Velocity is the measure of the rate of motion through space. Velocity (average velocity) is measured as the distance travelled per unit of time (v = d/t).

Acceleration is the measure of the rate of change in velocity over time. Acceleration (average acceleration) is measured as the change over time (t) in the distance travelled per unit time (d/t). This can be expressed as (d/t)/t. This is usually written as $a = d/t^2$. For example, an acceleration might said to be 1 meter per second per second (1 m/s^2) , indicating that each second there is a change in the velocity of 1 meter/second.

Measurement of Time

Time is measured using cycles of space.

In Newtonian physics, time is measured using cycles of motion through space. There are a number of well-known, regular, recurring phenomena found in nature that have come to be used for tracking time. The most common cycles used to measure time in Newtonian physics include the cycle of revolution of the earth around the sun, known as the year; the cycle of revolution of the moon around the earth, known as the month; the cycle of rotation of the earth about its axis, known as the day; and the secondary subdivision of the cycle of the day, known as the hour.

The only use of time in Newtonian physics is as a way to measure motion through space. The only way to measure time is by the observation of motion through space. In other words, time cannot be measured in terms of itself, but only in terms of the cyclic motion of objects through space.

For example, the velocity of a car might be measured as 500 miles per day along a segment. This means that the car moves a distance of 500 miles through space during the "time" that it takes for the earth to rotate through space once about its axis.



Currently, many speakers of Indo-European languages have a Newtonian view of time. Many people consider that time itself is nothing more than a manmade creation that uses well-known cycles of objects in motion through space as a way to measure the motion of other objects through space. Such a consideration reflects a Newtonian understanding of time, which is a 300 year old understanding. In other words, some people consider that the representation of time in the Newtonian model of nature is all that there is, and disregard or are unaware of more modern understandings of the notion of time.

Accordingly, the only way to measure time is by observing motion through space. Therefore, time cannot be measured in and of itself, but only in relation to the constant cyclic motion of objects through space, such as the motion of the earth around the sun, known as the year. Any space is itself irrelevant to any measure of time for that space.

Let us consider how age is understood, as age is typically measured by society in terms of Newtonian time. Consider 2 people who were born on the same day in the same year. Assume that both have lived through 50 years. Both are considered to be the exact same age, 50. In Newtonian thinking, it is irrelevant that, for example, one might be on his deathbed, in old age, having lived through all of the time that is available to his life, all of the time that is available to his space, whereas the other person might have another 50 years left in time for his space. Newtonian time has no consideration of time as other than objective units of time based on objective cycles of motion through space. Time is measured only in terms of objective cyclic motion through space. As an object in motion in space, the earth,

is observed to complete 1 cycle in its cyclic motion through space around the sun, each person on the earth is understood to be exactly 1 year older.

This is, of course, extremely useful, in a limited way. However, there is a deeper, more modern way to understand time, wherein we can recognize that the person who will live to old age at 100 solar cycles is passing through his time more slowly than the other person. It is not difficult to find people who look very young, or very old, for their age, people who seem to be passing through their time much more slowly or much more quickly than other people. Such a notion for time is beyond the nature of Newtonian physics, and will be left for a more evolved model of nature.

Euclidean GeometryNot representedNewtonian PhysicsParticles	Nature of Light				
Newtonian Physics Particles		Euclidean Geometry	Not represented		
		Newtonian Physics	Particles		

There is no representation of motion in Euclidean geometry. Light is always in motion. Therefore, there is no representation of light in geometry.

Newtonian physics is all about motion. Light is always in motion. Light is represented in Newtonian physics. Light is just one more example of motion through space.

One of the continuously raging debates about the nature of light since the time of Newton concerns whether light exists in the form of waves or in the form of particles. Due to the popularity of Newton's laws of motion, his opinion on the particle nature of light was initially more popular than wave theories.

In Newtonian physics, light is recognized to exist in the form of particles. These particles are in constant motion through the Euclidean framework of space. The 3^{rd} dimension is the dimension of awareness of motion and the dimension of awareness of the segment. The motion of particles of light is considered to be in the form of a segment.

Nature of Light: An Analogy

Imagine a machine gun shooting bullets of light.

An analogy for understanding the nature and motion of light in Newtonian physics is bullets fired from a machine gun. Bullets are an analogy for particles of light that are emitted in large quantities in various directions from a source of light, each of which moves in linear motion, along a 3 dimensional line segment, until it makes contact with a target.



Newtonian physics unifies 3 dimensions of space and time. The dimension of the segment is all about motion. The understanding of time in the 3rd dimension of awareness is about how time relates to motion through space. What is the significance of a unit of time such as the year in Newtonian physics? Units of time symbolize how long it takes for a given cycle in space to complete. Other objects are understood by comparison to the cycle. To move 100 miles per day (or any unit of time) is to move a certain distance through space during the time that it takes for the earth to move enough through space to complete one of the day cycles. In Newtonian physics, we understand the speed of light only in those terms. The

speed of light is given at roughly 6 trillion miles per year, which refers to the distance that light will travel in its motion through space during the time that it takes for the earth to travel around the sun through one of the year cycles. Speed is a measure of relative motion through space only. The speed of light is a measure of how far light moves through space during the time that the earth moves a given distance through space around the sun. Time is represented in the model of space, but only for awareness of motion. Because changes to time are ignored in the speed of light, the speed of light is considered to be constant in space, outside of any relationship to time.

Like bullets, in the time of Newton light was considered to be composed of particles that contain mass. Because of the extremely small amount of mass that light was considered to have, light was considered to move through space at the greatest rate of motion that is possible. Not all light was considered to move at the same rate of motion through space, but light has the most rapid rate of motion.

Newtonian physics unifies 3 dimensions of awareness of space-time. This is fairly easy for most modern people to understand, once they make an effort to learn about it, because it is fairly natural. Many speakers of 4 dimensional languages have evolved to this stage of awareness.



With Newtonian physics, the possible speeds of an object through space can be symbolized in the shape of a segment. The speed of light is the fastest speed possible, but this speed is attainable only by light. Time is irrelevant when considering the speed of an object through space, other than being the way to measure the speed of the motion through space.



To symbolize the 3^{rd} of the 4 stages in the evolution of science, the 3^{rd} finger, the ring finger, extends forward. This 3^{rd} finger symbolizes the 3^{rd} dimension for 4 dimensional mankind, the dimension of the area. The area is the symbol of interaction.



Altogether, 4 fingers are extended, such that this position of the hand symbolizes the 4^{th} dimension of space-time. Other than the thumb, 3 fingers are extended, such that this position symbolizes the 3^{rd} model of science.

The 3rd stage of unification, the unification of 4 dimensions of space-time, correlates to Einsteinian physics, which is commonly known as relativity.

To symbolize relativity, extend the thumb, index, middle, and ring fingers forward. This hand position will symbolize the 3^{rd} model of science. Yet, there are 4 fingers. The thumb will be used differently from the other fingers of the hand. The thumb will no longer symbolize a point on its own, but will go in motion, to interact with the bones of the other fingers, in order to symbolize the symbolism of the 4^{th} dimension, interaction.

In the symbolism of Newtonian physics, the thumb was able to touch, and the model of science was able to symbolize, 2 of the bones of the fingers of the hand, the proximal bones of the index and middle fingers. These 2 bones reflect the 2 positions of the distal bone of the thumb as it bends half way and fully.

In the symbolism of relativity, 4 additional bones of the fingers will be symbolized. This will make a total of 6 bones, which form the shape of an area.

Shift the thumb at the 2^{nd} bone, the proximal bone, such that the thumb extends rightward. When the proximal bone of the thumb bends through half of its

range of motion, it reaches its 1^{st} point, the middle bone of the index finger. When the proximal bone of the thumb bends through its full range of motion, it reaches a 2^{nd} point, the middle bone of the middle finger. From this position, the distal bone of the thumb can shift rightward through its range of motion. The distal bone can bend through half of its range of motion, until it reaches the 3^{rd} point, the middle bone of the ring finger. Lastly, the distal bone can bend through its full range of motion, until it reaches the 4^{th} point, the proximal bone of the ring finger.

The thumb can interact with the area represented by 6 bones of the 3 fingers. The thumb moves across the 3 fingers, left to right as well as forward and rearward, thereby symbolizing the area. The thumb interacts with the fingers, and the 4^{th} dimension (of the area) symbolizes interaction of space and time, space-time, as does relativity.

The thumb needs to move 2 of its bones in order to touch the ring finger. Motion in 2 dimensions (2 dimensions from the perspective of people who recognize only 3 dimensions of space) symbolizes interaction.

Einsteinian Physics Symbolizes 4 Dimensional Interaction

Relativity is all about interaction. Einstein required a new branch of mathematics in order to be able to describe interaction in space-time. To measure interaction, relativity can use matrices, which organize numbers in the shape of a 4 dimensional area.

Relativity unifies 4 dimensions of space-time. This is too complex for most modern people to understand the principles behind it, and it seems quite unnatural. Few speakers of 4 dimensional languages have evolved to this stage of awareness. (By this, I mean that most people do not recognize as natural the relationships that relativity symbolizes.)

ature of Space
of Space
Euclidean Coometry
Newtonian Physics
Relativity

In relativity, unlike with Euclidean geometry and Newtonian physics, space is recognized as more than simply a framework for existence and position. Space is in a constantly changing state of interaction with time, as space-time. In this model of physics, real objects are composed of space-time, and interact with other spacetime in the universe.

Relativity symbolizes awareness of the 4th dimension. This symbolism is represented as 4 dimensions. There are recognized to exist 3 dimensions of space, as per geometry and Newtonian physics, and there is recognized to exist a corresponding single dimension of time.

In this 4 dimensional model of space-time, there is awareness of 4 dimensions of space and time.

In like manner, there are 4 stages of awareness of space that are represented in relativity. As with geometry, there is awareness of existence in space and position in space. As with Newtonian physics, there is awareness of motion through space. In addition, there is awareness of interaction in space, as space interacts with time. There is still no awareness of perpetuation in space.

Awareness of interaction in space requires awareness of motion in space. Therefore, there is a need for time within this model of space, and so there is representation of awareness of time in relativity. The rate of motion through space is dependent upon and related to the rate of motion through time.

Interaction in Space-Time

Space and Time Exist Only as Space-Time, where Space and Time are in a Constant State of Interaction

According to the theory of relativity, there is no independent meaning to the concepts of space or time alone and isolated from each other; there is only space-time. Objects, matter, are composed of space-time. Space-time is in a constant state of motion. Space and time are in a constant state of interaction with each other, such that the rate of motion through space affects the rate of motion through time and the rate of motion through time affects the rate of motion through space. Any increase in the rate of motion through time, and vice versa.

Force

Force is the Cause of Interaction

In Newtonian physics, force is that which causes a change in the rate of motion through space. Force is that which causes acceleration.

In relativity, force is that which causes interaction in space-time. Force is that which causes a change in the relationship between space and time in space-time.



Relativity, which represents awareness of the 4th dimension, recognizes 4 forces that affect interaction in 4 dimensional space-time. The 4 forces are gravity, electromagnetism, and the strong and weak nuclear forces.

Although in Newton's time electricity and magnetism were considered to be distinct forces, it is now considered that electricity and magnetism are a single force, jointly known as electromagnetism. As well, there was awareness of a 2^{nd} pair of forces, within the nucleus of atoms, known as the strong force and the weak force.

In relativity, forces are thought to interact with space-time in the form of particles. The particle that is thought to transmit the electromagnetic force is the photon, which is the name given to a quantum (fundamental particle) of light, and thus light is considered to be the carrier of this force. The particle that is thought to transmit the strong force is known as the gluon. The particle that is thought to transmit the weak force is known as the weak gauge boson. It is not clearly understood what transmits gravity, but it is postulated to be a hypothetical particle tentatively known as the graviton.

Matter

The Content of Existence within the Universe

Matter is a term that is commonly used to describe the content of objects that exist in the universe.

In Newtonian physics, matter exists in space, but space is not the matter. With relativity, space-time is matter. With relativity, matter is that which is composed of space-time. According to this definition, energy is simply a form of matter.

Mass

A Measure of Motion through Space-Time

Euclidean geometry, which represents awareness of the 1^{st} and 2^{nd} dimensions of space-time, represents space, but has no representation of mass in space.

Newtonian physics, which represents awareness of the 3^{rd} dimension, has a representation of mass in space. Mass is in motion through space, and is understood as resistance to acceleration. Furthermore, the amount of mass of an object is invariant.

In relativity, which represents awareness of the 4th dimension, mass is in motion though space-time, and the amount of mass of an object is dependent upon the interaction of its space with its time. In other words, the greater the rate of motion through space of an object, the greater the amount of mass, and vice versa.

Force vs. Mass

Force Causes Acceleration Acceleration Causes Mass

As with Newtonian physics, in relativity force is considered to cause acceleration in space. However, there is a difference in that the acceleration affects not only space, but space-time.

Acceleration affects the rate of motion through space and the rate of motion through time. The greater the rate of motion through space, the greater is the mass. The greater the rate of motion through space, the less is the rate of motion through time. The less the rate of motion through space, the less is the mass. The less the rate of motion through space, the greater is the rate of motion through time.



Relativity unifies 4 dimensions of space-time. The dimension of the area is all about interaction. The understanding of time in the 4th dimension of space-time relates to how it interacts with space. The thumb can be considered to symbolize 1 dimension of time (1 finger) that is interacting with 3 dimensions (3 fingers) of

space, as the thumb goes in motion along the fingers, giving an awareness of 4 dimensions of space-time.

Time is involved in interaction with space, as space-time. With relativity, the speed of light is not only the fastest speed in the universe; the speed of light is the only speed in the universe. Speed is understood in terms of an interaction of space and time. The rate of motion through space and the rate of motion through time are symmetrical. In other words, the faster that something moves through space, the slower that it moves through time, and vice versa. Increases in the rate of motion through time, and vice versa. Increases in the rate of motion through time, and vice versa. For example, the ancestors of the speakers of Chinese left Africa to go into long-term migration through space, and this long term increase in motion through space was accompanied by a symmetrical decrease in motion through time; the speakers of Chinese are genetically younger than the speakers of Swahili. The speed of light is constant in space-time, although it is not constant in space or time.

Notice the green spots in the diagram. These are not possible speeds. In relativity, after the Big Bang, it is never possible for 100% of all motion to be motion through space or motion through time. In the current dimension of the universe, the dimension where space-time exists, there must always be motion in space and there must always be motion in time. That is the nature of space-time.

Those who understand relativity can recognize that time and space cannot ever be subdivided in nature, even though the grammars of 4 dimensional languages lead people to believe that they are. It is also understood that the speed of light is the only speed in the universe, as light is the sole arbiter of speed. We only know about time by light that moves to our eyes as a result of motion through space, and we are only aware of space by subdivision, by its changing in position over time. Space-time cannot be subdivided in nature. Consider any unit of spacetime, such as the smallest subatomic particles of space. These particles are constantly in motion (rotation, revolution, etc.) and this motion requires time.



Space-time is born at its maximum rate of motion through space. For example, consider the unit of space-time that is our species. The ancestors of the modern speakers of Chinese were 1st, and they had the greatest motion through space of the entire species, in their migration out of Africa. Their language and their culture also reflect the greatest orientation to space. Subsequent groups of our species oriented progressively more toward time.

Let us also consider the unit of space-time of an individual person. At conception, the person to be is a single cell. Then, that cell subdivides, to form 2 cells. Just like that, the person has doubled in space. Never again will the person undergo such a significant change in space in such a small amount of time. We notice that children can change greatly in a relatively small amount of time. This is nowhere near the change that occurs when 1 cell subdivides into 2 cells, but it is much more than occurs in old people, who typically look much the same for years. Eventually, people cease to change in space entirely. When there is no more change in space, there can also be no more change in time. That is the nature of space-time. Once all of a person's space has passed through all of the person's time, the person dies.

There are other such relationships as well. For example, consider the metabolism of the human body. The metabolism is higher for youth. Metabolism is motion through space, and youth have more motion through space, and less motion through time. As youth age, or pass through more time, their metabolism slows, as

they slow their rate of motion through space and increase their rate of motion through time.



Space-time interacts. The rate of motion through space and the rate of motion through time constantly change through the interaction of space with time.

As an example, let us begin by considering a famous so-called thought experiment from Einstein's Theory of Relativity, known as the Twin Paradox.

Assume that 2 twins are born. Let us assume that one of the twins immediately boards a space ship that moves near the Newtonian speed of light for 50 earth years. In other words, almost all of the motion of one of the twins is converted into motion through space such that little motion is motion through time.



The greater rate of motion through space of one of the twins is accompanied by a symmetrical decrease in the rate of motion through time, such that that twin ages less. When the twin returns to earth, they will find that the one who went into relatively high speed motion through space has passed relatively less through time, and therefore is younger. The twin on the earth has aged 50 years, whereas the one who went away has aged relatively hardly at all. A diagram of speed through space-time can be symbolized in the form of an area, where increases in the rate of motion through space or time are accompanied by corresponding decreases in the rate of motion through the other. Everything in the universe always moves at the speed of light, but the space and time components are subject to change. Notice that in relativity the space component or the time component can never be 100% of the motion, as there must always be some motion through both space and time.



The last example is commonly cited in science, but it is not very practical, and it is not very meaningful to the common person, since there are no space ships that can actually move at such a speed. Let us now consider a similar yet more practical example.

Consider a pair of twins, who at some point in time we shall make the assumption that they are at the same physical age, and that both have passed through exactly the same amount of time. The twins then attend a marathon race. One of the twins sits in the bleachers for 3 hours to watch the race. The other twin runs in the race for the same 3 hours.

In the scheme of things, the rate of motion through space of the twins has changed very little relative to each other as a result of one of them running in the race. The one who ran the race moved more quickly though space, but the difference is small. An extra 8 miles per hour or so is less significant than might be expected, as it is only a very small part of their total motion through space. The twin in the bleachers also moved pretty rapidly though space during that 3 hours, and moved only slightly less than the runner. This is true when we consider the rate of rotation of the earth about itself, the rate of revolution of the earth about the sun, the rate of motion of the solar system within the galaxy, and the rate of motion of the galaxy within the universe. Even when we think that we are at rest, we are in significant motion through space.



Still, during those 3 hours, there was a difference in the rate of motion through space of the twins. One twin went into greater motion through space, however small. That twin therefore went into less motion through time during that 3 hour run. Although the difference is small, the twin who ran the race ages slightly less during the 3 hour run than the twin who sat in the bleachers. The twin who raced is slightly younger than the twin who did not. This example is structurally identical to the twin who went off in a space ship and so aged less than the twin on earth. The difference is much less, and is not noticeable by simple observation, as only 3 hours have elapsed and as the difference in their relative rates of motion through space in percentage terms is so small, but it is no less real.

The point to be understood from the interaction of space-time in relativity is that each person's space passes through its time at its own rate, depending on the interaction of its space with its time. Ignoring for the moment the idea that someone could actually go off in a space ship near the Newtonian speed of light for 50 years, our species has a fairly well determined life span, based on the physical structure of our species and the natural range of rates of motion through space-time of people. However, no 2 people age at the exact same rate.

Why is the Speed of Light Considered the Maximum Speed?

Newtonian physics ignores time completely.

The reason that Newtonian physics considers the speed of light to be the fastest possible speed in space is that time is ignored, and this is the maximum speed possible when all of the speed of motion is considered to be of motion through space and none of the speed of motion is considered to be of motion through time.

Subdivision in the 4th Dimension Theory of Relativity Quantum Mechanics

The dimension of the area, the 4^{th} dimension, symbolizes subdivision. In addition to the theory of relativity, there is another leading theory of nature at this stage of awareness. This is known as quantum mechanics. Like the theory of relativity, quantum mechanics is extremely complex. Subdivision in the 4^{th} dimension creates symmetrical yet seemingly incompatible polarities, such as time with space and religion with science. In the same manner, it is considered that relativity and quantum mechanics are not compatible with each other.

Very few people, if any, are yet able to recognize either relativity or quantum mechanics as completely natural. Some people are able to theorize about these, but they are extremely abstract, and are too complex for most people, and even those who do understand typically will go back to their Newtonian thinking when eating dinner with the family, or when they are otherwise away from the environment of their theoretical studies of science. Many people who talk about relativity use terms like the speed of light in a Newtonian sense, and do not realize that this is not valid in an Einsteinian sense. Even those who understand relativity in a theoretical sense do not do so 24 hours every day. Most of the day they return to their Newtonian relationship to space and time, as is natural for the English language at the current stage of evolution. Relativity and quantum mechanics are the most complex forms of science of mankind, just as all 4 dimensional symbolism is the most complex form developed by mankind.



To symbolize the 4th of the 4 stages in the evolution of science, the 4th finger, the little finger, extends forward. This 4th finger symbolizes the 4th dimension for 4 dimensional mankind, the dimension of the volume. The volume is the symbol of perpetuation.



Altogether, 5 fingers are extended, such that this position of the hand symbolizes the 5^{th} dimension of space-time. Other than the thumb, 4 fingers are extended, such that this position symbolizes the 4^{th} model of science.

The 4th stage of unification, the unification of all 5 dimensions of awareness into dimensions of space-time, correlates to the model that is being promoted by the author of this book, only an introduction to which is being provided herein.

To symbolize this new physics, extend all 5 fingers forward. This hand position will symbolize the 4th model of science. There are 5 fingers. The thumb is used differently from the other fingers of the hand. The thumb does not symbolize a point on its own, but perpetuates to all of the bones of the other fingers of the hand, in order to symbolize the symbolism of the 5th dimension, perpetuation.

The thumb and 4 fingers symbolize the 4th dimension for 4 dimensional mankind, the dimension of the volume. The volume is the symbol of perpetuation.

In the symbolism of the previous models of nature, the thumb was able to interact with 6 of the bones of the fingers. In the symbolism of this new model, 6 additional bones of the fingers will be symbolized. This will make a total of 12 bones, all of the bones of the fingers, which with the thumb form the shape of a volume. The metacarpal bone extends upward to relate to the other fingers differently from the other bones of the thumb. The metacarpal bone raises the thumb above the area, into the volume of space-time, in order to reach the distal bones and the little finger.

Shift the thumb at the 3rd bone, the metacarpal bone, such that the thumb extends upward and rightward. When the metacarpal bone of the thumb bends through half of its range of motion, it reaches its 1st point, the distal bone of the index finger. When the metacarpal bone of the thumb bends through its full range of motion, it reaches the 2nd point, the distal bone of the middle finger. From this position, the proximal bone can bend through half of its range of motion, until it reaches the 3rd point, the distal bone of the ring finger. Next, the proximal bone can bend through half of its range of motion, until it reaches the 3rd point, the distal bone of the ring finger. Next, the proximal bone can bend through its full range of the little finger. From this position, the distal bone of the thumb can shift rightward through its range of motion, until it reaches the 4th point, the distal bone of the little finger. From this position, the distal bone of the thumb can shift rightward through half of its range of motion, until it reaches the 5th point, the distal bone of the little finger. Lastly, the distal bone can bend through its full range of motion, until it reaches the 6th point, the proximal bone of the little finger.

The thumb can interact with the volume of the 4 fingers. The thumb moves across the 4 fingers, left and right and forward and rearward, as well as upward and downward, thereby symbolizing the volume. As the thumb interacts with the fingers, the thumb perpetuates its interaction through each of the bones of the fingers, and the 5th dimension (of the volume) symbolizes perpetuation of space and time, space-time, as does this model of nature.

The thumb needs to move all 3 of its bones in order to move in 3 dimensions (left-right, forward-rearward, and up-down), 3 dimensions from the perspective of people who orient to the 4th dimension, and to extend to touch the distal bones and the little finger. Motion in 3 dimensions symbolizes perpetuation.

This New Physics Symbolizes 5 Dimensional Perpetuation

This new model is all about perpetuation. This model is extremely simple, due to its high degree of organization.

This new model unifies 4 dimensions, which from the perspective of cultures that orient to the 4th dimension includes all dimensions. In other words,

this new model unifies all 5 dimensions of space-time of which 5 dimensional mankind has evolved to become aware. This may well be a very simple model of nature to understand for most modern people, once people learn to change their presuppositions, and it seems quite natural.

New Physics – Nature of Space			
Nature o	of Space		
Existence	Euclidean Coometry		
Position			
Motion	Newtonian Physics		
Interaction	Relativity		
Perpetuation	New Physics		

In this new physics, the universe is recognized to be infinite, and is in a constant state of perpetuation. The universe is constantly flowing through the 5 stages of a cycle known as evolution. Each of the stages in the cycle is best understood by the term dimension.

The human mind has evolved in its awareness of nature, such that people have created models of science that reflect awareness of each of the 5 dimensions.

This new physics symbolizes awareness of the 5th dimension. There are 5 dimensions of space, and there are 5 corresponding dimensions of time, which exist only in the unified form of 5 dimensions of space-time. Whether or not the universe actually contains more dimensions of space-time is left as an open and moot point, since any such dimensions are beyond the awareness of the 5 dimensional animal known as mankind.

The 5 dimensions of space-time exist only in part of the cycle of the universe, which is itself a 5 stage cycle, a cycle that perpetuates.

In like manner, there are 5 stages of awareness of space that are represented in this new physics. In addition to awareness of existence in space-time, position in space-time, motion through space-time, and interaction in space-time, there is awareness of perpetuation in space-time.

Space and	Time into S	Space-Time
Dimensions	Of Space	Of Time
1 st	Point	
2 nd		Ray Segment
3 rd	Line Segment	
4 th	Area	
5 th	Volume	

In order to understand this new physics, it is necessary for our awareness to subdivide again. Modern science recognizes 4 dimensions of space. From geometry, these are known as the point, the line, the plane, and 3 dimensional space. These names suggest the supposed infinite nature of space. Although space might be considered to be infinite within the narrow context of the 3rd dimension of our universe, the dimension in which science currently operates, we can now understand a greater context. Space should now be recognized to be finite, and not infinite, and so finite terms should be used; point, line segment, area, and volume.

In addition to the 4 dimensions of space, science currently also recognizes 1 dimension of time. Time is understood by Indo-Europeans in the form of a ray segment. The ray segment of time flows in 1 direction only, from our future into our past.

Now, awareness of each of these 5 dimensions of space or time must subdivide, such that each becomes a dimension not of space alone or of time alone; there can be recognized to exist 5 dimensions of space-time.

5 Dimensions of the Universe

Let us once again discuss the 5 dimensional nature of the universe. Later, we will explore the 5 dimensional nature of light.

In the 1st dimension of the universe, there is only 1, infinite time. Time is in motion, in 1 direction, forward.

In the 2^{nd} dimension of the universe, there are 2, as time gives rise to space. The 2^{nd} dimension lasted as long as was necessary for time to give rise to all of the space that would ever exist in the current cycle of the universe.

In the 2^{nd} dimension, time, which was 1^{st} , can only be in motion, and space, which was 2^{nd} , can only be still.

In the 3rd dimension of the universe, our current dimension, there are 3; time, space, and light. The word light is used herein to refer not only to visible light, but to all electromagnetic radiation. Light enables a union of time and space. Light enables time and space to interact. Light does this by enabling time, which is in motion, to be still, and by enabling space, which is still, to be in motion. Light enables space-time.

The initial interaction of time with space due to light is known as the Big Bang, which began the 3^{rd} dimension of the universe, the dimension in which mankind now lives.

The Big Bang, the first light, caused time and space to unify into space-time. In the current dimension of the universe, all of space is bound up in time, and all of time is bound up in space. After the Big Bang, there is no time and there is no space; there is only space-time.

At the end of the 4th dimension, light, which is finite, dies, in what is sometimes known as the Big Crunch. The 4th dimension ends with 2, time and space.

Without light, time and space cannot interact, and so there is no longer space-time. Time remains in motion, but space is still. There remains no motion of space, and no mass, etc.

At the end of the 5^{th} dimension, space, which is finite, dies. The 5^{th} dimension ends with 1, time.

The cycle of the universe is now complete. It ends at the beginning, with 1, time, and the cycle can now repeat from the beginning. The universe perpetuates.

Perpetuation of Light

Light follows the cycle of evolution: Light perpetuates.

Just as the 5 dimensional nature of the family involves perpetuation, and just as the 5 dimensional nature of the universe involves perpetuation, light follows the 5 dimensional pattern of evolution, such that light also involves perpetuation.

The first light of the Big Bang perpetuated itself, progressively causing all of the light that exists today. How does light perpetuate? As light travels through the universe of space-time, it encounters all other space-time in the universe. As light interacts with each unit of space-time, the light perpetuates itself, in that it causes the space-time that it encounters to react by emitting new light. The first flash of light continues to travel on its way to encounter the entire universe. Now, however, a child flash of light is born. Each of these flashes of light travels throughout the universe, perpetuating itself at each encounter with space-time, until the end of time and space. Once ignited, the cycle of absorbing and emitting light will never end until the end of the fourth dimension of the universe.

Difference between Time and Space
Time flows in 1 direction, forward.
Space flows in 2 directions, outward from the Big Bang, at the beginning of the 3 rd dimension,
and inward toward the Big Crunch, at the end of the 4 th dimension.

A fundamental difference between time and space is that time, which is 1^{st} , flows in 1 direction, whereas space, which is 2^{nd} , flows in 2 directions. Therefore, whereas the Big Bang expands space outward in all directions, away from the point of origin of space in the universe, space will eventually flow in the opposite direction, inward, back to the point of origin of the universe. Time, however, can only flow forward.

Space-Time	Motion
Time	Forward
Space Tr	anslational Rotational

In the 3rd dimension of the universe, time and space unify to form space-time. Time and space, at the current stage of evolution of the universe, cannot exist apart from each other, but exist only in the unified form of space-time. During the time that the universe consists of space-time, there is constantly motion through time and motion through space.

Time is 1^{st} , and there is 1 form of motion through time. Space is 2^{nd} , and there are 2 forms of motion through space.

The 1 form of motion through time is a progression of time in 1 direction, forward.

The 2 forms of motion through space are called translational motion and rotational motion.

When the universe is composed only of space-time, as it is now, in order for there to be motion through time, there must also be motion through space. As well, motion through space requires time. Time and space are always dependent upon each other. Consider as an example an electron. An electron is an example of space-time. An electron is space, but it must constantly be in motion, rotating about its axis as well as moving through space, and such motion requires time. An electron cannot not be in motion through space or through time. An electron is in motion through space-time.

Motion Through Time

The notion of time is understood and used in 2 different ways in modern society. The most common way that people understand the notion of time is as a counting of various cycles that occur in nature. These cycles are the regular cycles of objects that move through space. In other words, time is understood as a counting of cycles of motion through space. In Newtonian physics, time is used only in this way. Many people believe that this is all that there is to the notion of time.

The most useful cycles of motion through space that are used in the measuring of time are the cycle of the hour, the cycle the day, the cycle of the month, and the cycle of the year.

This is objective time, or societal time. It is a very useful way to use time.

Still, there is a 2nd, deeper way to understand time, in relation to which the objective measurement of time is irrelevant.

Time is one of the two fundamental components that make up the universe, the other being space. In the current stage of evolution of the universe, time and space only exist bound together, as space-time. All units of space-time, such as atoms, are and must always be in motion, rotating about their axes and moving relative to other space-time in the universe. It is this second notion of time that we are considering here.

Motion through time occurs as a sequence of states, or relationships, within some form of space, relationships of space-time, that move in 1 direction only, forward. Motion through time can only occur when there is motion through space. Motion through space takes time, and so there is always motion through space-time.

Time travel forward, into the future, is not only possible, but it is unavoidable. Time travel into the past is impossible.

Not only is time travel into the future unavoidable, but everything moves into the future at a different rate of motion. Each person, and everything else, constantly evolves into its future. Consider the twin paradox described previously. On the basis of this notion, given the technology, it would be possible to board a space ship and move relatively rapidly through space, thereby moving relatively slowly through time, such that upon return to earth a person will have aged 1 year, whereas the earth and everything on it will have aged 100 years, and such that a person could travel into the future of the earth, or a person could "travel into the future."

It would not be possible to return, ever, as it is not possible to travel into the past. For travel into the past to be possible, it would be necessary for each object to be isolated and independent of each other in space-time. This is not the case.

Everything in the universe interrelates and interacts by gravity. The entire universe evolves together. To move into the past would require that the entire universe unravel into the past, as no object could do so in isolation from its environment of the gravity of the entire universe that enabled and accompanied its evolution into the future.

Motion Through Space

Translational motion is motion through space, where the motion is motion from 1 location to another location. Rotational motion is motion at a single location in space, motion about an axis. Translational motion is 1^{st} , and there is always translational motion, both during the Big Bang and after the Big Bang. Rotational motion is 2^{nd} , and there is only rotational motion after the Big Bang.

As we shall see, rotational motion in space is responsible for motion through time, and it is responsible for mass in space. Increased translational motion leads to increased rotational motion, and so indirectly affects motion through time and mass.

Mass

Space-time has mass. This is true now. Mass results from the motion of space through time. Mass results from motion through space-time.

Space in the 2^{nd} dimension of the universe had no mass. Space-time during the Big Bang had no mass. Let us examine why it is that space in the 2^{nd} dimension had no mass. At this time, space was still, and there was no motion in space.

Nature of Mass

Mass Results from Space in Motion through Time

According to the theory of relativity, if something were to move through space at the (Newtonian) speed of light, its mass would increase to infinity. In other words, as the rate of motion through space increases, so does the mass. Conversely, if the rate of motion through space were to decrease, the mass would decrease as well. If we take this to the extreme, and reduce the rate of motion through space to zero, then there would be no mass. Mass arises only from motion through space. This notion of motion through space implies that time is involved, as we shall see momentarily.

In the 2^{nd} dimension of the universe, there was time and there was space. However, time and space did not interact, but were distinct from each other. Although time was in motion, space was still. As there was no motion through space, there was no mass. All of the space in the entire universe occupied a geometric point of infinitely small space.

As we shall see, during the Big Bang as well, there was no mass in space, because although space was in motion, there was as yet no motion through time.

After the Big Bang, all of space and time is unified as space-time. All of space is in motion through time.

Many readers might think it reasonable to consider the situation that there is zero motion through space, but at the current stage in the life of the universe, post Big Bang, this is not even theoretically possible. Consider standing quietly and still by a river looking at a rock. The rock seems quite peaceful and still. However, it is not still at all. There is significant motion. Within each atom of the rock, the protons, neutrons, and electrons are all rotating about their axes at a great rate of motion, the electrons are revolving about the nucleus at a great rate of motion, etc. As well, the atoms, and the molecules, are constantly "bumping" into each other, interacting with each other, at a great rate of motion. This does not even take into account the motion of the earth about itself and through the universe. The notion of zero motion in space is an illusion due to the limits of human perception and due to ignoring motion that is not relative to the perception of the observer.

Mass Relationship to Motion

Let us consider the relationship of motion to the existence of mass in spacetime.

It is considered in relativity that if something were to move through space at the (Newtonian) speed of light, the mass would increase to infinity. And what would happen to the mass of something if it were to decrease all motion through space?

Let us consider a rock as an example. When we take a normal, and quite superficial, look at a rock, it seems quite solid and quite heavy for its size. Rocks seem to be quite massive. Yet, if we were able to look at the rock with an extremely powerful microscope, we would see that the rock is mostly empty space. The distance between the nucleus and the electrons of each of the atoms of the rock, for example, is easily the greatest part of the size of each atom. It is the extremely rapid rate of motion of the electrons about the nuclei, and of the atoms in interaction with each other within and among the molecules that make up the rock that cause the rock to seem to be quite solid.

A fair analogy is a fan. If we were to look at a fan that has been turned on, the rotor looks like a solid piece of metal. We cannot see through it, and we cannot put our hand through it. It seems quite solid. Yet, when we turn the fan off, we see that the rotor is mostly empty space.

Consider the famous equation used in relativity, $E=mc^2$. We can rewrite this as $E/m=c^2$, from which we see that energy (E) is proportional to mass (m) and that mass is proportional to energy. If we were somehow able to stop all motion through space, if there were no energy, we would eliminate all mass. This is not possible in the current stage of the universe, but it is possible to consider the implications.

If we were to eliminate the motion of the electrons about the nucleus of an atom, we would reduce the energy, and greatly reduce the mass. The atom is mostly empty space, which would be quite apparent if the electrons were to cease their motion around the nucleus. If we were to stop the rotation of the electrons, and the protons and neutrons, we would further greatly reduce both the energy and the mass. There would still be energy, though, as the rock would still be in motion through the solar system, which would still be in motion through the galaxy, which would still be in motion through the universe. If we were somehow able to stop all of that motion, however, and make the atoms in the rock 100% still, such that there were no motion at all, then there would be no energy at all, and therefore there would be no mass at all. $E=mc^2$. If E = 0, then m = 0.

In the Beginning: The Big Bang

The Big Bang is the start of the 3rd dimension of the universe. It is analogous to what is known in religion as the creation. Many people mistakenly assume that the Big Bang must be considered to have been the beginning of the universe. However, there is no evidence to support such an assumption. All that we can recognize that there is evidence for is that the Big Bang was the start of the universe that we know today. Current science does not concern itself with the

possibility or not of a time before the Big Bang. The Big Bang was only the beginning of the current stage in the cycle of the universe. The Big Bang is the beginning of space-time, due to the unification of space and time.

Most people, naturally, believe that the Big Bang happened all at the same time. It did, but what does this mean, exactly?

The Big Bang is not a 1 stage event, but is a 2 stage event. In stage 1, the light of the Big Bang hits space and time and causes their unification (the light is absorbed). In stage 2, space-time reacts by re-emitting the light.

Since all of the space in the universe was unified in a geometric point of infinite smallness, the light of the Big Bang was absorbed by all of space at the same time. This time was simultaneous.

This caused space to go in motion. All of space-time emitted the light of the Big Bang at the same time as well. However, this emission was not simultaneous. It can only be considered that all space-time re-emitted the light of the Big Bang at the same time because time did not begin for any unit of space-time until the light of the Big Bang was re-emitted.



Light enables space-time. Light is the only force in the universe. Light is the force that enables time and space to interact with each other. Light enables time,
which is in motion, to be still, and enables space, which is still, to be in motion. Light enables motion in space, and light enables stillness in time. Light enables time to move through space, and light enables space to move through time. The more motion in time, the more stillness in space; and the more motion in space, the more stillness in time. Without light, there can be no motion in space, and there can be no space-time. Light enables space-time.

How does light enable space-time? By perpetuating.

Consider the life of the initial light at the Big Bang, or the life of any flash of light emitted by some unit of space-time in the universe. This light follows the same 5 stage cycle of evolution as everything else in the universe. Light is born, it increases, it decreases, it dies, and it perpetuates.



Each unit of space-time in the universe is constantly absorbing the continuous waves of light that are being emitted by all other space-time in the universe. Our bodies in space-time interact with all other bodies in the universe. Our bodies constantly absorb and emit light. We constantly receive light from the entire universe, except of course from space-time that is so distant in space that its light has not had sufficient time to begin to reach us yet. Each time that our bodies absorb light, that light perpetuates, and we react by emitting light. The universe is

flooded with light. In reaction to absorbing light, units of space-time emit light, and the light perpetuates.

What happens to light that is emitted by our bodies or by some other spacetime? The light that we emit will expand outward in the volume of space-time until it reaches the end of its time in the universe, during which time it will interact with the entire universe. After the Big Bang, all light is born separately, but all light will die together, at the end of the 4th dimension of the universe.

How can we conceptualize the path of light that interacts with all of the space-time in the entire universe? Consider dropping a rock onto the 4 dimensional area that forms the surface of a pond. A wave is created that expands outward in a circle-like shape to interact with every point on the entire surface of the pond. Light follows this analogy, except that light expands outward in a more or less sphere-like shape to interact with all space-time in the 5 dimensional volume of the universe.

All of space-time constantly emits light. Consider a point in space-time located somewhere in the universe that emits a flash of light. This light then travels outward to interact with every other unit of space-time in the entire universe. The further away the space-time, the more time, the more motion of the light though space, is required before this specific flash of light interacts with it.

Speed of Light

Light was faster in the beginning, at the Big Bang. Light slows down with age.

Light is faster here, far from the point of origin of space in the universe. Light is faster where space is in greater motion.

The speed of light, the rate of motion of light, is constant throughout spacetime during the entire life of the light and the life of the universe. However, the speed of light is not constant through either time or space. The speed of light is faster in space here, far from the origin of the universe, than it is there, at the origin of the universe. Here, far from the origin of the universe, space-time is in greater motion through space, and here also the rate of motion through space of light is greater.

The speed of light is slower here, at the point of the now in time, than there, at the present location of the Big Bang in time. Like everything else, light is born at its maximum rate of motion through space. Over the billions of years of time since the Big Bang ended here, generations of light have passed through much time, and this greater motion through time is accompanied by a symmetrical decrease in the rate of motion through space. Light is finite, and eventually light will run out of time. There is a limited amount of time in this stage of the cycle of the universe. Eventually, light will die in the Big Crunch, by which time newly emitted light will have slowed through space to a crawl.

The perpetuation of light follows the 5 stage cycle of evolution. In the 1^{st} stage, light is alone, and travels outward through space until it encounters spacetime. This is analogous to man alone in the unit of the family. Just as man finds woman, light encounters space-time, which is 2^{nd} . Just as woman perpetuates by giving birth to a child, a unity of man and woman, space-time then gives birth to light, and the light perpetuates. Let us examine this further, in order to understand how light enables space to go in motion and enables time to be still. Let us 1^{st} discuss the life cycle of light, and 2^{nd} discuss the life cycle of the space-time that is made possible though its interaction with light.



Space-time began with the Big Bang. During the Big Bang, all motion of space-time is motion through space, and none is motion through time. During the Big Bang, motion through space is at its maximum, and motion through time is at its minimum.

As the universe evolves, the rate of motion through space progressively decreases, whereas the rate of motion through time increases.

At the end of the time available for the existence of space-time in a given cycle of the universe, at the Big Crunch, all motion is motion through time, and there is no longer motion through space.

Light enables space-time. Light therefore follows the same pattern as spacetime. Light is born moving through space-time at its maximum rate of motion through space, and correspondingly imparts to space-time its maximum change in rate of motion through space. In other words, light exchanges some of its motion through space with each unit of space-time that it encounters, in reaction to which the re-emitted light will have an increase in its motion through time; the light will age. Over time, as time increases, the rate of motion through space of light progressively decreases.

Once all of the motion of light is motion through time, and none of its motion is motion through space, light reaches the end of its time, and light dies, at the Big Crunch. When light dies, at the end of the 4^{th} dimension of the universe, space and time can no longer be unified as space-time, and they subdivide back into space and time. This is the beginning of the 5^{th} dimension of the universe, where time is again only in motion and space is again only still.



Let us now get into more detail about how light moves. Current Big Bang theory contains a concept known as inflation, which postulates that the universe expanded immediately after the Big Bang at a rate that is faster than the speed of light. Here, it is claimed that this expansion occurred during the Big Bang, and not after. What does this mean, and how can we provide a greater context for this understanding?

Propagation of Light

Light interacts with space-time. This interaction occurs in 2 stages. In the 1^{st} stage, light encounters and interacts with space-time. In the 2^{nd} stage, the space-time re-emits the light, which then moves outward to interact with all other space-time in the universe.

1st, light is absorbed by space-time, to form 1, the unity of space-time and light. 2nd, light is emitted by space-time, to form 2, a subdivision of space-time and light. In other words, once light is absorbed by space-time, it is then re-emitted by that space-time. Light must first be absorbed before it can then be emitted.

Big Bang: The 1st Absorption of Light

There are 2 forms of light in the universe, the light of the Big Bang and all subsequent light. The 1^{st} 1 flash of light was the light that caused the Big Bang. It caused the universe to expand outward rapidly. The many subsequent flashes of light were 2^{nd} . They cause the universe to contract inward slowly.

The Big Bang causes separation apart of the universe. All other light causes unification together of the pieces of the universe.

The 1st light (of the Big Bang) was simultaneously absorbed by all of space. This light resulted in 1 type of motion, motion through space. It involved 1 type of motion through space, translational motion (translational motion is motion from one location to another location). This translational motion was in 1 direction, outward.

Subsequent light was separately absorbed by each unit of space-time. This light resulted in 2 types of motion, motion through space and motion through time. Of these 2 types of motion, time, which was 1^{st} , is in motion in 1 way, forward, and space, which was 2^{nd} , is in motion in 2 ways, translational motion and rotational motion. Now that there is motion in 2 ways, rotational motion is motion in 1 direction, revolution about an axis, and translational motion is motion in 2 directions, outward and inward.

Big Bang

1st 1 flash,

causing motion in 1 way, through space,

in 1 direction, outward

The 3rd dimension of the universe began with the Big Bang. The Big Bang created the first light. Light enables space-time, by enabling space, which is still, to go in motion, and by enabling time, which is in motion, to be still.

The Big Bang was the 1^{st} flash of light. There is only 1 flash of light in this 1^{st} flash. The flash causes space to expand in 1 direction, outward. How fast is this motion? This motion is at the maximum rate of motion through space and the minimum rate of motion through time. Since there is only 1 flash, moving in 1 direction, there is only motion in 1 way, through space. In other words, the motion through time is zero, and there is no passage of time during the Big Bang. Space is 1^{st} .

At the time of the 1st flash of the Big Bang, there is motion through 1, space, but there is no motion though time. Light begins as 1, motion through space. Light only ages, or passes through time, as it interacts with (is emitted by) space-time. Thus, the Big Bang occurs in 2 stages; the beginning of the Big Bang causes motion in 1 way, through space, and the end of the Big Bang causes motion in 2 ways, through space and time, through space-time.

Energy and Mass

During the Big Bang, 1st, there was 1, energy. There was no mass. There was 1 form of energy, potential energy.

Subsequent to the Big Bang, 2nd, there were 2, mass and energy. There are 2 forms of energy, potential and kinetic energy. Potential energy is all of the energy that space-time will ever have as a result of the Big Bang, and kinetic energy is the energy that space-time has at any given point in time. All other forms of what are considered energy now, such as heat energy, are simply derivations of kinetic energy.

During the Big Bang, the equation of Einstein, $E=mc^2$, has no meaning, because there is no mass (m), there is no energy (e), other than the potential for energy, and there is no speed of light (c). There is light, but the only light is bound up with space; there was as yet no emission of light, there was no independent motion of light, and so there was no speed of light (c).



Just prior to the Big Bang, at the end of the 2^{nd} dimension, all of space occupied a geometric point, which is a point of infinite smallness.

Time unified with space to form space-time. This unification was caused by a flash of light, the light of the Big Bang.

The Big Bang imparted motion to this newly formed space-time, sending it into high speed translational motion. This motion was motion only through space, as there was as yet no rotational motion and so no motion through time. As there was as yet no rotational motion, the space-time as yet had no mass.

The Big Bang caused space-time to move outward in all directions. The universe of space-time expanded in the form of an ever-increasing sphere.

Because space had no mass, the big bang caused space to move outward at the Newtonian speed of light, in the sense that all motion was motion through space, and no motion was motion through time. Imagine a 5 dimensional volume of space, a sphere, expanding outward at the Newtonian speed of light. The outside edge of the expanding universe from the Big Bang was an infinitely thin massless rim of space-time. As this rim expanded outward in every direction, space-time would leak into the vacuum of emptiness created by the expanding sphere.

This space-time that leaked within the sphere would then eject the light of the Big Bang. This is the end of the Big Bang for this space-time. The cycle is complete once the light that was absorbed by the space-time has been reemitted.

When this space-time ejects light, this causes rotational motion. The rate of rotational motion is dependent upon the rate of translational motion. It is the rotational motion that causes the space-time, heretofore only in motion through space, to also go into motion through time. The rotational motion also imparts mass to the space-time.

After the Big Bang

1st, upon the Big Bang, the light of the Big Bang is absorbed by space to form 1, space and light together. All of space absorbs the light of the Big Bang together. This causes motion of space at the greatest possible rate of motion, because during the Big Bang there is no motion through time. During the Big Bang, there is no change in time, and so there is no motion through time.

2nd, the light of the Big Bang is emitted by the space. This happens to each unit of space separately, after the space has subdivided and is separate. The

emission of the light of the Big Bang causes separation of the space and the light into 2. At this time, the space begins to age, or pass through time. The reason is that the light begins to age, or pass through time. There is now motion through 2, space and time. The space and the time become dependent upon each other, such that all motion through space is accompanied by motion through time, and vice versa. All motion through space requires time. There is now space-time. Space and time cease to exist independently of each other. There is now subdivision into 2; 1st, there is 1, space, and 2nd, there are 2, space and time, as space-time.

When space-time emits light, it causes the space-time to spin. Space-time spins about its axis. There are 2 ways to spin about the axis, clockwise and counter-clockwise. To maintain the overall momentum of the universe, half of the space-time begins its life spinning clockwise, and the other half begins its life spinning counter-clockwise.

The spinning of space-time about its axis is what gives rise to mass. Mass only exists as a result of the rotation of space-time about its axis. Therefore, mass only exists after the Big Bang.

This spinning of space-time also gives rise to the concept known as charge. Charge can be positive or negative, depending solely on the direction of the spin.

As space-time rotates, it has kinetic energy. In other words, some of the energy that is potential from the Big Bang becomes actual in the form of kinetic energy. The amount of energy is dependent upon the mass, and vice versa. The relationship between mass and energy is described in the equation $E=mc^2$.



This 1st flash of the Big Bang causes all light. It does this by perpetuating. Light perpetuates with each unit of space-time that it encounters. The flash of the Big Bang caused space-time to be hurled outward. Each unit of space-time in the universe then reacts to the light of the Big Bang, and perpetuates that light by emitting light.

The light of the Big Bang was absorbed by all of space simultaneously, at the same time and location. The light of the Big Bang was emitted by all of space at the same time, but at a different location. At the same time, because time did not pass during the Big Bang. When each unit of space emitted the light of the Big Bang, time began for that space, making space-time, at which time each unit of space-time was located at a different position within the universe.

Once the light of the Big Bang is emitted by each unit of space-time, this child light travels outward until it encounters all other space-time in the universe, such that it is continuously being absorbed and then again emitted. This subsequent emission by space-time of light, after the Big Bang, and the continued perpetuation of light takes time. In other words, for all emissions of light after the Big Bang, it

takes time for each unit of space-time to react to the absorbed light and to re-emit and perpetuate that light.

During the time that it takes to react to the light of Big Bang and perpetuate, there is motion of this space-time only through space, and there is no motion through time. Because there is no time, there is no aging. Space-time therefore expands outward at a rate faster than what we now recognize as the speed of light, as no time passes during this motion through space.



When space-time reacts to the light of the Big Bang, and perpetuates that light, the perpetuated light of the Big Bang passes through time, or ages. Then, there is motion through 2, both space and time. There is also motion through space in 2 directions, outward 1^{st} , and now inward 2^{nd} . During the remaining life of the universe, the light from the point of origin of space in the universe will catch up

with the space-time that was in motion through space with no motion in time, and will bring it back to end in the Big Crunch.

How long did it take for the light of the Big Bang to interact with space-time and perpetuate? How old is the universe? Here, in our part of the universe, light has a well-known speed, or a rate of motion through space. Based on this rate of motion through space, we calculate the rate of motion through time, and determine that the universe is some several billion years old. In other words, here, we determine that several billion years of time have passed since the Big Bang sent our space-time into motion through space.



However, light is moving faster through space here, far from the origin of the universe where the Big Bang began. There, at the origin of the universe, there has been less motion through space than here, and so there has been greater motion through time. The closer to the location of the origin of the universe, the greater the rate of motion through time. Why? Because, the less far through space that this space-time has traveled, the more through time, and the sooner the light of the Big Bang perpetuated in the space-time and aged. Light and space-time are oldest at the point of origin of space in the universe, just as our species is genetically the oldest at the point of its origin in Africa.

As we look further outward than we are toward the frontier of the universe, the opposite phenomenon takes place. That space-time is in greater motion through space than we are, and therefore it is in less motion through time. Therefore, it took longer for the initial light of the Big Bang to perpetuate. Time is slower there, and therefore the universe is progressively younger the closer to the frontier of the universe.

What about at the frontier of the universe? There, there is maximum motion through space. As of yet, the first light of the Big Bang, which touched it so long ago (long ago from our perspective), sending it into motion through space, has yet to perpetuate. In other words, that space-time has not yet even begun to perpetuate the light of the Big Bang. There has been no aging at all yet. At the frontier of the universe, space-time is the same age as it was at the time of the Big Bang.

As time passes, motion from the initial light of the Big Bang is causing space to move increasingly outward, constantly increasing the size of the universe. However, until the end of the 3^{rd} dimension of the universe, the current dimension, the space-time on the frontier of the universe will not age, it will not pass through time, and it will not perpetuate light.

At the end of the 3rd dimension, all light in the universe will have begun to perpetuate. No space-time will be only in motion through 1, space. In the 4th dimension, all space-time will be in motion in 2, space and time.

Once emitted, light never ages. It travels to the end of its time, at the same rate of motion through space and at the same rate of motion through time; in other words, at the same age.

The light expands outward until the ends of the universe. In the 3rd dimension, there is no end in space (space seems infinite) of the universe. There is an end only in the 4th dimension. At that point, all space-time will have begun to perpetuate light, and therefore the speed of light will have a maximum and the universe as we know it now will be recognizable as having an ultimate end. Science is only about the 3rd dimension of the universe, where space is indeed infinite. If we broaden our context to other dimensions, then space can be recognized to be finite.

So, how old is our universe? Our universe seems to us to be several billion years old. However, this is the time since the light in this part of the universe first perpetuated. The point of origin of space in the universe could be any amount older

than this, and we would not know, because its light could not even begin to start to approach us until time began for us, and so the point of origin of space in the universe could be any age. On the frontier of the universe, the universe has not aged at all, and is still the same age as it was when at the time of the Big Bang.

Some physicists believe that in order to consider the possibility that the universe might be cyclic, there would be a great deal of missing mass to account for. However, according to this model, the universe that we see is only a fraction, and possibly a small fraction, of the entire universe. We know how much mass is missing, and now we know where it will be. Furthermore, estimates of the amount of mass visible in the universe are based on the assumption that the speed of light through space is the same throughout the universe, which is not a valid assumption.

The Nature of Light

Light conveys momentum. Light conveys no energy, as it has no mass. As will be described later, light also conveys spin.

There is a principle in physics known as conservation of momentum. The total momentum of the universe must remain constant. The Big Bang sent space into motion, and now the law of conservation of momentum ensures that it will return to the origin.

Space-time is in motion due to the effect of the Big Bang. The one and only interaction that occurs in space-time is the interaction of space-time with light. The interaction of light with space-time involves a transfer of momentum. The transfer of momentum due to the interaction of light with space-time is responsible for all mass, kinetic energy, spin, and charge in the universe. In other words, momentum is the source of all that is known as force, or interaction, in the universe.

Amount of Mass in the Universe

The mass of space-time is not constant throughout the life of the universe. The amount of mass of any given unit of space-time is greatest immediately after the initial emission of the light of the Big Bang, because this is when there is the greatest motion through space. In other words, this is when the speed of light is the greatest, this is when the translational motion of space-time is the greatest, and this is when the rotational motion of space-time is the greatest. Hence, this is when mass is the greatest.

Because the mass of space-time is at its maximum, this is also when the mass of space-time exerts the greatest pull of gravity. However, the total amount of gravity is greatest not at the edge of the universe, at the point of termination of the Big Bang for each unit of space-time, but at the point of origin of the Big Bang. The reason is that origin of the universe is where the most light has been emitted, and it is light that is the source of gravity, not mass. The greater the amount of light emitted by space-time, the greater the total amount of gravity.



The two primary forces of nature, according to modern physics, are known as gravity and electromagnetism. Both of these forces involve the transfer of momentum due to interaction of light with space-time.

Light 1st hits space-time, in other words is absorbed by space-time, and 2nd is emitted by space-time. The absorption of light by space-time is responsible for the force of gravity, and the emission of light by space-time is responsible for the force of electromagnetism.



Light is the only force in the universe. Momentum is the nature of the force of light. The transfer of momentum is where force has an effect. There are two opportunities for a transfer of momentum. One is when light is absorbed by spacetime, and the other is when light is emitted by space-time. Gravity is the name given to the transfer of momentum when light is absorbed by space-time.

Light travels outward in a volume of space, analogous to an expanding sphere of light, eventually touching and interacting with all space-time in the universe. In other words, each emission of light is eventually absorbed by all space-time in the universe.

According to Newton's Theory of Gravitation, the force of gravity between two objects is indirectly proportional to the square of the distance between them. As light travels outward, the surface of the volume of the light is a wave front that interacts with all space-time in its path. The size of the wave front, the surface area of the sphere, is constantly increasing. Using basic calculus, the change in the surface area of a sphere is the derivative of the volume of the sphere, which means that it is also indirectly proportional to the square of the distance that the sphere has expanded outward from the source.

Light travels outward at a speed that is dependent upon the age of the light. When the light of the Big Bang is emitted, the age of the light is at its youngest, and so it carries the greatest amount of momentum.

The light and the space-time that interact are 2, which join together to become 1, as the space-time absorbs the light.

There is a principle in physics called the conservation of momentum. According to this principle, if 2 objects interact, the total momentum before the interaction and the total momentum after the interaction are equal. In order to conserve the momentum of the universe, when space-time absorbs light, the spacetime reacts by moving at a proportional rate of motion to the light, but in the opposite direction. This opposite direction is back toward the source of the light.

This is clearly understood from Newton's Laws of Motion. Newton's First Law of Motion states that absent a force, which we now recognize as a transfer of momentum, there can be no acceleration, or change in velocity, of space-time.

Newton's Third Law of Motion states that for every action there is an equal and opposite reaction. The only force in the universe is light, and the only action in the universe involves space-time absorbing and emitting light. When space-time does the 1st, absorbs light, the 2, space-time and light, unify into 1. The resulting transfer of momentum is the unidirectional force of attraction, gravity, which is a force for unity of the source and the target.

The force of gravity is caused by a transfer of momentum to space-time caused by the absorption of light, such that when space-time absorbs light the space-time changes direction to move in the direction of the source of that light. With gravity, space-time is attracted to the source of the light.

Perpetuation

Each new generation of light is older,

as it has evolved through more time.

Once emitted, light does not age. Light once emitted travels to the ends of the universe, interacting with all of space-time in the entire universe, yet it does not pass through time as it passes through space.

Now, let's talk about how light perpetuates. When light is absorbed, there occurs the transfer of momentum known as gravity. This transfer of momentum takes time. Once the transfer of momentum has completed, the space-time will reemit the light.

The interval between when the light is absorbed and the child light is emitted takes time, and during this time the light passes through time, or ages. Therefore, each time that light is re-emitted, or perpetuated, to produce child light, the new light is slightly older, as it has passed through slightly more time, and the new light is slightly slower in its rate of motion through space, as its rate of motion through space is symmetrically decreased.

It is the same as when 2 parents produce a child. We say that a child is younger than its parents, but the genes are older, as they have evolved through more time. In the same way, the child light is older in time, and slower in space.

Speed of Space-Time

Space-Time always moves at the speed of light,

at the speed of the light that interacts with it.

The farther from the origin of the universe, the greater the motion through space of the light, and the greater the motion through space of space-time.

The amount of momentum transfer is directly proportional to the speed of the light, which is itself directly proportional to the age of the light.

Space-time constantly accelerates, or changes speed and direction, based on its constant interaction with all of the light that it encounters. Space-time does not travel only through time, because light has enabled time to be stilled. Space-time travels through both space and time, with the rate of motion through time dependent upon the rate of motion through time of the light that it encounters. Space-time goes in motion through space at the rate of motion through space of the light. To compensate for the change in motion through space, the light will age, resulting is lesser future momentum transfers due to this light. The rate of motion of space-time that encounters light becomes that of the light, and is dependent upon the age of the light.

Gravity

The Sun and the Earth are the main sources of our Gravity.

All space-time emits light, and so attracts other space-time as Gravity.

At the Big Bang, light blew the universe into being, with all of its momentum outward. Light then travels to the end of the universe to bring space-time back, to the Big Crunch.

Most of the mass, or space-time, in the universe is still located near the location of the origin of the universe. Although there is less mass per unit of space-time at the origin of the universe than at the frontier of the universe, there is much greater light at the origin of the universe, and so there is much greater gravity there. As the origin of the universe has traveled the least in space, it has traveled the most in time. It has therefore emitted the most light. Eventually, there will be sufficient time for a sufficient amount of this light to reach out to the universe to pull everything back into the Big Crunch. However, the light from the point of origin of space in the universe will not even begin to get any closer to the light at the frontier of the universe until the beginning of the 4th dimension of the universe, after that space-time has first perpetuated light and has begun to pass through time.

Currently, the major sources of light, and so gravity, in our part of the universe are the sun and the earth. The sun emits much more light, and therefore much more gravity, than the earth. However, the earth is much closer to us. Its light therefore has travelled less far to reach us than the light from the sun, and the radius of its spheres of light are smaller, such that the gravity of the earth is locally more powerful even given its lesser amount of light.

Electromagnetism

Light is 1st absorbed, causing the transfer of momentum known as gravity. During the time that it takes to complete this transfer of momentum, the light is unified with the space-time, and the light ages.

Once the momentum of gravity has been transferred, the light that has been absorbed must then be re-emitted. This emission of absorbed light is the source of the electromagnetic force.

Space moving outward from the site of the Big Bang reflects only 1 type of motion, translational motion, where translational motion refers to motion from one location to another. The absorption of light imparts translational motion to space-time.

When space-time emits light, 2nd, the result is 2 forms of motion. There is translational motion and there is rotational motion. Together, these form the electromagnetic force.

When space-time forms from the first emission of the light of the Big Bang, there is rotational motion. To conserve momentum, half of space-time rotates in each of 2 ways, clockwise or counter-clockwise about its axis. Subsequent emissions of light maintain this spin. Therefore, emitted light also conveys the spin of the space-time that emitted the light.

Light that is absorbed conveys its spin, and when the light is emitted, the effect of the spin is maintained. Since there are 2 directions of spin, there are 2 forms of this force, just as the electromagnetic force can be both attractive and repulsive.

All fundamental units of space-time spin, either clockwise or counterclockwise. All light that is absorbed by space-time conveys the spin of the spacetime that emitted the light. Whether the electromagnetic force is attractive or repulsive depends on whether the spin of the space-time that is the source of the light and the spin of the space-time that emits the light are the same or different.

An analogy to understand the effect of spin can be found in billiards. Here, there is a concept called English, which is spin put on the cue ball. The same spin of the source and target corresponds to top spin. Opposing spin corresponds to back spin. Top spin sends the cue ball away from the source after contact with the target ball, whereas back spin returns the cue ball backward toward the source after contact with the target ball. There is no side spin, as space-time can only spin 2 ways about its axis. The cue ball analogy is imperfect, because the cue ball moves forward or backward, but remains separate from the target ball, and the target ball has no spin before the collision. With space-time, light merges with the target space-time, which then moves forward or backward together. There is therefore conservation of angular momentum based on a transfer of momentum due to the respective spins.

If the spin of the source and target space-time are the same, then the force is a repulsive force. If the spin of the source and target space-time are different, then the force is an attractive force.

All of space-time is constantly spinning, and the spin is analogous to the charge of the space-time. All fundamental units of space-time have charge. Electrons have a negative charge, protons have a positive charge, and neutrons have a neutral charge. This might sound confusing, but although neutrons have a neutral charge due to a net spin of zero, this does not mean that there is no spin. According to modern physics, protons and neutrons are each composed of 3 quarks, each of which has spin. Each quark emits its own light. Although the total spin, or charge, may be zero for a neutron, that does not mean that there is no spin, but only that the net spin of the 3 quarks is zero.

Electromagnetism exhibits a far greater transfer of momentum than gravity, and so is a much stronger force.

Mass, Energy, Spin, Charge

When light is emitted by space-time, the light conveys spin, and the space-time spins.

Spin is also the source of charge. Charge is referred to as positive or negative, just as spin can be referred to as clockwise or counter-clockwise.

Spin is the source of mass. Space exists in the 2nd dimension of the universe, but it contains no spin, and so has no mass. During the Big Bang, space exists, but a lack of rotational motion means that there is no mass.

Space-time has mass by virtue of rotational motion. The greater the rotational motion, the greater the mass, and vice versa. This is why it is meaningless to speak of space outside of the context of time. There is no space or time in the current dimension of the universe, there is only space-time. Rotational motion takes time, and without time space could have no mass.

Einstein's formula, $E=mc^2$, explains the proportionality between energy and mass. The greater the mass of space-time, the greater its energy, and vice versa. Therefore, rotational motion is responsible not only for mass but also for the kinetic energy of space-time.

All of space-time moves at the same speed, the speed of light. All motion of space-time has a spatial and a temporal component. The greater the spatial component, the less is the temporal component, and vice versa. Modern relativity recognizes that if the motion of space-time were such that the entire motion were spatial motion, and none were temporal motion, then the mass would be infinitely large. Of course, after the Big Bang, this is not possible, because there is always a temporal component. Something else not possible, until the Big Crunch, is that all of the motion of space-time were temporal motion and none were spatial motion. If there were absolutely no spatial motion of space-time, there could be no mass, as the mass would be infinitely small. Mass arises out of rotational motion of space-time, as space rotates over time.

Aging of Light

When light is emitted, there is a slightly lower rate of motion through space of the emitted light than of the light that was absorbed. The reason is that the light has aged. The difference in the rate of motion causes motion through space-time, motion through space and motion through time. Motion through space is 2, translational and rotational. Translational motion is toward the source of the light. Translational motion is recoverable, since it is involved in future interplay of gravity. (In other words, translational motion does not involve aging, because the energy of translational motion, the increase in motion, will not subsequently decrease until acted on by an outside force, ie more gravity.) Rotational motion is not recoverable, and so constitutes aging of the space-time, and causes mass. Aging refers to motion through time. Once translational motion is converted to rotational motion, there is a lower rate of motion in the light, the light has aged (passed through time), and the universe has aged, as that motion can never be recovered for more translational motion.

Gravity

According to Newton, the force of gravity is $(m_1 \times m_2) / r^2$. In other words, the force of gravity weakens with the square of the distance. As the distance doubles, the gravity weakens by a factor of 4.

It was stated previously that light expands outward in the shape of a sphere. The area of the surface of a sphere is $4\pi r^2$. In other words, the area of the surface of a sphere expands with the square of the radius (distance from the center). As the radius doubles, the area increases by a factor of 4.

Therefore, as the radius of the expanding sphere of light increases, the surface area increases by the square of the radius and the gravity decreases by the square of the radius. Double the radius leads to 4 times the surface area and one fourth the gravity. It seems that the force of light is distributed evenly across the surface of the expanding sphere of light, and gravity decreases with the square of the distance in exact line with the increasing surface area.

Why the Big Bang is so Powerful

Extrapolate the expanding sphere of light backward to the Big Bang. As the sphere of light decreases in size, it decreases in surface area, such that the force of light is greater at each point on the surface of the sphere. How small can the sphere become? How powerful is light at the moment it is emitted? Light is only so powerful because the size of space-time is finite. There is a minimum volume that space-time can occupy. As space-time is finitely small, there is a limit to the minimum surface area of a sphere of emitted light. At the Big Bang, however, the volume of space-time is zero. Because the volume is zero, there is no distribution

of the force of light, because there is no sphere. The light is concentrated at a point. This imparts 100% of the force of the light to the space-time that the Big Bang encounters, and the light of the Big Bang encounters all of space-time. Therefore, the Big Bang is the most powerful force of light possible, due to zero volume and so zero distribution/dilution of the force. Light is much more powerful at the Big Bang than any time afterward.

Conclusion

The model presented here builds upon current models of nature. It alters a simple assumption, typically accepted without question by other popular scientific models of nature, the notion that space is infinite, and then explores the ramifications of such a change. Let us review some of the implications of this new assumption.

Nature Follows A Cycle

Evolution is a 5 Stage Cycle

Nature follows a cycle. We call the cycle evolution. Our species, with its 5 fingers per hand and with its 5 senses of awareness, recognizes evolution as a 5 stage cycle. This book provides a basis for understanding the nature of the cycle of evolution.

Simplicity Evolves Into Complexity Evolves into Simplicity

The epicycles of Ptolemy initially made things simple. Eventually, they evolved to make geocentric Greek astronomy extremely complex.

The solar-centric theory of Copernicus enabled a return to simplicity.

The greater context that this model of nature provides enables an entire dimension of organization of our understanding of nature beyond what is currently possible.

The increase in organization enables incredible simplicity. How can we understand the differences that organization provides to enable simplicity? Just as the complexity of the epicycles of Ptolemy and his geocentric world became completely unnecessary in the age of Copernicus, with his model of the sun at the

Conclusion

center of our world, the extreme complexity of modern physics can now be greatly simplified through organization by awareness of the cycle of evolution. This book presented a small example of the application of this 5 dimensional model.

Evolution is Constant		
Simplicity \rightarrow Complexity \rightarrow Simplicity		
Models of	Models of	Models of
Nature	Science	Language
Unity of Space	Geometry	Chinese
Subdivision into Time and Space	Relativity	English
Unity of Time	This theory	Swahili

Euclidean geometry is relatively simple, just as the grammar of Chinese is relatively simple, but both achieve their simplicity by focusing solely on space and completely ignoring time.

Relativity, as with the grammar of English, is comparatively extremely complex.

This model, like the grammar of Swahili, returns to simplicity in the unification of time.

This model of science is simpler than previous models of science.

The unification of science with religion, and of space with time, enables incredible organization, and therefore simplicity, of our understanding of nature.

Everything Evolves

Evolution is a 5 Stage Cycle

Everything evolves according to the same pattern, the pattern known as evolution. Human beings are aware of this pattern as a 5 stage cycle.

The universe as a whole evolves according to the cycle of evolution. Time, space, and light evolve according to this same pattern.

Our species has evolved according to the same pattern as the universe as a whole. The evolution of our species has followed the same 5 stage cycle.

Each individual of our species evolves through life following this same pattern.

Now that we have an idea of the pattern of evolution, and of the stages in the cycle of evolution, we can recognize that everything in nature evolves according to this cycle.

Elsewhere, this model of nature has been used to analyze the languages of our species, and to demonstrate that they have also evolved according to this pattern. The analysis examines 5 model languages in detail, 1 that orients to each of the 5 dimensions. For each language, it is demonstrated that the primary dimension of orientation is reflected clearly through the structure of consonants and vowels that compose syllables, the organization of syllables to form words, the organization of words to form phrases, the organization of phrases to form clauses, and the organization of clauses to form sentences.

Scientific models of nature are limited to one culture's experience with nature. This new model of nature also takes into consideration the experiences of other cultures with nature, enabling a model of nature that is based on the perspectives of understanding of the entire species. For example, elsewhere this model is used to examine the evolution of the primary Chinese model of nature, the model known as the Dao, through each of the 5 dimensions of awareness, including the dimensions symbolized by Yin and Yang, the Ba-Gua, and the '5 Elements'. Analysis of science from this greater context, a context that includes the models developed by cultures that have a primary orientation to other dimensions

Conclusion

of awareness, enables a much more comprehensive model of nature than is possible from the perspective of a single culture.



As our species evolved, our ancestors progressively recognized increasingly complex relationships among the parts of the body and the world as a whole. They used their awareness to symbolize the organization of nature, and to develop increasingly sophisticated models of nature. This awareness was represented in language, and in models such as those of religion and science.

The primary location on the body where such relationships have been symbolized has been on the fingers. It is finger signs that enabled our species to evolve through the 5 stages of increasing awareness of the environment, through the 5 dimensions of awareness.

Elsewhere, this model has been used to demonstrate complex and detailed patterns of finger signs that were developed by cultures that orient to each of the 5 dimensions, including not only the finger signs for symbolizing their primary dimension of orientation, but also the finger signs for symbolizing subsequent dimensions of awareness from the perspective of their primary dimension of orientation. The finger signs used by various cultures differed greatly for the symbolism of each dimension of awareness, depending on the primary dimension of orientation.

The earlier groups of our species that migrated out of the homeland in Africa have a much greater orientation to space, whereas progressively later groups evolved to a much greater orientation to time, just as happens with the life of each person and with the universe as a whole.

Next Stage in Human Evolution

Throughout our history, human beings have evolved in our ability to be aware of relationships that exist in nature. It is now possible continue our natural evolution to the next stage in our evolution. We can now evolve to a comprehensive awareness, and creation of a model of that awareness, that includes all of the dimensions of awareness of modern humans.

This new model of nature is much more comprehensive than existing models, and yet it is also much simpler. It is so highly organized that increased complexity is not necessary in order to enable symbolism of an entire dimension of understanding beyond current models of nature.