

Alexandrian Traditions

In this lecture I want to bring your ideas of space and time together. In the Alexandrian tradition, these two were one, but today we think of them as separate: Space and Time. I'll describe the space-time pattern with a chronological or time map, and then I'll speak of a space map, like in a world atlas. Now in order to produce a space-time pattern, you have to somehow bring these two together in your head. There are a lot of details and unfamiliar names on these maps, but this will give you a rough idea. I have repeatedly studied this material, and each time I forget its intricacies. Right now I'm in the stage of forgetting and that's good, because now the central concept can emerge out of all that detail.

[Picture?] This is a map of the whole universe or cosmos, according to the Alexandrian view, which is called the world view. These three maps, the time map or the chronological table, the geographical map or the atlas, and the world map evolved in stages _____ pattern. All this has to go together in your mind so that you end up with more or less of a single structure. It is a condition we can experience in our own lives. According to sacred mathematics it can be used to enhance our perception of life as we live it, and that's how we can apply sacred mathematics to the personal search for wholeness. Whether it works or not, I can't guarantee.

I don't know how to describe the world view without the space-time pattern, so I have to do it in parts. First I'll draw the longer tradition of the [time map?] _____ which started with Orpheus and ends in the present; it is marked off in centuries. Here we have Orpheus, who might have been a real person or a mythical figure, we don't know, but according to tradition he was an argonaut who sailed with Jason on the good ship Argos in search of the Golden Fleece. He was the only one on the boat who was not a warrior, and he has a special role in the myth. He was actually a warrior, but his weapon was his lute.

The date of the mythical or prehistorical adventures of the argonauts has been set around 1200 BC by Sir Isaac Newton in his application of the new mathematics to pre-history, but we don't really know when it happened. Then in 800 BC there was Homer and Hession -- last night I mentioned their roles in the chaos concept and in the fundamental trinity of cosmic principles that define the Orphic tradition. Shortly afterwards came Pythagoras, who is considered a reformer of Orphism, as Buddha was a reformer of the Sanskrit Vedic tradition and Christ was a reformer of Judaism and Luther was a reformer of Christianity and so on. Pythagoras more or less lived at the same time as Buddha. He followed a religion based on mathematics, which is the first time this happened in history. There are writings called the Pythagorean Corpus, supposedly by Pythagoras, but probably written by students. We are not sure that Pythagoras existed. Then came Plato, who was a reformer of the Pythagorean tradition.

Alexandria began shortly after Plato, roughly from 300 B.C. to 600 A.D. It existed just long enough to embed itself in history as the library that burned. This was either a fantastic catastrophe or an incredible miracle,

depending on your point of view. There was no such thing as Islam until Mohammed had a vision in his mature years. He preached only for a few more years, yet the Koran came into existence in that time. Mohammed, like Jesus, was a peaceful person. When he died, Omar the First took over, then came Omar the Second and so on, and they unleashed what is now known as Islam. It began with Omar, but a completely different world view was generated in only a few years. It is characteristic of history that there are sudden discontinuities, huge jumps, like in the renaissance. The rise of Christianity is the best studied example of this kind of historical catastrophe.

The first important figure for our story is Dionysus, Dionysus the Ariophagite who was converted to Christianity by St. Paul in Athens where he practiced medicine. He practiced on a hill called the Ariophagus. The CA _____ descends from him. He was a pagan Greek who believed in Apollo and Zeus and all that stuff. Actually, we can't even be sure that he existed. Here's what happened. Starting soon after the late Alexandrian time, there were other writers who used his name, and they wrote something like four books and ten letters, which they called the CA. They signed all of them with the name Dionysus the Ariophagite. Everybody thought he was the author until recently, when scholarship proved that they were written several hundred years after the death of Dionysus himself. So these are anonymous late-Alexandrian Christians who _____. Through them came the diffusion of the Alexandrian world view into Christianity, and the great figures of St. Augustine, Thomas Aquinas, Gregory, and finally John Scotus of Agina brought these concepts officially into European Christianity. You can think of the Orphic tradition or the Alexandrian tradition as a kind of undercurrent of Christianity that rises to the surface every once in a while.

These two strands, the pagan strand of Alexandria on the one hand and the Christian one on the other are kind of braided together through history. There are a lot of other Alexandrian traditions besides the Christian and the neo-Platonic ones, but these are the major dynamical forces in European history today. Around the time of Christ, Philo Judaeus the Jew tried to reconcile the Alexandrian world view with the Old Testament. He is a major contributing factor in the development of Alexandrian philosophy. Starting around 200, there is Ammonius Saccus, the founder of the neoplatonic tradition. His various followers included most especially Plotinus. Their names should be better known than those of _____ and these other Greeks. They are the most important Greek philosophers, but the Alexandrian tradition, probably due to the burning of the library, has been very slow to emerge into our consciousness. The great work of these people was fundamental to the development of the Christian world view, and a lot of elements in our own world view emerged during that purple period.

Plotinus was born in Alexandria, where he studied with Ammonius for eleven years and then went on a world tour which ended up in Rome where he established a Platonic Academy. He wrote some books, but they are all lost. His student Porphyry wrote down all his lectures in the so-called Ennead; the word Ennead comes from the word nine, so the six books of the Ennead have nine lectures each. Porphyry eventually published his crib notes of Plotinus's lectures. Another student of Plotinus was Iamblicus, a contemporary of Porphyry. All of them lived around 200 to 300 B.C. Hypatia came later, and at the very end came Proclus, who died in 485 A.D. He was the last.

Porphiry and Iamblicus came from Syria and went to Rome to study with Plotinus. They were not Alexandrians, but they were the main authors in the Alexandrian tradition. Hypatia followed Porphyry to Alexandria and taught at the Alexandrian Museum and Library, and Proclus studied in Athens and succeeded his teacher as the head of the Platonic Academy, which existed until 529 AD when it was closed by Justinian, a Roman emperor who was converted to Christianity. In service to Christianity he closed all pagan academies in 529. All the remaining mathematics professors of the Athenian Academy escaped to Persia, except for Hypatia.

There were two main centers of neoplatonic philosophy: one was Athens, the other Alexandria. Hypatia was one of the main representatives of the Alexandrian branch. I don't know the names of all the main professors in the Alexandrian branch who came before her, but one of them was Aristophanes. His is one of the well-known names in the early history of mathematics. He was the first to figure out the diameter of the earth, and he was correct within one percent. A few Christians are worth mentioning in this list. There was Clements of Alexandria, who studied with Porphyry, and there was Origen.

Around 800, the medieval Christian philosophy was enriched by the arrival of the Platonic world view with _____. Perhaps the emergence of the Gothic tradition around 1200 was a consequence of this. There are so many connections! The first Gothic church, the cathedral of St. Denis, was built in 1200, followed by Chartres, Notre Dame, and so on. The beginning of this tradition can be traced back to Orphic revivals in the context of medieval Christianity. Dionysus, who was converted by St. Paul, became the patron saint of France, where he is called Saint Denis. The Gothic cathedral of St. Denis is still standing. It is a primary example of the Gothic tradition, which is associated with the goddess. Notre Dame, for example, means Our Lady. The Gothic tradition was organized around the goddess concept, represented in Christian hierarchy by Mary and other women. St. Catherine, for example, is a Christian version of Hypatia.

The renaissance was an Orphic revival. There were other major transformations in which these ideas were suddenly remembered after having been essentially forgotten. Worth mentioning here is the mathematician Puchino, who translated the neoplatonic _____ text, and Tito, who combined the Jewish mystical tradition with Christianity under the name of the Christian Kabbalah. More recently, there were Orphic revivals associated with Goethe and Madame Blavatsky, and let's not forget John Lennon and others in the '60s. So there is a long line of the Alexandrian tradition containing pagan and Christian elements.

As the barbarian hordes kept conquering the higher civilizations, they migrated north, and Greek civilization and Alexander's trip around the whole world brought all the knowledge back to Alexandria, where these two centers developed. This is called the Alexandrian tradition. After Omar the First the Alexandrian creation escaped to the caliphate of Baghdad, where a lot of knowledge was saved in a new library that was identified as a Platonic Academy. The marching armies of Omar the First arrived in Europe through Spain, and much later, another branch went directly to Florence. The remaining books were translated into Arabic by scholars who were employed by later, more enlightened caliphs. They were convinced that Aristotle's writings were compatible with the Koran, and there was an urgent need to

understand the seasons and the sky and the coordinates, and all that was in the mathematical books from the Athens academy. The Arabic empire was too large to be ruled by a single caliphate, so they ended up with two of them, one in Cordova, and the other in Baghdad. Then King Ferdinand and Queen Isabella got rid of the Arabs, the Moors. They pushed them out. They also pushed out the Jews. The library of Cordova arrived in Florence in 1492[?], and the one from Baghdad came in 1452[?], and the collision of this ancient Alexandrian knowledge created the Renaissance.

That's the historical background, and so what's it all about? Well, the first and most important characteristic of the Orphic tradition is the idea of the soul and reincarnation. That there's more to human life than the physical body. _____ Orpheus himself was a vegetarian. Why? Because -- well, maybe he just loved animals, but it is connected to the tradition and the belief in reincarnation, because it was thought that the soul can incarnate in human or animal form. The idea of transmigration of the soul holds that there is a connection among all living things -- humans, plants, animals. They even thought that rocks have a soul, that everything has a soul. The bottom line of the Orphic tradition is the idea of soul. Pythagoras was also a vegetarian, and his students wore white and were silent for years. He was the first to make a mathematical model, sort of a map of the soul. There must be a geography of the soul as well as a geography of the material world, and the conception of the soul was Pythagoras's specific program. He thought that learning this material was of great importance in life. If you decided to pursue philosophy and the good life, you would approach the divine by becoming conscious of your soul. You would then ride across the geography of the all and everything in its vehicle, arriving at a conscious union with the divine.

To become conscious of the soul, that essential aspect of existence, one would have to know its geography. So as to go in the right direction, one had to learn the movement of the stars and celestial navigation to know how to move about. The same was true of the geography of the soul. Pythagoras used all of the mathematics known at that time, i.e., algebra and geometry. Of these, algebra was considered the most fundamental, so the Pythagorean model for the all and everything was based on numbers. One meant something. Two meant something else. Every number had a personality and existence and a role as a structural member in the entire universe. That was Plato's background. He revived or regenerated forgotten Pythagorean ideas and incorporated elements from the East and from his own travels. According to legend, he traveled all over Egypt, India and Babylon collecting information to try to rediscover what Pythagoras supposedly knew. Part of the Pythagorean myth is that he traveled to these same places.

Many people believe that all of Western civilization is a commentary on Plato's writing. The Alexandrian tradition has two main texts, one from Plato and the other from Syria. The main Platonic one is about the geometry of the all and everything. The model for the all and everything is the so-called cosmogeny or creation myth of every culture. It shows not only its structure but which part was made first and how it was made. In the traditional _____, just at the beginning of _____, Plato says that _____. I have an old translation of the _____ that has a condensation of the main text on the margins. Here is a translation from an ancient commentary. There are four characters in this dialogue. Socrates is the principal character, then there is Timaeus, Cryptius and Hermocrates. In what follows Socrates and

Timaeus are speaking.

"God made the world good, wishing everything to be like himself. To this end he brought order into it and endowed it with soul and intelligence." Soul and intelligence are the main features in the geography as it emerges in the Alexandrian tradition, but here they are just words in _____. "The origin of the universe is a perfect animal, which comprehends all intelligible animals, just as the copy contains all visible animals. The world is visible and tangible and therefore composed of fire and earth." Here's where the four elements come in. "These elements being solid require two means to unite them, water and air. All the four elements were included entire in the composition of the world, which was therefore perfect and not subject to decay, for nothing was left outside which could hurt or destroy it. It received a spherical form, without eyes, ears, mouth, head, feet. It was made to revolve in a circle on the same spot. In the center was placed the soul..."

___it's just _____ in the center, but here's another fundamental -- these are the things extracted from Plato's casual writing by Plotinus or Ammonius as the Alexandrian tradition gets underway. "In the center was placed the soul which pervaded the whole. The soul pervaded the whole, and even surrounded it. More than everything was the soul. Though posterior to the body in the order of our exposition, in the order of creation, it is prior to it." It was thus created first, out of the indivisible, that is, the Same with a capital S, and the divisible, the Other, with a capital O. Here's the Same and the Other, these are _____ terms. "Out of the indivisible and the divisible, God made Essence." Essence with a capital E. Another one of these fundamental ideas. "He then mingled these three elements and divided the whole mixture into parts according to the proportions of the Pythagorean practice and of the diatonic scale." Here he is revising the entire period of Pythagoras into creation and maintenance and the harmony of all and everything through the mathematical relations of these elements.

Let me add here a few words about Plato. All the writings of Plotinus, as I said, were burned. His lectures were written down by Porphyry, but I found one of the few remaining fragments actually written by Plotinus himself. What would it be like if Plotinus were here talking to us? We can never recover the way these people thought, but here is what it looked like in print. "Often I have woken to myself out of the body, become detached from all else, entered into myself. I have seen beauty of surpassing greatness, and felt assured that then, especially, I belonged to the higher reality, engaged in the noblest life, identified with the divine, and there established, I have attained to that supreme actuality, setting myself above all else in the realm of intellect, and after this repose in the divine, descending from intellect to reasoning, I am perplexed as to how my descent comes about and how my soul has become embodied, a soul though in the body of such manifest excellence." He revives purified and relates the essence of the Platonic world model to experience. He emphasizes his own experience, but it could be your experience. It's a travelogue. His lectures had to do with traveling and gave instructions about how to make contact with the divine, how to connect up your own personal individual soul with the world's soul. The individual soul is already perfect, but to connect it up, to become conscious of the perfection of this part of us while seeing the distinction between it and the imperfection of the human body with all the material, economic and political realities of human life -- this led to a kind of extreme polarization in the

gnostic movement of Paganism and of the early Christian religion. The human body became despicable.

The emphasis on personal experience is gnostic with a small g. The idea is to trust in one's own experience. The possibility of contacting the perfect divine within one's own self through that piece of soul which is larger than the envelope in which it dwells precedes it in creation. The idea of having achieved union with God, as it were, is like an acid trip when you're coming down. People have studied the techniques of landing -- how to bring back the essence of the spiritual experience into everyday life -- how to maintain the consciousness of that perfection while going about the business of living. The essence of the Alexandrian tradition is the study of how to remain conscious of the existence of an invisible world of great meaning and importance in the everyday state of mind. The vehicle of the soul and the emotions is the amphibious nature of a human whose body is confined to the earth while the soul can fly or swim through space.

We need this model to understand the trip. The One was envisioned outside the celestial sphere. In _____, the One is beyond beyond. It is beyond existence. The number one is the creator. It is being being. The highest level of being is called by various names. In Greek the One is *nous*, frequently translated as intellect or mind, but it is not intellect or mind. Then there is the soul, *nouma*. These were called by Plotinus the three hypotheses: three metals, regions, claims, all beyond material existence. {?} Nature includes the body at the lowest level. Like the _____ in the development of Maynard's neoplatonic philosophy, there is an elastic medium between the body and the soul, i.e, the spirit. Each individual has a little soul bubble which can travel, which must travel in the process of incarnation. A bit of the world soul descends into the body in the voluntary act of _____ in order to maintain biological life. That is the Orphic-Pythagorean-Platonic version of the perennial incarnation of the soul.

Papyrus says that we can travel, we can take a round trip in one lifetime, back to the world soul. That means we must navigate through spirit and become briefly united in consciousness with the world soul, the lowest of the three hypotheses. The intellect is not accessible to the individual soul in traveling; you cannot buy a ticket with it. It just belongs to the One and contains the library of all forms which will be manifest in nature through the creative activities of soul. We don't have this belief in our culture. We can't even imagine somebody believing it, but Plotinus speaks as if all of this is absolutely without doubt.

You get lost in this literature if you look at the Alexandrian library here in this box. You see that the word *logo* meant something completely different. From Philo to Heraclitus to Plotinus and so on, all of them argued about how many levels there are and what are their names. They are all different versions of a similar view which is beyond consciousness and can't be put in words but is accessible to individual experience. The reason why the writings of all these different travelers is so compatible is that they have traveled to the same place and had the same direct gnostic experience.

An early tradition relevant here is the centuries of mystical experience of the Maccabees in Judaism. The ritual they performed took place in basement rooms that were dimly lit by candles. The practitioners sat in chairs and put

their heads between their knees, staying in this posture all night. In this posture they made a journey out of the body into the _____, accompanied by a minutely detailed map of the territory similar to the tankha paintings of the Tibetans. In Judaism there are maps of the three _____ regions through which you can travel, and if you approach a gate the right way, having taken the right route, you can go through into the _____ realm. There is another tankha, another plain representation of the three-dimensional world, a _____ travel, so the centuries of this tradition, which are not recorded in books, speak of their direct experience. The methods used can't be described. In the Eleusinian mysteries, for example, many people believe that psychedelic plants were used. That's also the way that people use them in our time. I don't know anybody who sat all night with their head between their knees, but I know a lot of people who have eaten mushrooms and made journeys into other dimensions. They come back with reports of an experience that cannot possibly be put into words, but their clumsy efforts to express what happened to them has a certain similarity to the reports of mystics through the ages.

We look for non-Western expressions of this experience because our Eurocentric tradition and history has discounted it. The fact is that when it comes to mathematics, the Greeks did achieve the creative leap that allowed them to create a map of the mystical experience.

SIDE 2 [Ralph -- this side of the tape seemed to skip occasionally--there were squeaks and words appeared to break up, so I don't know if anything major was lost - Dotty]

January 24.

An oscillator means a natural system or maybe a mathematical model which is moving or changes state through some sequence like a movie, comes back to the starting point, and then repeats the same sequence over and over, taking exactly the same time to recycle. There are biological oscillators like the circadian rhythm, there is a 25 hour cycle going on. It's a biochemical phenomenon somewhere in the brainstem that sort of behaves like a clock. I guess a clock is a paradyamic oscillator. In electrical engineering they became important with the invention of the radio when somebody figured out how to make a triode oscillate by feeding the output back into the input, twisted. I think that is the general meaning, and usually when I say I have a mathematical as opposed to a natural system in mind, the mathematical models emerge with the specific goal to model one particular natural oscillator.

One of the main forces motivating the whole history of mathematics is the model of the appearance of the sky, which is an incredibly complicated space-time pattern. It is sort of the motor of the universal consciousness contributing mathematics to our repertoire. Maybe it even helped to develop speech. Birds do celestial navigation or something to guide their migration. Butterflies only live three months, but they are on a nine-month migration and live out their lives in whatever part of the migration they happen to be. That's an oscillator, if you consider the flock or whatever a bunch of butterflies is called to be the object that has this nine month cycle, and during the cycle, the birth and death of individuals is sort of like the cells in our body. So we speak of their annual return. Maybe they go wherever the temperature is best for their bodies and continue to go up and down this exact same route. They prefer eucalyptus trees, and if you go to a eucalyptus grove

you'll see an area that is just littered with dead butterfly bodies, hundreds of them right under the trees where their favorite hangout is. There is another area that is of special value to them, where they lay their eggs. In Santa Cruz there is a big Monarch butterfly observatory near Natural Bridges. There are guided nature walks to a place where the trees are just full of them.

To get back to our subject, which is Alexandria, E.M. Forster, whose novels are famous, was a devotee of Alexandria, which still exists in the present as a decadent Egyptian city that you see in movies like *Shimmering Nights*, or maybe it's *Shimmering Sky*. Anyway, E.M. Forster lived there, and he loved it. He walked the streets and read the history while looking at ruins or cornerstones that are still there. He wrote a book about Alexandria which pretends to be a Baeddeker guide; it has a map and shows tours with stop 1, stop 2 etc., even though obviously no one is going to go there and take the tour. I'd like to but I'm a little scared now.[?] Mark Durrell was also a devotee of the real Alexandria, and he also lived there. Forster's map has to do with the quarters and the cultures that came together in Alexandria. The literature they produced and the interaction between the cultures in that literature is the way in which the neoplatonic revolution was created.

I'm going to map this onto the actual city. There is the Mediterranean, and then here's the shore, and off that way is the Nile which comes from the south, from the upper Nile to the lower Nile, and as it enters the Mediterranean there are three main mouths. The westernmost of these three mouths is close to Alexandria. There was a village there from which they staged the construction of this huge city. It is called Bikspilfit now. A canal came through the city that went to the _____ mouth to facilitate shipping of building materials to the city. There was a sand spit that came out here with a lighthouse on it called Faro, and then there were fortifications to protect the harbor. It was a shipping port for Egyptian organic produce to Greek kitchens. Somewhere here there was a palace where the king, who was called Ptolemy, lived, and not too far away was the museion which I'll call the university. It had the great library called the mother library. Not too far away was the temple of Isis, the goddess. The Egyptian pantheon had, at least in later dynasties, a primary trinity which was the nuclear family of Osiris, the father, Isis, the mother, and Horus, the son. Osiris's bother Seth, who is like Cain, killed him. Isis resurrected the body by embracing it in her arms and breathing air into its mouth.

When they made up a new religion for Alexandria, it was designed in four quarters; they wanted a composite religion to unify the people, and it dealt with the nuclear family. The primary figure was Isis, the mother. Horus doesn't figure in our story, nor does Osiris. Isis had a consort called Seraphis, who was a composite god made up of Osiris and Athos, a Greek bulldog. In the temple was another library of the university called the daughter library. It was a smaller one and was open to the public. The mother library in the university proper was only open to professors for research. There was a walk connecting the palace and the university, indicating a kind of partnership of the intellect and government. It didn't last very long, but it was planned in the founding of the city. The city had fortified walls that were moved outward a couple of times as the population increased. There was a great processional way down there, and it plus the canals quartered the city. In this quarter were the Greeks; here were the

Syrians and there the Jews. The Egyptians were here. They were largely laborers and merchants, as were the Jews. The Greeks were the top dogs. Not only the Greeks but also the Macedonians, because Alexander was not Greek, he was Macedonian. What's the difference between them? Well, it's a distinction that is beyond us. These are the four quarters.

In Greek literature, Plato was of primary importance, especially his Phaedrus and Timaeus, the one that defines the world soul. Then there were the Orphic hymns, called the Orphica in Greece. It refers to the tradition preceding Plato that had to do with the mythical god Orpheus, who was a reformer of the preceding Dionysian religion in which Dionysius was the main god identified with Zeus and Crete. Dionysus was a transferred form of Osiris, so there is a transmission from Egypt to Crete to Greece, which is more in the path of _____. The Orphica are later hymns; they are like the New Testament of the Orphica. There was also the neoplatonic corpus with the little ____ of Plotinus, Porphyry, Iamblicus, Hypatia and Proclus. It ends with Proclus. That's the Greek contribution. The Syrians had the Caldeon oracle, and the neoplatonic corpus was a synthesis of Plato and the Caldeon oracle. How could that happen? Well, the proximity of these types and their presence on the list of Porphyry and Iamblicus who were Syrians and knew the literature of the Syrian tradition shows that the Caldeon oracle was very important to them, that's why they brought it into the Greek tradition.

Egyptians had the hermetic corpus _____ very well known around here today. _____ bought up all these books and employed Mycenio Fachino to translate them, creating the Renaissance in Florence. He ordered Fachino to translate the hermetic corpus first, before Plato, because it was regarded as the most important. So Fachino translated them from the Greek, written in that city by unknown authors who probably came from all four quarters, though it was oriented toward the Egyptian tradition. It has never been translated into English, and that is one reason why people don't know it very well. The first volume of the divine commandments is available in some kind of English translation, and there is a large 4-volume set called the Hermetica, but in that translation all the parts having to do with what interests us were considered unimportant and intentionally left out. There is a very good French translation as well as some French excerpts, and so all the literature and the _____ is in French. The Jews brought along the Macabbaic tradition, which is not much known, but we have some relics of it, like for example Ezekiel's vision of the wheel. He saw the wheel way up in the middle of the sky. Ezekiel is a book of apocryphal writings in the Old Testament that