

## *Chapter 34*

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# **Correlations In The Motions**

### ***Introduction***

After tracking through a century of geological literature, the Quest found evidence of many pole shifts, evidence of different patterns of irregular movement of the pole, and clear data which defines and dates the last one 12,500 AGO as a sudden movement of some 2000 miles. We also found evidence that the pole shift concept has become “thinkable” within the Earth sciences, that Cayce’s comments are now more “workable” than when they were first offered some 60 years ago. Without doubt, the Quest found that despite the failures of Brown’s and Hapgood’s theories, many geophysicists are evolving a serious discussion about the erratic movement of the pole.

As I began to work with Cayce’s Earth Change prophecies about a pole shift to occur during Century 21, the question became, how “workable” is this concept? Can we harness this data from beyond the veil and make it truly useful? It may be that Cayce was accurate about the past, but how could such an event be predicted? Within the observable bounds of science, does this prediction of a future event make sense? Can we relate it to geological knowledge and correlate Cayce’s descriptions about the coming *changes in the earth* with realistic geological phenomenon? From this knowledge can we anticipate more fully if, when, and what will happen?

Both Brown and Hapgood failed to make the concept work but their work was completed before the science of plate tectonics was fully developed. I wondered if the most modern concepts of plate tectonics and geophysics would provide some answers and help me correlate Cayce’s predictions with tectonic facts.

As I delved through the modern scientific literature in search of new information, it slowly dawned on me that I was uniquely qualified to track the correlations. Not only could I understand the scientific language, and the various nuances of the euphemisms which scientists often use to duck issues, my sensitivity to psychic phenomenon held me to the task while my militant Socratic skepticism enabled me to chew through the propositions to find the tangible bottom lines, if any, in the plate tectonic theories. My immense distaste for solipsistic (circular) reasoning, honed by years of struggling with the philosophers of the ages, impelled me to aggressively discard the unknowable and unworkable in favor of the perfectly obvious.

It was easy for me to reduce the language of plate tectonics into my own vistas of the real world and make the principles work within my own experience of countless sites. Many of the happiest times of my life had come while rock-hounding for treasures in the Earth with my parents. I had spent endless hours of travel through western North America foraging for fossil and semi-precious mineral sites. Guidebooks, how-to books, and then geological literature had held an endless fascination for me, teaching me the ways of the Earth, beckoning me up countless valleys and hills far off the roads. I was always amazed at the omnipresent diversity of the Earth, and astounded at the endless *changes in the earth* which had shaped everything, sometimes suddenly on a titanic scale. Like the catastrophists, I was more impressed by the dramatic records of repeated radical change than I was with the slow creation of piles of sand and gravel.

The more I delved into the modern scientific literature it slowly dawned on me that I could correlate far more than Cayce's predictions. I made the awesome discovery that I could point squarely to how to rewrite the theoretical basis of plate tectonics and prove, for the first time, directly with the most modern scientific databases, how and why plate tectonics actually works. As a matter of fact, that is exactly what I have done step by step in the remaining chapters while verifying Cayce's comments.

As will be seen, it is perfectly obvious that plate tectonics describes the effects and material workings of the shifting of the poles. That's mainly it! Once this mechanism behind the motions in the crust of the Earth are seen, many of the causes and general consequences of a sudden shift in the pole can be easily surmised.

To see it, a quick tour of the tectonic Earth is in order and this chapter provides such a tour. I promise not a word of brain-fogging jargon. First, we take a succinct drive through the main concepts of plate tectonics which describe and explain the main features of the Earth. Then we explore the motions of the Earth which give rise to them. Along the way we discover that geologists are distracted by another Crazy Aunt, this one in the basement. The droning of this Crazy Aunt has kept geologists from understanding how and why tectonic motion occurs.

Most importantly, we find the perfectly obvious cause of the motions in the constantly shifting pole. Once these motions and their correlations are seen,

everything else Cayce had to say about the Earth fits perfectly into the World Epic. So also do the records in the rocks and the ancient memories of humanity. All data, in all dimensions, parallels.

### ***All Dressed Up With No Place To Go***

Plate tectonics emerged during the 1960's to re-forge the findings of geology and the Earth sciences into a "whole Earth" perspective. After collectively gathering a century's worth of data from all over the world, scientists began to realize that some of the data "fit" into planet-wide patterns. The continents, the mountains, the volcanoes, even the bottoms of the oceans, all composed parts of vast patterns which were "world patterns", not local ones.

It began with one key idea. One simple, obvious, defining observation. Various parts of the surface of the Earth are in motion relative to each other. The crust is not a rigid solid, no place is a static fixed point, all parts, including all the various continents and the ocean bottoms, were and are moving apart or moving closer. This idea became undeniable because geologists could prove, without doubt, that certain layers in the Earth which had been joined were now separated by large oceans. Clearly, the continents had literally moved.

As scientists began to look at the Earth in this way, concepts about the directions of motion in the crust developed. Fairly quickly, scientists realized that the physical structures (tectonics) of the Earth could be explained by this motion of the crust. By paying attention to the perfectly obvious, the more they looked the more they realized that most of the physical structures of the Earth are the signs, the results, of the crust in motion. What had been inexplicable mysteries suddenly were as simple as a clear day.

Two additional observations, each also perfectly obvious, emerged to explain how the crust was moving. First, oceanographers observed that the crust is riven by a great crack (rift) through all of the ocean bottoms which snakes sinuously around the entire planet. This great ocean rift gradually spreads and magma (lava) oozes up the cracks to create new ocean bottom.

Second, between the oceanic Great Rift, the crust of the Earth is broken into many individual pieces (plates), some 15 at last count (this count may not be fully finished). Many of these plates are vast stretches of ocean bottom, composed of a heavy type of congealed magma which is similar in weight and mineral composition to the heaviest types of granite. Some nine plates are said to form the continents, though this figure may increase as Earth scientists get even more sophisticated in defining the blocks of the crust of the Earth and their motions.

When the Great Ocean Rift spreads, great pressure is exerted on all of the plates of the crust. These respond in many different ways. As the ocean plates spread out from the Great Rift, they push the continents on either side of them, forcing them to move. All of them move sideways to some degree, and some of

them tend to warp by bowing upwards or downwards, or in some combination of both.

For instance, the Atlantic west ocean plate seems to be locked up against the plate of North America and pushes it towards the west. North America can only move by moving up and over the Pacific east ocean plate. Being lighter than the Pacific ocean plate, North America has been moving over it for hundreds of millions of years. And so it goes in a similar way with all the continental plates, most of them over-riding some portion of an ocean plate.

Mountains betray the active collision of two plates. As a continental plate rides up over an ocean plate, it fractures and crumbles, it scrapes and folds up some of the rock on the ocean plate, and the edge which is over-riding the ocean plate is bent or lifted up. The sediments from the rivers and the oozes which have accumulated on the bottom of the ocean are all recycled into the scraped up crumples (the mountains) which are uplifted on the continent's leading edge. The western edges of North and South America have been entirely built by this process.

Thus the continental plates are composed of the Earth's lightest elements, all heaped up, continually scraped up into mountainous piles from the fragments of the collision between an ocean plate and the bottoms of the continental plates. Collectively, the continents remain lighter than the ocean plates which enables them to scud over and across the ocean plates through the vastness of time, even as pond scum forms clots and scuds before a breeze across the surface of the pond.

Volcanoes also betray the collision of two plates. As the ocean bottom plate sinks beneath the continental plate, water and air sink with it. Gradually they heat up as they sink deeper and deeper. As they become hotter, the water and gas expand radically and their pressure forces them to eventually pimple their way back up through the rock to the surface. They crack the Earth open enough to even allow liquid rock, lava from deep in the interior of the Earth, to escape. This almost always happens in the midst of the coastal mountains which have been formed by the crumbling and uplift of the continent's leading edge. Thus volcanoes form in long great arcs, often a thousand miles (1600 kilometers) or more in length, at intervals of some 50 to 100 miles (80 to 160 kilometers).

These sentinels of the sea can be seen in all places where the Earth is actively overriding another plate which has sea water on it. The western edge of North and South America is lined from top to bottom with these sentinels and the western Pacific shows a mirror reflection, forming the other half of the Pacific Ring of Fire. Since most of the active tectonic fireworks of the Earth, speaking both of volcanoes and earthquakes, are in this Ring of Fire, without question most of the motion in the Earth's crust is currently pushing the continents to converge into the Pacific.

Sometimes the continents collide with each other, as Bharati and Asia have. The result is truly tall mountains, but since no ocean water or air is sinking beneath Asia, no volcanoes are present in the Himalayas. As well, Africa and Europe are colliding. As Africa sinks under Europe, its leading edge has

downwarped very deeply to create a deep trench into which the ocean waters have flowed to create the Mediterranean Sea. This water sinks under Europe, along with the sinking edge of Africa, and pushes back out after having become super-heated to create Italy's famous volcanoes of Etna and Vesuvius.

At some of the points of collision between the plates, there is an ocean plate which is forced deep down into the liquid interior of the Earth. A long, deep trench is formed where the edge of the ocean plate is bent down and sinks. These trenches, which the geologists call subduction zones, form the very deepest valleys of the ocean bottom. The crust's crust is said to be subducted in these trenches and, as with the ocean crust which sinks under the continents, much water and air also sinks with the plate down into the mantle of the earth. And so it is that the great volcano chains in the South Pacific have been formed by the superheated water and air which is forced back up through the rock of the oceanic plate which is riding over the one which is sinking.

From these great trenches, and from the edges of the ocean plates which sink beneath the continents, the Earth seems to take back into liquid form enough rock to balance out the magma it sends up through the Great Rift.

At some 800 kilometers (500 miles) or so in depth, the interior of the Earth (the mantle) is so hot that all the rock turns to liquid magma. This liquid magma has little viscosity and seems able to flow like water. Seismologists argue that this is proven by the simple fact that earthquakes cannot be detected at depths below about 800 kilometers. The easy flow of magma from hot volcanic vents seems to prove them right.

The pressures within the Earth probably easily equalize themselves hydraulically within the great sphere of the Earth's mantle without friction and with very little actual movement of any of the liquid material. Thus, with each expansion of the Great Rift, somewhere an edge of an ocean plate also sinks, and most likely a nearby volcano also spews out magma to relieve some of the pressure in the deeps.

The continents themselves, and all of their rocks, are riven by fractures and faults, all of which can flex and move. When they do move, they create earthquakes. The continents can even be composed of two or more great blocks which can also move independently. North America, for instance, is probably riven right down the middle along the line of the Madrid Fault line which runs from the Caribbean Gulf up into the Great Lakes area. North America holds together in what seems to be one great block, giving the illusion of solidity and stability, by the forces of gravity and the lateral pressures coming in on all sides from all of the other plates. But the "solidity" of this block is probably more apparent than real.

As well, all of the ocean plates are fractured in long great lines which bisect the Great Rift, creating innumerable vast blocks on the ocean floor which can also move independently of the block next to it. Thus, what appears from outer space as a solid sphere of solid rock partly covered by water is strictly an illusion. Everywhere, the rock is riven with cracks and any part of it can and does move, up and down, back and forth, in response to the pressures from the

Great Rifts at the bottom of the ocean as well as to the forces of gravity from the Sun and the Moon.

So it is that all of the main physical features of the Earth ARE the motion of the Earth's crust, nothing but the motion of the Earth's crust, seemingly nearly frozen in a vast, slow motion dance which moves just inches per year during an average human lifetime. So it seems most of the time ... or is this, as the mass graveyards testify, simply another illusion?

This all correlates so well it eventually became apparent, simply by looking at the perfectly obvious patterns in the Earth, that one can read it directly. As one looks, the motion can easily be seen, the mechanics can be easily and accurately described. One can sense and know the motions and directions of the crust through time just by looking at it.

The correlations in the movements of the rocks from visual clues can always be found. For instance, the north-south direction of most of the Earth's mountains signals directly that the plates are mainly moving to the west or to the east. The fact that the mountain angles sometimes diverge by up to 45 degrees suggest that there has been some variation in what is east and west. And the great number of young mountains on the western edge of North and South America proclaim loudly that these two plates are currently more active than most, moving mostly towards the west.

And so on with all the features of the Earth. As one looks with tectonic eyes, the mysteries fall away. With the advent of satellites and high technology instruments, Earth scientists have gotten impressively good at figuring out how to minutely analyze the crust of the Earth, determine the direction and rate of its movements, and plot its history far back in time. But to see the vast dance of the surface of the Earth, this amazing ballerina in space, the truth is, you need very few numbers.

### ***Another Crazy Aunt ... In The Basement***

Many people suppose that tectonic plate theory explains the dynamics of change in the Earth but as of the moment nothing could be further from the truth. There is one slight embarrassment which plate tectonics suffers. No one, except the Quest, can explain why any of it moves. Try as they might, all of the world's physicists and all of the world's mathematicians cannot get the elephant to move.

They have tried mightily but to no avail. First they attempted to push the elephant. They rightfully focused on the Great Rift as the key signature of the primary force. They theorized that the magma of the Earth must be pushing up against it, keeping it slightly open and allowing the magma to flow through in small amounts. They supposed that somehow heat must cause the liquid rock to press up, causing a current in the interior of the Earth. They named it the Heat Plume, and supposed that it rises up underneath the Great Rift and then divides and bends to flow in opposite directions on the underside of each ocean plate.

As it flows up it forces the Great Rift apart, as it flows along the underside of the plate it drags the plate along with it. Eventually it sinks down again and around and around it goes.

The problem is, there is no physical analogue in the entire physical universe which even hints at the possibility that a flow of a liquid or even a semi liquid substance can force a rigidly locked logjam of floating solids (the continents and plates) to ride up over each other. If it were really energetic, as in a fountain, the Heat Plume might create a one time crack and a one time adjustment of a few pieces, but that's all you get no matter how much longer it flows. That's how the real world works. In other words, the juice just doesn't have enough juice to cause the observable constant motion of the crust.

It is also very doubtful that the Heat Plume had enough energy to even cause the Great Rift in the first place. Simple physics defeats the proposition. If, this is a big if, there is any significant difference in the heat of the interior mantle of the Earth below the crust, the graduation of heat is very very small, in tiny increments over hundreds, even thousands of kilometers. It is more likely that the flow of the heat, from atom to atom, flows more quickly than the atoms can start to move, thus you can never get a big enough difference in temperatures to get a fast enough current to achieve any observable result. The truth of this is easily seen in a warm pond in the high summer on a breezeless day. From top to bottom, the pond is nearly of the same temperature. The water is dank, silent, and betrays not a hint of motion.

It gets worse. Since the Earth is a sphere one cannot avoid supposing that the physical effects would have the same symmetry. Heat would rise equally from the common center in all directions, or perhaps from hundreds or thousands of columns equally distributed around the sphere. More or less, the force of any currents against the crust should be widely distributed in a symmetrical pattern. All such force would cancel out, leaving the crust perfectly rigid.

The full reasoning behind this problem gets more complex, but suffice it to say, those who are knowledgeable don't suppose that the Heat Plume works to move the crust of the Earth. And since the Heat Plume was merely an idea, was only a straw man invented as a possible explanation for the Great Rift, it is doubtful that we have any reason to even suppose that any Heat Plume really exists.

Failing to push the elephant, some have attempted to recycle the Heat Plume into an intricate theory which pulls the elephant. Somehow, the sinking of the crust beneath the edges of the continents and in the ocean trenches somehow pulls the elephant. A few geologists argue that the cold ocean crust is actually heavier than the hot, liquid interior of the same composition. It is contracted and denser, thus it can and does sink into the deep, hot mantle. But the same law of gravity easily defeats the idea, as any sailor truly knows. Why wouldn't the whole damn plate just sink a little, equalize out the buoyancy, and that's that?

For lack of any other explanation, these Heat Plume theories have been endlessly printed as if they explain something, but in truth they explain nothing.

Like the crazy ice age aunt in the attic, geologists now have a crazy aunt in the basement. Between the nattering of these two, geologists on the main floor are having a hard time paying attention to the perfectly obvious.

For the most part, the physicists and geophysicists maintain a respectful silence on the subject, although plenty of non-committal criticism can be found by reading between the lines of scientific and geologic literature, indicating that many Earth scientists are looking for something ... well ... at least a little more plausible.

In short, bottom line, we are all dressed and ready to go to the Great Plate Tectonic Party. But there is no gas in the tank. We can't get there from here. Is there any wonder why "Hutton", the "Geologist" is not yet finished with Cayce's notions? There is nothing really implicit in them which is any more implausible than some of the notions of geology and plate tectonics which have risen on plumes of hot air and are currently sinking after cooling in the chill of reality.

## *The Ringleader*

Is there an explanation? Yes there is. Cayce offered none but he pointed vaguely to cosmic forces. Despite the vagueness that is a pretty good hint, it points in the right direction. During my effort to validate the major Earth trends of the 1958-1998 period, the ringleader of the Tectonic Gang eventually became perfectly obvious. For those who think metaphorically, you will immediately understand when I say that geologists have been too busy looking downward to see the obvious cause in the motion of the crust of the Earth. You can't miss it, but you have to forget about dark and stormy nights and Crazy Aunts in the basement. You have to look in the right direction on a light and clear night.

To see how it works, dress warmly and park yourself about ten thousand miles (16,000 kilometers) right above the North Pole of the Earth. Sit down in yoga meditation posture, relax, take a very deep breath, and take a good look. Beneath you is the Earth and off to one side of it, in front of your lap, is the Moon. Now watch as the Earth slowly rotates, moving from the west (your right hand) to the east (your left hand).

Any point on the surface, let's say Denver, turns towards the Moon from the west and then slowly falls away from it as the Earth continues to rotate toward the east. As Denver rotates toward the Moon, it falls towards the Moon at a faster rate than the interior of the Earth, coming under greater and greater influence of the Moon, a little more under its spell than the interior of the Earth does. Thusly it is pulled up a little higher than it was, pulled up a little higher than the interior of the Earth is, just like the water in the ocean is pulled up a little higher than the Earth to create the tides. By the time Denver turns directly onto the line of the shortest distance between the Earth and the Moon, the Moon's gravity has lifted Denver up by several inches to several feet (depending upon whose estimates you've read last). Now as Denver moves past the Moon,

towards the east on your left hand, the Moon's gravity retards its fall, trying to hold onto it, pulling on the crust of the Earth more strongly than on the interior of the Earth. The interior falls away at a faster rate, Denver lagging slightly behind.

Thus is the primary slow motion induced into the crust, causing it to creep always in the same overall westerly direction as the Sun and the Moon appear to move across the sky. The same effect also causes Chandler's Wobble and the 25,000 year Precession of the Pole.

The crust, being crystalline in nature, is not cheerful about being pulled up by a few inches each time it passes the Moon and the Sun. It cracks. Here the story gets very complex, so let's just say that through the long eons of time the contending forces of the Earth, its crust, the Sun, and the Moon have worked out a compromise, a sort of averaging out of all of the pulls and stresses into one long snaking Great Rift which looks rather like a yinyang line for the perfect symmetrical balancing of all forces on the sphere.

It cracks in about the size of one half of the Earth. To see how this works, allow Denver to rotate all around the Earth until it comes up about dead even with the shortest line between the Earth and the Moon. In the half of the Earth which directly faces the Moon, the Great Rift cracks in a north-south direction on each side, up and down the Atlantic, and then half a planet away, up and down the Pacific. But across the part of the Earth which is furthest from the Moon, in the polar zones directly below your vantage point, the Great Rift turns to more of a horizontal line at near the top of the Atlantic and near the top of the Pacific, more in an west-east orientation. It works the same way on the bottom of the Earth as well.

As Denver falls to the east away from the Moon, the Moon pulls North America up and away from the Great Atlantic Rift, shoving it, ever so slightly, up and over the Pacific Ocean Plate. The Rift spreads ever so slightly and fills with just enough to prevent it from closing back up exactly to its previous position. Thus the crust slowly grows, molecule by molecule in the Great Rift, and the continents slowly move. As they move, they force some of the heaviest portions of the crust to sink down under the lighter portions, which probably pushes some magma to well up again through the chains of volcanoes. The movement of the continents also causes their cracks and joints to flex, creating the earthquakes which constantly occur deep in the Earth and occasionally break with great energy near the surface to frighten the entire mammal population.

And so it goes through the vast eons of geological time, the crust and interior steadily pumped by both the Moon and the Sun, creating tides and flows in the crust, exactly like they do in the waters of the Earth. Exactly. Which is why the ancients taught that the gods (whom they thought were the five observable planets plus the Sun and the Moon) ruled the Earth and determined its fate. Insofar as the crust of the Earth goes, they do.

Naturally the story is far more complex when the Sun's gravity is added, the many variations in the orbits and rotations of the Moon and Sun are added, and all of the different effects on the various continents are brought into

consideration. But the essence is simple. All mysteries fall away. These basic relationships between the motions are the perfectly obvious observables. They account for all of the facts of Earth's tectonics, as well as the tectonics of the Moon.

We can observe some of the truth of these correlations reflected directly in the tectonics of the Moon. The Moon long ago synchronized its rate of rotation with its orbit around the Earth, thus it always shows the same face to the Earth. The Earth's gravity has bound one side of the Moon directly to the Earth. This creates very little stress on the Moon's crust and no cracks comparable to the Earth's Great Rift should be visible. Are cracks visible? None are visible. However, the Moon's face does wobble slightly as it draws closer and further away from the Earth each month. This should create stress in the Moon and produce quakes in a monthly pattern. Is there a monthly pattern in the moonquakes?

The Apollo missions to the Moon planted seismic monitors on the Moon and these have revealed that the Moon has a small number of very deep quakes, at depths of 800 to 1000 kilometers, generally less than 2.0 in magnitude at about 100 distinct sites. According to NASA scientists, these occur at intervals of nearly a month, demonstrating that they are directly induced by the influence of the Earth as the Moon draws closer to and further way from the Earth.

In this simple correlation we can see the perfectly obvious, moonquakes ARE the "changes" in celestial motions of the Moon flowing through its mass, or perhaps it is better to say that moonquakes are the CHANGES in the celestial motions of the Moon, flowing through and readjusting all of the parts of its mass. And so it is with the Earth.

There are many cyclical variations in the orbits and rotations of the Earth, the Sun, and the Moon and these introduce two other types of motions in the crust of the Earth. Both motions are a part of Chandler's Wobble and they probably account for most of the visible features on the surface of the Earth.

Chandler's Wobble has been known for over a hundred years but it is only during the last 30 or so that it has come to be really understood. Essentially, the location of the poles moves steadily in a small circle of about 6 meters in radius (20 feet) during the course of about 14 months, giving the spinning Earth a slight wobble. In this wobble, it is not the Spin Axis of the Earth which moves or changes, it is the Earth which moves relative to the Spin Axis. In other words, it is as if the crust of the Earth moved over the North Pole. Or, it is as if the whole crust of the Earth wobbles about 6 meters around the Spin Axis of the Earth.

Are you still parked over the North Pole? Visualize this. Wait till Denver revolves around and is right in front of you. Now look straight down over your left arm and you will see the white snowy north end of Greenland. Now watch Greenland revolve around. As it continues to fall away from the Moon (the Moon is still in front of your lap), it seems to move closer to you and as the Earth turns more so that Greenland begins to fall again towards the Moon from the west, Greenland seems to move away from you a little, falling towards the

equator. That's the wobble of the crust. Since it is only about 6 meters on average for the entire year, you wouldn't really notice it where you are parked.

Get this and you will have gotten one year's worth of Chandler's Wobble, the essence of the shifting of the poles, and an understanding of the ringmaster of plate tectonics. This example, of course, is only an allegory. The real story is more complex. It takes a little more than a full year for the wobble to turn through a complete cycle, not just in one day's revolution. In other words, it takes 365 revolutions to add up to a total wobble of 6 meters up and 6 meters down. But this is the suchness of it.

Geophysicists have known for over a hundred years that Chandler's Wobble is caused by the drag of the gravity of the Sun and the Moon on the Earth's rotation, or more specifically, on the Earth's equatorial bulge. Here is how it works. The Earth's rotation towards the east creates centrifugal force. At the equator, the centrifugal motion is about 3000 kilometers (1800 miles) per hour, which is just enough to create a slight bulge of 10.45 kilometers (6.5 miles) in the circumference of the Earth as measured around the equator.

This bulge acts somewhat like a huge flywheel. A flywheel this size does not easily tilt or change its orientation in space. Without this huge flywheel, the spinning Earth could assume virtually any orientation. A perfect sphere, no matter how fast it spins, easily bobs around in any orientation, the slightest breeze in space would turn it over.

The orbital planes of the Earth, the Moon, and the Sun are not exactly on the same plane. Thus the angles of the exact locations of the Moon and the Sun, relative to the equatorial bulge of the Earth, change constantly. The gravity of the Sun is sometimes centered over the equatorial bulge, sometimes underneath it in the south (winter), sometimes above it in the north (summer). Each month, the Moon bobs both ways over the bulge. The net effect of the motions of the Sun and the Moon cause a corkscrew motion on the Earth's bulge at the equator, pushing it to tilt ever so slightly while they are pulling it up from the interior of the Earth and retarding its speed. The 20 foot (radius) circle in Chandler's Wobble is the net result of this corkscrew action on the bulge caused by the competing gravity forces of the Sun, Moon, and the Earth.

Geophysicists have generally assumed that the whole Earth wobbles, not just the crust. But it is just as easy to assume that just the crust wobbles. It is doubtful that much friction exists to hold the crust and interior rigidly together below about 800 kilometers, thus the crust and upper mantle can technically move somewhat independently of the interior..

Each day as the crust wobbles, some portion of the Earth's crust is moving north while some on the opposite side is moving south. If the crust were perfectly spherical, this would be the end of the story. But the Earth is not perfectly spherical, it is slightly flattened in the polar zones and slightly expanded on the equator to create the bulge. The portion of the crust on the equator which is pushed slightly to the north must contract in size, the portion on the opposite side of the Earth which is pushed slightly to the south must expand in size.

The Earth's crust is being required to do two things simultaneously, expand and contract, which of course it cannot do as a whole. Thus it cleaves or cracks, permitting part to expand, part to contract. This is probably the origin of the Great Rift crack, and here, in this secondary expansion/contraction motion of the crust, we find another pump which is driving the slow motion of the continents. Or, in another way of seeing it, the crust of the Earth slightly jiggles or bobs slowly to and fro each year, contracting and expanding the Great Rift even while everything is being pulled to the west.

Most of the stresses and motions in the crust from this "Chandler's Pump" average out on nearly an annual basis, which is roughly the length of time for the Moon to go through a nearly full range of orbital variations in relationship to the Earth and Sun. Some small variations may occur over periods of as long as 30 years, but all in all, if these stresses are averaged out in increments of one year, there should be very little difference in the slow steady motion of the crust through the long reach of geologic time from year to year.

However, there is one major variation which has a dramatic impact, so dramatic it proves everything. Absolutely proves everything. It is the 7 year cycle in Chandler's Wobble. The motions of the Moon, the Sun, and the Earth synchronize in a particular way to create a 7 year spiraling cycle in the annual wobble. Every 7 years the crust spirals out of its regular "average" motion for a few months ... and dramatic *changes in the earth* occur in the form of increased earthquakes and volcanic eruptions. The crust of the Earth bobs a little further "out of average" than it normally does, increasing the expansions and contractions in the crust beyond their normal range for a few months. This in turn increases all seismic and volcanic activity. These suddenly sprout like mushrooms at two to five times their normal activity.

This synchronicity between volcanism, earthquakes, and the 7 cycle in Chandler's Wobble is the proof which demonstrates that most of plate tectonics, most of the motion in the crust, is driven directly by the shifting of the poles. This "correlating" proof can be easily seen on charts and graphs in a following chapter when the Quest takes up Cayce's omens and trends of the *changes in the earth* during the last half of the 20<sup>th</sup> century. The simple proof of the correlation of the motions has been staring Earth scientists in the face for some 30 years now, but most are still oblivious to it, too busy listening to their Crazy Aunts in the attic and the basement.

Now the primary motion of the crust, the motion which is caused by the daily pull of the Moon and the Sun, is probably far too slow to keep up with the erosion which water and wind creates. Most of its surface effects are probably obliterated by water and sand, leaving little or no effects to observe, no mountains, no volcanoes. Consequently, most of the physical structures of the Earth we observe may be mainly the creation of the Wobble motion, especially the 7 year cycle.

Even more interesting, Chandler's Wobble never returns to exactly the same circle after its 7 year dip. The center of the circle "drifts" slightly to a new location. This drift is highly significant, it is the essence of a permanent pole

shift, or true polar motion (which is the name used by geophysicists to define this absolute drift in the average position of the pole). Everything else is just a matter of scale. How much motion, how much distance, how much time, how much spreading in the Great Rift, how much pushing and shoving among the tectonic plates and continents, and what direction the crust takes in sliding over the Spin Axis of the Earth.

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***As it turns out then, in supreme irony for geologists, plate tectonics is mainly the description of changes in the Earth which occur when the location of the Spin Axis shifts. For the Earth Sciences, this statement is as fundamentally important as discovering that the planets revolve around the Sun was for astronomy or in finding  $e=mc^2$  was for physics.***

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I call it Vortex Tectonics since that is about the most precise way to put it. As nearly as I can determine, this correlation of the motions in the crust with the motions of planetary bodies and the changing location of the poles to completely explain plate tectonics is set forth for the first time on these pages. Doubtless, many people will regard this as purely speculative. But frankly, it seems devoid of all speculation to me, clearly obvious once you get all of the Crazy Aunts, cooties, and illusions out of your mind. I see it more in the nature of adding 2 to 2 to get to 4. There just isn't any other way it can be.

This pumping and pulling action upon the Earth can be, is being precisely measured. All of these measurements can be directly correlated to all geological phenomenon with the fanciest of mathematical calculations. Eventually those with sophisticated math skills will demonstrate that vortex tectonics does in fact add up and correlate all known factors.

We have then three motions in the crust, all of which should average out to a long slow steady change in the Earth, just like the uniformitarians assumed and have worked with for decades. The primary motion (daily creep) probably directly creates little or no observable structures on the surface. The motion is too slow and erosion can easily outrun it. The annual wiggle accelerates the primary motion and probably tends to result in the visible structures. The 7 year jiggle accelerates the motion and the effects of the annual motion. This jiggle probably results in most of the primary tectonic structures on the surface of the Earth.

The effects of each turn of this 7 year cycle (which I call the X Wave or the Primary Axis Cycle) in the form of volcanic activity and earthquakes should be nearly the same each time and thus the average effects for each 7 year period

should show roughly a horizontal line over a period of say 100 years, with perhaps a few small peaks and valleys from the confluence of other “cosmic forces”.

But if we find an upward trend in the results of any of these motions, especially if we find that the effects from the 7 year jiggle are increasing through time, it will be very clear that we have an X factor involved, an additional motion being induced into the crust by something of which we are ignorant. On this point, turns the entire logic of Cayce’s *change in the earth which must come again*.

## ***Shifting The Pole***

Through most of geologic time Chandler’s pump probably shifts the location of the poles very slowly. But it is probably impossible for that always to be true. The mass on the crust, even in the upper mantle, is an untidy morass which is not completely predictable and it is always unevenly distributed. As it moves and aggregates in new ways, the center of gravity of the Earth changes and so must the orientation of its spin. At some point, a larger adjustment in the location of the poles must occur. One might think that this would occur on a slow steady basis, but the graveyard and climate change evidence abundantly demonstrate that this is occasionally a rather sudden, sharp adjustment.

This adjustment probably occurs as the interplay between only a few simple, obvious factors. Unfortunately we are too ignorant of these factors to foresee the interplay. The mass balance of the Earth is the most important, the thickness of the crust and the binding force between it and the mantle is the second most important, the gravitational vectors of the solar system are the third most important factor, and the breath of Brahma (solar wind) may be the final, decisive trigger.

In the terms of Earth tectonics and human science, this is very nearly as far as the story of pole shifts can be taken. Most likely it cannot be scientifically predicted by humans because too much is unknown about the variables. Like a weather forecast, it would take a supercomputer to run all of the correlations and even then the numbers wouldn’t mean much because we don’t know, as Einstein observed, what the friction of the mantle is nor how its magnetic coupling works.

Much has been made about the alignment of the planets but it is doubtful that there is anything significant in the alignment of most of their gravitational vectors which will create a shift of the pole. Most of their alignments have replayed endlessly during the past 12,000 years without resulting in a shift of the pole. There is nothing in the alignment of 5/5/2000 which has not been seen often. Hence, the gravitational alignments between most of the planets is not the dynamic causal factor which produces a pole shift.

The relevant gravitational vectors are the combinations of the Sun and Moon. Their combined influence is thousands of times greater than all of the

rest of the planets put together. These two will together induce a pole shift IF the mass of the Earth is sufficiently off-center. Hence, as pointed to by Cayce, it is the mass of the Earth itself which is the most dynamic factor. This is, then, very nearly the whole proposition. Beyond this, the most that can be done is to speculate.

For the remainder of this section, then, for the next several pages before getting to the bottom line for pole shifts and the evidence for the destruction of Atlantis, there are nothing but an endless number of possibilities and questions with no resolution at all. The non-technical reader may wish to proceed directly to the next section.

Like Brown and Hapgood hypothesized, the water in the Earth probably plays a leading role. It is the one variable on Earth, the one molecule out of all of the molecules on the planet, which progressively shifts its mass from the equator to the poles, constantly undermining the spinning, slowly creates a radical shift in the distribution of mass. Think again about the size of Antarctica. It is the equivalent of North America with two miles (3.2 kilometers) of ice on nearly all of it. Eventually, growth of the polar ice caps must make the Earth top and bottom heavy, which then creates a growing force to push the polar ice caps towards the equator.

And the ice is just a portion of the mass which the water redistributes. Given ten thousand years, the water radically erodes huge quantities of mass from the continents and deposits it into ocean basins. All of this destroys the original stability of the pole as well, requiring the Spin Axis to seek a new focal point of equilibrium. This on-going erosion may in fact be part of the cause of the on-going annual drift of polar motion.

The water also constantly surges in huge tides across the tectonic plates of the Earth, each day changing the weight load each plate has to carry, causing each of them in different ways to warp slightly up and down. Most importantly, the tides each day change the very weight of the side of the Earth closest to the Moon, making the Earth's crust slightly "side heavy", making it all the easier for the Sun-Moon combination to pull it over.

The surging tides of the oceans even determine just how much spin stability the Earth actually has in its bulge at any given moment. This is an obscure fact which even some geophysicists who should know better have not properly calculated. The bulge is said to be some 10.45 kilometers thick at the equator. At the equator, most of the Earth is deep ocean ranging from 1.5 to 5 kilometers in depth. Hence a goodly portion of the bulge which stabilizes the orientation of the crust of the Earth is composed of the Earth's most unstable molecule.

It is far better, then, to see that the bulge of the Earth, the so-called stabilizer of the Earth, is partly composed of a huge "standing wave" in the ocean, which can crest and surge at a moment's notice in any direction. In fact, it does crest and flow in any direction in response to slight changes in the relative locations of the pole, the Sun, and the Moon. This fact has kept tide predictors employed for centuries.

All criticisms of the idea of a pole shift are based mainly on the so-called stability of the bulge at the equator as it were a solid, fixed mass, but this we can easily see is partly an illusion. Even though Brown and Hapgood both cited the weight of the ice on the poles, none of their equations considered the full effects of the changes in the distribution of the mass of the Earth which is continually caused by the tidal flows of the water and the standing wave at the equator. This is part of the reason their equations failed.

Another role must be played by the off-center mass in the interior of the Earth. Previous equations about pole shifts did not deal with this fact but it is obviously a fairly large one. During the past 30 years the gravity field of the Earth has been measured very precisely and it shows many variations from point to point. But perhaps the most significant indicator of off-center mass is the magnetic field of the Earth. This skewed magnetic field is one the most important pieces of evidence about the nature of the interior of the Earth, one of the great remaining tectonic mysteries which has defied all effort to comprehend it.

The most obvious way to change or skew the shape of a magnetic field is to selectively add more iron or nickel to one side or one end of the main field. Thus the skewing of the Earth's field most likely betrays huge anomalous masses of iron or nickel deep in the crust or in the mantle. Quite possibly these masses of iron and nickel may be the bones of ancient asteroids which have bombarded the Earth. These bones of heavy metals may have left the Earth a bit side-heavy.

From discussions about asteroids in the scientific and popular literature, one would suppose that the asteroid strikes, devastates half the planet, extinctions occur, and then everybody walks home to feed the dog. Case closed.

But has anyone really thought through the full implications of an asteroid strike in the magnitude of the Yucatan hit analyzed by Alvarez? There may have been an unsuspected long term effect on the Earth ... like the pole shift phenomenon. Here is how it must work. The Yucatan asteroid didn't fracture the plate the Carib plate. The plate was already riven with fractures from the normal workings of plate tectonics. The core of that asteroid more than likely drove itself straight through a section of the crust all the way into the mantle, where it has been slowly cooking ever since.

The proof of this proposition comes from the only criticism which has been leveled against Alvarez's hypothesis about the Yucatan asteroid. Other than a thin layer of glassy ash which is found all around the world in certain layers, the fragments of the asteroid have not been found. Where did they go? This huge impact, and dozens of others like it, have probably left their "bones" in the interior of the Earth, creating an enduring effect on the workings of the Earth's gravity and magnetic fields, as well as on the workings of its plate tectonics.

Without asteroids, how else can we account for the fact that the magnetic field of the Earth is substantially off-center in a maddeningly irregular way? Is there any better way to explain it? Oh yes, of course, how forgetful of me, there are always Heat Plumes which we could use to explain it.

Geophysicists probably have drawn elaborate maps of these bones from various seismic and earthquake studies about the interior of the Earth, though they don't know they are looking at them. By studying seismic and earthquake waves, geophysicists can use the wave charts to draw picture of the interior of the Earth, in the same sort of way that sonic waves can see objects in the depths of the water. The maps of these seismic studies show **zones** which *look like* globules in the mantle of the Earth at random points, and these are often seen with what *appears* to be a large plume over them reaching up to the crust of the Earth.

Geologists have attempted to see this data as manifestations of "Heat Plumes". Some suppose that the charts verify the idea of the Heat Plume theory. The problem is, NONE of these *envisioned* globules and plumes are in the right position to explain the motions of plate tectonics. Few of them are centered properly under the Great Rift, their location seems to be random. Since there is no reason to suppose that heat plumes even exist, the only obvious candidates which can explain them are the asteroids. It seems just as likely, in fact probably more so, that these "Plumes" may be the wakes of the descent of heavy asteroid material into the mantle of the Earth, along with a section of lighter weight crust which the asteroid has punched into the mantle along side it. How else to account for both the missing asteroid bones and the strange globs in the mantle of the Earth? Why try to account for them any other way?

By this supposition, we relate together all the perfectly obvious facts, solve all mysteries, and avoid entirely the Crazy Aunt in the basement. By this supposition we do exactly what Wegner did when he observed the perfectly obvious, put two plus two together to make four, and invented plate tectonics.

Since true Magnetic North is skewed down about 15 degrees into North America, the net effect of all of the asteroid bones in the mantle appears to have made the Earth side-heavy running down through North America towards the South Pole.

This is conceptually clean but the problem which remains is not exactly small. It is not at all certain that there is an obvious way to fully calculate this off-center mass. If we can't calculate this mass, it may be pointless to calculate the flux of the water and ice. Thus, we may have no way to predict a shift in the pole based on gravity vectors and the distribution of mass. But I say "may" here because geophysicists may be able to combine gravity, magnetic, and seismic readings in new ways to define conceptual breakthroughs.

This is not the only problem. Equally significant is the binding force between the crust and the mantle. This is usually called "friction" but this is probably the wrong way to think about it. At some point the interior of the Earth turns into an extremely hot fluid which will flow like water. Since this will create little friction, a number of Earth scientists during the past four years have begun to suppose that the Earth's crust can and does spin separately from the core of the Earth. Some have even hypothesized the Spin Axis of the core is different than the Spin Axis of the crust.

Using seismic monitoring techniques, Paul Richards, Xiaodung Song, Anyi Li, and Annie Souriau reported in *“Detecting Possible Rotation of Earth’s Inner Core”* (*Science*, November 13, 1998, 282: 1227a) that they had found evidence that the inner core is rotating about two-thirds of a second faster per day than the outer Earth. Or, every 400 years, the Earth’s core makes one rotation more than the crust.

Does this mean that the crust is free to turn itself in any direction? The answer is probably a heavily qualified yes and no. Because the weight of 800 kilometers of crust may cause the liquid interior to equalize all pressure on it into nearly a perfect sphere, the interior may have little or no bulge which would prevent the crust from moving in any direction. At some point, the Earth no longer bulges. At some point, gravity and pressure cancel out centrifugal effects. What is that point? What is that depth? At that point there is no centrifugal resistance, no stabilization of the crust.

A moment’s reflection on the obvious suggests that there must be some sort of binding force which is able to overcome most of the impact of the Moon and the Sun’s motion most of the time. If there was almost no friction, why wouldn’t the crust bob along much more radically each month with the interplay of the forces of the Moon and the Sun? The Earth’s equator would attempt to follow the Moon’s every move as it rotates in its 5 degree angle above and below the equator each month. Wouldn’t Chandler’s Wobble have to be measured in kilometers, not in centimeters and meters, and in weeks rather than months?

It may be that the main “binding force” is simply a very slight bulging in the liquid mantle of the Earth along the tropical zone. This slight bulging may be radically smaller than the bulge in the crust. This bulge may set up a fluid “track” along which the crust can slide easily in an east-west direction, permitting a 2/3 of a second per day difference between the rotation of the crust and the core. Centrifugal force may give this liquid “track” a degree of rigidity which prevents the crust moving in a north-south direction. But even so, there is probably enough flexibility in this liquid track to allow the crust to slowly “chatter” up and down a bit in north and south directions in response to other factors, mainly the changing angles of the gravity of the Sun and the Moon. Thus, Chandler’s Wobble.

It may be that the binding force is an electromagnetic coupling between the core and the crust ... just strong enough to keep them mostly together moving in the same direction most of the time, but weak enough to be slightly overcome each day by the pull of gravity and centrifugal force, by the amount of two-thirds of a second. But when there is the right combination of forces, this binding force may be wholly overcome, perhaps it even suddenly “collapses” somewhat under certain circumstances, permitting the crust to freewheel into a new location determined mainly by centrifugal force vectors. From the magnetic reversal data in the rocks, it is quite obvious that the magnetic field does indeed “collapse” in a short period of time, and quite frequently, even in as little as 10,000 years.

The biggest limitation is that science cannot currently provide a reasonable estimate of the binding forces, nor even exactly what they are. Nonetheless, from the past records of the pole shifts, quite obviously the binding forces and inertia are eventually overcome.

The issues and problems are conceivably even more complex. It is entirely conceivable that the pole shift phenomenon is the net result of a push-me-pull-me mechanism. Since we can observe that the true Magnetic North Pole is now rapidly moving into closer and closer alignment with the Spin Axis, it may be that some ancient asteroid bones are now sinking into and integrating with the deepest layers of the mantle or even the outer core. Thus, the magnetic field is becoming more symmetrical as the off-center mass in the geoid re-centers itself. But this leaves the Spin Axis out of place, increasingly out of balance. Either the Spin Axis would have to tilt with respect to Polaris, or some other mass on the Earth has to shift location to compensate. If the crust is only weakly bound to the mantle, the centrifugal force vectors could conceivably snap the binding forces at some point and push the crust into a different orientation. If so, this of course would happen in combination with the gravity vectors in the solar system. Thusly, the centrifugal force vectors of the core/mantle may be inducing a "push" of the crust towards a new pole while the Moon and Sun pull the crust towards a new pole. And, quite possibly, the final push would come from an unusually strong solar storm.

So. Take a deep breath. We can see that the issue of a pole shift gets quite complex, even though the factors may be simple in and of themselves. All of the foregoing is well and good on the conceptual level but it is pure speculation. Technically, all that has to happen in the full reach of time is for the last snowflake to fall on Antarctica. The camel's back must eventually be broken purely by too much off-center mass. Eventually gravity and centrifugal force alone must eventually force the ice towards the equator.

I suspect that long before that happens, another trigger sets off the reaction. That trigger is probably the Breath of Brahma, a.k.a. the solar wind. The solar system is usually conceived as a sea of gravity vectors which determine the orbits of the various planets. But that is only one half of what is going on. The other half is the immense electromagnetic field which the Sun generates and the planets distribute. Every 11.5 years, on the average, the Sun reverses its electromagnetic polarity (for reasons unknown) and begins a new cycle of sunspots. The cycle builds increasingly strong solar winds of atoms and electrons which flow outward to the various planets. More and more flares begin to arc out from the Sun (called solar storms) sending intense bursts of even more atoms and electrons. These reach a peak intensity after about 11.5 years, then fall off, reach a low point and then the Sun reverses polarity again.

It is well known that this cycle and the production of solar storms are directly influenced by the relationships between the positions of the planets. Each one acts as an attracter of the solar wind given off by the great flares. When the planets line up in certain ways, they change and mold the electrostatic fields in the entire solar system. Their alignments act like electrical circuits

which stimulate and attract much larger storms than unusual from the Sun's atmosphere. If Mercury, Venus, the Earth, and the Moon align in a straight line, the sudden burst of a huge solar storm can be flung directly to the Earth within less than 2 days, submitting the Earth to intense electromagnetic chaos. If this circuit extends outwards even further through to the outer planets, more of the total force of the solar storm will pass by the Earth. It is exactly that simple.

When a solar storm hits the Earth, it strikes in the polar zones, hurtling electrons and protons at the Earth at immense speeds equivalent in energy to millions of volts. The atmosphere absorbs much of this energy, creating vast storms in direct response to this new energy. The rotation rate is slightly retarded when such a solar storm hits and Earth scientists can actually measure this effect. The rotation rate is affected even more by the stormy weather on Earth which the solar storm creates. In fact, the effect of a sudden change in the winds of the atmosphere on the speed of the rotation of the Earth was been demonstrated by William Markowitz to be 40 times greater than the effect of the Moon's tidal drag (see the Jiggle In The Axis).

That is a huge effect.

A slight drag on a spinning top causes it to wobble, or increases whatever wobble it already has. Centrifugal force seeks to rebalance the center of all of the forces of the spinning mass by hurling the "dragging" portion towards the Pole. Hence, the top begins to wobble in an effort to refocus the axis of spin. Since the Magnetic North Pole is off center by some 15 degrees tilted towards North America, an intense solar storm will tend to hit in approximately Latitude 15 in North America and push North America towards the pole. But if such a storm hit in the winter at high noon in Europe, the effect of its force could be to push Europe toward the pole. Since this effect could reach 40 times the effect of the Moon's gravity, this, not the last snowflake falling on Antarctica, is probably the final trigger mechanism.

### ***Bottom Line On The Science Of Pole Shifts***

All of this speculation is well and good on a conceptual basis and it can be taken in other plausible directions. These discussions are merely the tip of a scientific iceberg. Doubtless, sudden pole shifts are both provable in the record and they are physically, scientifically plausible. But the interplay of the primary factors through time are completely incalculable in our frames of reference and knowledge. The final truth is, we simply cannot go further with science. We cannot scientifically predict a sudden shift in the pole. The rest of the story about large pole shifts can only be continued by a psychic and by intelligence which has had direct experience with such things and desires to provide a warning.

## *Correlation Of Atlantis*

Through our understanding of the motions of the great plates of the Earth, we can now easily see the where and the how of the demise of Atlantis and thus confirm this part of Cayce's story. All we have to do is correlate data which was uncovered in 1986 by deep sea explorers with Cayce's statements about the destructions of Atlantis.

Until now, the story of Atlantis has not been proven directly in any convincing fashion ... so far. Much indirect evidence has emerged, primarily as correlations in cultural evidence which point to an antediluvian civilization which gave a common heritage to the Maya and the Egyptians, and possibly to others. But that common heritage could have come from a variety of locations, and indeed ancient history detectives are busy trying to prove that Atlantis was really in the middle of the Aegean around Santorini Island, or on Antarctica, or in the North Sea, or in the Indian Ocean, or just about every place except where the Egyptians, Plato, and Cayce said it was.

Nonetheless, there remains an immense convenience in supposing that the location of the antediluvian culture was in the Atlantic ocean. Both the Egyptians and the Hellenes pointed to the location as the site of Atlantis and from that location it could easily and directly spread its influence into North Africa as well as Central America to create the strong parallels which archeological research has found in abundance. No other location works nearly as well.

But a major objection seems to have been raised from plate tectonic theories. There is no known tectonic mechanism which would account for Atlantis. Thus, many consider Plato and Cayce's Atlantis geologically implausible. Plate tectonics seems to explain most of the major features of the Earth quite well and plate tectonics data does not *seemingly* point to the possibility of Atlantis. The plate tectonic theory holds that all of the ocean bottom is mainly just ocean bottom, formed by the spreading of the Earth's crust in the mid-Atlantic ridge which runs from north to south in the middle of the Atlantic ocean between the continents. That crust keeps growing and spreading, and is rammed up against and/or under the continents on either side.

There is no known mechanism to raise and lower a major chunk of the Atlantic bottom in a short, cataclysmic moment of time, though plate tectonics specialists do understand that such could happen over an immensely long period of time as the Earth's shape slowly adjusts to its various stresses. After all, major sections of most of the continents were once on the bottom of an ocean, a fact which is occasionally viewable in spectacular ways such as at Arizona's Grand Canyon, where one can view several thousand feet of sediments deposited by an ocean. And, a major section of oceanic bottom crust is currently above the waves in the form of Iceland. Another is above the waves as the Great Rift Valley of East Africa. So, in the long run, anything is possible,

but for the short run the Atlantis-Atlantic theory is still said to be odd man out with no known explanation, seemingly flying against the tectonic odds.

Not even the pole shift theory provides a mechanism. The pole shift mechanism explains the animal graveyards, it accounts for the extensive geological evidence of sudden major changes in the climates of various areas, it nails the illusion of the ice ages, it correlates directly with the legends and stories of disasters and floods and the mythological “ages” of the gods and heroes, but one thing the pole shift mechanism does not do is explain the sinking of a large area called Atlantis.

With no obvious geological mechanism, the idea commands insufficient respect to generate the exploration necessary to prove or disprove the thesis. These theoretical objections do not disprove Atlantis, they simply make geologists and oceanographers suppose that the idea is unlikely and they are thus inclined to pursue other topics and issues. This leaves the issue of the existence and destruction of Atlantis as described by Cayce and Plato still unsolved to this day with some pro’s and con’s on either side of the ledger.

Even more difficult than the theoretical problem, there is no consistent evidence of a large sunken landscape in a significant portion of the Atlantic and that conclusion is reached by many professionals after reviewing a great many samples which have been taken by oceanographers from the Atlantic ocean bottom.

On the other hand, there are many disparate clues which seem to suggest that portions of the Atlantic ocean bottom were once above the waves. Hutton’s books cited many scientific findings which support the physical existence of landforms in the Atlantic Ocean. Edgar Evans Cayce, Gail Cayce Schwartz, and Douglas G. Richards provide a systematic, professional, objective, up-to-date review of this evidence in *“Mysteries of Atlantis Revisited”* which was published in 1997.

These books summarize some of the disparate findings, which include fresh water algae found in core samples at the bottom of the Atlantic Mid Ridge (Riksmuseum Stockholm Sweden), and fresh water diatoms which were found in 1957 in Atlantic Deep-Sea sediments close to the Atlantic Ridge (Kolbe: *“Fresh water diatoms..”*, Science v. 126, p. 1053). Kolbe found the diatoms in deep-sea core materials which had been taken from a depth of about three kilometers at a point on part of the mid-Atlantic submarine ridge. The freshwater diatoms in layers of the sedimentary materials provide direct evidence that this part of the mid-Atlantic ridge was once above sea level.

Russian scientists, on the basis of much broader evidence, confirmed this finding (Cayce et al: *“Mysteries...”*, p. 75). N. Zhironv undertook an extensive, serious review of 800 data points from the Atlantic Ocean and concluded that the mid-Atlantic Ridge is full of anomalous evidence which suggests that portions of it were above the surface, perhaps in the form of several island archipelagos of the size of Iceland (see Zhironv’s *“Atlantis, Atlantology: Basic Problems”*, 1970).

Hutton (“*Coming...*”, p. 160) points to recent 1990’s findings about the mid-Atlantic Ridge which demonstrate that shallow water sedimentary deposits as old as 140 million years old lie in the middle of the Atlantic Ocean. This poses a seriously huge problem for conventional plate tectonics concepts about how the Atlantic ocean bottom was actually formed and it certainly suggests that the idea of Atlantis cannot be ruled out. Reality, as usual, is definitely weirder out there than the textbooks are willing to admit.

Others have noted the extensive number of sink holes off the straits of Florida in water 900 feet (256 m) deep. Many believe that these were once fresh-water lakes in an area which has subsided into the sea. These sink holes are up to a kilometer (half mile) in diameter and 150 meters (500 feet) deep. Cayce et al report on studies which have found remains of human inhabitation in some of these sinkholes. In 1966, a research group headed by BC Heezen, a marine geologist with Columbia University, found that the shoreline off South Carolina extended at least 112 kilometers (70 miles) out to sea over 10,000 years ago during the last ... ahem ...”ice age”. (see 4/6/66 article from *The Ledger-Star; Cayce/Davis CDROM*).

A great many of Cayce’s descriptions about Atlantis centered around a large island he called Poseidia. He claimed that Poseidia was the last portion to sink and that the tallest mountains on Poseidia are still above the waves. These are the Bimini Islands which Cayce told us in the 996 readings were mainly underlain with thick layers of carbonate rock. He also described the presence of a ridge of igneous and highly metamorphosed rock, i.e., rock which is normally considered as “continental”. Finding such a ridge would demonstrate very clearly that Earth scientists have incorrectly described the Atlantic Ocean bottom as consisting mainly of ocean plate.

The Geologist undertook a personal hunt through the scientific data and made his own personal field trips to Bimini which he described in “*Earth Changes Update*” in 1980. He reports that several oil prospecting teams had drilled down to 15,000 feet (4600 meters) in various Bimini locations. Their drill cores have shown up carbonate rocks underlying the Bimini islands, formed during the cretaceous era. This simple fact suggests that the Bimini Islands, and a considerable tract of the ocean around them, were once a part of a broad belt of land connected to Georgia and Alabama, which are also underlain with carbonate rocks. In other words, the evidence suggests that the Bimini Islands and a pretty large tract of ocean around them could be more accurately described as a fragment of the North American plate. They could be part of a plate fragment which sank lower than the mainland.

The Geologist studied the magnetic field data for the area and concluded that it seems to indicate that crystalline igneous material underlies some portion of the Northwest Bahamas Bank. He also found several mineral samples, beach pebbles, which indicated to him that Cayce was right about the minerals which could be found around Bimini. The Geologist classified them as erratics, mainly serpentines and spar minerals which do not belong in a carbonate rock environment. He investigated Cayce’s descriptions of the island and how a

resort could be built and concluded that in all respects, Cayce could be right, that there are no contradictions apparent to a knowledgeable, scientific observer.

Since then, legend hunts by small private groups, some of which have made exorbitant claims which have fallen apart, have created a somewhat strange aura over the entire issue. Claims that ruins and artifacts have been found abound, but these seem to evaporate into thin air when anyone attempts to examine the claims. This activity has obscured the scanty geologic evidence, making it virtually invisible. And the whole issue has gotten very very crowded and confused by different people pointing to various locations in different areas of the world, claiming the corpse is somewhere other than where both the Egyptians and Cayce said it was. All in all, Atlantis is a first class muddle, but nonetheless something seems to glitter in the pan.

It may be that looking for a large continental size land form is a mistake. As good as Cayce was, he was not always correct and he was quite often less than perfectly explicit. No doubt many of his statements proved challenging to his stenographer; some obvious errors I have carefully annotated. Similarly with Plato's story, we may not have the true facts. As much as I respect Plato and his Egyptian sources, their story is based solely upon what the Atlanteans told the Egyptians about themselves. Perhaps, wishing to impress the natives of the Mediterranean about their invincibility, they exaggerated about the size and scope of their empire. It certainly would have not been the only time in history that conquerors fed the natives a line of illusions about themselves. Perhaps the key to unraveling the mystery is to forget the tales of sunken continents and ruins and to look with tectonic eyes for just one sunken, large island in the neighborhood of Bimini. Let's consider the possibility that Poseidia was a large island, something like a New Zealand or Madagascar, which encompassed mainly the Bahamas Islands and extended somewhat to the north, perhaps as far as the Carolinas.

### ***The Smoking Gun: The Caribbean Plate***

To prove murder, you need a corpse ... usually. Preferably one which is considerable enough to stay in one location while clues to its demise are thoroughly investigated. One of the problems of the alleged murder of Atlantis is that we don't have a corpse. Just rumors. Dear Jury, please allow me to introduce the corpse. And while I am at it, I will be pleased to present the murder weapon.

Cayce gave only the scantiest clues to the mechanism which destroyed Atlantis and here are the relevant ones:

- (C) ...in that of Poseidia, and in that Atlantean rule this entity then was in the household of the peasant that**

**gave the information regarding the upheaval in the mountains that brought the destruction to the land.**

11/26/24 4353-004 /15

EARTH CHANGE CLAIRVOYANCE UNVERIFIED

- (C) **...This composed, as seen, in or after the first of the destructions, that which be termed now - with the present position - the southernmost portion of same - islands as created by those of the first (as man would call) volcanic or eruptive forces brought into play in the destruction of same.**

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EARTH CHANGE CLAIRVOYANCE LINKED ABOVE

Notice the phraseology here. Volcanism was brought into play during the destruction of Atlantis. From the preceding pages of this chapter, by now you understand immediately that this is part of a tectonic phenomenon, involving the collision of two plates, one subsiding under the other. It would seem that tectonic volcanism was at the southern edge of Atlantis, somewhere south of the Bimini Islands. At the time of the sinking of Atlantis, these volcanoes were active. Southeast of Bimini lies the West Indies Volcanic Arc, composed of the islands of the Lesser Antilles. Since these are at some distance from the Bahamas and Bimini Island, how could these have played a role?

In 1985, certain tectonic evidence literally surfaced and it provides a very good starting point for supposing that we in fact have a dead body and that the West Indies Volcanoes betray the murder weapon. Whether it is the corpse of Atlantis is technically an open question, but at least we have a real dead body to investigate. And this body has the fingerprints of the Caribbean plate all over it.

Since this evidence does not appear to have surfaced into consciousness, I will summarize it here. It always amazes me what shows up when one rummages determinably by turning every keyword stone. French geologists conducted a symposium on "Caribbean Dynamics" in 1977 and published the proceedings in French, except for one very interesting article by Heezen, Nesteroff, et al titled "*Visual Evidence For Subduction In The Western Puerto Rico Trench*".

This lengthy but easy to read article apparently has been missed by everyone interested in this issue because no one has thought to look in a document published in the French language. No doubt the French geologists considered the findings in the article sufficiently compelling that they permitted its publication in English in their thick volume of proceedings.

Nesteroff et al tell their story of five dives of a robotic camera (DSRV Alvin) to the bottom of the western portion of the Puerto Rico Trench at some 3680 meters (over 10,000 feet, a little over two miles down). What they found is not what they should have found. What they found, from the point of view of Atlantic plate movement theories, is crazy. As crazy as Atlantis.

They should have found rocks of the Atlantic ocean bottom which are being subducted under the Caribbean Plate. Atlantic ocean bottom plate is the only thing they should have found if there was no “Atlantis” surface land in that area north of Puerto Rico. What they found is solid evidence of a surface land form (in the direction of the Bimini Islands) which has been very rapidly subducted under Puerto Rico and the Antilles Islands (the edge of the Caribbean Plate) during the last 700,000 years, and most especially during the last 1,000 to 100,000 years.

They found an intact “Pleistocene lagoonal patchreef” at 3680 meters. In real English, they found what was once an island lagoon with a well developed colony of coral in it, still intact where it had grown, showing no signs of erosion or coverage by sediments. In short, they found a lagoon which sank precipitously in one fell swoop to well below the surf and tide zones. The coral is heavily coated by manganese deposits (the fate of all surfaces under the sea) thus it is old coral. By other means, it has been dated to be 700,000 years old, which gives the age when the coral sank to a depth that caused it to die.

Also at 3680 meters they found Pleistocene-Tertiary shallow water limestone in the cliff faces, meaning that the bottom of the trench was in the range of 10 million years old. My, now where have I heard these number before. Let’s see ... oh yes ... Edgar Cayce and the human genotype emerging on Atlantis 10.5 million years ago, many changes since then, three episodes of “sinking”, three times in the last 120,000 years ago, last time 12,500 years ago.

They also found on the bottom at 3652 meters extensive jumbles of block talus (rocks which have been broken loose from a cliff face). These were all jagged and were not covered by sediments, which means that normal processes of erosion were not responsible for the trench, the trench is the result of “pure” tectonic fracturing.

At 3643 meters they found what the geologists euphemistically called “high energy shallow water environment”. In other words, they found the surf line of an ocean beach. They found many items there which suggest a semi-tropical lagoon.

At 3000 meters or so the fractured wall cliffs show little signs of coating, suggesting that the age of the wall at that point is VERY recent. Cutting to the chase, we are talking about a sudden 3000 meter dive of a whole lot of solid rock during the last 1000 to 100,000 years.

Nearly unbelievable. About as unbelievable as Atlantis. At 2400 meters they found another coral reef structure draped over “erosional landforms”. In simple English, they found a coastline which had sunk. On top of it a coral reef had grown, and then all of that sank again to 2400 meters. Most especially interesting were the broken pieces of coral they found there, which were still brown in color, hardly coated at all by manganese.

Since no sediments cover any of these items, and since portions of the visible cliff fracturing and broken corals are obviously recent in age, yesterday in geological terms, Nesteroff et al concluded that the western Puerto Rico

Trench is only 1,000 to 100,000 years at most to a depth of 3000 meters, with an earlier subduction (700,000 years ago) for the 3643 to 3000 meter zone.

Nesteroff et al concluded: "*The actual northern boundary of the Caribbean plate is consequently extremely recent*". This is an astounding discovery of exactly the facts which geologists should find, if a large unstable landform in the Atlantic north of Puerto Rico up to and including the Bimini Islands (Cayce's Poseidia) had existed but sank. And then sank again, and then finally completely disappeared beneath the waves some 12,500 years ago while leaving enough refugees to tell legends which the ancient Egyptians could eventually pass on to Solon and Plato.

According to the basic notions of plate tectonics and the mechanism which is creating the Atlantic ocean bottom, all that Nesteroff et al should have found is fractured ocean bottom rock and a lot of muck. This is nothing short of phenomenal for our corpse hunt. To put the proposition in its essence, did Nesteroff et al discover proof of the final sinking of Poseidia at that sunken lagoon at 2400 meters?

One of the more spectacular aspects of this find is the Caribbean plate. Not only do we have a corpse, we have the murder weapon as well. The eastern edge of the Caribbean plate is the Antilles Island arc, which curves from the top of Venezuela up to as far as Puerto Rico. Then it runs west through Puerto Rico and Cuba and across the Caribbean through lower Mexico. On the west, the Pacific shores closely mark the boundary, which then runs down to the south to include all of Central America until it crosses Panama to the top of Venezuela. The Caribbean plate has little elevation in most places except where the volcanoes have piled up and along the western edge where the plate is being crumpled up against the Pacific. Over half of the plate is under water.

As a tectonic plate, the Caribbean is rather small in comparison to the much larger continental plates, which are the typical size. It is so small, it has been described as a part of the North American plate which has broken off and has become an independent mover. The reason why it has broken off and now moves independently is easy to understand once you see the directions in which the continents are moving. Latin America is moving to the Northwest. North America is moving to the Northwest, but more slowly, thus, relative to Latin America, North America "appears" to be moving to the southwest. Both continents are being squeezed from the east and the west, but a little more strongly from the east. Thus they slowly override the Pacific ocean bottom plates, crumpling up faster than sediments can accumulate out into the Pacific.

All of this is completely obvious simply by looking at the landforms. On their trailing edges on the east, they are leaving lots of sediments which float out hundreds of kilometers or miles into the Atlantic ocean bottom, which means that neither of these continents are subducting the Atlantic ocean bottom. They are locked up tight against the Atlantic plates and clearly their main motion is up and over the Pacific plate(s).

While South and North America push to the west and against each other, they mutually squeeze the wedge-shaped Caribbean plate towards the east.

Tectonics measurements have shown it is moving rapidly to the east and that it is one of the most active tectonic plates on the Earth, propelled by the combined forces of South America, North America, and the Pacific ocean plate. Like a huge raft, it overrides the Atlantic ocean plate. The Caribbean plate rafts over the Atlantic plate on its northern edge by subducting the Atlantic plate in the Puerto Rican trench. On its eastern edge, the Caribbean plate rafts subducting the Atlantic plate in the trenches which lie just off shore of the islands which form the arc of the Antilles.

This is the force on which Atlantis floundered. As the tectonic pressures built up on the Caribbean plate prior to the last pole shift, it began to shove some of the Atlantic ocean bottom into the mantle. Volcanism increased to relieve the pressure. When the Phoenix flew, the Caribbean plate lurched enough to the east to force the entire plate or bloc of Poseidia to subside. The murder weapon is still smoking through the volcanoes of the West Indies.

### ***Concluding Note***

After an extended tour of the arts of the Earth sciences, I found it easy to conclude that the pole shift concept is valid, is becoming a serious topic of scientific inquiry, and that abundant evidence testifies to many prior pole shifts. I concluded that future sudden shifts in the pole are probably inevitable but that these are as yet unpredictable by human science. I also found that by radically stripping away from geology its uselessly tendentious jargon, and the inexplicable, unexplainable, and untestable concepts of heat plumes and ice ages, I was able to focus with a clear mind on real observables.

Amazingly, I found that the observable facts, the motions of the Earth, and the motions of the cosmos all directly connect, pointing to the Moon and the Sun as the prime movers of all tectonic activity upon the surface of the Earth. More profoundly, I found that by correlating the motions of the crust with the motions of the Earth, Moon, and Sun, it becomes perfectly obvious that the shifting of the poles is the primary mechanism of all plate tectonics, of all ***changes in the earth***, even though this is currently unrecognized by most Earth scientists.

I also found the deeply buried results of deep ocean research which not only supports Cayce's story of Atlantis but reveals the tectonic process by which Atlantis (Poseidia) was progressively forced under the waves. Regretfully, I have not tallied these findings into Cayce's score since they do not meet the standards of direct objectivity which I have insisted upon for the tally.

All in all, it was not a bad tour. Plate tectonics will never be the same after this discussion and the evidence which unfolds in the following chapters ... not even for Hutton.