### CHAPTER SEVEN

# EARTH PARTURITION AND MOON BIRTH

The Uranian age closed in a crescendo of destruction. The ancient orphic rites of Greece commemorated their remote Uranian origins when they began with the chanting of the myth of the cracking of the cosmic egg. That the world was an egg that had to be broken to begin the human experience is a myth found in all quarters of the globe. We have reported this in the preceding chapter [1]. Heaven burst to produce the great god Ouranos and the turbulent sky. Then Ouranos was dismembered by his son, Saturn, in league with Gaea, his spouse and Earth.

Aphrodite Urania, the Moon, was then born, Daughter of Ouranos, she was a product of his dismembered genitalia fallen upon Earth [2]. Moon is worshipped after her father retired, disgruntled and bitter at the revolt of his children and from his injuries. The Moon would have revolved around Mother Earth (Ge or Gaia), who finally controlled her. The age of the Moon was an almost unmitigated disaster.

#### THE PASSAGE OF URANUS MINOR

In the 12th millennium B.P., a major element of the disintegrating Super-Uranus may have fissioned from the larger complex. We can call it "Uranus Minor" and it might have been actually the planet "Uranus" (or Neptune) of today's sky. It passed closely by the Earth, in the shape of a great ball trailing an enormous tail, which it ultimately lost, moving across the ancient axis of Solaria Binaria. It excited an accumulation of opposite electrical charge on the near pole of the Earth and the Earth's axis tilted to present the pole to the intruder. The tilt would permit the Earth to suffer the least interruption of rotation.

The sudden movement loosened slightly masses of the Earth's outer shell, and unleashed floods. Great lightning bolts were exchanged between the two bodies. Fire-fragments of the

intruder struck the area now called the West Central Pacific, excavating craters of thousands of square kilometers down to the levels of dense hot mantle some 30 kilometers deep [3].

The gravitational and electrical interaction between Earth and the Uranus intruder became more intense. Abetted by the peripheral loosening and cracking occurring in all directions from the path of the encounter, as much as half of the Earth's continental material exploded into the sky down to the same depth, that is, some 30 kilometers.

The material thus blown and sucked high into the sky passed through the low and high cloud layers in pursuit of the rapidly retreating intruder. The greater part of it was unable to continue the pursuit and relapsed into an orbit around the globe [4]. For a time it rode around the Earth like a comet; the sky seemed alive with the streaming bodies. Within a few years, they assumed the globular form of the Moon.

#### CONTRIBUTING THEORIES AND ERUPTION DYNAMICS

That the Moon erupted from the Earth is not a new idea, but one that received a momentary scientific appreciation in the nineteenth century. Observing the mysterious vastness off the Pacific Basin and calculating from mechanical physics, George Darwin (1879) ventured the theory and was supported by Osmond Fisher and others [5]. Howard B. Baker distributed in 1932 mimeographed copies of a treatise arguing the case. Lately, several scientists have joined in espousing the notion. In all cases except Baker, the time set for the event has been "near the beginning" -- safely removed from the evolution of the biosphere. The "beginning" has moved farther back by a factor of twenty or more, and the Moon is alleged to be four billion years old. However, as will be explained, there is no compelling reason why one cannot argue the contrary: that the Moon is a recent evacuee from the Pacific region, whose basin would otherwise have long ago been invaded by the moving continents. To my limited knowledge, after Fisher, Baker alone realized the connection between the eruption of the Moon and continental drift [6].

Early theory proposed an instability of the Earth as the cause of the fission. A passing body was not considered. Today, when aberrant bodies in space are taken more seriously -- and even the possibility of terrestrial rocks and water being splashed upon the Moon by a cometary impact has been posited by geologist Harold Urey [7] -- the first mechanism to look for is a space intruder.

The stripped-down area is today occupied in part by the land that pushed into it. Conventional continental drift theory only lends confusion. But D.V. Wise writes, "Many positions of drifting or accreting continents eliminate any *a priori* condition to find the scar of separation on our present Earth, although if a 'navel' must be located, the Pacific basin is as good a spot as any." [8]

The west coast ranges of Northern America have some formation similar to the east Chinese coast [9]. This would point to a more southerly explosion. The great Nazca Ridge and seamounts off of South America traverse the East Pacific Rise into the Tuamotu and Taburi Islands, an immensely long transverse fracturing and outbursting of magma. This feature would have followed the eruption of the lunar material. The tens of thousands of seamounts following the Great Pacific Rise are indicative of a crust that had been suddenly greatly thinned.

The crust would not have been removed so deeply where land masses exist today. They would have sunk as they passed over the chasm, or they would have probably been noticed by now; but no considerable area of the true ocean bottom is of sial material. Possibly the material of the Moon could have been assembled from explosions occurring in numerous weak spots, with many catastrophic typhoons carrying matter into space.

S.K. Vsekhsviatskii, Director of the Kiev Observatory (U.S.S.R.). has written that "the moment of inertia of the earth's crust is about 200 times less than that of the planet as a whole."[10] Thus crustal matter is relatively displaceable. He believes that volcanic eruption could eject matter whose moment of force would exceed the moment of inertia. "The amount of matter lost by the proto-earth turns out to be of the order of its present mass. These losses should have occurred not only through direct ejection of fragments of the crust in explosions and of ash and gas during volcanic eruptions, but also through dissipation of the atmosphere into space, which

occurred, apparently more often than was thought during five billion years of earth history."[11] He calls his theory "cosmic volcanism".[12] I would categorize his theory as "long-term endogenous eruptive catastrophism." Because of the speedy rate at which comets and planetesimals dissolve into dust, Vsekhsviatskii maintains that these material bodies now moving in space were not long ago erupted (though not so recently as argued here). He does not think that cosmic large-body encounters are even required for the eruption of a planet from a moribund star such as Jupiter, or for the discharge of materials into space from a planet.

Escape velocity from Earth for today's space-vehicles is 11.2 km/sec. This is required by the gravitational attraction of the Earth and does not take account of electrical or atmospheric drag (or push) on the object "taking off" Depending upon its charge, size and distance, Uranus Minor might exert an attraction upon Earth, reducing this present escape velocity.

The rotation of the Earth's denser core and mantle would be less retarded by the encounter and would slip past, beneath the surface crust, abetting its disintegration, "weakening its moorings." A high thermal zone would be created between the inner Earth and its crust, which would also help to peel it off.

Many factors, quite incalculable as specifics, would determine the motions and masses of the encounter between Earth and Uranus minor. For example, if Uranus Minor had ten times the mass of the Earth and passed it at 100,00 kilometers distance, the vertical tidal displacement at the closest surface would be of the order of 5 kilometers. Not only would the Earth's motion be changed, but a large part of its crust would be stripped off in a set of gigantic swirling typhoons. This is calculated on gravitational laws. If to gravitational attraction were added an electrical potential difference, or attraction, which must have been present, the displacement and loss of crustal material would be enormously greater. The Earth would pause, to let its surface be plucked all the more neatly.

The Earth's atmosphere would have been lost if it were as limited as it is today. But at that time it was continuous with the gases of the magnetic tube that stretched from Sun to Super-Uranus. Replacement of atmosphere was immediate. Indeed the

Moon was formed in an atmosphere much more voluminous that its present one, which may be remnant [13]. However, typhoons would have been innumerable, intensely hot, and radiative. They would have carried away much of the heat from the explosions of the crust, helping some of the biosphere to survive.

The double explosion, inwards and outwards, would have excavated the basin of the Pacific and destroyed other portions of the Earth's crust, even placing explosive strains on the opposite side of the globe, now the Middle Atlantic. Furthermore, the strains that these blows imposed upon the Earth's continental crust were reinforced by a worldwide deep friction as the Earth's rotation was interrupted and the globe was wrenched into a new axial position. The mantle and core heated up and expanded. At a boundary between the continental sial and the upper mantle, now known as the Moho Discontinuity, the Earth's shell began to slide over the mantle. The wide expanse of molten Pacific basin, bereft of continental crust, offered little resistance to other crustal movements and to fracture.

A long history of the Earth before the Uranian period requires that a uniform crustal layer of silicate-aluminum rocks (sial) taking the form of granite (or an ancestral source of granite), be deposited all over the globe [14]. Today this sial is found over only 40% of the surface, the balance being ocean bottoms of silicate-magnesium chemistry (sima), typified in an igneous basalt (see Figure 18). The Moon contains 1/80 of the Earth's volume, representing the mixture of continental sial and upper mantle magma that was wrenched from the Pacific basin during the encounter with "Uranus Minor". "A uniform layer rather less than 41 miles thick taken off the oceanic areas would be sufficient," wrote Osmond Fisher (1882), "to make the moon." The territory stripped from Earth exceeded the volume of the Moon; much of the surplus plastered the passing body, and the remainder fell back upon Earth as stone and dust.

The hot material erupted in a stream that ceased when the head of the stream had reached roughly a half-million kilometers into space. The intruder had moved off far to exert the pull required to break up the rocks and to discharge its remaining electrical potential.

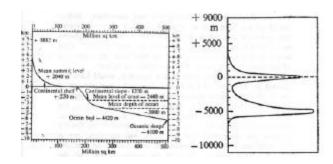


Figure 18. PREFERRED ALTITUDES OF THE EARTH'S SURFACE. (Click on the picture to view an enlarged version. Caution: *Image files are large*.) Figure on the left: The Height and Depth of the Earth's surface (Following Jordan and Defant). Figure on the right: Frequency distribution of altitudes (Following Jordan, Wegener and Bucher).

The Moon material, largely molten but beginning to cool, was reshaped hydrostatically (reinforced electrically) into a sphere. It was drawn securely into orbit as the Earth's rotation sped up. Moon's inclination away from the equatorial orbit is under standable as an effect of the direction in which Uranus Minor disappeared into far space. At first the Moon mass rotated. Then its face was fixed toward the Earth as it revolved.

Alfred Wegener, the geophysicist who produced the continental drift theory in the 1920's touched briefly upon the missing sial of the Earth's structure, saying that "the outermost layer, represented by the continental blocks, does not cover the whole Earth's surface, or it may be truer to say that it no longer does so."[15] Wegener noted how clearly split and conformable are the Atlantic Ocean's east and west rims, but how the western rim of the Pacific Basin was broken up.

He wonders whether "the Pacific Basin should be considered as the remains of the detachment of the moon, following [George] Darwin's idea, for this process would involve the loss of a portion of the sial crust of the earth."[16] Daring theorist as he was, Wegener might have come to the idea of Moon escaping, followed by continental rafting, if he had not believed, erroneously, that the continental sial floats on the oceanic sima and could skate upon it. The sial is deeply embedded in the crust. When it moves, it must be because the sima is molten or

missing. Or, as the present prevailing theory believes, and in a coming volume I shall refute this, that the sima approaches a continental block and dives beneath it.

All the forces necessary to erupt the Moon would be supplied by the tidal attraction of a great-body near-encounter; by an electrical difference of perhaps  $10^{18}$  volts between the Intruder and the Earth; and by an interrupted rotation of the Earth. Assisting the explosion would be the jack-hammer shocks of the preceding heavy meteoroid collisions. Promptly upon lunar material eruption would follow an immense semi-globular gradiant introducing gravitational slide. The continental crust would flow down the lips of the concavity.

#### LUNAR CONFORMITIES TO ERUPTION

The chemical composition of the Moon associates it with the inner planets. However, its surface is a melt to a considerable depth, if not entirely. It lacks the granite cover of the Earth. Moreover, analysis of samples returned by the Apollo expeditions and of the Moon's specific gravity reveal a general composition resembling the crust and upper mantle of the Earth [17]. A core of metal is probably absent.

"How does one get a 65-kilometer-thick crust that is 50 to 85 percent plagioclase without melting most of the moon? And if melting occurred, how could the moon's interior be relatively cool today (800 to 1000 degrees C.)?

Latham speculates that half the moon would have to be melted (down to about 1000 kilometers) in order for this light stuff to flow up as slag. Gast thinks that the Moon would have to be melted down only to a depth of 200 kilometers, if the composition were homogenous but moderately high in concentrations of aluminum and calcium (about 10 percent).... Wood [Proper name]would have the outer portion of the moon melt from the heat of rapid accretion [18].

Here we are suggesting that the moon must be heterogeneously composed, like a stew of chunks and sauce. Further, subsequent to its overall melting, it has been subjected to additional destruction. It has been pelted with meteors, and exploded and

ripped by numerous electrical charges. I assign all of this destruction to later encounters of the newly created moon.

The Moon's turbulent history is evidenced in a list of effects recently discovered. These can be catalogued here [19]. An asterisk (\*) denotes items that perhaps originated with the original creation of the Moon; in certain cases, there is a reinforcement of an original condition by later catastrophes.

- 1.\* The Moon's surface is one-sixteenth of the surface of the Earth. Its "crust" is igneous anorthosite to a great depth [20]. This crystallization of plagioclase feldspar of 50 to 100 km depth throughout, exhibiting a seismic boundary at about 60 km, where a basaltic lunar "sima" may occur, would be derived from the Earth's crust. The Moon crust is ten to twenty times the crust of the Earth in thickness accounting for nearly half of the Earth's crust.
- 2.\* Gases are escaping from orifices of the Moon [21].
- 3. Hundreds of radioactive "hot spots" exist on the Moon [22].
- 4. Fluorescence occurs, indicating radioactivity in the rocks [23] and debris.
- 5. A large part of the soil of tiny glass spherules formed from evaporated, and condensed and fallen, rocks [24].
- 6. Traces of hydrocarbons of foreign origin (Venus?) were found in samples of Lunar soil returned to Earth. Carbide rocks were also found [25].
- 7.\* Rocks revealed a remnant magnetism that could not have been implanted upon cold rocks or by the Moon's present weak magnetic field, but was provided by an external body when the Moon was hot [26].
- 8. Argon and neon of external origin is abundant on the surface rocks, indicating contacts with external bodies recently [27].

- 9.\* Moonquakes, evidencing unadjusted layers and heat in the interior, are frequent [28].
- 10.\* The crystalline rocks of the surface when cracked open appear extremely fresh to the practiced eye of geologists [29]; a recent metamorphosis is suggested.
- 11. There is a general glaze over all surface features [30] indicating exposure to a recent immense radiation flare.
- 12. Heat flows outward from the subsurface, showing subsurface recent disturbances [31].
- 13. Thermo-luminescence tests showed anomalies on close sub-surface rocks resulting from thermal disturbances during the last 10,000 years [32].
- 14. The greatest crater, Aristarchus, and many others, are still warm [33].
- 15. Aristarchus and many other craters, and the rilles or trenches that run towards and end beneath craters, may have been caused by cosmic lightning [34].
- 16. Radon-222 is emanating from Aristarchus. It is the daughter element of radium 226. It has a half life of 1620 years. The radium 226 was probably created by cosmic lightning bolts [35].
- 17. A range of anomalous colorful low mountains appears to have been welded onto the Moon as debris from an external body (Mars)[36].
- 18.\* The Moon's atmosphere is exceedingly thin but is building up [37], and therefore must have been wiped out recently or began recently at zero pressure.
- 19.\* Samples of lunar solids are "depleted in all substances which boil below about 1300°C, as well as lead, which melts but does not boil below this temperature [38]." "When the lunar rocks are compared with terrestrial rocks or with meteorites, they are found to be systematically depleted in the more volatile chemical elements." [39]

- 20.\* The rock, breccia and soil samples exhibit a striking structural adsorption of rare gases that implies a great energetic exchange upon the Moon's surface [40].
- 21.\* Apart from direct evidence of the Moon's body forming from the Earth's crust, any theory of Moon capture must explain how this low density planet happens to "specialize" in non-basic rock.
- 22.\* Anorthosite of the Moon's crust may be formed in only 1000 years [41]. Small particles could accrete into a moon in 1000 years [42].
- 23.\* Tektites, possibly from the Moon, have isotopic composition much like Earth materials [43].
- 24.\* The side of the Moon facing Earth is more basaltic (sima) while the dark side is more sialic. This may indicate that the Moon assembled itself under the tidal influence of the Earth, and that the order of escape was preserved.
- 25.\* The energy disposal problem is easier to solve with an eruption theory involving a large 3rd body encounter than with a capture theory, where the internal forces of the Earth would have to do all the work and take all the heat [44].
- 26.\* The catastrophic tube (typhoon) mechanism disposes of heat into farther space. The single volcano Krakatoa billowed four cubic miles of rock and ash into the stratosphere, some of it shooting 40 to 50 miles high. With a third body, and in the presence of an electrical attraction and an atmosphere that is moving away rather than obstructing escape, escape velocity (11.2 km/s) could be readily achieved by such material. And, it is important to emphasize, the amount of the material, which is thousands of times the amount sent up by Krakatoa, is not especially relevant; the intensity of the field's attraction affects a single particle no less because it is affecting vast numbers of particles. Moreover, if the lower more dense layers of the globe are retarded either more or less than the crust, the crust will be slung off.

- 27.\* The Moon's "anomalous" inclination in respect to the ecliptic shows the influence of a third body. Theoretically the Moon should be lined up directly between the Earth and Sun, in a position that is modified only by the presumed effects of the Earth's rotation upon the Moon.
- 28.\* The radiogenic helium (He<sup>4</sup>) of the Moon's rocks that would have appeared in long ages is missing, implying youth or thermal destruction, or both [45].
- 29.\* A comparison of the number of objects observed colliding with or passing close to the Earth with the number of lunar craters of a given diameter indicates that there are 400 times as many craters in the lunar maria as one would expect [46]. If the Moon is 11,500 years young, this indicates how it has served as an electrical collecting and discharging battery for the Earth and one reason why the Earth has not been utterly devastated recently.
- 30.\* "The moon and the earth were formed in the same general region of the solar system. This conclusion is based on the isotopic composition of oxygen in the lunar samples, which is indistinguishable from the composition of terrestrial oxygen." [47] Moreover both cases are distinguishable from meteoritic matter examined from elsewhere in the solar system.
- 31.\* None of the material of the Moon is of primordial planetary material "by any stretch of the imagination." [48]
- 32.\* An early fission of Moon from Earth would have left the two-part system with much greater angular momentum than it possesses. (This is directed at many who believe in an early fission, without an external body encounter.)[49]
- 33.\* There is no known mechanism for converting a lunar trajectory to its present orbit if it had come close to the Earth from a faraway origin [50].
- 34.\* The magnetic dipole at the "center" of the Earth is actually 436 kilometers off-center, displaced toward the Pacific Basin.

All of these are geophysical and astronomical arguments for Moon eruption, a recent eruption besides, and for more recent disturbances. The list of legendary arguments is to be presented at the end of the chapter, in the light of further geological evidence.

# THE GLOBAL FRACTURE SYSTEM (See Figures 19 and 20)

Heezen and Hollister, in their late work in oceanography, begin by quoting a passage from the Roman Seneca, which, though myth, has an even more modern meaning that they can have guessed:

"An age shall come with late years when Ocean shall loosen the chains of things, and the earth be laid open in vastness, and Tethys shall bear new worlds...."

Tethys was the legendary original sea of Pangea, girdling the globe. As soon as the Moon material was pulled into space, the globe fractured. A cleavage shot forward northwards and southwards from the center of the then north pole. The fracture started straight but owing to the complex of motions and forces operating simultaneously, it assumed a final form much different from a model fracture of an unmoving globe. The fracture moved rapidly; there is no essential difference between cracking a crystal ball and an immense globe; theory apart, the cuts are fresh, report the oceanographers of the fracture [51].

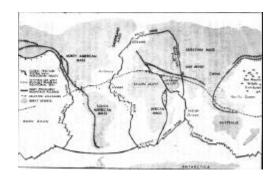


Figure 19. THE EARTH TODAY: CLEAVAGES, WELTS, MOUNTAIN FOLDS AND VOLCANISM. (Click on the picture to view an enlarged version. Caution: *Image files are large*.) This map is merely suggestive. Submarine continental shelves are

treated here as "land." Many details that indicate recent quantavolutions of the Earth are omitted. Only a globe can represent accurately and vividly the features-fractures, mountain ranges, volcanos, sea mounts, continental shelves, and torques of the crust- that are conceptualized in the text. Volcanos (and earthquakes) by the hundreds follow fracture lines. Sea mounts reach up from the oceanic abyss by the tens of thousands. The Arctic Sea stands mostly on continental shelves. The Ridges marking the major fractures are cut transversely by thousands of smaller fractures, varying greatly in length, all together supporting the idea of sudden explosive cracking and expansion and repeated torques of the surface. The Trans-Asian Ridge refers to a cut that swings North of India, through Lake Baikal and along the Lena River into the Arctic Sea where it connects with the Atlantic Ridge. Antarctica was split away from the unexploded land masses and moved towards the exploded area, as was Australasia; Eastwards, the Americas were likewise thrust (or attracted) towards the raw new basin. For superior comprehension of the totally integrated process of global surface quantavolution this chapter might be read with a Replogle "World Ocean" globe or similar map globe at hand for reference.



Figure 20. SCHEME OF THE LAND AREA OF PANGEA AND URANIA.(Click on the picture to view an enlarged version. Caution: *Image files are large*.) Area sizes are rough and include continental shelves. The outer boundary of the figure outlines the estimated devastated crust and expanded surface of the globe. There is little reason to believe that the fracture system occurred along the lines that it follows today, except in its most general configuration. The original configuration probably followed the model of a globe that is struck, exploded, and cracked. Many types of "wild" movements would develop immediately from internal sources even while the Earth's external force field was changing.

The Table below gives the approximate distribution of Sial land among present-day continents, during Pangea. The total ocean surface, less the

continental shelves, measures approximately 361 million km<sup>2</sup>. of this 200 had once been sial. The total Pangean globe surface is estimated at 400 million km<sup>2</sup>. The expansion allowed for is 110 km<sup>2</sup>. The surface of the globe increased by 20%. The total volume of the globe is  $1083 \times 10^9 \text{ km}^3$ .

# THE LAND SURFACE OF PANGEA USING PRESENT LAND FORM NAMES

(approximately, in million km<sup>2</sup>.)

Land form	Surface	Stacking	Shelves	Total area
Asia	45	5	6	56
N.America	24	3	5	32
Africa	30	2	2	34
S.America	18	3	4	25
Antarctica	14	1	3	18
Europe	10	3	4	17
Austrocean	9	2	7	18
TOTAL	150	19	31	200
Destroyed				200
continental sutfaces				
New Ocean				110
Basin Expansion				
1			Total	510

<sup>\*</sup>Note on Table: Continental Slopes are not considered continental, but as flow material subsequent to break-apart. However, where continental shelves are poorly defined, continental slope contributions to true Pangean land mass are estimated and included.

The fracture cut down between the land that now became separated into the Americas on the one side and Euro-Africa on the other. Within hours, it neared the "south" pole and promptly forked east and west. Today's map only makes it seem that the rupture circled around Antarctica; it must have cut straight on through Antarctica-Australia, after which the whole "South Pacific" started to move North, pulling or being pushed by the ridge chasm which was then followed by Antarctica which was being carried "south" by the southwest movement of the Americas.

The eastwards rupture divided into another double fork, of which one prong moved between Australasia and Antarctica, pushing Australia eastward, and the other between India and Africa, pushing India northwards. Land bridges remained between Australia and India, but New Zealand became an island surrounded by oceanic deeps. All of the Asian mass was rapidly moving east toward the vast hollows that had been created in the crust. The move of Australia was paralleled by this move of the northern lands. The western Indian Ocean basin was bulldozed by the Indian subcontinent as it moved north, leaving behind its giant tracks on the ocean floor.

The westward rupture also split into two. One fork joined the southern cleavage proceeding from below Australia. The other moved north above the east flank of the great pit left by the Moon. As soon as it rejoined the north polar cleavage, completing its globe-girdling tour, it was partially overrun by the North American continent which was being pushed southwestward by the expanding Atlantic cleavage and pulled by the gravity incline of the Moon pit.

#### THE TETHYAN WELT

Meantime, while the north-south and south-north fractures had raced around the Americas, a perpendicular or transverse fracture had occurred as they passed the old equatorial area of the globe. This area, with its old rotational bulge was straining backwards in the Northern hemisphere and forwards (eastward) in the Southern hemisphere. Its fracture, relieving the strain, moved readily eastwards, along the longitudinal Mediterranean

on the east. It is marked by a welt, more than a cut; the welt takes the form of volcanoes, mountains, deeps and fractures.

From the Mediterranean this Tethyan welt crossed over the new north-east fork of the Indian fracture at the Aegean area and Red Sea -- Dead Sea axis; it carried through the middle of the Near East and then through the southern borders of the Asian continent. There it was to be over-ridden by the Indian subcontinent moving northwards. But it continued and appears in what was becoming the South Seas Islands. It crosses the Pacific and enters the Caribbean through Central America, finally completing its world circuit at the Atlantic Ridge.

Especially in the new Pacific Basin, tens of thousands of molten fingers stretched up toward the continental debris that was escaping into space and then dropped back as blisters upon the ocean basins. These froze into the seamounts, monument to the creation of the ocean.

Lava poured forth from the world-circling fracture system, from volcanic fissures along the main ridges, and from a multitude of transverse fissures all along the main lines. The continents moved rapidly from the Atlantic ridge, and the new oceanic surface was paved by lava flows as the land retreated. Ashes rained down heavily; today drills probing the edges of the Northwest Atlantic continental slope penetrate "a succession of ash layers" before striking the basaltic lava of the true ocean bottom [52].

In the Pacific the major fractures appear less profound. Great rises, rather than abrupt ridges, occurred because the surface land shell had already been exploded. It was soft and deeply dug already. The major fracture system there was over-ridden by the North American continent and erupted its lavas underground or on the land through many volcanoes and fissures. Westwards it merged with the teeming seamounts, sending long transverse fractures out over the molten pit of the Moon.

#### GLOBAL EXPANSION

Expansion of the globe occurred as a result of rotational slowdown [53]. Also, throughout the flayed regions where contact was made with interior deep magma directly, some

expansion of the globe took place. Loss of electrical charge may also have decreased the density of the Earth. Indeed, the volume of the Earth may be much greater without the Moon than it was before the Moon erupted. Expansion occurred especially where the sphericity of the globe needed to be preserved, that is, in the southern oceans where the lines of fracture girdle the globe latitudinally before moving northwards again. It occurred too, at the new equator and at the old poles, in response to the new direction of spin. Contraction and conservation of form, on the other hand, took place at the new poles, the old equator, and where the extensive thrusts and folds raised up mountains [54].

Thus were the principal features of modern world geography established: the distinct continents, the ocean basins, great oceanic ridges; mountains raised high in the westernmost Americas by the bull-dozing ice and undermass moving on the magma and against the inertial magma and core: Alpine Europe pushed up by Africa moving over the Tethyan welt and then back again; Northern India colliding into Asia; and uncounted thousands of seamounts.

If the Earth had not ruptured, it would have exploded, and life would have terminated. The cleavage permitted movement in the shell; the sial rode atop the sima and all of this to a depth of 5 to 10 kilometers (the Moho Discontinuity) rafted to new places carrying the surviving biosphere [55].

The rafting is almost entirely completed now but the Mohorovicic Discontinuity marks throughout the world the level at which the crust exploded and the crust slipped. Osmond Fisher, in the 1880's, can be credited with combining the ideas of the eruption of the Moon from the Pacific Basin with the prompt cleavage of the Americas from Euro-Africa and their rafting by great new convection currents set up by the moon explosion [56]. George Darwin had originated the first idea and placed the event at only 50 million years ago.

#### THE MAGNETIC FIELD

A recent standard textbook reports that "we know disturbingly little about the interior of our planet... The understanding of planetary magnetism is another source of frustration for our understanding of even the Earth's main field is very poor. In

fact, about all that is in reasonably good shape is the description of the field: its origin is still uncertain."[57]

Robert Haymes, the author, then gives the basic facts and illustrates them by a figure (adapted here as Figure 21). The small object in the center of the Earth is an approximation of a bar magnet to represent the source of the field. Actually this dipole is "offset 436 kilometers from the center of the Earth, displaced towards the Pacific Ocean. It is tilted with respect to the Earth's rotation axis by approximately 11°... The dipole axis intersects the surface of the Earth at points far distant from the north and south poles. These intersection points are called

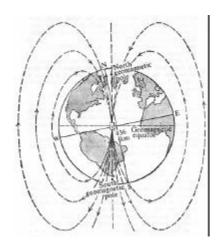


Figure 21. THE EARTH'S MAGNETIC FIELD. (Click on the picture to view an enlarged version. Caution: *Image files are large*.)

"The eccentric-dipole model of the earth's magnetic field (schematic view). The equivalent dipole is -436 km distant from the center of the planet and is closest to the surface in the hemisphere that contains the Pacific. Hence at a given altitude the field is stronger over the Pacific than it is over the Atlantic. The geomagnetic axis is tilted 11.5° with respect to the earth's rotational axis (the N-S line in the figure)." (Haymes, 1971, p. 215).

the north and south 'geomagnetic poles.' The north geomagnetic pole is located in Greenland at 81.0° N, 84.7° W, in the geographic system of coordinates. The corresponding south geomagnetic polo lies in Antarctica, at 75.0°S, 120.4°E."

Haymes proceeds to discuss the "dip poles."

"The offset of the equivalent dipole from the planetary center results in geomagnetic field lines that are not vertical where the dipole axis intersects the surface of the earth. Thus the field lines are inclined about 3.9° to the vertical at the geomagnetic poles.

"The places where the field lines are vertical are known as the 'dip poles.' These locations are controlled both by the offset and by the substances of the crust.

"Some observers believe the dip poles are located near 82.4°N. 137.3°W (Labrador), and at 67.9°S, 130.6°E (Antarctica)... It is ironic that the dip coordinates -- which should not be particularly representative of anything fundamental -- seem to be a better coordinate system for discussion of the cosmic radiation than does the geomagnetic system of coordinates."

That is, cosmic rays correlate with dip pole coordinates rather than with either the magnetic or rotational poles.

The theory of Solaria Binaria, presented in chapter five, and the theory of its breakdown and the subsequent lunar eruption and earth cleavage as presented here, taken with the critique of magnetic time tests in chapter three, altogether suggest several points that may order the quite confused data of the Earth's magnetic field.

- 1. The offset of some 436 km of the magnetic center from the geographical center of the Earth would be the consequence of the enormous pull on the heavy old center of the Earth of Uranus Minor that ripped off the crust of the Pacific hemisphere.
- 2. The magnetic field of the Earth is *fixed* as it was when the Earth was part of the magnetic tube and oriented to its rotation around the electrical are axis of that tube.
- 3. The magnetic state of the mass of the Earth, which is remanent and not caused by any contemporary rotation of the globe, describes the fossil position of the elements of the mass in relation to each other.
- 4. The expansion of the Earth, which occurred with the electrical and chemical heating of the globe at the time of the lunar eruption and global cleavage, may be indicated by the

southern bias of the north magnetic pole and the northern bias of the south magnetic pole. The Pacific area swelled more than the globe as a whole but there was a total expansion extending even to the northern and southern extremities.

- 5. The lava that welled up in countless places around the globe lost its remanent magnetic orientation by heating, and thereupon was imprinted with the old magnetic field that it had just thrown off but in a different orientation. It cooled and moved away from its eruption coordinates to let s new mass well up and take on the same coordinates respecting the magnetic poles.
- 6. Siderally oriented tilting of the Earth's axis, without change of rotation, cannot cause a change in orientation of the magnetic field of the Earth.
- 7. The magnetic poles are near to and seemingly related to the north and south rotational poles largely because the latest change in the rotational axis, probably at the time of the passage of Uranus Minor, placed the poles near them.
- 8. The unpredictable and mysterious instability of the magnetic poles is produced by the isostatic adjustments occurring throughout the globe as a result of the various body cosmic encounters of the past 14,000 years.

#### OCEAN DEVELOPMENT

Earth's crust was half erupted into space upon the intrusion of Uranus Minor without Earth's losing its atmosphere; for the atmosphere of Earth was almost identical with and part of the much greater atmosphere consisting of the gases of the magnetic tube. New atmosphere flowed in readily to replace all that was drawn off or destroyed with the crustal material. Moon's atmosphere was barely allowed to form and was almost entirely lost in later destructive encounters.

New waters poured off the continents and from the skies into the new basins. Possibly a last great deluge of water came from Uranus Minor as it passed; in 1977, five rings were discovered around the planet Uranus. Like the rings of Saturn they may contain ice. By feeding the fissures and volcanoes, the waters

sped up greatly the spread of the oceanic depressions. The world was hot, steaming, and often flooded or on fire. The atmosphere was laden with combustion products and had exchanged components with Uranus Minor. Within a century sizeable basins had been basalted to receive the vast new waters that mingled with the old.

The rate of development of the ocean basins was negatively exponential. Within the 3,500 years (11,500 to 8,000 B.P.) of the age of Lunaria (the Moon eruption and Earth cleavage), the full basins were formed and paved. And, as it happened, the waters descended from the skies and poured off the land to partly fill them. At the end of the period, the cataclysms had ceased but the skies were still heavily clouded; the continents were shifting but at an almost negligible rate. The shores were at the edges of today's continental slopes.

It is for another volume to say how the world was nearly destroyed and finally saved by the first Uranian deluges and then the creation of the ocean basins to carry them. If the swamps of Pangea and the depression of Tethys were to become the waters of today and the basins filled, approximately 82/100 of a cubic kilometer of water per second would have had to fall for 1725 years. This is about the rate of annual rainfall in Vancouver, Canada, where some 200 inches per year occur. The time period would be divided into four periods of accumulation: the Pangean vapor condensation into swamps and ponds, the early Uranian canopy collapses, the passage of Uranus Minor at the time of the Lunar eruption, which not only brought new waters but also removed some water, and finally the great Noachian deluge of the end of the Saturnian age.

#### LUNAR WORSHIP

In Lunarian times, vast regions of the Earth disappeared and all others were devastated. Animal and plant species would have been threatened with extinction. The human species was no exception; from millions, it probably decreased to a few groups, existing far from one another, small family bands accompanied by individual survivors of foreign groups. The collective memories of the groups recalled the vanished age of Urania and the civilizations that had been blasted from the Earth, drowned, or shaken to death by earthquakes at the approach of the

Uranian planet. The memories were painful and unbelievable to the psychologically and physically depressed survivors. They were therefore distorted, suppressed, and selectively elaborated.

The Moon was watched with fear and trembling the less so as it became regular in its behavior. Its routine and successive phases were marked down and the logic of a calendar moving through time was founded. Coincidentally, the Moon settled into a periodicity that came close to the periodic menstruation of women. (But it may be, as will be discussed soon, that the menstrual cycle was psychosomatically adjusted to the lunar cycle.) The period of menstruation was lent importance as a result. Witchcraft flourished around the feminine mystique. Of course, the consequences were much more manifold. Few, it any, aspects of life were freed to develop without religious connections to what was experienced with the coming of the Moon and with lunar behavior.

The ecumenical Uranian culture remained the substraturm of Lunarian culture. However, many Lunarian cultures developed in isolation. Languages revived apart. Probably here now arose the great differences among the major linguistic groups. So also institutions, arts, and crafts. Diffusion was at a minimum. Lunar religion everywhere was based upon Uranian religion. A sun calendar may not have developed anywhere, because the sun was still diffused as "Hyperion", not "Helios" and was relatively remote as a threat. Its regular (or at least slowly changing behavior) permitted it a minor role in influencing human minds and practices. The Moon was related to imprinted fears, more variable, closer to the Earth, and for all these reasons, terribly fascinating. As the lunar cycle became regular, the remaining portion of Super-Uranus, known to us as (super) Saturn, was reestablished as the (new) chief of gods. Already in the age of Lunaria, he was recognized and worshipped in the place of Uranus. But the Moon's chief place in immediate religion was abundantly evidenced.

When, by Homer's time, in the aftermath of Martian destruction, the Moon was stereotyped for its lightness of character, it could be said, as did Vico with marvelous intuition, that the fables "were received by Homer in this corrupt and distorted form." [58]

#### SUNKEN LANDS

Sunken lands are universal in legend. There is also some geophysical evidence for them. Were an explanation not afforded of the eruption of land into space, and, later on, of the deluging of the continental shelves and slopes, there would be little possibility of explaining the legends, because the true ocean bottoms are uniformly of igneous basaltic Sima. Sial cannot be sought in the Sima, either; the two have different origins and do not mix.

The widespread evidence of marine life on the land, found at all altitudes, does not prove, as many catastrophists and uniformitarians believe, that the land was once below the sea, and below the sea lies other land. They have not caught up with the new oceanography. The marine beds on the land are the residue of floods, tides, fall-outs from typhoons, and dried-up shallow seas.

The reports of sunken lands are important pieces in the great puzzle of the history of the Earth if only because they indicate where the continents were fractured, exploded, and drowned. It is likely that most land-sinking occurred in two great phases: the Lunarian and the Saturnian.



Figure 22 LEGENDARY SUNKEN LANDS AND CULTURES OF THE WORLD. (Click on the picture to view an enlarged version. Caution: *Image files are large*.)

The map here presented as Figure 22 calls to mind the main legendary catastrophes. Apparently, if all the legendary claims

were accepted, the concept of an all-land Pangean and Uranian world would become practically an established fact.

The map highlights another point: peoples from all around the world and all types of culture are obsessed with the idea that masses of neighboring land were deluged or overrun by water and sank forever into the depths. As John Locke said of the "fire of hell" and Vico of the "thunderbolts of Jove," an idea so universal and persistent must refer to an intense experience suffered in the past.

The map is extremely schematic, as is the evidence. It merely indicates areas and names them. The size of an area conveys little or no meaning, especially considering that almost the whole globe was land-covered before the floodings and explosions. The location of the center of each culture, too, is almost never agreed upon. As Bellamy once wrote: "So the German ethnologist Frobenius sought Atlantis in Nigeria; the Anglo-Spanish archaeologist Whishaw placed it in Andalusia; the German Schulten found it at Tartessos at the mouth of the Guadalquivir; the Germans Borchardt and Herrmann, and the French Count de Prorok, suggested North Africa; Colonel Fawcett looked for Atlantean vestiges in the Amazon Valley; and Central America and the West Indies have also been mooted". [59]

The map does not include vast civilizations thought to have been destroyed by *water* action (deluges, tides) on land as for instance the Gobi (Desert) Sea Civilization, or the Sahara (Desert) Sea Civilization (both indicated on the map). Nor does it include hundreds of known sites, representing thousands of *unknown* sites, overrun by water either in localized or general catastrophic action, as for example Lake Issyk Kul (Kirghiz SSR., Lake Polaki (Poland), Mecklenburg Lake (East Germany) Lake Sevan (Armenian SSR), Lake Amatitlan (Guatemala), the Gulf of Taranto (Italy), St. Gervais (France), Tyre (Phoenicia). Chersonesus (Crete), Volga Basin (Russian SSR). and Bab el-Mandeb (Gulf of Aden).

The map exaggerates the polar seas. Hence, on the scale of the map, Beringia should be perhaps extended throughout the shallow arctic seas, thus coloring practically the whole width of the map to the extreme North.

All continental shelf lands were overwhelmed by water around 6,000 years ago, as the next chapter will argue. Only a few of these areas are listed among the famed legendary places on the map. However, a glance at the chart following Figure 20 will show how extensive the shelves are and therefore how enormous the deluges of the period.

Many details not given here are provided in Kondratov's *Riddles of Three Oceans*. For instance, he writes: "The majority of experts agree that dry land once existed in the Easter Island area. It may have been a large land mass or most probably a group of islands that later sank. [or both in successive phases.] But when did they sink? The same experts say this happened very long ago, before human times or, at the very latest, at the end of the last Ice Age, between 10,000 and 12,000 years ago."[60]

#### LEGENDARY CHAOS AND THE MOON

The Fish-Man, Oannes -- goes the legend -- came ashore among the first and savage people of Babylonia, and he taught them the human arts. He also told them the history of the world from its beginnings.

"There was a time in which there was nothing but darkness and an abyss of waters, wherein resided most hideous things..."[61] (Another translation of the same passage says: "In the early days, before the Earth was yet made, a number of terrible beasts were the masters of the heavens.")[62]

"The person, who was supposed to have presided over them, was a woman named Omoroca; which in the Chaldean language is Thalatth; which the Greeks express as Thalassa, the sea; but according to the true computation, it is equivalent to Selene, the Moon. All things being in this situation, Belus came, and cut the woman asunder: and out of half of her he formed the earth, and of the other half the heavens; and at the same time destroyed the animals in the abyss... This Belus, whom men call Dis, divided the darkness, and separated the Heavens from the Earth, and reduced the universe to order. But the animals so lately created not being able to bear the prevalence of light, died."[63] (Belus then causes new animals and men to be formed from the blood of the godhead and the soil of the earth, and these could bear the

light.)[64] "Belus also formed the stars, and the sun, and the moon, together with the five planets." Then a long time passed until the deluge (almost surely the flood of Noah) was announced by the god, Kronos, to the King Xisuthrus (also Sisithrus) [65].

In this account of chaos and creation, we note that the heavens were overcast and loaded with waters. We note, too, the association of the monster queen with the undifferentiated chaos, then with the sea and the moon. Further, she later is divided into heaven and earth amidst the general destruction of the monstrous species. The god Belus acts the part of a manifested Super-Uranus or of the Super-Saturn that succeeded the destruction of Uranus, and thus corresponds to the Elohim (Saturn-Kronos) of *Genesis*. Nor may one overlook the possible significance of the other name of Belus, "Dis," for it resembles "deus" (god) in Latin.

In the beginning, says the Bible, "The earth was without form and void, and darkness was upon the face of the deep; and the Spirit (or wind) of God was moving over the face of the waters." [66] And then Elohim made the light and he separated the heavenly waters from the earthly waters. The Firmament of Heaven was between the two regions of water. Then the earthly waters were collected so that dry land might appear. Plant life then flourished. Whereupon, lights appeared in the Heaven and time-reckoning began. In a passage following shortly, *Genesis* says that after heaven and earth separated, and before any plants lived, the earth was watered by a mist from the ground and in this setting men was "formed of dust from the ground." "Whence he was placed in the Garden of Eden, which was watered by rivers." [67]

We suspect that a watchful ex-hominid, newly possessed of a sense of time, was near to the events of the great days. Elohim may be here interpreted psychologically as a projection of man, the Watcher, already human, already reading himself into the gods, and the gods' "traits" and actions into himself. The watcher could not be impressed by the Sun, which was below, that is, South of the Earth by our model of Solaria Binaria. This Elohim, or Heaven, must be Super-Uranus-and-Saturn. Nor was he impressed by a Moon, for the Moon did not exist. As many

commentators have noted, the Bible seems to say so. Many other indications also support the scenario.

We wonder whether this is the Lunarian period of chaos. From India comes a similar image, here described by van Buitenen: "After the ultimate conflagration, the Fire of Doomsday, the Ekpyrosis, which Markandeya like another Manu survives, the rain and floods come and render earth one vast ocean, and desolately he roams the vast desolation -- a Manu without the need for an ark, but in search of his fish. He finds if in form of a child sitting in a banyan tree -- a tree to which the fish piloted Manu? -- the tree whose branches are roots. Inside the child Markandeya explores the worlds in all their variety, and these 'worlds' are of course nothing but their own seeds." [68]

Distinguishing between accounts of the Lunarian catastrophes and those of Saturn, several thousand year later, is difficult. The legendary accounts usually confused the chaos and creation of the primeval period with the later accounts; although holding to the cyclical ages of disaster, the mind tended to squeeze or reorder universal primeval happenings together as time went on. But note that in neither of the Genesis creation passages is there a human intelligence when it begins; it is created. By Noah's time man was fully intelligent and had a history.

In both passages Saturn is the great natural god. He is in the first place the Super-Saturn who presides over the age of Lunaria when the Moon and Earths cleavage occurs. He is also the god, the planet, that fissioned in a nova and retired in favor of Jupiter-Zeus-Jehovah.

But long before the deluge of Noah, in the age of Peleg, the earth was divided. So says the Bible. Patten regards this to be referring to the great earth cleavage [69]. In Justin the Historian, one finds another intriguing reference, a hypothesis, "whether the world, which is now divided into parts, was formerly one."[70]

Among the people living around the strait of Bad el-Mandeb, that runs between the Red Sea and the Indian Ocean, it is believed that the strait gets its name, which means the "gate of tears," in memory of the immense number of people who died in

the Earth convulsion that separated Africa and Asia and created the Red Sea [71].

Hesiod, in his *Genealogy of the Gods*, recites that Ocean (Okeanos) was the son of Ouranos (Heaven) and Gaea (Earth) Okeanos came down to Earth. But meanwhile Ouranos had thrown all of his sons down into the nether regions and had begun to suffocate his wife, Gaea, the Earth-Goddess. The presence of the father of all the gods became intolerable.

Across the world, American Indians tell this story which sounds like the catastrophe of 11,500 B.P.:

"Monan, without beginning or end, author of all that is, seeing the ingratitude of men, and their contempt for him who had made them thus joyous, withdrew from them, and sent upon them *tata*, the divine fire, which burned all that was on the surface of the earth. He swept about the fire in such a way that in places he raised mountains, and in others dug valleys. Of all men, one alone, Irin Mage, was saved, whom Monan carried into the heavens. He, seeing all things destroyed, spoke thus to Monan: 'Wilt thou also destroy the heavens and their garniture? Alas! Henceforth where will be our home? Why should I live, since there is none other of my kind?' Then Monan was so filled with pity that he poured a deluging rain on the earth, which quenched the fire, and flowed on all sides, forming the ocean, which we call the parana, the great waters."[72]

The people of the Pelew Islands in the Pacific say that their ancestors lived in a great land. Divine heroes who were strangers appeared among them but only one woman gave them hospitality. They told her that a great flood would take place when the full moon first appeared in the heavens. And it happened so, and she alone was saved, on a raft [73].

# THE MOON IN MESO-AMERICA

The *Popol Vuh*, the "Bible" of the Quiche, an ancient and still flourishing people found now in Guatemala claims that their ancestors arrived in Central America from the East when the full moon first appeared [74].

Throughout Meso-America, said Spinden in 1917, there is an archaic culture. It reaches down to the Andes. Coe believes that the end of the Ice Ages brought desiccation and extirpation of many species "but the Indians survived."[75] I would speculate that much of this "archaic culture" belongs to the reconstruction period following Lunaria, that is, the Saturnian period, and ascribe the dessication to the Jovean-Venusian period.

Charles Brasseur de Bourbourg's 19th century studies [76], undeniably great, yet catastrophist, and therefore ridiculed by his very admirers, led him to two sets of disasters; however he decided later that both must be joined. The first, he said, was a sinking of a great crescent of land stretching from Central America to the Canary Islands; seven major islands remained above water. Yucatan itself sank, and then later arose. This was the origin of the Atlantis legend, he thought. It took place 6000 to 7000 years ago.

Later Bourbourg discovered the famous Troano Codex of the Mayans, and deciphered it with some success. He thought that the Codex told of the catastrophe of Atlantis, and placed the time now at 9973 B.C (11,973 B.P.), using Mayan time reckoning.

If the two times and two events are kept distinct, they would correspond with the great Lunarian disaster (9500 B.C.) and the Saturnian continental-shelf flooding of around 4000 B.C.

Bourbourg stressed an important point: the earliest religions in Meso-America, he said, were Lunarian. Lunar myths were the sources of all later rites and symbols. Bancroft in the *Native Races of America* repeats Bourbourg's theory [77].

It seems proper to repeat that despite the recent surge of interest in it, Meso-American mythology is almost untouched by comparison with the great labors that have gone into Near Eastern and Classical European study over many centuries.

The Chibchas and Mozcas of the high eastern plateau of Columbia report that they were once uncouth savages and were visited by Bochica, a foreign teacher with a golden staff who taught them the arts. His beautiful but wicked wife Chia once flew into a rage and caused the whole plateau and Earth to be

flooded. Few beings survived. Bochica banished Chia from the Earth and made her into the Moon. Then he opened gorges in the mountains to let the floods out [78]. Humboldt reported 150 years ago a tribe of Guiana (S.A.) that claimed to be proselenian [79].

Bellamy, who so carefully studied the Moon myths, claims that the Peruvians and other Americans drew the Moon as a tiny disc, never in its sickle forms, and attached to it the evil, feared sign of the puma. Bellamy believes the Moon was captured, not erupted, about 11,500 B.C. His search found few capture myths (and less eruption myths, such as I have cited above); this he attributes to the great cultural devastation caused by the tides pulled up in the encounter [80].

It appears that the Moon was the earliest object of adoration among the people who founded Tiahuanacu. Poznansky writes: "With regard to the worship of the Moon, we are familiar with many devices which demonstrate its great importance, its greater transcendence and generalization than in the case of the worship of the sun, at least during the primitive period of Tiahuanacu. For every ten ceramics, more or less, which through their signs depict the worship of the Moon, we find only one or two connected with that of the sun...."[81]

The Moon, we have said, was very important to the Mayans. Anthropologist Michael Coe describes the Mesoamerican view of the Moon in a startling parallel to Robert Graves' (and the general) rendition of its worship in archaic Greece.

"As a female, the lunar orb was for the Mesoamericans the very embodiment of the fair sex. The young, waxing moon was seen as a beautiful woman, forming part of a complex of youthful goddesses associated with sexual love.... As the Moon waned and gradually slipped back towards the eastern horizon, she became an old and somewhat malevolent deity, with snakes in her hair or on her skirt, or with spindles placed in her headdress as an indication of her role as a patroness of weaving... Again, she apparently formed part of a larger complex of aged goddesses and merged in many ways with some of these. particularly with the female half of the dual Creator God."[82]

Later, Coe remarks that "the Moon was felt to exert a powerful influence on terrestrial events." [83]

#### **WESTERN EUROPE**

Across the (present) Atlantic, the ancient people of Britain nurtured a legend of the clefting of Earth [84]. And the Edda of the Icelanders tell the story of the primeval giant Ymir, who was formed of ice and water and waged war against all the other races. But the gods Odin, Vili, and Ve overcame him and flung his body into the vast chasm called Ginnungagap, which *he had caused to form*. From his blood were created the sea and the waters, from his flesh the Earth, from his bones the mountains, from his skull the sky, from his brain the clouds, from his eyebrows Midgarth for the race of men [85].

Alexander Marshack has taken infinite pains to study human signs of the late stone age hunters of Southern France, Spain, and elsewhere. He seems to have discovered a practice of marking off lunar cycles on bones and stones [86]. This would coincide with the model of a Lunarian culture. during the period of recovery following upon the birth of the Moon.

If Marshack sees in the upper Paleolithic markings the beginning of an astronomy of the Moon, then the Magdalenians (and others) lived later than other ancient peoples who, not only in the Americas and Asia, but also in Europe, claimed that they flourished before the coming of the Moon. According to Aristotle, and after him to Apollonius of Rhodes, human societies antedated the Moon; they lived when "not all the orbs were yet in heaven." The Arcadians were said to have been in a reduced state, living upon acorns, before the Moon appeared, and later they boasted to the Greeks of this [87].

## THE NEAR EAST

The Phrygians of Asia Minor also considered themselves proselenians [88], So did the Mayans of Mesoamerica and the Indians of the Columbian highlands.

"The Assyrians referred to the time of the Moon god as to the oldest period in the memory of the people: before other planetary gods came to dominate the world ages, the Moon was the Supreme Deity. Such references are found in the inscriptions of Sargon II (about -720): 'Since the far-off days of the Moon-god's time (era).'" [89]

"An ancient name of the Moon was Aa, A, or Ai, which recalls the Egyptian A,h or Ah. The Sumerian moon was Aku, 'the measurer'...." The origin of the Zodiac is attributed to the "Akkad country, probably in almost prehistoric times." This is Griffard quoting Mackenzie and Hinckley-Allen [90], And might not the Arcadians of the Peloponnesus be of the same root, for their very founding king was named Pro-Selenius, "Before the Moon"?

I would question, too, whether Abram, later Abraham, the Hebrew patriarch, who was a famous astronomer of Ur, special seat for the worship of the moon-god, combined in his name elements of the Moon, "A," and Mercury's "ram," living in the third millennium in Mercurian times [91].

Griffard claims that the zodiac, so important in astronomy, navigation and astrology today, was originally a measure of distances using the Moon, and "possibly long antedated the general constellations or even the solar zodiac." [92] Stecchini, too, argues that navigation by the Moon is simple, as the ingenious American businessman, Nathaniel Bowditch, showed at the time of the American Revolution with his book of *The American Practical Navigator* [93]. The stars and the sun are not needed to navigate, once given the Moon; latitude and longitude can be calculated. Earliest man could have commonsense means, too, of making up a calendar. Babylon, which like perhaps all other early cities, was planned on the scheme of heaven, dedicated many of its pyramidal towers to the moon god [94]. They constitute attempts at warding off a threatening heaven and controlling the gods.

Briffault stresses the important place among the Semitic people that was held by the Moon, in the image of the serpent [95]. And now we wonder whether the serpent of the Garden of Eden represented the moon in the period when Jupiter-Jehovah was taking command of the skies. In Mesoamerica, too, the moongod was associated with serpents, as the remarks of Coe have already disclosed. Hecate, a Greek moon-god form, had tresses of snakes, too.

For the strange figure of "Lilith" in Hebrew mythology, one must go to the cabalistic writings of the Zohar (13th century) and other sources. Lilith was the first wife of Adam. She was called "the Night Monster." She left Adam because of incompatibility and three angels tried in vain to force her return.

I interpret the story as beginning with Adam (who is "Earth") and who is human as is Lilith. She deserted Earth to become the night-monsterish moon, trailing destructive long tresses of snakes. Finally Adam, wanting a woman, was given an earth being Eve by Elohim, this being now the Age of Saturn. (And later came the expulsion from the Garden of Eden in the beginning of Jovea.)

# A QUESTION OF LUNAR PRIORITY

Perhaps a case can be made, therefore, from legend as from geophysics, of the recent appearance of the Moon, following its eruption and the catastrophic cleavage of the Earth. We have noted a fervent universal worship of, and sacrifices for, the Moon in earliest times. We have associated early pragmatic functions such as calendarizing and navigation with observations of the Moon.

Something should be said of the fertility functions as well. It is not enough, of course, to point to prevalent "primitive" tribes who unite the phases of the Moon with lore, probably some of it scientifically verifiable, on hunting, planting, and harvesting. Nor even to deduce that, given the phases of the Moon, we are bound to discover ancient lore and associated rites of the same kind that originated with observing the phases of the Moon, such as are implied in the references above to Coe on Mesoamerica and Graves on archaic Greece.

Our problem, much more difficult, is to consider whether true humans existed before the Moon appeared and thereupon attached its phases to human behavior. Even so, the problem is not properly circumscribed for it is conceivable that the hominids might observe and follow moon phases without reflecting upon them just as the Canadian goose instinctively heads South upon certain signs of winter. If it can be shown that humans at some earlier period were religious but "non-lunar"

then it will be arguable that a) the Moon did not exist, b) that when it appeared it was an object of terrified worship, its behavior would be reconciled with human behavior in order to exercise control over it. Legends already cited go to support this argument.

Also, the undeniable primacy of Uranian Heaven worship, and the proofs of an ecumenical Uranian civilization allude to a proselenian religion; the frequent assertion of anthropologists -- especially the older ones like Morgan and Frazer -- that an animistic, magical phase of religion preceded the celestial (which we deny) helps, in a backhanded way, to support a proselenian religion, celestial but not recognizably so full of symbols which seem terrestrial but may be celestial, though not lunar.

We might take up another example to aid discussion of the problem. Among the Melanesians of Arnhem's Land (Australia), a cycle of sacred chants and dances commemorates the behavior of the Moon and the dugong (sea cow) [96]. In the beginning, the Moon lived along the swampy shore but found the leeches insufferable. She persuaded the dugong that they should take to the sky. The dugong argued that they would have to die in so doing, but the Moon insisted that she would only drop her bones temporarily and then grow new ones (presumably the phases of the Moon). The presence of the sea-cow in this mythical song and dance cycle points, however, to a possible Venusian origin (around 3400 B.P); the elements indicating a terrestrial origin of the Moon off the edge of Australia (not necessarily the present waters of Australia) may be an archaic element juxtaposed with an explanation of the Moon's phases, and with later contacts between the Moon and the planet Venus (the sea cow, the lotus flower, and the evening star-all are joined together in the chants). Even so, the juxtaposition points to a confusion of history, not of reality: that is, both the Moon and the Evening Star were born in the early memorial generations of the tribe.

#### ELIADE'S "LUNAR PERSPECTIVE"

M. Eliade analyzes brilliantly the Moon-cycle complex found all over the world. His interpretation and presentation are totally uniformitarian, reversing cause and effect part of the time and ascribing power to the Moon that it could never have gained by

is present smooth behavior. The passage comes from *The Myth of the Eternal Return*, a most useful work [97].

In the "lunar perspective," the death of the individual and the *periodic* death of humanity are necessary, even as the three days of darkness preceding the "rebirth" of the moon are necessary. The death of the individual and the death of humanity are alike necessary for their regeneration. Any form whatever, by the mere fact that it exists as such and endures, necessarily loses vigor and becomes worn; to recover vigor, it must be reabsorbed into the formless if only for an instant; it must be restored to the primordial unity from which it issued; in other words, it must return to "chaos" (on the cosmic plane), to "orgy" (on the social plane). to "darkness" (for seed), to "water" (baptism on the human plane, Atlantis on the plane of history, and so on).

We may note that what predominates all these cosmicomythological lunar conceptions is the cyclical recurrence of what has been before, in a word, eternal return. Here we again find the motif of the repetition of an archetypal gesture, projected upon all planes -- cosmic, biological, historical, human. But we also discover the cyclical structure of time, which is regenerated at each new "birth" on whatever plane.. Everything begins over again at its commencement every instant. The past is but a prefiguration of the future. No event is irreversible and no transformation is final. In a certain sense, it is even possible to say that nothing new happens in the world, for everything is but the repetition of the same primordial archetypes; this repetition, by actualizing the mythical moment when the archetypal gesture was revealed, constantly maintains the world in the same auroral instant of the beginnings."

These passages must be read in a special way. The Lunarian behavior that Eliade describes is, in my estimate, the recapitulation by peoples of the second catastrophe of the holocene age. After all, the phases of the Moon do not demand "chaos." "orgy," darkness," and "water;" catastrophe in which the Moon played a role *does* demand them. Every great god is the centerpiece of a catastrophic cycle; the moon is one of them. The correlation of human behavior with natural Moon behavior should be interpreted as mankind trying to think like the god, act like the god, and re-enact the cycle of birth, destruction, and resurrection of the god. Each great god has its own peculiarities. That the Moon's later behavior exhibited the three phases in its continuous natural cycle only stressed in the human mind the

truth of the universal proposition of the cycles of the gods and of the human ages.

But the scientists of today should not confuse this coincidence of the Moon's recapitulating the eternal cycle with the original behavior of the Moon that prompted its dreadful worship -- its birth from the Earth, its flaming, cometary passages around the globe, and its settling into place with routine motions, that lent hopes of a stable world order. The subsequent "victimization" of the Moon by greater gods -- Saturn, Jupiter, Mercury, Venus, Mars -- is also the story of a declining reverence for the Moon among power-worshipping mankind. The very weakness of the Moon as a god in late times (say after 1500 B.C.), despite its prominence in the sky and its impressive cycle of birth, maturity, senescence, death, and again resurrection, suggests that, in the post-Lunarian epoch, new and harsh gods made their weight felt, which, even when they aged into deus otiosus, still commanded the Moon and Earth. In the historical mind and cultures of mankind exists the full set of transferred representations of the natural behaviors and traits of the gods.

#### THE MENSTRUAL CYCLE

Another case in which quantavolutionary logic argues against the evolutionary logic deals with the menstrual cycle of women. The facts are well-known; everywhere menstruation has been the center of taboos, often involving excruciating practices (locking up menstruating women, for instance) and penalties (killing a woman who lets herself be seen in certain places during menstruation). Again, this could seem a grossly exaggerated social response to a "normal animal function." But we note, and many cultures make the connection explicit, that the menstrual cycle is ordinarily quite close to the lunar monthly cycle. The situations is one that psychologically cries out for identification and transfer of affect: from the once terrible and feared moon to the feared and terrible woman. Lederer rightly includes menstrual customs as a key element in the concatenation of behavior that add up to a universal "Fear of Women."[98]

Quantavolutionary theory supplies hypotheses here. If the Moon erupts into a disaster that destroys and terrorizes the peoples of Earth, and then afterwards settles into a routine that "points its finger" directly at the universal behavior of women, then that behavior becomes sacred, threatening, and certainly the object of social controls -- just as one would wish to control the Moon, and indeed as part of the extended efforts at controlling the Moon.

Nor should we overlook another and even more frightening possibility, that the original Uranian civilized and humanized women, confronted with a god who is assuming a certain periodicity of behavior, would obsessively demand of themselves the emulation of the god's behavior and thereupon, by psychosomatic means, fashion their menstrual cycle to conform to the period of the Moon. Then women would, by this demonstration of a control quite beyond the capacities of men, achieve a relation to the god that would be a constant threat to the males. These, in turn, would "reward by punishment," that is, surround menstruation with taboos and penalties that grant only bitter fruits to female victory.

The consequences extend to parturition; birthing is already part of Uranian religion, the parting of the sky and earth. But now in the Lunarian period, birth is also the breaking of the cosmic cycle of lunar menstruation; the cycle ceases upon pregnancy. Fertility then becomes more sacred because (and the male is the agent) it, too, controls the cosmic process.

#### THE HEAVENLY SPINNER

The Moon, or at least the Goddess of the Moon, is a spinner. This trait may possess significance. A spinner, to ancient civilization, denotes a raw material to be spun, a distaff to gather it conveniently, and a spindle around which to wind the threads that are drawn out of the material. In Egypt, Tayet, Goddess of Spinning, was a daughter of the great early Sun Re, (probably Super-Uranus) and a daughter of Nut, probbably a moongoddess, as well as representing the sky.

Figure 23 shows the Mesoamerican goddess Tlazolteotl as Moon Goddess, "with spindles placed in her headdress as an indication of her role as patroness of weaving...." [99] Figure 24 shows the Moon in full view behind the Moon Goddess (Aphrodite) with Ares and Eros. Suhr, who pursued the subject with great intensity, writes that "the heavenly Aphrodite...was frequently portrayed as a spinner reaching out into the

surrounding air to fleecy clouds to serve as raw material."[100] Her other hand was carried in a position to gather the threads. In earlier times, she was represented with the necessary equipment; later the equipment was dispensed with [101], and the marvellously graceful posture remained, a "classic pose." She would be bare to the waist and barefooted to avoid collecting threads and lint.



Figure 23. THE MESOAMERICAN MOON GODDESS TLAZOLTEOTL. (Click on the picture to view an enlarged version. Caution: *Image files are large*.) Talzolteotl, the Moon Goddess with Spindles in Her Hair. Source: Codex Boriga, 55; Coe, 16.

Among the designs often associated with the very many paintings and sculptures of the Moon Goddess were whirls, whorls, and spirals. Sometimes she carried a mirror as a symbol of the reflections of the Moon; it substituted for the spindle. On her head she wore at times a cap resembling a cone and distaff of raw wool. The headgear is called the "polos," a word we have come to identify with the Boreal pole, of Uranian origins, site of the first heavenly city that inspired all subsequent architecture.

The cone is manifested throughout Mesopotamian and Greek cultures [102]. It is the shadow cast by the Moon on the Earth, with a circumference of 50 miles. It is, Suhr surmises, the origin of the mythical Unicorn, which is found in ancient China and Mesopotamia.



Figure 24. APHRODITE THE MOON GODDESS (After Suhr, fig. 47, following Verrall and Harrison). Click on the picture to view an enlarged version. Caution: *Image files are large*.

In examining another specimen of moon-art, Suhr observes "an eastern divinity...one of those composite deities we recognize as an oriental precursor of the Ouranian Aphrodite; the attributes, a mirror in one hand and what is most likely a distaff in the other, support this assumption... Whether she is Kybele or the Dea Syria, she wears a veil over a conical headdress surmounted by the crescent of the Moon.. A Hittite relief shows up a similar divinity with the same attributer."[103]

"In the Vedic hymns Rakha, the full moon, is supposed to make beautiful garments for night and morning, with a needle which can never be broken. She weaves together the roseate hues of morning and the soft mellow tint of evening." [104]

In appraising his findings, Suhr concludes that the Moon is a spinning goddess because she may be seen to gather clouds (upon her distaff) and drop (threadlike) rains upon the Earth. She is connected with fertility and love, after all, which appears to be logical. The quantavolutionary logic, however, modifies this explanation.

If the Moon is born from the Earth, amidst chaos, in a splatter of "blood and genitals" from the earliest war of the gods, and then must pull itself into a ball, the "clouds" would become the primordial "raw stuff" of the spinner. If the Moon rotated in its earliest times, while gathering itself together, it spins like the distaff gathering wool and ejecting thread. If the Earth is being deluged by cosmic waters and at the same time by waters raised up in great heat and falling back upon the Earth, then the Moon,

amidst it all, is the spinner dropping threads, but what impressive gathering of wool, and revolving of distaff and what threads they were! Impressive enough to cause the mind to inaugurate a useful invention.

Again, and as usual, we see the "rational" process reversed; the invention and practice of spinning and weaving do not excite the mind to create the god. The "god" excites the mind to create the invention and the practice. Later on, the mind becomes subdued; it pushes into its subconscious recesses the first causes, makes effects out of causes, and ends up with a tolerable mental imagery that conforms to nature as one wishes it were.

When this later stage arrives, a confusion of names and identities sets in as well, so that Aphrodite becomes Venus in men's minds, for example, or Zeus becomes Saturn, or Saturn becomes the Sun, and so on. More of this later. The present chapter is geophysics, mythology, done. On evidence from psychology, the Moon is deemed to be a recently exploded fraction of the Earth, to be newly emplaced, and to have been worshipped heavily and in accord with its original history. Still to be related are later experiences of the Earth's satellite, of when it was flooded by Saturn, cratered by the bolts of Jupiter and Mercury, and pelted, shocked, and melted by Venus and Mars.

# **Notes (Chapter Seven: Earth Parturition and Moon Birth)**

- 1. See also Long (1974) 240-1.
- 2. I follow here Suhr's (1969) identification of "foam-born" Aphrodite with moon.
- 3. See Kelly (1963) on a cometary train striking and excavating the Pacific Basin, 1-8, 76-99 espec. 89.
- 4. The astronomer Lyttleton once said, regarding the origin of the Moon, "that a distant third body, such as the Sun, might play a major role in rounding out an eccentric orbit in a surprisingly short period of time." Juergens (1974B) 39.
- 5. Marsden and Cameron (1966).
- 6. I came upon a copy of Baker's work (1932, 1954) in the Library of Congress as I was checking some last citations for this book. The year before (1978) I had noticed a passing reference to Baker in Sullivan (1974); Sullivan mentioned only Baker's idea that an intruder, possibly Venus, had encountered Earth. The Princeton Libraries listed the 1932 book but when I searched for it, I discovered that it had been lost or otherwise removed from the geology library stacks. I asked Velikovsky whether he knew of it and he told me that he, too, had sought it out but found it missing. Some years ago, someone at the University of Southern Illinois at Carbondale had made a microfilm of the copy that belongs to the Library of Congress. Baker is completely unknown in geology, a case of unheard genius.
- 7. (1965); Vsekhsvyatskii (1976) 53.
- 8. In Marsden and Cameron (1966) 216.
- 9. Wilson (1968) 316.
- 10. Vsekhsvyatskii (1976).
- 11. *Ibid.*, 11.

- 12. *Ibid.*, 13.
- 13. Cook (1972).
- 14. M. Cook (1966) 120 ff., relying upon Alex du Toit's early defense of continental drift and ice cap depression as originating the Atlantic rupture, and upon the Farraud and Gadja Wisconsin Ice Cap studies and the Heiskanen and Vening-Meinisz Fennoscandian studies, reports that both the shape of the depression (now-rebounding) and its rate of rebound and less than 10,000 years ago (our 11,500 B.P.) The present theory does not posit "ice caps" prior to the Saturnian Age finale. Therefore, it calls upon other mechanisms, especially a cosmic lightning exchange. Had there been ice dumps in the first Uranian, protohuman period, Pacific Basin lunagenesis would also be facilitated.
- 15. Wegener (1924) 21, 202-5.
- 16. *Ibid.*, 205.
- 17. D. W. Wise in Marsden and Cameron (1966) 216.
- 18. Driscoll.
- 19. *Cf.* Ransom (1976) 142-54.
- 20. Driscoll; Ruzic, 51; Wood, 72-3.
- 21. Cook (1972).
- 22. Ransom (1976), 153-4.
- 23. Velikovsky (1972) 20.
- 24. *Ibid*.
- 25. *Ibid.*, 19.
- 26. Ransom (1976)143-4; Treash (1972).
- 27. Ransom (1976) 146-7.

- 28. Ferté (1972) 13.
- 29. Velikovsky (1972) 19.
- 30. *Ibid.*, 19.
- 31. Ransom (1976) 145-6; Ferte (1972).
- 32. Velikovsky (19720 21.
- 33. Juergens (1974D, 1974E).
- 34. *Ibid.*,
- 35. Juergens (1974C).
- 36. Personal communication, Juergens, 1970.
- 37. Cook (1972).
- 38. Cook (1972).
- 39. Wood, 69.
- 40. Cook (1972).
- 41. This is reasoned from Cook (1966) 3 who estimates Earth's crust might solidify in 1000 years.
- 42. Wood, 71.
- 43. O'Keefe (1966) 224 *Cf.* O'Keefe, Tektites (1963) on their widespread distribution on Earth.
- 44. *Cf.* Bellamy (1936) 35 ff., where the damage to Earth from a Moon capture is estimated.
- 45. Cook (1972) 18-9.
- 46. Baldwin 277-8 in Marsden and Cameron (1966).
- 47. Wood, 69.

- 48. *Ibid.*, 71.
- 49. *Ibid.*, 70.
- 50. *Ibid*.
- 51. Cook writes (1966) 152; "There is evidence for the hexagonal structures characteristic of shock fracture, but this evidence is by no means perfect." He is not postulating the moon eruption, and hence would perhaps find his fracture model more evident if he took it into account. Soviet geologists have conceived of the Earth as a 12 and 20 latticed crystal grid, suggesting a correlation between the fracture model and the world cleavage system (Bird, 36 ff).
- 52. Sullivan (1974) 147.
- 53. Cook (1966) 103-12; Carey (1958).
- 54. Cook (1966) 268 ff.
- 55. Jordan's figure 32 (p.86) and graph picture the multiple discontinuities of seismic waves below the Earth's surface at 413, 984, 2898. 492 and 5121 km. besides the Moho. They all served historically the same function of allowing the globe to maintain its bodily integrity under distortion and interruption.
- 56. Besides Fisher see Ma (1955). Harry Hess, says Sullivan (131), believed that the Moho "simply marks a change in molecular structure caused, perhaps, by high temperature at that level, either currently or at some time in the past."
- 57. Haymes (1971).
- 58. Vico IV 808; cf. 258., iv 814; 401, 408, 221, 708.
- 59. Bellamy (1948).
- 60. Kondratov, 77.
- 61. Temple (1976) 250-1.
- 62. Bellamy (1936) 167.

- 63. Temple (1976) 251.
- 64. *Ibid*. Note the quantavolutionary mass species extinction and new creation here.
- 65. *Ibid.*, 252.
- 66. Genesis, 1:2.
- 67. *Ibid.*, 2:4, 10.
- 68. (1975), 12.
- 69. Patten (1966) 188.
- 70. BK. II, ch. I, p. 12. Trogus, a Gallic Roman active around 5 A.D., was probably his source.
- 71. Bellamy (1948) 158-9.
- 72. Donnelly (1883), 175 quoting Brinton.
- 73. Bellamy (1936) 271.
- 74. *Ibid.*, 187; *cf.* Mullen (1974), 39-44.
- 75. Coe (1975) 43.
- 76. Brasseur (1869), Brunhouse (1973) describes the role of Brasseur.
- 77. Bancroft (1874) V, 112.
- 78. Bellamy (1936) 269.
- 79. Wilkins (1956) 87.
- 80. (1936) 273.
- 81. Poznansky, II 151.

- 82. Coe (1975) 14-5, *Cf.* in India, "The Venus Aphroditus of the western mythologists, and emblematic of the lunisolar year. She is the daughter of Durga, and the Proserpine of the West; and considered as time, she is the same with her mother. Metaphorically, she may sometimes represent the moon." (Bentley 27).
- 83. *Ibid.*, 17.
- 84. Donnelly (1883) 155.
- 85. Bellamy (1936) 178-9.
- 86. Marshack (1972).
- 87. Patterson (1973).
- 88. Carli (1788) 308.
- 89. Velikovsky (1973).
- 90. Griffard, (1977) 33.
- 91. *Cf.* Westropp and Wake (1875) 53, and Gobler.
- 92. Griffard 46.
- 93. Personal communication, April, 1977.
- 94. Bellamy (1936).
- 95. Briffault (1927) III 106 ff.
- 96. Berndt (1948).
- 97. Eliade (1954) 88-890.
- 98. Lederer (1968).
- 99. Coe (1975) 14-5.
- 100. Suhr (1969) 160-2.

- 101. J. J. Bernoulli, Aphrodite (Leipzig 1873, p. 80) "states that in the case of Aphrodite, all cosmic attributes that were implastisch must have disappeared from statues at an early date." (Suhr, 173).
- 102. Ibid., 51.
- 103. Suhr, 19.
- 104. Occidens (1888) A1-14.

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