Geophysical Research Abstracts Vol. 16, EGU2014-6068, 2014 EGU General Assembly 2014 © Author(s) 2014. CC Attribution 3.0 License.



## Moon (Form-Origin)

Elias Tsiapas KOSMOS, GEO-PHYSICAL, NEA STIRA EVIA, Greece (tsiapas@hol.gr)

When the Earth was formed, it was in a state of burning heat. As time went by, temperature on the planet's surface was falling due to radiation and heat transfer, and various components (crusts) began taking solid form at the Earth's poles. The formation of crusts took place at the Earth's poles, because the stirring of burning and fluid masses on the surface of the Earth was significantly slighter there than it was on the equator. Due to centrifugal force and Coriolis Effect, these solid masses headed towards the equator; those originating from the North Pole followed a south-western course, while those originating from the South Pole followed a north-western course and there they rotated from west to east at a lower speed than the underlying burning and liquid earth, because of their lower initial linear velocity, their solid state and inertia.

Because inertia is proportional to mass, the initially larger solid body swept all new solid ones, incorporating them to its western side. The density of the new solid masses was higher, because the components on the surface would freeze and solidify first, before the underlying thicker components. As a result, the western side of the initial islet of solid rocks submerged, while the east side elevated.

As a result of the above, this initial islet began to spin in reverse, and after taking on the shape of a sphere, it formed the "heart" of the Moon. The Moon-sphere, rolling on the equator, would sink the solid rocks that continued to descend from the Earth's poles. The sinking rocks partially melted because of higher temperatures in the greater depths that the Moon descended to, while part of the rocks' mass bonded with the Moon and also served as a heat-insulating material, preventing the descended side of the sphere from melting. Combined with the Earth's liquid mass that covered its emerging eastern surface, new sphere-shaped shells were created, with increased density and very powerful structural cohesion. During the above mentioned process, the thick clouds surrounding Earth-Moon were causing heavy storms and on the outer surface of the rolling Moon, wherever small cavities - or pockets - existed, these would fill up with water. Then, due to the Moon's changing tilt, these pockets were sealed by sediments and as a result, small water tanks are scattered on the successive layers of the Moon, from its centre to its surface.

As this sphere (the Moon) continued to grow, the Earth-Moon system was displaying a double-planet image. The Moon's reverse rolling velocity increased according to the increase of its mass and volume. As the temperature on the surface of the Earth continued to fall, a larger number of bigger sized solid masses were descending from the poles towards the equator, and the Moon could no longer aggregate them. The gathering and interference of solid rocks of great mass acted as the catapult on which the Moon bounced off the Earth and was put into orbit around it.