

The Entity of Moon

If carefully studied, Moon dynamics reveals lots of hidden secrets in the past and also help in forecasting of the future. This letter focuses **Lunar Dynamics** at first with an analysis of 'how lunar orbital motion is energized by spinning of Earth'. Secondly, the forthcoming danger of '**Dark Moon Doomsday Departure**' is introduced. Thirdly, the new theory of '**Origin of Moon by Earth Bang**' is introduced with adequate proofs, declaring the challenge to the famous '**Giant Impaction Theory**'. Finally, the age of Moon is addressed giving some important clues for an accurate analysis.

01. Lunar Dynamics:

1.1 Who is the Owner of Moon?

Moon exhibits a di-centric orbital motion such as; orbiting Sun while orbiting of Earth. But it is very important to know 'Who has the main 'Gravitational Governing Authority' with regard to Moon.

Let's see who's Gravity is bigger at Moon;

- Solar Gravity at Moon= 0.592 cm/s²
- Earth Gravity at Moon =0.262 cm/s²

Therefore it is not Earth but Sun is the prospective owner of Moon.

1.2 The Bi-orbital Entity of Moon:

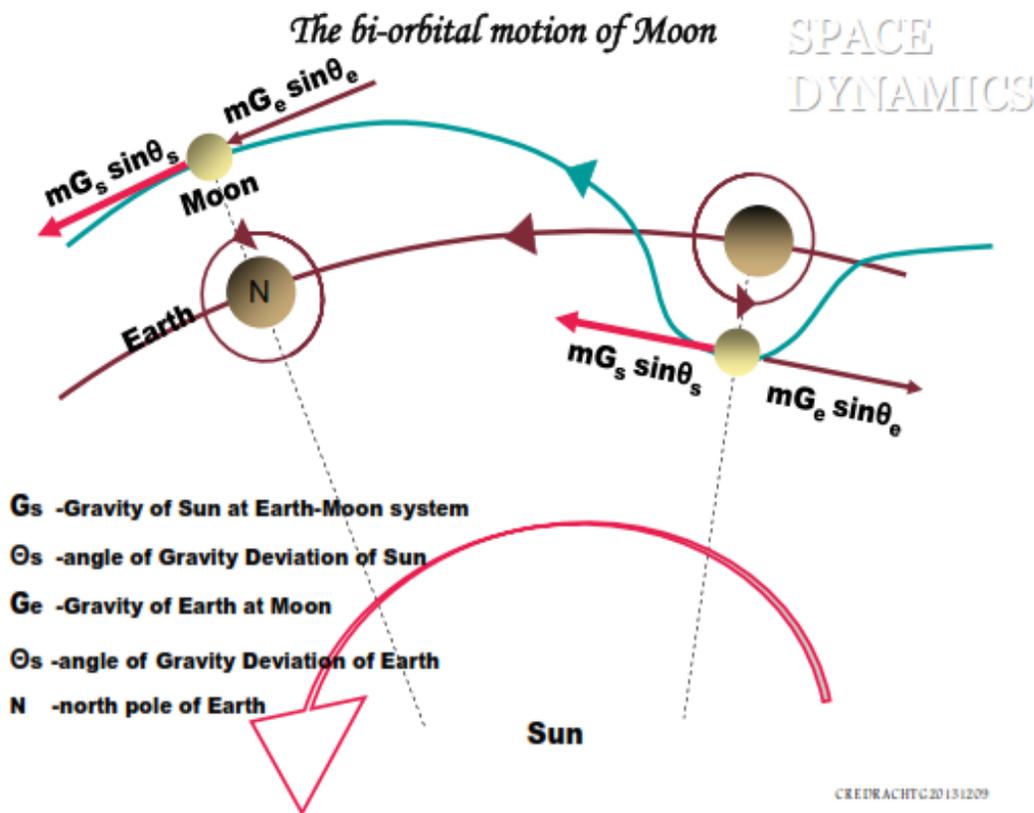


Figure-1(Force balancing in Lunar bi-orbital dynamics)

1.3 Modern Lunar Studies:

It is observed that lunar studies nowadays have been focused mainly upon common astronomical features of shallow depths such as observation of colors at eclipses etc. There is no harm if things have been so calmly rotating at **Uniform** speed forever as set out at the **Origin**. But things of **Nature** are badly at **change** and hence Scientists of the era, have got to focus more deep things than colors. Leap days and leap years could not have come at all, if the **Nature of Lunar Dynamics** is to conserve **Uniformity**.

The paper is therefore to focus **Formation of Moon** in the aim to foresee of a forthcoming **Danger**.

1.4 Radial stability of Moon:

Radial stability in Lunar orbital motion can easily be explained even by a junior student such that; **Gravitational pull** by Earth is equal to the **Centrifugal force** induced by the rotary motion.

1.5 Lateral stability in Luna Dynamics:

But the lateral orbital stability in Lunar dynamics seems not yet even addressed by any of world research organizations.

I am finding the big difficulty therefore to explain it because the facts might be quite new for the Readers. The world has not yet accepted the bellow furnished phenomena;

1) **Theory of Gravity Deviation:**

Gravity is deviated due to spinning of the Gravity Source and hence a lateral component of the inclined gravitational pull is applied upon the secondary mass to make it orbit in the same direction of the spinning- (pl ref 'Space Dynamics-V2'/2009 at www.cyrilhtgamage.com)

2) **Phenomenon of Space Resistance:**

The free space called Vacuum is a medium with a Density and a Pressure and hence a resistive force is applied upon the moving objects in the space (Ref 'Dynamic Stability in Orbital Motion of Planets'/2013 at www.cyrilhtgamage.com).

1.6 Force of Orbital motion upon Moon:

Things are not rotating as simply as they were rotated at the **Origin** but Earth expends **Energy** to drag Moon forward along the orbital track around us, against all of the **Space Resistances**. What are the resistances acting upon Moon? **Medium resistance**, **Solar wind** and **Galactic wind** are the buffering forces for Moon in its orbital track. As a whole, Moon seems to orbit us at a uniform speed relative to

Earth but relative to the space, it actually exhibits a motion of both **acceleration** and **deceleration** monthly.

1.7 Acceleration of Moon:

As explained in the figure-1, the ‘Full Moon’ is accelerating during 14 days in its orbital motion with respect to Sun, due to receipt of the resultant lateral forces of **gravity deviation** of both Sun and Earth, in support.

1.8 Deceleration of Moon:

‘Dark Moon’ is decelerating due to receipt of the lateral force from Earth in the opposite direction as shown in the figure-1.

1.9. Analysis of Energy requirement to drag Moon in the orbital track:

Orbital Motive Force = Resistance is the stability requirement for the lateral stability in lunar dynamics.

I am not going to work out the Resistance herein but instead the orbital motive force given by Earth is calculated according to the ‘**Theory of Gravity Deviation**’/2009 published in www.cyrilhtgamage.com .

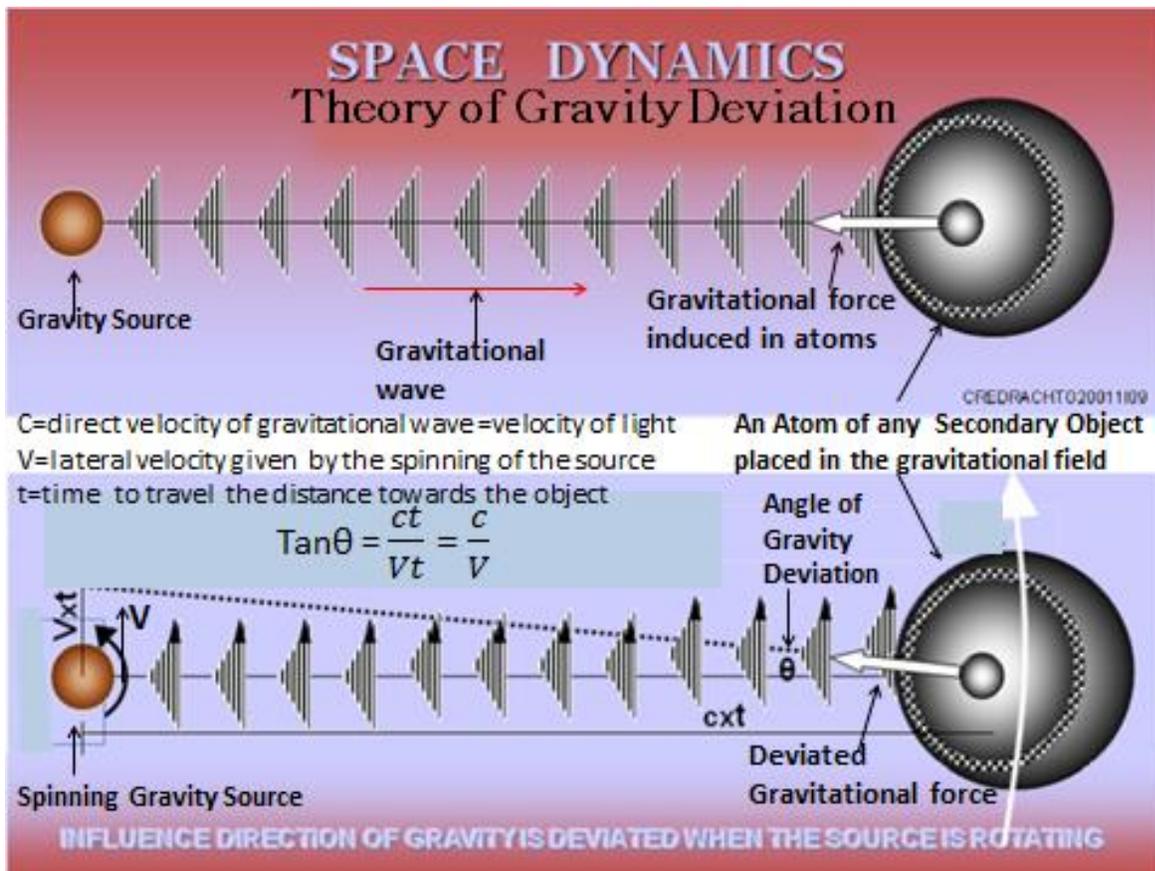


Figure-02 (Demonstration of the theory of Gravity Deviation)

Let's find how much of Energy is consumed by Moon (expended by Earth) per second to orbit around us.

Data:

Mass of Moon, $m=7.347 \times 10^{25}$ g

Mass of Earth, $M=5.980 \times 10^{27}$ g

Radial distance from Earth center to Moon, $R=3.9 \times 10^{10}$ cm

Velocity of Gravitational Wave = speed of light, $c=2.998 \times 10^{10}$ cm/s

Derived data:

Velocity of spinning Earth at equator, $V=4.626 \times 10^4$ cm/s

Earth Gravity at Moon, $G_e=0.262$ cm/s²

Calculation:

Angle of Earth Gravity Deviation, $\tan\theta = \frac{Vt}{ct} = \frac{V}{c} = 1.543 \times 10^{-6}$

$\theta = \tan^{-1}(1.543 \times 10^{-6}) = 5.065 \times 10^{-3}$ degrees = 0°, 0', 0.32"

Force by Earth Gravity Deviation upon Moon = $m G_e \sin \theta$
= $(7.347 \times 10^{25} \text{ g})(0.262 \text{ cm/s}^2)\sin(5.065 \times 10^{-3})$
= 1.702×10^{21} dynes

Work done per second = (Force)(velocity) = $(1.702 \times 10^{21} \text{ dynes})(4.626 \times 10^4 \text{ cm/s})$
= **7.872 x 10²⁵ ergs**

Conclusion:

This is the work or in other words **Energy** expended by Earth in order to make Moon orbit round Earth. Then the Reader may question 'What energy of Earth?'. That is ultimately nothing else but Energy absorbed from **Solar Wind** by the **Geomagnetic Motor** for Spinning. That solar energy is also used to rotate Earth itself against **Space Resistance**.

02. Lunar Future:

2.1 Forecasting of a forthcoming Danger:

There is a big danger to come and the Global attention is sought herein upon the matter that, noon of every **Dark Moon** day is critical regarding the pending **Departure** of Moon from Earth.

That is because the **resultant force** upon Moon towards Sun has become greater than that towards Earth. As a result, the distance from Earth is at a gradual increment which is certain to lead towards a doomsday Departure of Moon. The danger without Moon can be described in thousand and one ways but the most disastrous thing is that, Earth should be accelerated in the spinning. Let's analyze the radial stability of Moon at this critical situation.

Known data:

Mass of Moon= 7.347×10^{25} g

Mass of Earth = 5.980×10^{27} g

Mass of Sun = 1.992×10^{33} g

Radial distance from Moon to the center of Earth = 3.9×10^{10} cm

Radial distance from Earth to the center of Sun = 1.476×10^{13} cm (at perihelion)

Derived data:

Radial distance to the Blue Moon from the center of Sun = Distance to Earth from Sun – distance to Moon from Earth.

$$= (1.476 \times 10^{13} \text{ cm}) - (3.9 \times 10^{10} \text{ cm}) \\ = 1.472 \times 10^{13} \text{ cm};$$

Solar Gravity at Blue Moon = $(6.668 \times 10^{-8}) (1.992 \times 10^{33}) / (1.472 \times 10^{13} \text{ cm})^2 = 0.613 \text{ cm/s}^2$

Earth Gravity at Moon = $(6.668 \times 10^{-8}) (5.980 \times 10^{27} \text{ g}) / (3.9 \times 10^{10} \text{ cm})^2 = 0.262 \text{ cm/s}^2$;

Mean velocity of Moon relative to the center of Earth, $V_{me} = (3.9 \times 10^{10} \text{ cm}) / (27.32 \times 24 \times 3600 \text{ s})$
 $= 1.652 \times 10^4 \text{ cm/s}$;

Mean velocity of Earth relative to center of Sun, $V_{es} = (1.476 \times 10^{13} \text{ cm}) / (365 \times 24 \times 3600 \text{ s})$
 $= 4.68 \times 10^5 \text{ cm/s}$;

Velocity of Dark Moon relative to Sun, $\leftarrow V_{ms} = \rightarrow V_{me} + \leftarrow V_{es} = \leftarrow 4.514 \times 10^5 \text{ cm/s}$

Centrifugal push on Moon about Earth = $\{(7.347 \times 10^{25} \text{ g}) [(1.652 \times 10^4 \text{ cm/s})^2 / (3.9 \times 10^{10} \text{ cm})]\}$
 $= 5.141 \times 10^{23} \text{ dynes}$;

Centrifugal push on Moon about Sun = $\{(7.347 \times 10^{25} \text{ g}) [(4.514 \times 10^5 \text{ cm/s})^2 / (1.472 \times 10^{13} \text{ cm})]\}$
 $= 1.017 \times 10^{24} \text{ dynes}$;

Calculation:

Total force on Dark Moon towards Sun = (gravitational pull by Sun) + (centrifugal push about Earth)
 $= [(7.347 \times 10^{25} \text{ g})(0.613 \text{ cm/s}^2)] + [5.141 \times 10^{23} \text{ dynes}]$
 $= \underline{\underline{4.555 \times 10^{25} \text{ dynes}}}$

Total force on Dark Moon towards Earth = (gravitational pull by Earth + centrifugal push about Sun)
 $= [(7.347 \times 10^{25} \text{ g})(0.262 \text{ cm/s}^2)] + [1.017 \times 10^{24} \text{ dynes}]$
 $= \underline{\underline{2.026 \times 10^{25} \text{ dynes}}}$

Conclusion:

Orbital stability of Moon becomes problematic at every dark moon periods because a bigger force is applied in the radial direction upon Moon towards Sun.

The impact:

As a result Moon is very gently increasing its distance from Earth.

2.2 Early warning of the ‘Dark Moon Doomsday Departure’:

‘Someday in future, the unfortunate Earth shall fail to hold Moon in her orbit and hence she shall leave us being promoted as a New Planet to orbit closely around Sun’ .

The danger is not imminent but leading gradually towards the doomsday by increment of the distance to Moon, year by year. Loosing of Moon is certain to accelerate spinning of Earth theoretically with lots of disastrous changes and therefore it is worth enough to declare as a **doomsday**.

03. Origin of Moon:

There are many legendary fairy tales regarding the Origin of Moon as we have heard in our primary school days. But a deep study to analyze origin of Moon is required at this stage, because the things could be repeated most probably in this Nature. How about if another baby (another Moon) is going to be born in the same way?

3.1 What is there in the acceptance?

The **origin of the Moon** is usually thought to be that a [Mars](#)-sized body struck the Earth, making a debris ring that eventually collected into a single [natural satellite](#), the [Moon](#), but there are a number of variations on this [giant-impact hypothesis](#), as well as alternate explanations, and research into how the Moon came to be continues.^{[1][2]} Other proposed scenarios include captured body, fission, formed together (condensation theory), [planetesimal](#) collisions (formed from asteroid-like bodies), and collision theories.^[3]

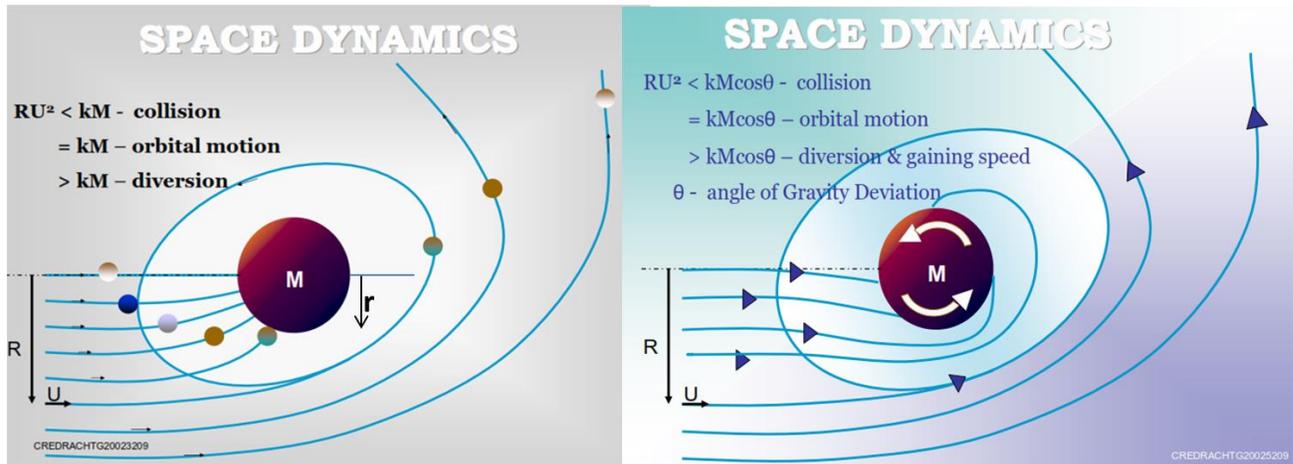
The standard giant-impact hypothesis suggests the Mars-sized body, called [Theia](#), impacted Earth, creating a large debris ring around Earth, which then accreted to form the Moon. This collision also resulted in the 23.5° tilted axis of the earth, thus causing the seasons.^[1] The Moon's [oxygen isotopic](#) ratios seem to be essentially identical to Earth's.^[4] Oxygen isotopic ratios, which may be measured very precisely, yield a unique and distinct signature for each solar system body.^[5] If Theia had been a separate [protoplanet](#), it probably would have had a different oxygen isotopic signature from Earth, as would the ejected mixed material.^[6] Also, the Moon's [titanium isotope](#) ratio ($^{50}\text{Ti}/^{47}\text{Ti}$) appears so close to the Earth's (within 4 ppm) that little if any of the colliding body's mass could likely have been part of the Moon.^[7]

(Gratitude to the world best knowledge base of Wikipedia)

3.2 What is in against of the Giant-Impact Hypothesis?

- Small sized asteroids naturally from a tail of a comet could strike upon a Planet, if it happens to cross the gravitational territory of the Planet. It is important therefore to consider the formation of **asteroids** at first. They are born due to **Planetary Bangs** or unless the hard rocky texture in them could never be formed by gathering of dust within the free space. Boulders of considerable masses perhaps could be shot out far, beyond the gravitational territory at a bang of a Planet, to become **Comets** lately, while bigger pieces become **Moons** to orbit about. Therefore a Mars-sized alien body is not possible at all, loitering here and there in the space to hit upon planets violating all the ethics of **Gravitational Logics**.
- Let our Moon being born by the famous hypothesis, but is that the same theory for other hundred and one Moons to be born around other Planets? And why then almost all the Moons rotate in the same spinning direction of the Planets?

- ‘Theory of Gravity Deviation’ explains that, impulsive impacts by alien bodies are almost prevented by the spinning of Gravity Sources. Because a lateral force is induced in the alien bodies by **gravity deviation** to make them orbit about, without hitting straightly upon the face.



Suppose an alien object of mass ‘m’ is reaching towards a Gravity Source, at a velocity ‘U’ in a direction of a distance ‘R’ away from the center.

Case-1 : Non spinning Gravity Source:

Alien asteroids can hit upon a larger surface area as shown in the figure.

Case-2: Spinning Gravity Source:

lesser possibility to hit against the surface because the alien bodies are made to orbit round by the lateral force component of deviated gravity.

Figure-02(Exhibition of how the asteroid danger is mitigated by spinning planets)

3.3 Origin of Moon by Earth Bang:

As abstracted from the monograph ‘Origin of Moon by Earth Bang’/2010-as published at www.cyrilhtgamage.com ;

Moon was formed by the **proto-pacific plate** being shot out at an ‘**Earth Bang**’ at a Geomagnetic Reversal happened in the past. The size of proto Earth could be deduced such that;

‘Surface area of the proto Earth = surface area of Moon + total land area of the present Earth’ .

(First glimpse of the idea struck me in the childhood by looking at the full moon in a pleasant calm night environment but lately I came to know that the same idea had been produced by somebody in the past.)

3.4 Facts in support of the ‘Earth Bang’ concept:

- 1) Frequent activation of earthquakes and volcano, even at present day, on and suburbs the Fire Ring by which the pacific plate is encircled.
- 2) Birthmark like dark area of craters upon the familiar face of Moon, which could never be explained at all by natural falling of asteroids.

- 3) Orbiting direction of Moon is as same as the spinning direction of Earth.
- 4) The phenomenon of '**Geomagnetic Reversal**' at which a huge potential activation in the magma shell could be expected- (found by a Japanese Geologist - Matuyama/1920)
- 5) Just as a proof of the projection, the distance from Earth to Moon is still being grown.

3.5 Analysis of the size of proto-Earth at the Bang:



Figure-03 (Size of the proto-Earth at the planetary Bang)

The Readers may question then, 'How on Earth it could be so expanded ever since?'

Again I am finding the big difficulty to explain how Earth is grown in size and mass because nobody in the world has even noticed the phenomenon of '**Mass Growth of Earth**' by absorption of **Energy** from **Solar Wind**. (Ref 'Theory of Solar Mass Transplantation' /2015 as published at www.cyrilhtgamage.com)

Not only Earth, but all the other '**Productive Planets**' in the solar system except Mercury, Venus, Mars and Pluto, are being grown in Mass by absorption of Energy from solar wind. The **productive planets** are **spinning** about a **magnetic polar axis** and their **Productivity** is proven by possession of **Moons**.

[Mars should be addressed as a different case because on all accounts, it is the '**Lost World**' in the Solar System, of which **productivity** has been lost at a late magnetic reversal of disastrous scale. It is just a mathematical derivation to find when **Phobos** is to hit upon the face of Mars. Planetary bangs could take

place at delayed magnetic reversals and perhaps the magnetic field too could be lost due to cease of the geo-spherical vortex. Spinning of Mars is but just a deceleration towards a gradual stop and the two Moons should hit upon Mars in future unless the geo-spherical vortex is activated again before that definite end. That remark is just to draw attention of our Scientists upon the important matter that 'What about the next geomagnetic reversal of Earth which has been delayed so much?]

3.6 How old is Moon?:

Collection of stones from surface of Moon cannot give the real age of Moon because they could probably be either asteroids or stones of the same age of Earth, because Moon is a piece of Earth itself in formation.

There are several different analytical approaches are there to count age of Moon as suggested bellow.

- 1) Age of the rocky seabed in the central region of Pacific Ocean shall tell the age of Moon because it is suspected to be formed after projecting of the former Pacific plate.
- 2) Rocky bedrock in the dark 'Birthmark like craters' in the familiar face of Moon too, shall tell the age of Moon as same as in the above analysis.
- 3) As a proof of Moon to be a piece of Earth, bedrock of the other side of Moon shall be of the same age of Earth and of the same geo-mineral composition.
- 4) The analytical method is to calculate the mass of the proto-Earth by assuming it is of the same density of Moon. Then the mass growth of Earth ever since up to now can be calculated. According to Einstein's law, the mass growth could be computed in to Energy. Then we have to find how much solar energy is received to Earth from Sun per day(inclusive of energy absorbed by solar wind too). Then we can find how many days elapsed ever since the Bang.

END

By

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