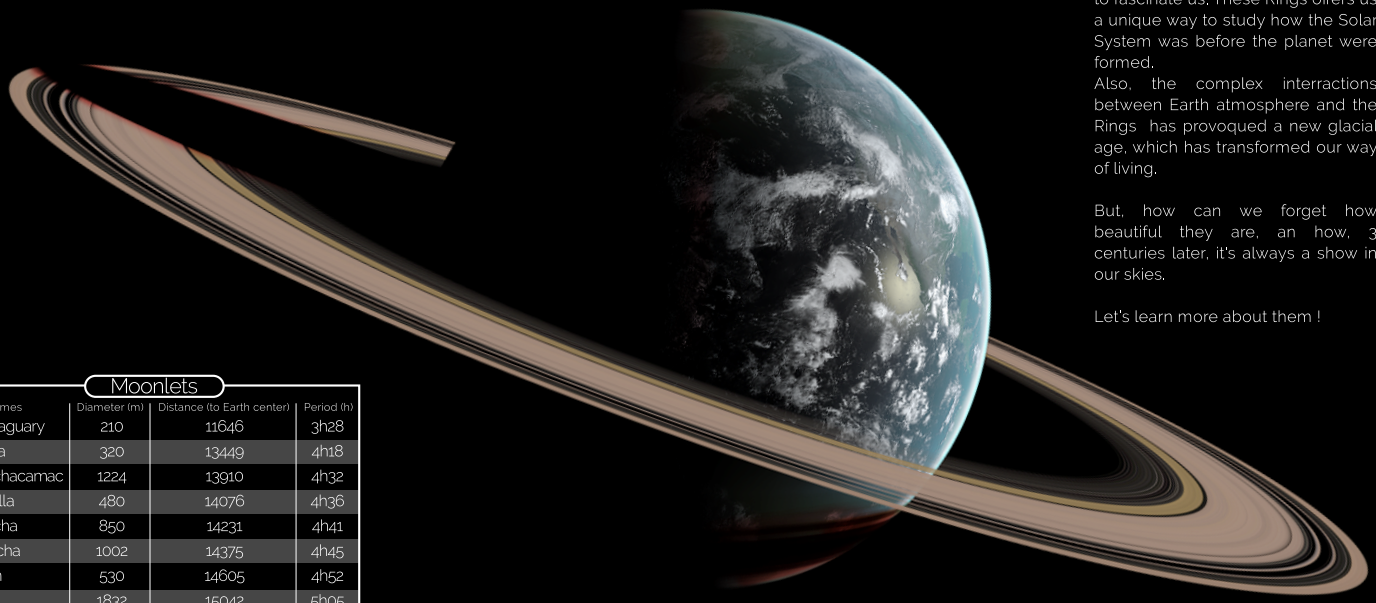
The Rings

Formed around the Earth during the 18th Century after the explosion of the Lunoid, an asteroid captured by our planet in 1762, they still continue to fascinate us. These Rings offers us a unique way to study how the Solar System was before the planet were formed.
Also, the complex interractions between Earth atmosphere and the Rings has provoqued a new glacial age, which has transformed our way of living.

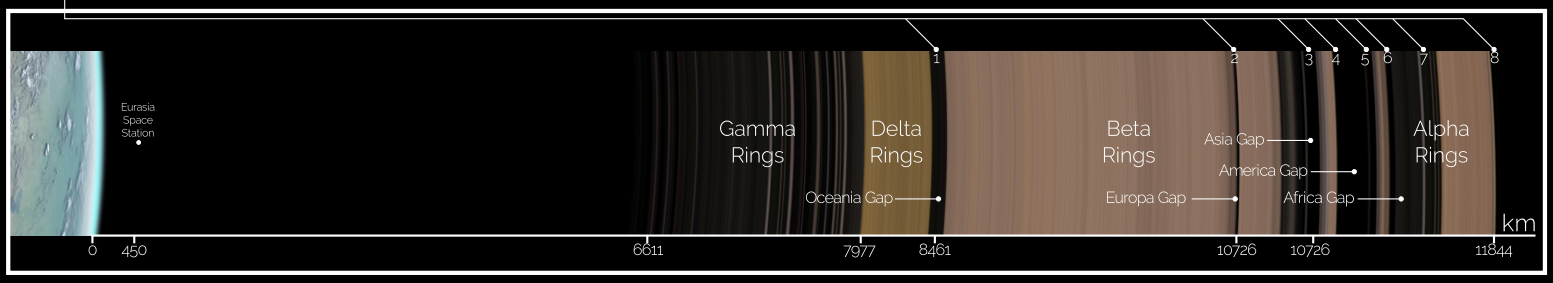
But, how can we forget how beautiful they are, an how, 3 centuries later, it's always a show in our skies.

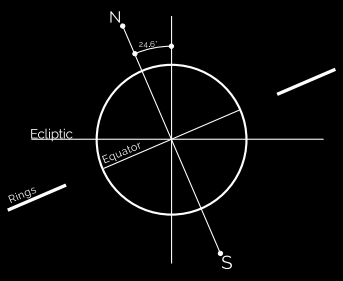
Let's learn more about them !



Moonlets

Names	Diameter (m)	Distance (to Earth center)	Period (h)
1 • Urcaguary	210	11646	3h28
2 • Zara	320	13449	4h18
3 • Pachacamac	1224	13910	4h32
4 • Quilla	480	14076	4h36
5 • Pacha	850	14231	4h41
6 • Cocha	1002	14375	4h45
7 • Kon	530	14605	4h52
8 • Inti	1832	15042	5h05





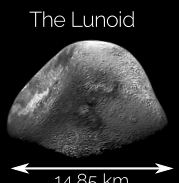
Seasons changes

21/06 Solstice
Southern Shadowing. Rings lit by top.

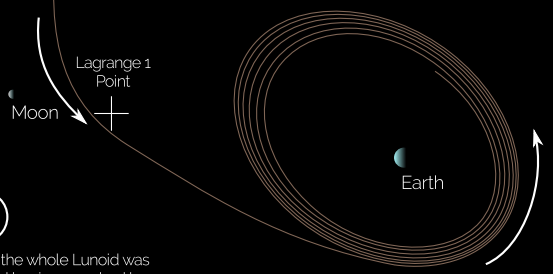
Equinoxes
No Shadowing. Rings rather unlit.

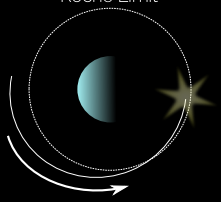
21/12 Solstice
Northern Shadowing. Rings lit by bottom.

How the Rings were formed ?

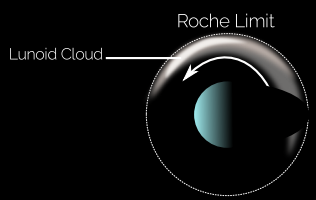


① In August 1762, the Lunoid was trapped by Earth attraction, under the influence of both the Moon and the L1 point. The Lunoid orbit was spiral-shapped, and led it into a collision course with the Earth.

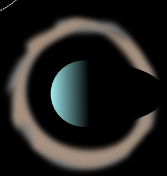




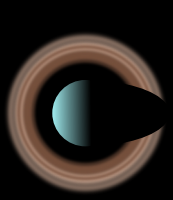
② Nearing the Earth, the Lunoid had to plunge into the Roche Limit, where no consistent bodies can remain due to strong gravitationnal forces, that teared appart them.
So, the Lunoid was slowly turned into billions of pieces.
It happend the 2nd week of February, in 1763.



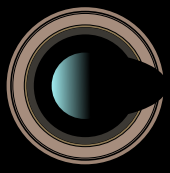
③ When the whole Lunoid was finished beeing smashed by the tidal forces of Earth, a large cloud of debris began to orbit around.



④ The Lunoid Cloud circled the Earth, forming a huge disk of dust, cobbles and rocks.
It should looked like this in the middle of 1763.



⑤ In a few months, the disk was thinner and thinner, and more and more sharp.
Gaps appeared, an the whole structure began more colorful.



⑥ And in 1764, the Rings ! It was quick, and it still a mystery nowadays.
Later, between 1813 an 1820 were discovers moonlets, called "Guardians". They were probably formed later, with accretion of residual particles in low density areas.

Design : Damia Bouic
CGI renderings : Blender
Conception : Inkscape

Courtesy : Damia Bouic
Date of creation : April 2016
www.db-prods.net/blog