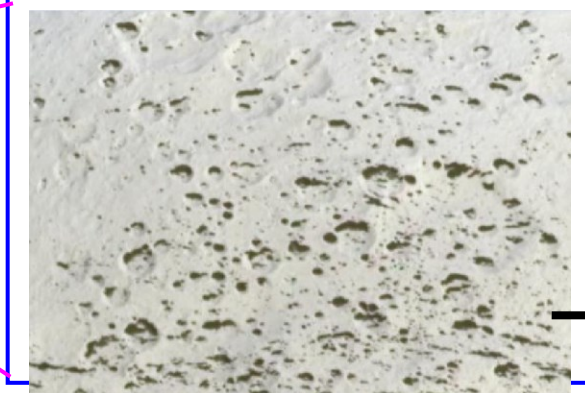
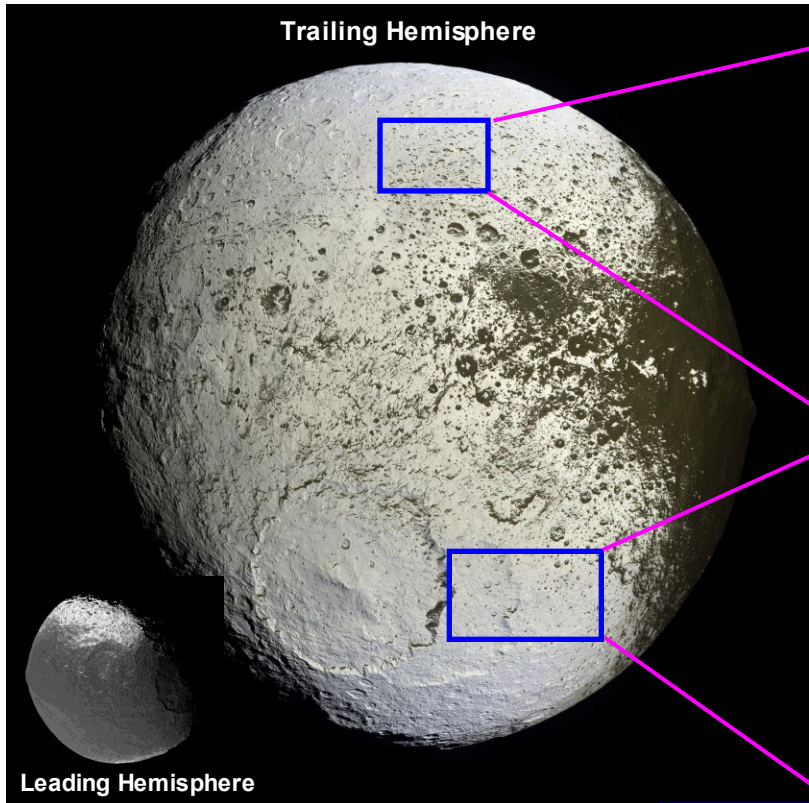


8b The icy surface on Saturn Moon Iapetus originates from a large cryovolcano which is the result of a global impact

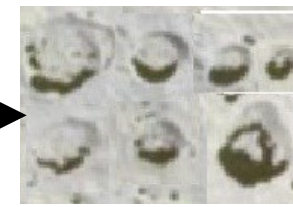
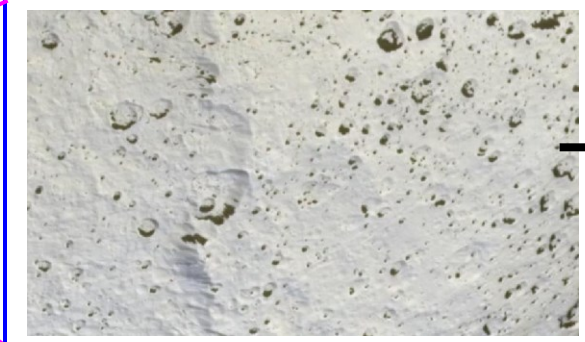
The analysis of NASA, that Iapetus had originally a complete icy surface which was covered with dark material, is incorrect ! It is the opposite way ! Iapetus had originally a rocky surface which was covered by ice from a very large cryovolcano, resulting from a global impact. This impact formed the \varnothing 580 km Turgis Impact Basin. And the equatorial ridge may be the result of the water-loss of the mantle region of Iapetus caused by the cryovolcanism.

Diameter:	1470 km
Orbital Period:	79,32 days
Semi-major axis:	3 560 820 km
(orbit around Saturn)	
Inclination:	15,47°
(to Saturn's equator)	
Orbital velocity:	around 3,26 km/s
Rotation Period:	79,3 d synchronous
(always faces same side to Saturn)	

The following explanation will provide the hard evidences for this statement !!

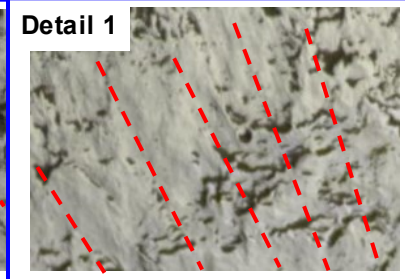
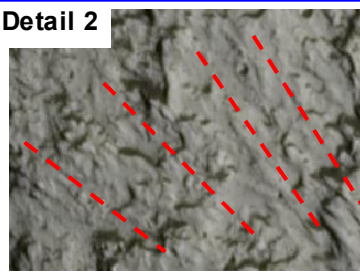
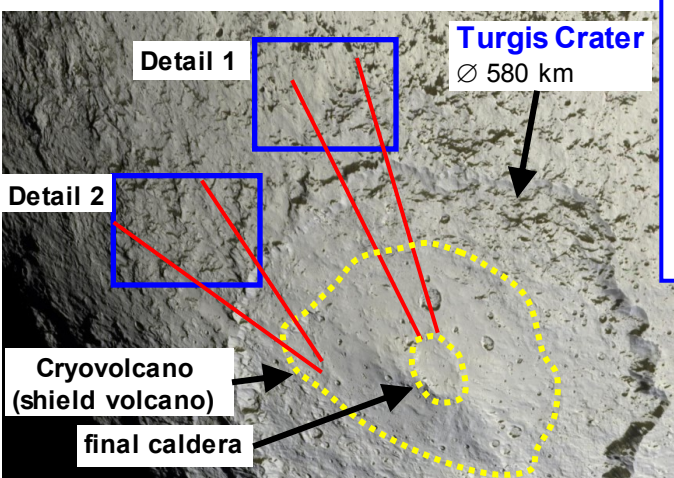


Note the appearance of the craters from the selected areas in the northern- and in the southern hemisphere !!

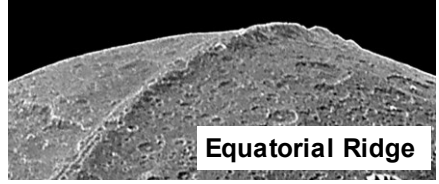


It is easy noticeable that the dark areas in the craters must be caused by melting (sublimation) of the ice which covers a dark rocky surface !!

It is always the area of the craters which faces towards the sun, where there is no ice-cover ! This can only mean, we are talking about a thin ice cover (< 100 m ?) has sublimated away from the sun-facing rocky surface areas of Iapetus !!



The low coefficient of friction (0.1-0.3) of the Iapetus ice avalanches is probably caused by heat coming from the impact area (warm ice)



The ice-cover on Iapetus with high probability came from a large cryo-volcano in the Center of the Turgis Crater, which means that the Turgis Crater is responsible for the ice cover on Iapetus. Trend-lines in the ice formations around the crater clearly indicate that the ice came from the marked cryo-volcano area. And the equatorial ridge therefore must be the result, of either the impact shockwave, the water-loss in the mantle & tidal forces, or the combination of them.