

A.D. 491, March 29, at 1h. 30m. Paris mean time

Moon's right ascension...	48° 35' 53"
„ declination ...	+12° 53' 1"
Hourly motion in R.A. ...	29' 44"
„ in Decl. ...	+7' 39"

The position of Aldebaran was in R.A. 47° 50' 44", Decl. +12° 10' 15". The sidereal time at mean noon at Nankin was oh. 29m. 36s., and, calculating for that place, we find the star disappeared at 9h. 2m. local mean time, and would set at 9h. 14m., so that its altitude at disappearance was only 2° 3'. Whence, assuming the accuracy of these computations, it is clear that the occultation could not have been seen as recorded at Nankin, if the moon's place about the epoch to which they refer were sensibly behind that deduced, so as to render possible an observation in twilight at Athens of the occultation of March 11, 509.

This result for the circumstances of disappearance of Aldebaran at Nankin in 491 reminds us of a similar observation made in London on the occultation of the same star, September 14, 1717, probably from the roof of the Royal Society's house in Crane Court, Fleet Street, whence, we are told, on the occasion of the total solar eclipse in 1715 there was a free horizon. "On the 14th of September, in the evening, for the first time the moon returned after a long interval to hide *Palilicium*; and the sky was extraordinarily clear at London, so that the moon and the star were seen to rise in the horizon at the same time; the immersion of *Palilicium* was at 9h. 6m. 20s., the moon not being 3' high, in the very middle, as it were, of the eastern limb, over against the northern part of that small *macula* which Hevelius called *Stagnum Meridis*, and Ricciolus by his own name . . ."

BARNARD'S COMET.—A new computation of the orbit of this comet, by Mr. Egbert, of the Dudley Observatory, Albany, U.S., confirms that of Dr. Berberich, as regards the close approach which the comet makes to the orbit of Mars. At a true anomaly of 37° 35', corresponding to heliocentric longitude 343° 52' (equinox of 1884), the distance is within 0.008, the earth's mean distance from the sun being taken as unity, and a very close approach of the two bodies may have taken place, as before remarked, at the end of the year 1873. Dr. Berberich's period of revolution is 1958.9 days, that of Mr. Egbert 1970.3 days, an increase of only ten days on the latter period would suffice to have brought the comet and planet together in December 1873. The latest observation made by M. Perrotui, at Nice, in November, 1884, has not yet been brought to bear upon the direct calculation of the orbit, though Dr. Berberich's comparison of his elements therewith shows but small difference between calculation and observation. Barnard's comet does not quite attain to the orbit of Jupiter, the distance at aphelion being 0.555.

ASTRONOMICAL PHENOMENA FOR THE WEEK, 1885, APRIL 12-18

(FOR the reckoning of time the civil day, commencing at Greenwich mean midnight, counting the hours on to 24, is here employed.)

At Greenwich on April 12

Sun rises, 5h. 12m.; souths, 12h. 0m. 41.7s.; sets, 18h. 51m.; decl. on meridian, 8° 51' N.; Sidereal Time at Sunset, 8h. 15m.

Moon (New on April 15) rises, 4h. 2m.; souths, 9h. 47m.; sets, 15h. 43m.; decl. on meridian, 3° 38' S.

Planet	Rises		Souths		Sets		Decl. on meridian
	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	
Mercury ...	5	27	13	7	20	47	18° 0' N.
Venus ...	5	10	11	41	18	12	5° 26' N.
Mars ...	4	55	11	15	17	35	3° 13' N.
Jupiter ...	13	13	20	30	3	47*	14° 1' N.
Saturn ...	7	46	15	52	23	58	21° 59' N.

* Indicates that the setting is that of the following day.

Phenomena of Jupiter's Satellites

April	h. m.		April	h. m.	
	h. m.	h. m.		h. m.	h. m.
12 ...	2	1	14 ...	22	43
	23	22	15 ...	2	22
13 ...	1	41	16 ...	0	0
	20	29	17 ...	21	2
	23	50	18 ...	23	35
14 ...	20	9			

The Phenomena of Jupiter's Satellites are such as are visible at Greenwich.

April	h.	h.	h.
14 ...	6	...	Mars in conjunction with and 0° 12' south of the Moon.
14 ...	20	...	Venus in conjunction with and 0° 6' north of the Moon.
16 ...	7	...	Mercury in conjunction with and 6° 21' north of the Moon.
17 ...	20	...	Mercury stationary.

GEOGRAPHICAL NOTES

THE Pescadores, which have recently been bombarded and occupied by Admiral Courbet, are a small group of islands lying in the Formosa Channel, about twenty-five miles off the west coast of Formosa. They are attached for administrative purposes to that island, and form one of the six districts into which it is divided. The islands are known to the Chinese as the Panghuting, or district of Panghu, and in Chinese geographical works more than thirty distinct islands are mentioned, but no distinction is made between the inhabited and uninhabited, large and small islands, nor between islands and mere rocks and shoals. The largest of the group is called Panghu, and from it the archipelago has doubtless derived its name. The main island is forty-eight miles in circumference, and the next in size, called Fisher's or West Island, is seventeen. According to the late Admiral Collinson, who surveyed it in 1845, the want of trees, which the Chinese officers accounted for by the violence of the wind and the absence of sheltered valleys, give the islands a barren appearance. Millet is extensively cultivated, and between its rows the ground-nut is planted. In sheltered spots the sweet potato and a few vegetables are grown, but the inhabitants depend mainly on Formosa for vegetables and fruits. Bullocks and poultry were abundant. The population of the two larger islands was stated then to be 5000, and of the whole of the islands 8000. The archipelago contains actually twenty-one inhabited islands, besides several rocks. They extend from 23° 13' to 23° 48' N. lat., and from 119° 16' to 119° 37' E. long. Their general appearance is flat, the summits of many of the islands being nearly level, and no part of the group being 300 feet above the sea-level. The two larger islands are situated near the centre of the archipelago, forming an extensive and excellent harbour between them. The capital of the whole—Makung or Macon—is situated on the north side of an inlet on the main island. The islands offer shelter in all states of the weather in the dangerous Formosa Channel. The archipelago was seized by the Dutch in 1622, and some remains of their fortifications are still to be seen; but in 1624 they left Formosa, where they remained till finally driven out by the Chinese pirate Koxinga.

PORT HAMILTON, the English Naval Station in the North Pacific, acquired during the past week, is the name commonly applied to the large Korean island of Quelpart, situated about sixty miles due south of the extreme point of the Korean peninsula, and situated between 33° and 34° N. lat. and 126° and 127° E. long. It has been described at great length by Hamel, the "secretary" of a Dutch vessel wrecked there on its way to Nagasaki in the seventeenth century. Hamel and his companions were kept captive in Corea for thirty-five years, when some of them succeeded in escaping. Hamel's story will be found in Pinkerton and other collections of voyages. During the present century it has also been visited occasionally in search of the crews of shipwrecked vessels. A glance at the map shows its position relatively to Japan, North China, Corea, and the Sea of Japan, and its value as a naval station better than any words could do. It is 150 miles distant from Shanghai, about 100 miles from Nagasaki, and lies in the mouth of the only exit to the south from the Sea of Japan. It is described by Mr. Griffis, a recent historian of Corea, as an oval, rock-bound island covered with innumerable conical mountains, tipped in many instances by extinct volcanic craters, the highest of all being Mount Auckland, or Haura, which is about 6500 feet high. On the top are three extinct craters, within each of which is a lake of pure water, and Korean children are still taught to believe that the three first-created men of the world still dwell on these lofty heights. The whole island is well cultivated; there are a number of towns, three walled cities, but no good harbours. It has long been used as a place of banishment for criminals. The chief industry is the manufacture of straw hats, those from Quelpart being the best in Corea, which is a country of large straw hats. It has been