

XXX. *An Account of the Earthquake felt in the Island of Madeira, March 31, 1761: By Thomas Heberden, M. D. F. R. S. Communicated by William Heberden, M. D. F. R. S.*

Read May 21, 1761. **I**N the city of Funchal, on the island of Madeira, March 31, 1761, we were alarmed with the shock of an earthquake, preceded by the usual noise in the atmosphere, like heavy carriages passing hastily over rough pavements. It began at thirty-five minutes after eleven o'clock in the morning, and lasted (by my watch) full three minutes; the vibrations, which were very quick, remitting and increasing twice very sensibly, during the shocks, which seemed to be progressive, from east to west. It has separated some rocks in the eastern part of the island, which have fallen from the cliffs into the sea. It has likewise damaged the walls of several buildings: among the rest, my house has suffered, the stone-walls thereof, which are two feet thick, being split in several places, which has happened in particular to the walls, which stand in a direction north and south.

During the earthquake, the fountain of this city (whose water is very clear at other times) ran turbid and whitish.

The sea was agitated very sensibly, fluctuating several times between high-water and low-water mark. The fluctuation of the sea continued longer in the eastern parts of the island, than in this part.

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Though it has been remarked, that a calm always attends an earthquake; no such thing happened now, a fine gale of wind blowing before and after, as well as during the time of, the shock.

The sky was serene, interspersed with flying clouds.

The sun, which shone very bright, immediately after the earthquake was surrounded by a very large halo, which lasted about an hour, and gradually disappeared.

XXXI. *An Account of a Treatise in Latin, presented to the Royal Society, intituled, De admirando frigore artificiali, quo mercurius est congelatus, dissertatio, &c.* a J. A. Braunio, Academiæ Scientiarum Membro, &c. *by William Watson, M. D. R. S. S.*

To the Royal Society.

Gentlemen,

Read May 21, 1761. **V**ERY early last year, we were informed, that at Petersburg, by the means of artificial cold, the mercury in thermometers had been condensed to so great a degree, as to become perfectly fixed and solid: but as this information was received only in a loose way, from the public gazettes, the opinions of philosophers here were suspended, in relation to their giving credit to this