

the light emitted by the lime, but that none of the rays are entirely wanting. No black lines crossing the spectrum could be observed. He explains the cause of the peculiar coloured shadows thrown by this light, as compared with those of oil and day-light; and adds, that it is remarkable that the spectrum thus emitted by incandescent quicklime differs from that of the salts of lime, the characteristic colour in the latter case being thick red.

*On the Production and Formation of Pearls.* By Sir Everard Home, Bart. V.P.R.S. Read May 11, 1826. [*Phil. Trans.* 1826, p. 338.]

In his examinations of the organs of generation of the large freshwater muscle, the author often met with seed pearls, either in the ovarium, or connected with the shell upon which the ovarium lay; and he remarked at the same time that all Oriental pearls have a brilliant central cell, which in the common mode of boring them is destroyed, but which may be beautifully exhibited by carefully splitting the pearl into halves: this cell is just large enough to contain an ovum, which is formed upon a pedicle like the yolk of the pullet's egg, and is similarly discharged when completely formed. Thence Sir Everard concludes, that a pearl is formed upon the external surface of an ovum, which having been blighted, does not pass with the others into the oviduct, but remains attached to its pedicle in the ovarium, and in the following season receives a coat of pearl at the same time that the inner surface of the shell receives its annual supply. This conclusion, he observes, is verified by some pearls being spherical while others are pyramidal, in consequence of the pedicle, as well as the ovum, having been enamelled with nacre.

This paper concludes with an extract from one of the early volumes of the Philosophical Transactions, in which a corresponding account of the growth of pearls is announced by Arnoldi in 1673.

*On Burrowing and Boring Marine Animals.* By Edward Osler, Esq. Communicated February 15, 1826, by L. W. Dillwyn, Esq. F.R.S. Read May 25, 1826. [*Phil. Trans.* 1826, p. 342.]

The author's object in this paper is to describe the mechanism by which the boring and burrowing shell-fish form their habitations, and to explain some parts respecting the burrowing of other marine animals.

After showing that the Nereides bury themselves by the undulating motion which they employ in swimming, aided by the action of their bristly feet, and that the *Arenicola piscatorum* forms its imperfect arenaceous tube by the aid of a viscid secretion which exudes from the anterior half of the animal, he particularly describes the habits of the *Terebella conchilega*, showing that by a glutinous secretion it cements together particles of shells and sand, so as to form a collar, which is regularly and curiously lengthened into a tube; and when this is about an inch in length the animal proceeds to