

above their pedestals. Above this is a zone, about nine feet in height, where the marble has been pierced by a species of marine perforating bivalve—*Lithodomus*, Cuv.* The holes of these animals are pear-shaped, the external opening being minute, and gradually increasing downwards. At the bottom of the cavities, many shells are still found, notwithstanding the great numbers that have been taken out by visitors; in many the valves of a species of arca, an animal which conceals itself in small hollows, occur. The perforations are so considerable in depth and size, that they manifest a long-continued abode of the lithodomi in the columns; for, as the inhabitant grows older and increases in size, it bores a large cavity, to correspond with the increased magnitude of its shell. We must, consequently, infer a long-continued immersion of the pillars in seawater, at a time when the lower part was covered up and protected by strata of tuff and the rubbish of buildings; the highest part, at the same time, projecting above the waters, and being consequently weathered, but not materially injured.

On the pavement of the temple lie some columns of marble, which are perforated in the same manner in certain parts; one, for example, to the length of eight feet, while, for the length of four feet, it is uninjured. Several of these broken columns are eaten into, not only on the exterior, but on the cross fracture, and, on some of them, other marine animals have fixed themselves.† All the granite pillars are untouched by lithodomi. The platform of the temple, which is not perfectly even, was, when I visited it, in 1828, about one foot below high-water mark (for there are small tides in the bay of Naples); and the sea, which is only one hundred feet distant, soaks through the intervening soil. The upper part of the perforations, then, are at least twenty-three feet above high-water mark; and it is clear that the columns must have continued for a long time in an erect position, immersed in salt water. After remaining for many years submerged, they must have been upraised to the height of about twenty-three feet above the level of the sea.

Temples and Roman roads under water.— So far the information derived from the temple corroborates that before obtained from the new strata in the plain of La Starza, and proves nothing more. But, as the temple could not have been built originally at the bottom of the sea, it must have first sunk down below the waves, and afterwards have been elevated. Of such subsidences there are numerous independent proofs in the Bay of Baiæ. Not far from the shore, to the north-west of the Temple of Serapis, are the ruins of a temple of Neptune, and a temple of the Nymphs, now under water. The columns of the former edifice stand erect in five feet water, their

p. 158. The fact of the three standing columns having been each formed out of a single stone was first pointed out to me by Mr. James Hall, and is important, as helping to explain why they were not shaken down.

* *Modiola lithophaga*, Lam. *Mytilus lithophagus*, Linn.

† *Serpula contortuplicata*, Linn., and *Vermilia triquetra*, Lam. These species, as well as the *Lithodomus*, are now inhabitants of the neighbouring sea.