

below the surface of the sand, which formerly occupied the site of the basin, and there must have been either a subsidence of the soil, or what seems more probable, a rise of the sea since the period of their growth; the same theory, whatever it may be, must account for them, and for the stumps of oaks, mentioned by Borlase, and which are so frequently seen in the Mount's Bay.

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X.—CONTRIBUTIONS TOWARDS A KNOWLEDGE OF THE  
GEOLOGICAL HISTORY OF WOOD TIN.

BY ASHHURST MAJENDIE, Esq. M.R.G.S.C.

The geological history of the *wood tin* of Cornwall is so obscure, that perhaps I may be excused in offering to the Society the few, though indecisive hints, which I have been able to procure on the subject, in the neighbourhood of the places where this substance has occurred most abundantly in *stream works*. At Trethurgy Moor, near St. Austel, a few specimens have been found of what is provincially called *toad's eye wood tin*; these consist of very minute spherical masses of wood tin, the fibres of which radiate from a centre, imbedded in a stone, composed of quartz and

coarse amorphous tourmaline, (the schorl rock of Werner) which rock abounds at Carclase and other mines in that district, forming large veins in a decomposed granite. These specimens have been traced to a certain spot, and it is conjectured, with some probability, that the vein of wood tin is not far distant. From the same moor I have seen a single specimen of *wood tin* of considerable size imbedded in the same substance as the *toad's eye tin*, so that in this instance the nature of the vein at least is known. At a mine worked about seventeen years ago in Lower Saint Colomb, called Huel Providence, I was informed by the captain that *wood tin* was found in masses a pound in weight in the *lode*, which was what is called among miners, a *flucan*, being a vein consisting of clay, in which all the *wood tin* and the rest of the tin, which was the common oxide, were found, not attached to the walls of the *lode*, but imbedded in the clay.

The wood tin of Cornwall is described in treatises on mineralogy, as occurring in small detached masses in stream works. Of the gangue nothing is known, but that sometimes a small portion of quartz is attached. Some specimens I have lately met with in the vicinity of St. Austel, afford such information as to leave little doubt respecting the geological history of this substance. One of these speci-

mens from Trethurgy Moor was a portion of a vein having the wall of granite attached. I am informed that specimens have been traced to a particular spot in the moor where they cease to occur. It is probable that the veins might, after some examination, be found *in situ*. It appears, therefore, that this variety occurs in veins of schorl rock, traversing granite like the common oxide of tin.

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**XI.—NOTICE RELATIVE TO THE FORMATION OF SWIMMING STONE.**

Amongst a great number of specimens of this substance, which have been discovered within a few years past, scarcely any have been found which have exhibited more than a skeleton of siliceous matter, except perhaps a little sulphuret of copper. The minuteness of the cells, together with the arrangement of their plates, are doubtless the causes of its buoyancy on water. It is evident that these cells must, at some period or other, have been filled with other matter, more easily and generally soluble than silex.

I beg to exhibit to the Society a specimen which was some time since found in Pednandrae mine, near Redruth, which appears to me to contain a complete illustration of the formation of swimming stone. This specimen