

Philip Henry Gosse

Brilliant naturalist, disastrous theologian

Philip Henry Gosse was born in 1810 and lived most of his early life in Poole on the south coast of England. His aunt taught him to draw and introduced him to the study of natural history.

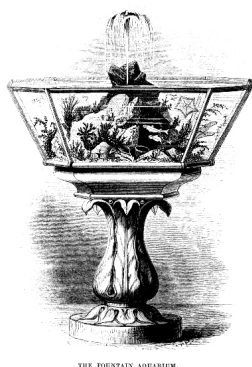


Philip Henry Gosse, photographed in 1855

As an adult, work took him to Canada and Jamaica. Here, in his spare time, he made systematic studies of insects and birds. His published works on the birdlife of Jamaica led to him being known as ‘the father of Jamaican ornithology’.

Aquarium

The early Victorian period was a time of great public interest in natural history. People collected specimens and read popular books on the subject. Gosse published several. One of his great interests was marine biology – little was known about the wildlife around the coasts of the British Isles.

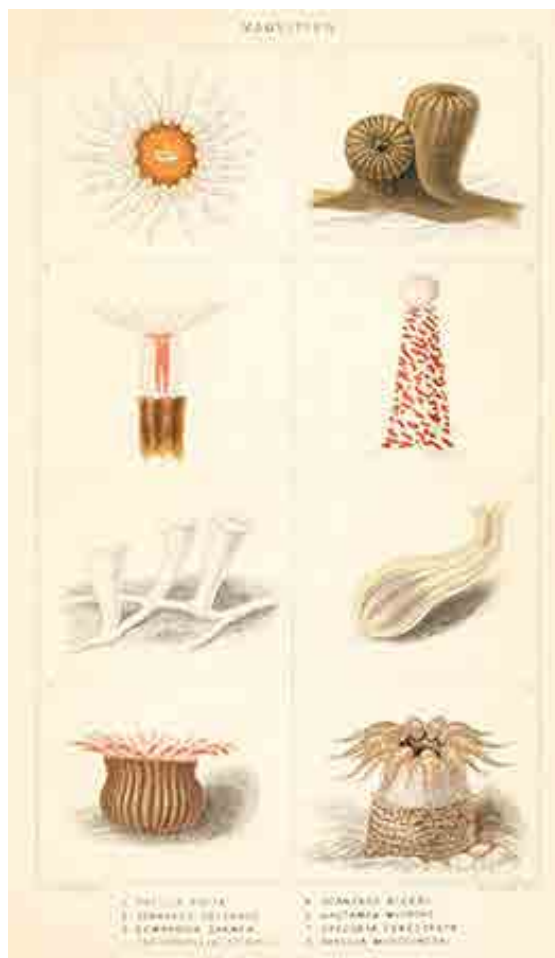


A ‘fountain aquarium’, as designed by Philip Henry Gosse

In 1854 he published *The Aquarium: An Unveiling of the Wonders of the Deep Sea* in which he described how anyone could set up a seawater aquarium and use it to display sea creatures collected on visits to the coast. It isn’t easy to maintain suitable conditions for marine life in a tank but Gosse’s detailed instructions made it a possibility for Victorian enthusiasts. (Gosse invented the word ‘aquarium’ as the name for such a tank.)

Nature devastated

The story of the invention of the marine aquarium has a sad ending. Some years after Gosse published his book he revisited many of the sites he recommended to collectors in his book. He found that the local communities of sea creatures had been devastated; pools cleared of their inhabitants, rocks smashed by collectors’ hammers. When marine biologists visit these sites today they have still not returned to how they were before the aquarium craze of the 1850s.



One of Gosse’s exquisite drawings of sea anemones – people were surprised to learn that such exotic creatures lived in British waters.



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A colour plate from Philip Henry Gosse's book on British sea anemones, published in 1860

Religious life

At the age of 22, Philip Henry Gosse declared a strong Christian faith. He became a regular preacher, first with the Methodists and then with the Plymouth Brethren. He chose these non-conformist denominations because they allowed lay members to preach – the Church of England allowed only ordained ministers to preach.

In the 1830s and 40s there was increasing conflict between scientific theories and literal interpretations of the Bible. In particular, scientists such as Charles Lyell suggested that the Earth was many millions of years old, as evidenced by the time required to lay down the sequence of rocks which geologists had identified. Many biologists believed that such long periods of time were needed for the evolution of the many species of plants and animals found in nature and in the fossil record. All this was seen to contradict the biblical account in the Book of Genesis.

To support his theory of the Creation, Gosse published *Omphalos*, complete with his own illustrations of how he imagined fossil creatures might have looked, such as these snake-necked lizards.



SHAKE-NECKED MARINE LIZARDS.
Plesiosaurus dolichodetrus and *P. macrocephalus*.

Resolution and rejection

In 1857 Gosse published a book containing his resolution of this conflict. In *Omphalos: An Attempt to Untie the Geological Knot* he set out a remarkable theory. He noted that organisms show signs of their individual histories. Trees have tree rings, people have navels, and so on. He argued that, at the time of the Creation roughly 6000 years ago, God would have decided to create living organisms just like those of today – for example, trees with tree rings even though they were newly created. Adam would have had a navel even though he had never been in the womb because every human has one ('omphalos' is Greek for navel). And rocks would have been created complete with fossils.

If Gosse had published his theory a century earlier it might have been accepted, at least for a time. Sadly for him, both scientists and theologians rejected it. Would God really have created a fossil record that might lead us to think that the Earth was vastly older than Genesis suggests? His book was variously condemned and mocked and eventually the unsold copies were pulped.

Gosse continued his work as a natural historian, publishing scientific papers and popular books until he died in 1888.

David Sang is Physics editor of Catalyst.

An illustration from Gosse's A Year at the Shore, published in 1865 ▼



F. H. GOSSE, del.

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