

was finally granted Swiss citizenship.

This biography is hard to read but is worth the trouble. One of Pauli's friends, the mathematician Hermann Weyl, wrote in the preface to his book *The Classical Groups*: "The gods have imposed upon my writing the yoke of a foreign tongue that was not sung at my cradle... Nobody is more aware than myself of the attendant loss in vigour, ease and lucidity of expression." The many quotations from Pauli in this book suffer from the same loss. They are translated from Pauli's racy and idiomatic German into stilted and unnatural English. Yet despite the difficulties of translation and the prevalence of highly technical mathematics, Enz has given us an authentic portrait of one of the great spirits of our time. ■

Freeman Dyson is at the Institute for Advanced Study, Princeton, New Jersey 08540, USA.

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## Through the eyes of God's naturalist

### Glimpses of the Wonderful: The Life of Philip Henry Gosse

by Ann Thwaite  
Faber & Faber: 2002. 407 pp. £25

Rebecca Stott

In 1857 Charles Darwin wrote to the distinguished zoologist Philip Henry Gosse to request information about "crustacean battles", asking: "Can you tell me, you who have so watched all sea-nature..." Darwin's address to his fellow naturalist is a testimony to Gosse's standing in the history of natural history. Gosse's eyes, pressed to the lens of a microscope, peering into rock pools or through the glass of his window-sill aquarium, had indeed seen more sea nature than perhaps those of any other man or woman in England by 1857. In his lifetime Gosse published a staggering 39 books, all but 10 of which were on natural history, and many were best-sellers. On his death the Royal Society claimed that "no man has ever done so much to popularise the study of natural history in England".

The publication of his son Edmund's poignant autobiography *Father and Son: A Study of Two Temperaments* (Heinemann, 1907) transformed Philip Gosse from a distinguished Victorian zoologist into a legend. The Gosse legend, as shaped by father and son, takes two parts. First, Philip is cast as a repressive evangelical who relentlessly and cruelly scrutinized his son's soul as if under a microscope. Second, he is the tragic victim of his own evangelical beliefs, attempting in his book *Omphalos* (Van Voorst, 1857) to reconcile science and religion by claiming that God planted fossils in the rocks because he wanted to create a world with the appearance of a prehistory.



Living colour: one of Gosse's plates from *The British Sea Anemones and Corals* (Van Voorst, 1860).

Ann Thwaite's remarkable biography takes Gosse out of melodrama and into realism. In Thwaite's hands he is complex and in conflict: at once scientifically curious yet doctrinally absolute, charming and vehement, driven and tormented by the apparent conflict between his belief in the fixity of species and the assimilation of contrary evidence in zoology. It is a fascinating portrait, delicately drawn and moving.

The book's title, *Glimpses of the Wonderful*, is a reference to the title of one of Gosse's first nature books, and underscores the fact that this is a book as much about ways of seeing and reading nature in the nineteenth century as it is a biography of Gosse himself. His way of seeing was the microscopic vision of the describer and systematist; he lacked the telescopic and speculative vision of the philosophical naturalist concerned with the origins and transmutations of species. Darwin complained that "in Gosse's books there is not enough reasoning for my taste", but Gosse wrote that "what I delight in is the minute details of habits, the biography of animals". Reasoning was best left to others; Gosse had in its stead rare gifts of observation and description.

For over 60 years Gosse studied, catalogued, sketched, painted and put into words the tentacled, often erotic, anatomically bizarre life of the seabed or pond, as well as writing on butterflies, birds and orchids. He denounced the natural-history practice of many of his peers as a 'necrology', the science of dead things, stuffed and pinioned. Instead he sought to bring his biographical subjects, his 'glimpses of the wonderful', poetically to life in a series of word pictures. The books are vividly described (rotifers, for instance, are "creatures that swim with their hair, that have ruby eyes blazing deep in their necks"), and his hand-painted illustrations are now collectors' items.

Gosse was rarely still except in prayer. A fellow naturalist wrote in the 1870s: "I can picture to myself Gosse plunging into a pool in full sacerdotal black, after a sea anemone." He farmed in Canada, stalked birds in Jamaica, worked as a schoolteacher in London, translated, wrote, studied, painted and preached. Thwaite's Gosse is a haunted man, driven both by curiosity and a keen sense of having little time left. As a member of the Brethren, a group of Christians dedicated to keeping the principles of the early Christian church, Gosse waited for the return of Christ in Rapture, watching for signs of the end, interpreting prophesy. If the Rapture were both imminent and longed-for, a book might be left unfinished or a sea anemone unclassified when the time came. As a result he was prolific until his final years. Edmund Gosse, visiting his father towards the end of his life, wrote: "I could see for the first time that his vehement eager life would not last for ever."

Histories of nineteenth-century nature observation confirm that the act of seeing and describing is shaped by ideological convictions. Thwaite's book gives us a greater insight into the complexity of Victorian ways of seeing nature by showing that Gosse was far from blinded by his conviction that species were fixed and God-created; he could see in the lens of his microscope the increasingly magnified evidence to the contrary. It is a testimony to his sincerity that he tried to square the circle in *Omphalos*. His tragedy was that the circle could no longer be squared. ■

Rebecca Stott is reader in Victorian Literature and History at Anglia Polytechnic University, East Road, Cambridge CB1 1PT, UK, and is an affiliated scholar in the Department of the History and Philosophy of Science, University of Cambridge, Free School Lane, Cambridge. She is the author of the forthcoming book *Darwin and the Barnacle* (Faber & Faber).