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An Appreciation of Christiane Groeben: the Correspondence between Charles Darwin and Anton Dohrn.

By Janet Browne*

* Department of the History of Science, Harvard University, Science Center 371,
1 Oxford Street, Cambridge MA 02138, USA

For many of us, our appreciation of Christiane Groeben is indelibly associated with the Stazione Zoologica at Naples and her work on the impact of its founder, the great German biologist Anton Dohrn (1840-1909). As the archivist and historian of the Stazione, Dr Groeben has been completely dedicated to preserving the rich documentary materials of the Stazione and facilitating scholars in their researches. Her knowledge and enthusiasm for this happy task has generated many lasting friendships. She has also contributed very materially to the world of scholarship, especially on the life of Anton Dohrn and the correspondence networks that held together the scientific men of the 19th century. The Charles Darwin Correspondence Project in the UK has been a long-term friend and associate of Dr Groeben's. Past and present members of that Project salute her!

The history of Dohrn's relationship with Darwin is striking. Dr Groeben does a great deal to bring this history to a wider public. Her article in the *Biological Bulletin* in 1985 commemorates Anton Dohrn, the man she calls "The Statesman of Darwinism".¹ Dohrn founded the Stazione Zoologica in 1872. He was then a young, entrepreneurial zoologist who was introduced to Darwinism by Ernst Haeckel during his student years at Jena. He became an

eager and devoted disciple of Darwin's work, perhaps the most dedicated of all Darwin's followers. Groeben explains that in 1866 Dohrn told Haeckel that on reading Darwin's *Origin of Species* he felt "a really piercing excitement." To Dohrn, the idea of evolution by natural selection blazed a way forward and opened stimulating new avenues of research, especially in marine biology, where study of the embryology and comparative development of easily available organisms could begin to map the patterns of the evolutionary tree. Dohrn believed that comparative embryology would become the cornerstone of tracing evolutionary phylogenies. And to a large degree, as Groeben indicates, the first scientific achievements of the Stazione stem from this pioneering commitment by its founder. Without Dohrn's enthusiastic adoption of Darwinism and his later friendship with Charles Darwin himself, the Stazione might never have taken the scientific position that it holds today.

At Naples, Dohrn envisaged a self-financing system where scientists could hire a "table" during the summer months to make observations and conduct experiments on marine organisms supplied fresh from the Bay of Naples by the staff of the Stazione. Biologists could find there everything that they needed: lab space, equipment, a regular supply of living organisms, a fine library of relevant research books and journals, and could join an international scientific community of other such visitors. Further anticipated funds would come from the opening of a public aquarium displaying the

abundant fauna of the region. In the event, the aquarium, a historic building in its own right that still exists today, was not successful in raising sufficient public money. Yet in both these enterprises Dohrn was innovative, indefatigable, and inspired. His combination of managerial skill and scientific vision was genuinely significant in generating a new spirit of international research collaboration in the closing decades of the 19th century. Much of this progress was witnessed and applauded by Charles Darwin.

In 1867 Dohrn made a trip to Great Britain. For historians working on Darwin's impact in the 19th century world, it is always thrilling to bring to mind the fervor with which some biologists were at that point taking up evolutionary ideas. Dohrn intended to make a scientific version of the "grand tour" as young noblemen used to do around Europe. One of the many figures Dohrn met was Thomas Henry Huxley, who was, like him, freshly wedded to exploring comparative embryology in an evolutionary framework. Huxley was rapidly becoming prominent as Darwin's bulldog. A close friendship developed.

Yet Dohrn was unwilling to ask Huxley for personal favors. He recollected in his autobiography that he longed to visit Darwin during that trip to England in 1867 but was afraid to ask. He had heard so much about Darwin from Haeckel, his teacher and professional colleague at Jena that he wished literally to sit at

Darwin's feet and venerate him. Instead, he sent Darwin his offprints, and this led to a friendly correspondence.

Groeben tells us how, in 1870, after several years of zoological correspondence, Darwin invited Dohrn to his country home, Down House in Kent.² Dohrn described the day as a cherished memory, although noting in a puzzled manner that Darwin did not seem nearly so ill as he expected.³

Darwin had, by then, developed a rigid daily routine to preserve his health that was very rarely disturbed; this routine allocated time for work and time for social interactions. He rarely undertook large social engagements, often explaining that his health was too poor. Aware of these facts, Dohrn probably expected to meet an elderly invalid. In actuality, Darwin was invariably an active and genial host. Yet Dohrn recorded that the two men were only able to spend one hour in scientific discussion before Darwin's wife drew the older man away for a rest. Partly as a result of this rationing, and the general sense that the household arranged itself around Darwin's wishes, Dohrn felt he was meeting royalty. He went away glowing with Darwin's endorsement of his biological endeavours. For his own part, Darwin liked this young man who adopted the evolutionary project with such ardour. To see their correspondence in sequence, as first published by Groeben, is to see how biology was then a social as well as scientific enterprise and that radical ideas—such as evolutionary theory—could serve as rallying points for

idealistic, intelligent young men. During these visits to Britain Dohrn became friends—often for life—with many of the leading young biologists of the era.

In this friendly contact with Darwin, Dohrn found a great source of personal strength and encouragement for his dream of a marine laboratory. Darwin became a patron of Dohrn's Stazione, and afterwards did a good deal to further its work through gifts and personal recommendations.⁴ The Stazione, in turn, became a leading centre for evolutionary researches--in Dohrn's case, working on the evolutionary connections between Arthropods, and the ancestral origins of vertebrates.

At times, Darwin also served as a scientific mentor to Dohrn. Darwin seems to have regarded Dohrn's enthusiasm with affectionate amusement, perhaps seeing something of his own younger days in Dohrn's zest for science. For example, Darwin advised Dohrn that it would be prohibitively expensive to provide a full library for visiting scientists, no doubt thinking of his intensive use of the resources of the Linnean and Geological Societies of London, and the British Museum. How could a marine station in Naples rival these comprehensive research collections? But Dohrn pushed ahead, convinced that a library was essential. He founded a scientific journal at the Stazione and persuaded many institutions to exchange copies of their own journals with his; he gave his own large book and journal collection to the Stazione; and he

solicited donations of books from scientific friends. Even Darwin donated copies of his own works.

Darwin must have sighed at some of Dohrn's incessant requests. Would Darwin donate money for the library or sit on the supervisory board? Could he supply favourable remarks for the report of the Stazione's activities or send a photograph of himself so that a local sculptor could create a plaster bust for the grand saloon? This last request was easily fulfilled and a splendid bust of Darwin still occupies an honored space in the Stazione's salon.

Here Darwin was witnessing the single-handed construction of a research school--an intellectual tradition--that was to dominate zoology in coming decades. He seemed not to mind the way that Dohrn exploited him. In fact Dohrn's determined transformation of Darwin into an iconic father figure was one of the simplest and most potent devices to ensure the coherence of a clearly-defined interest group.⁵ It was a radical form of Darwinism none the less. Dohrn proposed that ancestral vertebrates emerged not from Ascidians as Darwin and others popularly supposed but from annelid worms whose digestive and nervous systems may have reversed places in development. "May I venture to caution you not to extend too far the degradation principle," suggested Darwin with disquiet.⁶ All of Darwin's experience with earthworms indicated that they were simple because they were primitive, not that they

had degenerated from a more complex form. To Darwin, the annelid theory of vertebrate origin appeared impetuous. He warned Dohrn of the perils of rushing into print: “caution [is] almost the soul of science.” He continued:

Pray bear in mind that if a naturalist is once considered, though unjustly, as not quite trustworthy, it takes long years before he can recover his reputation for accuracy.⁷

Yet when Darwin was awarded the Buffon prize of the Linnean Society of Turin that included a substantial sum of money, he asked Dohrn if he might welcome some piece of equipment for the Stazione up to the value of £100. Dohrn accepted gratefully but asked that the gift instead be used to start a travel bursary scheme.

To visit the Stazione’s archives with Christiane as a guide is one of the most pleasing experiences that a scholar-historian can encounter. I was privileged to join a small group in 1980 in a tour of the archive collections as well as the public rooms and working areas of the Stazione. As a young historian of biology this was an exceptional experience, since repeated for many others during visits to the Stazione. Dr Groeben has also played a crucial and continuing role in co-hosting a series of Summer Schools in the History of Biology. Initiated by the late Mirko Grmek, the former director of research in

the history of biological and medical sciences at the *École pratique des hautes études*, these schools took place every two years until the middle of the 1980s, and then were renewed in a fresh series from 2005. With the generous permission of the Director of the Stazione, the schools are held in the Villa Acquario, Anton Dohrn's former villa and now the Stazione's outstation for benthic zoology. There could hardly be a more attractive place in which to study in depth the special themes of each successive school. Christiane has willingly contributed her extensive knowledge to every school since they began. This knowledge is indispensable to the exceptional learning and social experiences enjoyed by participants. The community of participants remains closely integrated as a recent survey showed. Who can forget singing the Stazione's "Fisherman's Song" around the hotel pool in the warm dusk of an Italian evening? Without her presence the schools would founder. Just to write these words brings back many warm recollections. I am glad to join in this public recognition of her deep knowledge of the history of the Stazione and to record her appreciation of the documentary and material records of the history of biology.

¹ Groeben, 1985. The Naples Zoological Station and the Marine Biological Laboratory: One Hundred Years of Biology. *Biological Bulletin. Supplement*. Vol. 168.

² Groeben, 1982. *Charles Darwin—Anton Dohrn. Correspondence*. Naples: Macchiaroli.

³ Dorn, 98-9

⁴ Groeben 1982.

⁵ Groeben 1982.

⁶ Groeben 1982, p.63.

⁷ Groeben 1982, p.29.