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Impact of Travels on Scientific Knowledge: Ralum (New Britain): A Research Station (1894–1897) sponsored by the Naples Zoological Station

Christiane Groeben

History of Science Unit and Historical Archives Stazione Zoologica Anton Dohrn, Villa Comunale, 80121 Naples, Italy

In May 1894, Anton Dohrn, founder and director of the Naples Zoological Station, and Richard Parkinson, ethnographer, businessman and plantation owner from New Britain, decided to found at Ralum, on the Gazelle Peninsula, a small research station for the investigation of marine and terrestrial fauna. Equipment and expertise were provided by Naples, hospitality and local assistance by Parkinson and the growing local, non-native colony. The project was supported by the German Government and public institutions, namely the Office for Colonial Affairs and the Museum for Natural History [Museum für Naturkunde] in Berlin. However, technical and personal difficulties made Dohrn decide to discontinue his involvement after three years.

In autumn 1895, new arrivals at the Naples Zoological Station must have been surprised to see two young Papuans among Salvatore Lo Bianco's collaborators in the fishing and preservation department. Why would they be there when there were plenty of young Neapolitans confident and experienced with handling marine organisms? The Papuans had come from New Pomerania (now New Britain), an island northeast of New Guinea. At Naples they were supposed to receive training in fishing and preserving marine animals for scientific purposes before they would return to the small research station that Anton Dohrn had begun to develop the year before at Ralum, which was their home island.

In what follows, I shall tell the short-life story of the Ralum Station, highlighting the persons and events that led to its birth, the managerial skill of Dohrn in getting it going, and the circumstances that led to a disengagement from the Naples side.

RICHARD PARKINSON AND ANTON DOHRN

At the end of May 1894, yet another guest knocked at Anton Dohrn's door, wanting to meet the famous director of the Naples Zoolog-ical Station. This was Richard Parkinson (1844–1909) (Fig. 1), a German planter, merchant, and ethnographer, on his way home to the Pacific. Parkinson came prepared, as Dohrn told his wife: "He is a well bred, experienced and intelligent man who out there on his island has even read my *Rundschau* article and is now thinking hard about something that he can do to serve science" [ASZN:Bd.933/4: Dohrn to Marie Dohrn, 1894.05.31]. In fact, Parkinson proposed to found a small research station in New Pomerania. At this time German colonialism was still in its infancy and many German travellers (diplomats, explorers, businessmen) took advantage of the stopover at Naples on their way to the colonies in Africa or Asia to visit



FIGURE 1. Richard Parkinson (1844-1909), German planter, merchant, ethnographer. Portrait from: A. 1901.



FIGURE 2. Anton Dohrn (1840-1909), German zoologist, founder of the Naples Zoological Station (1872). Ink sketch by Johannes Martini [JM] (1866-1943), signed by Anton Dohrn, 1898. Archives Stazione Zoologica Anton Dohrn [ASZN]

the Zoological Station, by then the pride of German achievement. The following day, Parkinson was invited to join a party on the Station's steamer Johannes Müller headed for Cape Miseno. At Cape Miseno, they walked up the hill and, resting under shadowy trees, listened to Parkinson's tales from the Pacific (Fig. 2). "After several days of continued reflection and discussion of this generous offer and after having learned a good many interesting details about the conditions of existence in this remote island, I accepted Mr. Parkinson's propositions and promised to provide the infant Station at Neu Pommern with such arrangements as might enable a few naturalists to study there with a good prospect of success." [ASZN: Ba.3303: Dohrn to Sladen, 1895.July.]

Richard Parkinson

Richard Parkinson, born in 1844 at Altenburg on the Island of Alsen off the Danish East coast, was of English-German descent.1 Having worked for several years as teacher on the Island of Helgoland (then still British), in 1875 Parkinson joined the Hamburg import/ export firm Johann Caesar Godeffroy & Sohn. In addition to the trade with local products from the colonies, German firms soon started to invest in property themselves and to grow their own coconut palm trees, coffee, and cotton. In 1876, Parkinson was sent to Apia on Samoa. During the following six years, he came to know the farming business well and did an excellent job in extensive land acquisitions for Godeffroy & Sohn. In 1879, while still at Apia, Parkinson married Phoebe Coe (1863-1944), the eighth and last child from Jonas M. Coe's first wife, Samoan Le'utu Malietoa (1829-1905), a member of Samoa's Royal family.² Richard and Phoebe Parkinson ultimately had 12 children (Fig. 3).

In early 1882, the Parkinsons, together with their first infant child and their nephew, Jonas Myndersse Coe Forsayth, left Samoa for New Guinea. They joined Phoebe's eldest liv-

ing sister and mother of Jonas, Emma Eliza Forsayth née Coe (1850-1913) (Fig. 4) on the island

of Mioko of the Duke of York Group, a cluster of small islands in St. George Channel north of New Britain.³

Emma Forsayth was a remarkable woman. Educated in the United States at her uncle's home in San Francisco, she returned to Samoa at age 18 and soon became a valued partner in her father's various business affairs. In 1869, she married James Forsayth, aged 22, of Scottish descent. With her father's help, Forsayth became a trader and schooner-owner in Apia. By 1873, he was reported lost in a shipping disaster. Emma continued the Forsayth business. Following several business and family failures, Emma joined forces with Thomas Farrell, a "big, red-bearded, ruthless, square-built Australian, who had come adventuring into Samoa by way of the New Zealand goldfields" (Robson 1979:90). At Apia, he ran a "Commercial Hotel", in other words a drinking saloon; he also frequently travelled to the New Guinea area to recruit Melanesian labour for the German plantations in Samoa. In 1878, Emma and Tom decided to transfer their business to Mioko, where they arrived in early 1879. Tom continued his trading and recruiting



FIGURE 3. Richard Parkinson with one of his sons at Ralum, about 1895. From: Hiery 2002.

activities, and Emma took care of the home base with a trading station and fresh food supply. She also started to buy extensive tracts of land on the Gazelle peninsula from the natives (Figs. 5–6).

With the arrival of the Parkinson family, Emma's affairs took a serious turn for the better: her know-how as a businesswoman and Parkinson's experience as a real estate agent and expert in German trading interests, as well as his professional ethnographic interests, soon turned the Forsayth company into a serious competitor with German firms. East of Blanche Bay they selected for headquarters a port they named "Ralum," with the vast Ralum plantation — the first in the area — stretching far inland and close by Gunantambu (Fig. 6), which was to become Emma's sumptuous residence (Fig. 7). The Parkinsons were given one of the best plantations, Kuradui, next to Ralum, although they continued to live close to Emma's house where Phoebe took care of the household affairs. Under Parkinson's advice and expertise, they started large scale coconut planting, but he also "introduced coffee, cocoa and spice trees; grew cotton (he introduced and operated a cotton-gin), experimented with the indigenous sugar-cane; and there was no end to the root crops and trees he brought in" (Robson 1979:165). By 1898, the Forsayth and the Hernsheim plantations were the largest on the Gazelle Peninsula.

Emma's power and influence as a businesswoman were perfectly complemented by her role in social life. Many of her Samoan relatives joined her household. Several of her nieces received a good education and married well. Her brothers and nephews were entrusted with various charges. Attractive, self confident, extravagant, strong willed, generous and tough, Emma soon became the lavishly-entertaining first lady of the area; military, traders, explorers would all stop at her place, and the homage paid to her royal arrogance - and descent - given maybe only half seriously at first,

soon became an expression of "genuine respect and endearment" (Robson 1979:144): she was "Queen Emma".7 In 1893, she married Captain August Karl Paul Kolbe (1853 or 1854–1913) (Fig. 8), a "good looking member of an upper middle-class family in Germany" Robson (1979:179).8 It seems to have been a convenient arrangement: Emma became a German citizen, thus securing her social position in the growing German colony, whereas Kolbe was provided with the amenities of life he needed so much.

The Parkinsons were essential for running the Forsayth business. Phoebe was Emma's general housekeeper and a consistent recruiter of native labour. Parkinson was responsible for the plantations, land acquisitions and trading. During his numer-



FIGURE 4. Group photograph with Emma (Queen Emma, middle row, right) and her sister Phoebe Coe (married Parkinson, center with striped dress), taken in West Samoa about 1875). From: Robson 1979:29.

ous excursions, he came to know the islands and their surroundings well, and he developed a keen interest in the local fauna and flora and the culture of the native population. He made good use of his contacts and also started to collect specimens and artefacts. After having read Adolf Bernhard Meyer's work on masks in New Guinea, Parkinson sent three important collections of masks collected by him to the director of the Royal Ethnographical Museum at Dresden in 1893, 1894 and 1895 (Meyer and Parkinson 1895:2). In 1887, he published his first book, *Im Bismarck-Archipel: Erlebnisse und Beobachtungen auf der Insel Neu-Pommern (Neu Britannien)* (Parkinson 1887), and, twenty years later, his widely read *Dreissig Jahre in der Südsee*, an 880-page volume with many details about the geography, mostly drawn from his own experience, history, habits, beliefs, folk lore, and languages of the various islands (Parkinson 1907). Further publications in German ethnographical and geographical periodicals as well as two albums with photographs of Papuans, their masks, tools and wooden artefacts, published together with Adolf Bernhard Meyer (Meyer and Parkinson 1894, 1895), show Parkinson as a curious and attentive observer and chronicler of a hitherto unknown region and culture.

In 1884, the Bismarck Archipelago became a German protectorate (*Schutzgebiet*).¹¹ Business expanded and so did the plantations where goods for export were produced. In 1883, before the plantation era, only 30 Europeans (20 Germans and 10 Englishmen) lived in the Bismarck Archipelago (Passarge 1914:426). By 1897, there were 186 Europeans, of which 56 were German, ([Meyer] 1898–1899, table after p. 362) mostly on the Gazelle Peninsula. Ships from Germany came once a month bringing news, guests, mail, and readings. In early 1893, Richard Parkinson must have received the November 1892 issue of the *Deutsche Rundschau*, containing Anton Dohrn's article "From the past and present of the Zoological Station in Naples" (Dohrn 1892).

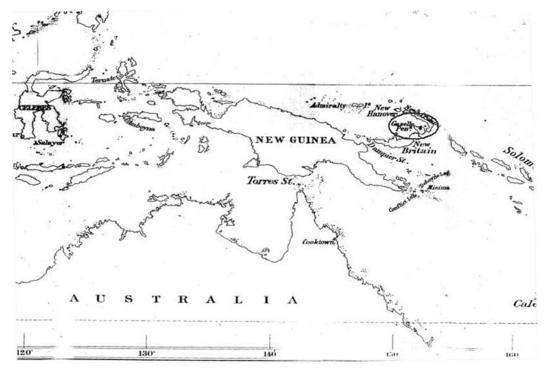
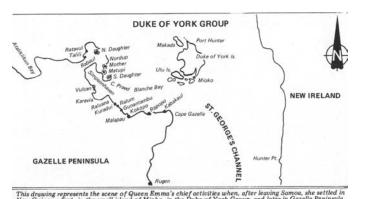


FIGURE 5.The Bismarck Archipelago. Circled: The Gazelle Peninsula on the North-East coast of New Britain. From Willey 1902.

There are three aspects in the article that must have particularly aroused Parkinson's interest:

(1) "PATRIOTISM." Due to Dohrn's efforts from the beginning to secure approval and support from the German Crown Prince, the Berlin Academy of Science, and the Prussian Ministry of Public Instruction, the Station soon became a "subject of national interest" (Dohrn, 1892:8). Dohrn stressed: "The only premium, next to the Foreign Office, of which the Zoological Station depends, is public opinion, first of scientific



erishohe (now Kokopo) about 1885-6, and transferred their capital to Rabaul in 1910.

FIGURE 6.The Gazelle Peninsula. The Ralum Station was located between the Kuradui plantation of the Parkinsons and Guanantambu. Queen Emma's

the Kuradui plantation of the Parkinsons and Guanantambu, Queen Emma's residence. From: Robson 1979:94.

circles, but then also of the instructed general public" (Dohrn 1892:9).

(2) THE VETTOR PISANI CIRCUMNAVIGATION. When at the end of the 1870s, Admiral J. Bucchia, general secretary of the Italian Navy Ministry, asked Dohrn to suggest a good naturalist to take part in an upcoming circumnavigation of the world, Dohrn suggested that it would be better to train an officer in fishing, dredging and preservation and then to have the collections studied by experts on

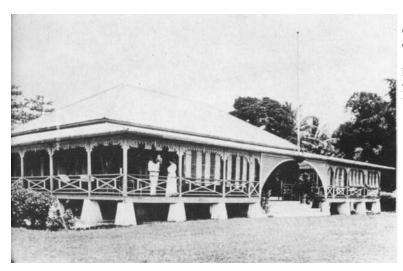


FIGURE 7. Guanantambu, Queen Emma's famous residence. Photograph taken about 1913. The House was completely destroyed during Japanese occupation, 1942–45. From: Robson 1979:145.

land. (Dohrn 1892:17) This was done in 1881 for the 4 year trip around the world of the Italian corvette *Vettor Pisani* and it worked fine (Dohrn 1892:9).

(3) NETWORK OF RESEARCH STATIONS. In the wake of the well-functioning Naples Station, almost 30 marine stations had since come to life, and more were planned in Sydney, Melbourne, New Zealand and the United States (Dohrn 1892:23). A sort of network or equal distribution should carefully be planned, Dohrn suggested" (Dohrn 1892:24).

And then the story of the foundation of the Naples Station in itself as briefly outlined by Dohrn was unique and certainly made Parkinson expect an unusual personality.

Anton Dohrn

Born at Stettin in Pomerania in 1840 into a wealthy family, Dohrn had studied medicine and zoology at various German uni-



FIGURE 8. Queen Emma Coe Kolbe and her husband, Captain August Karl Paul Kolbe, about 1900. From: Hiery 2002.



FIGURE 9. Field trip to Helgoland. Standing from the left: Anton Dohrn, Richard Greef, Ernst Haeckel; sitting: Mathijs Salverda, Pietro Marchi. August 1865. [ASZN]

versities. In 1862, he moved to Jena to study with Ernst Haeckel. This changed his life because Haeckel "converted" him to 'Darwinism' and Dohrn decided to dedicate the rest of his life to collecting proofs for Darwin's theories. Dohrn's earliest field experiences, in 1865, were made at Helgoland under the guidance of Haeckel (Fig. 9). Dohrn then went for further studies to Hamburg and Scotland and — during the winter of 1868–69 — to Messina, the "Mecca of German Privatdocenten" [Associate Professors]. There he met Nicolai Micloucho-Maclay (1846–1888), his friend and fellow student from Jena, who had just returned from a field trip with Haeckel to Lanzarote (1866–67; Krausse 1987:76–77) (Fig. 10). After extensive discussions about difficulties with serious seaside studies — such as communication problems with local fishermen, lack of adequate equipment, protests of landladies about dripping buckets with seawater, etc. etc. — the two friends decided to found a worldwide network of well-equipped research facilities at the sea and to implement their first zoological station at Messina. The long story of why and how this station was then moved to Naples has aptly been told by Dohrn's biographer Theodor Heuss (Heuss 1991).

In 1894, Dohrn found himself at the head of a smoothly operating research laboratory (Fig. 11) He had eight well-trained assistants at his side and nearly 40 employees (administration, ticket booth, guardians, craftsmen, fishermen, lab servants), laboratories with seawater tanks and other up-to-date equipment, an outstanding library, and two large and six smaller ships and boats daily to provide the requested research materials.¹² The Station ran smoothly because Dohrn was a gift-

ed manager; the building was a 'well-functioning organism,' based on Dohrn's own project: from the beginning, he knew exactly what he needed and where in order to save space, energy, and to make the 'organism' work efficiently and optimise his resources, including his staff: Each staff member had several assigned duties to carry out more or less at the same time; for instance, next to their own research, they had to assist guest investigators, take care of the Library, and oversee the collections and other services supplied by the Station. In the short span of 20 years, the Station had turned into a profit-making institute. And Dohrn considered himself to be a king in his own, however small, kingdom. (Groeben 1985:15).

THE PROJECT (1894–1895)

Dohrn and Parkinson agreed upon the establishment of a small research station at the latter's home base, Ralum, the first tropical station in the German colony. Dohrn would provide the equipment, Parkinson the building, hospitality, and assistance, these based on his knowledge of local conditions. Parkinson and Dohrn also discussed manpower. Early on they agreed that technical help was essential for studying the marine fauna on site and for preserving it for future investigation. This was



FIGURE 10. Nicolai Micloucho Maclay (left) and Ernst Haeckel (right) on a 3-month field trip to Lanzarote, Canary Islands, 1866. [ASZN:La.13]

where, recently, the Zoological Station had achieved a rare expertise thanks to the skill and geniality of Salvatore Lo Bianco (1860–1910) (Fig. 12). During the twenty years of his service for the Zoological Station, Lo Bianco had brought preservation methods to such a degree of perfection that collections of preserved marine organisms could be sold to clients from all over the world. Such collections were needed for research purposes, exhibits, museum displays and for classroom use. Dohrn and Parkinson, therefore, decided to send two young Papuans to Naples to teach them fishing and preservation methods for the Ralum Station. They also set up a list of what equipment would be needed including "one larger and several smaller aquaria" [ASZN:Ca.VII.297: Linden to Parkinson 1884.08.24].

Dohrn planned to collect up to 50.000 M in Germany; he hoped to have the Emperor head the subscription list [ASZN:Ba.3274: Dohrn to Linden, 1894.09.05]. This would allow him to pay a permanent assistant at Ralum. Besides being a good scientist who would be prepared to work under straining tropical conditions, such a person had also to be good company for Parkinson and the 'Queen' Emma circle. Experience had taught Dohrn always to move in several directions and to let his numerous contacts work for today's project. In addition to collecting funds, he also contacted the Norddeutsche Lloyd¹³ shipping agency in Bremen to get reduced fares for scientists and for equipment travelling to Ralum. In October 1895, Georg Plate, one of the Directors of the

Norddeutscher Lloyd, visited the Zoological Station, liked it very much, and promised a discount on fares. For Dohrn this was essential: "The New Guinea matter has thus received a base for feasibility" [ASZN:Bd.1032: Dohrn to Marie Dohrn, 1895.10.17].

Just when the equipment was ready to leave for Ralum, a young Englishman showed up at the Station on his way to New Pomerania where he was supposed to collect information on the development of Nautilus. This was Arthur Willey (1866-1943), a student of Edwin Ray Lankester (1847-1929) who had worked at the Zoological Station in 1889 for two weeks and again in 1891-1892 for nine months, occupying both times the British Association Table. 14 Willey could not be more pleased when he heard about the Ralum project because he had just come from Germany where Otto Finsch (1839-1917)15 had recommended him to read Richard Parkinson's book Im Bismarck-Archipel (Parkinson Willey 1902:692 fn1). He had already wondered about the whereabouts of the author and here was Dohrn to tell him about it. Willey offered his help and volunteered as the assistant



FIGURE 11. The Stazione Zoologica at the time of Parkinson's visit in 1894. [ASZN]

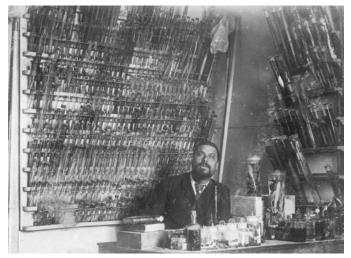


FIGURE 12. Salvatore Lo Bianco, head of the Stazione's fishing and preservation department. November 1889. [ASZN:La.122.39]

Dohrn was looking for. On board the *S.S. Bayern* as they were "approaching Port Said" Willey confirmed: "I shall be only too anxious to take however small a share in assisting the initial work connected with the establishment of your proposed station in Neu-Pommern" [ASZN:A.1895.W: Willey to Dohrn, 1894.12.18].

Only a few days after Willey's departure, the first lot of equipment was ready for shipment. It travelled on various steamers of the Norddeutsche Lloyd to Ralum. The shipment consisted of 186 different items such as glassware, tubes, three silk nets, one twine net for fishing among the rocks, dredges, one string net for pelagic fishing, 200 litres of alcohol, 12 glass panes for aquaria, two kerosene lamps, chemicals from Merck (Germany) at a total expense of "a couple of thousand

francs" (ASZN:Ba.3303: Dohrn to Sladen, 1895.July; British Association, 1895).

At the same time, Dohrn was waiting for the Papuans to come to Naples. Governor Georg Schmiele (1855-1895) of New Guinea, however, did object to their leaving the country, but Dohrn had good connections in Berlin at both the Foreign Office and the Office for Colonial affairs and the Papuans arrived in Naples on July 27, 1895 (Fig. 13). They were supposed to stay for one year. Dohrn was in Berlin during this period, but his secretary kept him well informed. Evidently, the two boys did reasonably well under the guidance of Salvatore Lo Bianco, at least as far as the fishing went. Dohrn reported to Parkinson: "They are making progress slowly, of course; this can't be otherwise, considering the language, but they have learnt fishing pretty well and their knowledge of the animals makes also good progress. This takes some time, but I am convinced that in another 4-5 months they will do rather fine and will render good service later in Ralum" [ASZN: Ca.VII.415-416: Dohrn to Parkinson, 1895.10.12]. They soon started to learn some



FIGURE 13. One of the two Papuan boys from New Britain sent to Naples for a training period in fishing and preservation of marine organisms for scientific purposes. Language and climate problems precipitated their return to Ralum after only three months. [ASZN]

Italian, and at times they entertained their hosts with songs and dances from home. Photographs were taken and sent to Dohrn in Berlin. Shortly thereafter, however, and well before the end of their one-year planned stay, the two Papuans expressed their firm wish to return home. Dohrn agreed and admitted that all efforts to teach them preservation methods had been in vain. "This asks for more brainwork than they are capable of . . . Fishing and locating of the right fishing sites, the examination of the dredging results (stones, mud, sand, algae, etc.) the sorting of the animals, all this they have learnt and may go on to practice with you, but they can make further progress only on site by getting familiar with the various localities" [ASZN:Ca.VII.422–423: Dohrn to Parkinson, 1895.11.14].

By the end of 1895, all seemed to be set for a good start at Ralum: The first laboratory equipment had arrived, the building was ready, assistance in fishing and dredging was guaranteed through the Papuans, and reduced fares had been granted. Having learnt from Parkinson that the

best time for working in Ralum was in May and October [CA.VII, 422–423], Dohrn now felt ready to look for the right candidates in Munich, Lipsia or Berlin. He promised to send not only good but rather agreeable persons, easy to live with and good company for Parkinson [ASZN:Ca.VII.422–423: Dohrn to Parkinson, 1895.11.14].

THE RALUM STATION

Arthur Willey would have been a good man to get more permanently involved in the Ralum Station, but he came with a specific task, which in the end took him elsewhere. In 1894, he had been elected student of the Cambridge Balfour fund for five years and was sent to the Eastern Archipelago "with the avowed object of procuring material for the study of the embryonic development of the Pearly Nautilus" (Willey 1902:691), because "at that time the leading zoologists of Great Britain became excited about the Pearly Nautilus" (Gardiner 1943:130), this living fossil. ¹⁶ Tunicates and Amphioxus had been his main interest before that. ¹⁷ Highly recommended by Lankester, Dohrn and others, Willey felt most welcome at Ralum. This is how he described his arrival:

As the ship approached the anchorage opposite Herbertshöhe (Kokopo) and I obtained my first near view of the Gazelle Peninsula of New Britain, the rising coast with its variegated sky-line, groves of waving cocoa-nut palms, scattered homesteads, with the slumbering volcanic sentinels (the Mother and Daughters) to the right, presented a fascinating prospect. (Willey 1902: 692)

The Parkinson family helped him to settle down on Vulcan Island. For 100 sticks of trade tobacco, he purchased a palm-hatched hut and later also a stout cutter-rigged sailing boat. *Nautilus* used to be caught by natives in special baskets (Willey 1902, fig. 4), but whatever Willey tried he never found eggs or early stages of development. Parkinson even discussed Willey's difficulties with Dohrn who offered help from Naples [ASZN:Ca.VII.422–423: Dohrn to Parkinson, 1895.11.14]. After several months, Willey left the Gazelle Peninsula for New Guinea, but it was one year later when he finally obtained his first eggs. The results of his two years of travel were, however, remarkable. Some of the rich materials he brought back with him were also given to experts; Willey's and their results were published in a six-part volume in 1902 (Willey 1902). 18

While Willey was still chasing his *Nautilus* eggs in the Pacific, other events were taking place in Berlin: Dohrn kept looking for the first "real" naturalist to go to Ralum. Karl Möbius (1825–1908) (Fig. 14), director of the *Museum für Naturkunde* in Berlin and an old friend, was asked for advice; he recommended Friedrich Dahl (1856–1922) from Kiel. Dohrn and Möbius met with Dahl in Berlin and details were discussed, although Dohrn seemed to have had some doubts about Dahl's personal qualifications as a good companion for Parkinson:

You have to find out for yourself what kind of a man he is.... I would be most interested to hear from you whether you get along with him or whether he is an untreatable man. In future I shall try to know those who are sent to you better in order to learn what kind of person you are going to get. This has not been possible this time – let's hope that Dahl turns out to be a good companion and that he gives honour to his mission. [AZSN:Ca.VII.450–453: Dohrn to Parkinson, 1896.03.04-08]

Dahl was expected to send back extensive collections of marine and land fauna including insects, Dahl's special field. ¹⁹ This was supposed to help to gain a general overview of the local fauna and to then commission more specific tasks. The Foreign Office and the Humboldt Foundation of the Academy of Science guaranteed support for equipment and living expenses — and if Dahl's results were excellent there was more. The Norddeutsche Lloyd gave reduced pas-

senger fares and a 20% discount for shipments and the Captains of the respective ships had received orders to contact Dohrn in Naples for instructions about careful and appropriate handling of the shipments.²⁰ Also, it was expected that each scientist going to the Ralum station would take instruments and other equipment along that would be left in Ralum. Dohrn insisted with Parkinson on an accurate and constant updating of the inventory and asked for an estimate about living costs. This would help him to provide means for two scientists per year. At a certain point, Dohrn also planned to send a former collaborator of Lo Bianco to Ralum to take care of the preservation of the collections.

During the meeting at the Berlin Museum, a first irritating note crept in when Dohrn noticed that Dahl had not been informed that the Ralum project was his (Dohrn's) idea and, even more so, when Möbius repeatedly insisted that the collections had to be sent straight to the Berlin Museum, whereas it was obvious for Dohrn that the Naples Station was in charge and collections had to go to Naples where they



FIGURE 14. Karl Möbius, since 1887 professor of Zoology and director of the Zoological Museum at Berlin. Photograph given to Dohrn in August 1867 at Hamburg where both were working at the Zoological Garden. On the back: "Dem Freunde Anton Dohrn". [ASZN:La.27]

would be checked and then forwarded to experts for study, much as he had, successfully, done with the *Vettor Pisani* collections. The Naples Station itself was not at all interested in keeping the collections.

A second lot of equipment was sent to Ralum between March and October 1896. [ASZN:G.LIV.3: Acte Ralum] Before departure on March 1, 1896, Dahl had done extensive shopping in Germany: chemicals from Merck (Darmstadt), a camera, "Superior III," from Bensemer (Kiel), handbooks and essential texts, 25 monographs on fish, birds, insects and the local flora; plankton nets bought in Kiel (C. Hantke), compass, glasses, magnifier, pocket knife, a Zeiss microscope with drawing apparatus (Jung, Heidelberg) and preparation equipment, craftsmen's tools bought in Naples by the Station's engineer Storrer, and — last but not least — woollen underwear, raincoat, metal suitcase and gun. From Berlin, Dahl had already sent to Herbertshöhe six crates containing nets, glassware and arsenic soap²¹ [MfN: Dahl, 1896–1929, fol. 5–6].

Friedrich Dahl (Fig. 15) stopped at Naples for a final meeting with Dohrn. He left Naples on March 11 and used the long time on board ship well. His observations on the distribution of animals in the open sea were published the same year. A few days after arrival at Ralum (May 5) Dahl reported to Dohrn his first impressions of the local way of life and his program.²² The small building prepared by Parkinson for the Station consisted of a laboratory and rooms for guests, one on either side.²³ "It is a very pretty little house right on the shore facing a coral barrier, built already as a preliminary station which I am sure to have transformed into a nice little lab in less than eight days. Of course I shall have my living quarters right there as well. It's marvellous here ...", Dahl told Möbius [ASZN:BII. 7–8]. He also mentioned several times the extreme kindness and generous hospitality of the Parkinson family. During his stay, Dahl also met Lajos Birò (1856–1931) who had been sent to New Guinea by the Budapest National Museum as a collector from 1894 to 1902.

Dahl was expected to stay for five to six months; in the end it would be almost one year. Dahl and Parkinson sent reports at regular intervals. In August, two crates with 940 specimens (mammals, birds, reptiles, amphibians and insects) left for Berlin; several others followed, containing dry and wet specimens including samples of the marine fauna. They all went to Berlin where Möbius had them scheduled by experts.

In the meantime, Parkinson had also asked for a solid European boat. On May 6, 1896, Dohrn sent on board the *Prinz Heinrich* (Fig. 16) from the local Langella shipyard "a fishing boat, new oars, mast, tent serving also as a sail" [ASZN:G.LIV.3], two working benches prepared by Storrer that could easily be put together, and from the Station's own stock, glass dishes, and one basket with a 100 hook fishing line. The last shipment (October 1896) contained eight umbrellas, two baskets, and six boxes of fir-wood with firmly closing lids to keep [dried] plants and animals.

Dahl's collections found enthusiastic reception in Berlin [ASZN:Da.5: Parkinson to Dohrn (Feb. 2), 1896.03.27]. The Gazelle Peninsula seemed to have a much better climate than the rest of the island and also New Guinea. In fact, among other commissions, Dahl was



FIGURE 15. Friedrich Dahl, student of Karl Möbius. In 1896-97 he was the first scientist to work for a longer stretch of time at the — by then — well equipped Ralum Station. His collections were sent to the Berlin Museum. Portrait. [MfN d. HUB. Historische Bild- und Schriftgutsammlungen. Bestand: Zool. Mus. – B 1 /1892]

supposed to collect brains from natives, but of the 150 native workers on the Ralum plantation no one died during the year he stayed there. His main purpose was to collect and represent the fauna of one particular tropical region as complete as possible, i.e., as a biocoenose. The region was relatively rich in birds: he collected about 105 species. Dahl summarised his work in a report to the Berlin Academy of Science:

The collected material was sent, in part preserved in alcohol, in part dried out, with the Lloyd steamers, every 8 weeks to Berlin. In general, 3–4 crates were sent each time. The final shipment, with 25 crates, left Ralum together with me on April 9 (1897). [PAW (1812–1945); II–VII–133, fol. 96–97: Dahl to PAW, 1897.06.15]

On his return, Dahl wanted also to take care of the sorting of the material at the Zoological Museum at Berlin and applied to the Academy for further funding. The Humboldt-Stiftung had already granted 3000 M in April 1896 for the "establishment and running costs of a Zoological Station at Ralum in Neu-Pommern" [PAW (1812–1945); II–XI–76, fol.5: Report of the Secretary]. This sum was, above all, meant as support for Prof. Dahl who had been nominated director of the Station. Further funding came from the Foreign Office, Department for the Colonies (M 2000 received on August 28, 1896; M 2000, granted in October 1896).

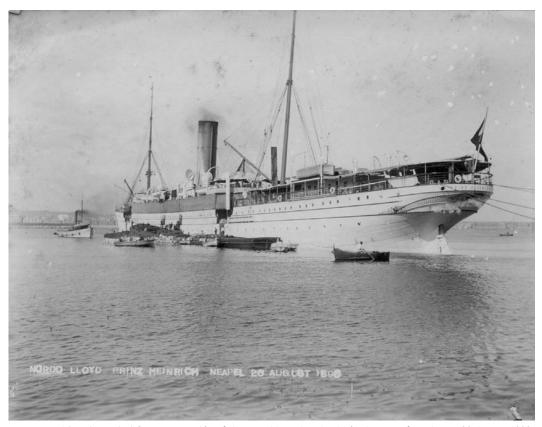


FIGURE 16. Prinz Heinrich, passenger ship of the "Norddeutsche Lloyd," in the port of Naples on 28 August 1898. [ASZN]

PROBLEMS

As has been mentioned, Dohrn resented that the director of the Berlin Museum took it for granted that the collections made in Ralum should go to Berlin and not to Naples, the organisational headquarters of the whole enterprise. Ralum had been Dohrn's idea. He had provided funding, good deals and manpower, making the most out of the first accidental meeting with Parkinson. Möbius, however, was right insofar as there existed dispositions approved by the Federal Council (Bundesrat) and the Prussian Academy of Science that collections financed with government money — the Office for colonial affairs in this case — had to go to institutions in Germany. Advised by an official from the Foreign Office, Dohrn tried to change this. He insisted that he was not interested in keeping the collections, but at least the marine organisms had to go to Naples for distribution, otherwise he would give up the whole project.

In autumn 1897, Dohrn stayed for several months in Berlin. An emergency had come up; word had spread that the Naples Station was financially well off now and that the powerful Friedrich Althoff (1839–1908) from the Office of Public Instruction wanted to cancel the Prussian tables and/or the government subvention regularly received by the Station. Wilhelm Waldeyer (1836–1921), Hubert Ludwig (1852–1913) and others tried to mediate between Dohrn and Möbius admitting that the latter should not have insisted on having the collections in the first place. But Möbius was also a member of the Academy of Science and it had been due to his motion that a

message had been drawn up and signed by many scientists on the occasion of the 25th anniversary of the Naples Station in April 1897. In the end, Dohrn could be convinced that Moebius had not switched to the enemy field and was, instead, willing to re-establish the old good relations, but at that moment the difference of opinion and the moral support Dohrn found in Berlin served him as a nice excuse to drop out of the project. His battlefield lay already elsewhere. Dohrn had realized that the Ralum Station would cost him more under any arrangement than it was worth. As his secretary put it: "It is good to have it off the table; it was not worth while for having just 2 Nautilus for Giuseppe Jatta".²⁴

In March 1897, before Dahl's return from Ralum, Dohrn had received a request from Franz Doflein (1873–1924), an assistant of Richard Hertwig's in Munich, to travel to Ralum to work in the Station there. Dohrn answered that, first, he had to decide whether he was going to keep Ralum, and, second, that his (Doflein's) projects were not convincing enough to justify the expenses. Times had passed, Dohrn added, when the intention to travel to far away places was sufficient to justify the effort.²⁵

EVALUATION

Twice before Anton Dohrn had started something slightly off the main course of the Zoological Station's activity as a research laboratory for marine biology. The first time — as has been mentioned — with the *Vettor Pisani* circumnavigation, the second time with the project of a — as he called it — "floating Zoological Station", i.e., a research vessel independent from main land laboratories that would take investigators to their research site whereas usually research topics (objects or information) had to move to where the researchers had their facilities — at least from the time on when research became organized through seaside laboratories such as the Zoological Station in Naples.

As on other occasions, Dohrn started something because an idea made his "creative imagination" work and turned it into something real. However, good sense never left him; he always carefully evaluated whether the efforts were worth the results. He also looked for consensus from public opinion and actively involved partners to make things work. In the case of the floating Zoological Station, he tried to involve the German nation through conferences, lobbies, and subscription campaigns. In the Ralum case, he sought and received support from local (Parkinson), government (Foreign Office and Academy of Science) and business partners (Norddeutsche Lloyd). He failed, somehow, in assuring the right collaboration on the scientific side, mainly due to misunderstanding and a good deal of human search for power (Möbius).

CONCLUSIONS

For Dohrn, Ralum was not just a fancy experiment; from the beginning he truly wanted to make the project work. In fact, a new line item account titled "Ralum Laboratory" was added immediately next to the general Laboratory account in the printed balance sheets of the Zoological Station. Yet, despite the problems Dohrn had with the Ralum program, his idea of having seaside laboratories had proved right. By 1894, there were more than 30 such laboratories around the world, many of them modeled after the Naples "original," such as Woods Hole in the United States, Bergen in Norway, and Watson's Bay near Sydney. Dohrn had the know-how to make a station work; he knew about equipment, methods and the necessary manpower. Ralum, for him, was just another offspring, or, as Percy Sladen, secretary of the Naples Table Committee at the British Association for the Advancement of Science, put it in August 1895: "Truly the institution [i.e., The Naples Station] is now a vigorous organism. And the new 'bud' at the Antipodes is a refreshing tes-

reproduction power!" timony to its [ASZN:Ba.3305: Sladen Dohrn, 1895.08.05]. This was also somehow returning to old dreams from Messina when Dohrn and Micloucho-Maclay had decided to cover the globe with a network of Zoological Stations, and the British Association even founded a committee for that purpose (Anonymous, 1872). Maclay kept him informed about efforts from his side to found such stations. He did so, successfully, at Watson's Bay and — a bit less successfully — at Johore, at the strait between the Malaysian Peninsula and the island of Singapore.²⁶ In the end, Maclay settled down in New Guinea to live with and study the Papuans (Fig. 17). The Maclay Coast was named after him. By 1894, the Maclay Coast became part of Kaiser-Wilhelms-Land, the German Colony, just across from Neu-Pommern and the Ralum plantation! At this same time, Anton Dohrn's brother had become involved with a plantation on Soekaranda, Sumatra, and managed to lose much of the family money in the venture. Furthermore, to be involved in activities in far off places came naturally with a scientist's curiosity for the unknown; in the German case, it was mixed with a national pride in the new colonies.



FIGURE 17. Nicolai Micloucho Maclay with his Papua servant. Java, 1873/74. [ASZN:La.50]

This is not the place to present a general overview of scientific travels. Circumnavigations are different from one-man explorations. Much depends on preparation at home and collaboration on site and also on the main purpose, which may range from a general overview in a certain region to collecting specifically — as did Willey with his Nautilus. Many a scientist may have wished in the past to find a well equipped laboratory on arrival in a remote place. Dohrn's idea to offer another "lab-station" on the naturalist's travel route was right and made sense.

In my view, the Ralum project did not work because the balance among the partners was not right. The Naples Station was dedicated to marine biology. Ralum was planned as a research station tout court. Dohrn would, therefore, have needed a partner to take care of the non-marine collections. It would have taken a long time to turn Ralum from a collecting site into an independent research station. Germany probably expected things in their new colonies to go as smoothly as they did in the British Empire. From contemporary reports, we know that they did not; mortality among non natives was high, living conditions difficult, and local expertise non-existent.

Also, Dohrn felt very much like a German outpost in Italy; as to upbringing, culture, support, and background he was Germany-orientated, but this did not work the other way round. Constantly, he had to fight for recognition, and he had to spend much of his time in public relations. To keep German support for a station in Ralum but directed by Dr. Dohrn in Naples would have been very difficult to do over the long haul.

I have no evidence yet on what happened in or to Ralum after Dohrn backed out, even if collections continued to be made and, if so, what happened to them. But, from the Naples point of view, the conclusion has to be, it was a worthwhile try. The tracks were laid in a professional way, but the train back went the wrong way, to Berlin, not to Naples.

ACKNOWLEDGMENTS

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ARCHIVAL COLLECTIONS

ASZN Archives Stazione Zoologica Anton Dohrn di Napoli

MfN Museum für Naturkunde (Berlin)

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PAW Preussische Akademie der Wissenschaften (Berlin)

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NOTES

- ¹ His English father Richard Robert Parkinson had been the coachman of a Danish nobleman, his German mother Louise Bruning was part of the duke's domestic staff. The father had taken the German nationality after the provinces of Schleswig and Holstein had passed to Germany with the treaty of Vienna (1864) (Robson 1979:116–117). According to the Danish writer Arthur Vaag, however, Richard Jr was the son of the Duke of Augustenburg of Saxe Gotha (quoted in Robson 1979:164–169; :236 n13). Biographical notes are taken from A. 1901 and Robson 1979 (in particular Robson, pp. 164–169; 236 n13). There are discrepancies as to the date of death of Parkinson. Contemporary sources give 1909 (A. 1901; Bettelheim 1912). Robson (Robson 1979), in his well researched biography of Queen Emma, and those relying on him [e.g., Dutton 1976] and web pages indicate wrongly —1907.
- ² Jonas Myndersse Coe (1823–1891), born at Troy, New York, USA, came to Samoa in 1838 as a shipwreck; he returned for good in 1845, established a vast business and also served as American commercial agent. Together with the consuls of Germany and Great Britain he formed a kind of government in Apia trying to maintain order. Of the many children living in his home Coe officially recognised 18 from his four marriages (14 girls and 4 boys), by listing them in the family Bible (Robson 1979). For J.M.Coe's unusual life story see (Robson 1979).
 - ³ Neu-Pommern during German occupation.
- ⁴ Major German firms operating with trade posts and plantations in the area were at that time: Johann Cesar Godeffroy & Sohn from Hamburg (since 1873); the "Deutsche Handels- und Plantagen-Gesellschaft der Südsee-Inseln zu Hamburg", by non-Germans surnamed "The Long Handle Firm" or "DH and PG", started by Adolf von Hansemann in the early 1880s gradually taking over interests of the bankrupt Godeffroy firm (1879; Robson 1979:131, 139); Hernsheim & Company (at first Robertson & Hernsheim) from Hamburg (since 1876); the Neu Guinea Company founded on May 26, 1884 and official representatives of German government interests from 1885 to 1899 (Robson 1979:20).
 - ⁵ The house was destroyed during Japanese occupation in WWII.
- ⁶ Copra was one of the most important articles for export for candles, soap and oils. The world demand was constantly growing, profits were huge. Supply from the natives was random and often of poor quality. Plantations in hurricane-free areas would increase production, guarantee better quality and secure even higher profits.
- ⁷ This surname was probably widely accepted because the memory of her more important namesake was still very much alive: Queen Emma of Hawaii (1836–1885). The two Emmas had actually met at Honolulu in 1875.
- ⁸ Kolbe had been nominated head of the Bismarck Archipel and Salomon Islands district for the New Guinea Company and took up service on February 1, 1893. Governor Schmiele very much objected against his marriage with the influential Emma Forsayth taking as an excuse the missing death certificate of Mrs Forsayth's late husband. Emma left the territory, married Lt. Kolbe and simply communicated to the Foreign Office at Berlin that Schmiele had "threatened to ruin her Ralum plantation in case she married Mr. Kolbe. I married Mr. Kolbe." (Hiery, 2002, ch. II.2) Paul and Emma Kolbe died in Monte Carlo on July 19 and 21, 1913, respectively.
- ⁹ Late in her life Phoebe Parkinson told Emma's biographer that she used to help her husband in classifying and packing "for dispatch to Europe, the botanical, ornithological and entomological collections which made her husband famous" Robson 1979:221). There is no evidence yet for such collections in natural history. This explains, however, why Robson depicts Parkinson more as a naturalist than an ethnographer, an aspect of which he may not have had any evidence.
- ¹⁰ There was at least one re-edition in 1926. Robson (1979:222) mentions an English translation by Noel Barry which he re-discovered after many years and deposited in the "Library of the School of Pacific Administration". A second translation into English was published in 1999 (Parkinson 1999).
- ¹¹ The German flag was raised first on 3 November 1884 on Matupi Island, a flat small island in the Blanche Bay with a safe port and seat of the Hernsheim Company (Parkinson 1907:854).
- ¹² Kofoid in his 1910 survey of Biological Stations in Europe gives a still unequalled detailed report of the structure, organization and activity of the Naples Station (Kofoid 1910:7–32).
- ¹³ Founded in 1857, the Norddeutsche Lloyd was taken under contract by the German Reich in 1885 to guarantee regular fares to East Asia and Australia, receiving a subvention of 4.090.000 M.
- 14 To put the Station's budget on a fairly secure base Dohrn decided to rent out work space, so-called "tables" (benches), to governments, universities and scientific associations. For an annual fee, established by contract, the partner had the right to send one scientist for one year to Naples where he would find the table laid, having at his disposal daily fresh material form the sea, chemicals, lab space, library use and assistance when needed. This "table system" worked perfectly for almost 100 years.
- ¹⁵ The German ethnographer and naturalist Otto Finsch had taken part in an expedition to the South Pacific in 1879–1882. Two years later the newly founded New Guinea Company sent him as their agent for land acquisitions to the Bismarck Archipelago. In 1884 he raised the German flag among other places at Astrolabe Bay on the north coast of New Guinea, posing as Nikolai Mikloucho Maclay's friend (Anon. [2002]).

- ¹⁶Aristotle already knew it (Schrafenberg 2001). Cuvier never saw the animal, he only treasured a shell. Owen had but one specimen, and nothing was known yet about its embryology and development (Würtz, nd:2).
- ¹⁷ In 1894 Willey had just published a much discussed book on *Amphioxus and the Ancestry of the Vertebrates* (Willey 1894)
- ¹⁸ Willey returned to the Pacific as director of the Colombo Museum on Ceylon from 1902–1910. From 1911 until his death he taught at McGill University, Montreal, Canada.
- ¹⁹ The following information is mostly taken form an extensive letter from Dohrn to Parkinson, written while he was waiting for Dahl on his way to Ralum [ASZN:Ca.VII.450–453: Dohrn to Parkinson, 1896.03.04].
- ²⁰ Dohrn was particularly worried about the transport of plants for his American friend Major Alexander Davis, the recent owner of the splendid old park of the Villa Floridiana at Naples. Davis planned to build a hot-house for acclimatisation. He loved plants and already owned several hot-houses for orchids in the United States. At the end of Dohrn's letter "instructions for the collection of plants and seeds" have been added by Davis' gardener Carl Sprenger [ASZN:Ca.VII.450–453: Dohrn to Parkinson, 1896.03.04-08].
 - ²¹ Arsenic soap mainly served for the preservation of animals.
- ²² [ASZN.Da.5: Dahl to Dohrn (May 5), 1896.06.22]. Archival signatures "ASZN:Da.5." refer to entries in the incoming mail register. They are all signed as having been filed in the file "Acte Ralum" which has not been preserved. Dates refer to date of receipt. The date of sending is given in round brackets.
- ²³ Linden to Dohrn, 1897.11.08; [ASZN:Ba.3154]. A sketch of the station given to Linden by Willey during a brief stopover on his way home has not been preserved.
- ²⁴ [ASZN:Ba.3138: Linden to Dohrn, 1897.10.29]. Giuseppe Jatta 1860–1903) had just published the first volume of a splendid Cephalopod monograph for the Station's series "Fauna and Flora of the Gulf of Naples" (Jatta 1896). Volume 2 never saw publication because of the premature death of Jatta.
 - 25 In the end, Doflein did not go to Ralum, nor to Africa, his second choice, but many years later to Japan.
- ²⁶ (Müller 1980.) After his death, "Tampat Senang" place of rest and quietness as he called it, would welcome scientists who appreciated the considerable isolation of the place. Two rooms with terraces and a beautiful view, equipped with a small library, where wives were tolerated, children excluded, all nationalities allowed, but no women scientists. "I nourish a firm aversion to all developmental stages and differentiations of the so-called blue stockings", he wrote to Dohrn on April 29, 1875 from Istana Johore (Müller 1980:65).