INTERNATIONAL CO-OPERATION IN THE CURATION OF TYPE COLLECTIONS—AN ARCTIC EXAMPLE

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ABSTRACT. The Arctic archipelago of Svalbard has been the subject of multinational research interest for over 150 years. The lack of centralized information on the location of resultant palaeontological type material from the area is a serious hindrance to modern studies, and this (admittedly extreme) example suggests that effective documentation of the location of type material is a more important issue than centralization of collections.

THE location of type collections is a vexed problem even within national boundaries, and both centralization and decentralization of collections pose their own special problems. At an international level the problem becomes even more complex as political and national interests become intermingled with scientific considerations. It may be neither politically practical nor scientifically desirable to locate type collections in their country of origin, especially if that country cannot provide acceptable standards of curation. However, if palaeontologically and geographically interrelated collections are dispersed throughout many countries, the scientific community should be helped to locate and use such important reference material.

An extreme example of the international dispersal of type collections is provided by the results of 150 years of geological investigations in the Arctic archipelago of Svalbard. This area comprises Spitsbergen and many smaller islands lying between 74° N. and 81° N. on the north-western corner of the European continent. The archipelago has a complex history—it was essentially a no-man's-land until 1920, when it was placed under Norwegian sovereignty by an international treaty. However, all the signatory nations to the treaty were afforded equal rights of exploration and exploitation of natural resources, so that the archipelago has a unique status with regard to multinational research activity.

The area's relative accessibility and mild climate in spite of its latitude made it an object of systematic palaeontological and geological investigation much earlier than other polar tracts. The Norwegian B. M. Keilhau made a pioneering visit in 1827, and he was followed within the next decade by both Russian and French expeditions. The first figured specimens from these early visits were described by von Buch (1848) and de Koninck (1850). Increasing awareness of Spitsbergen's rich fossil fauna and flora stimulated further investigations, which in the latter half of the century were dominated by Swedish expeditions, although British, French, Austrian, and German expeditions also collected palaeontological material. A review of the palaeontological and geological results of the Swedish work was presented by Nathorst (1910).

Co-ordinated Norwegian activities first began in 1906 and a series of expeditions initiated and organized by Adolf Hoel led to the establishment of the 'Svalbard and

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Polar Sea' institute in 1928 (the forerunner of the present Norwegian Polar Institute). Norwegian expeditions over the following thirty years provided a wealth of material which was described in a series of papers published by the Institute, culminating in the first comprehensive outline of Svalbard's geology by Orvin (1940).

The break in activities caused by the Second World War was followed, appropriately, by Orvin's admirable general bibliography of work on Svalbard's geology (Orvin 1947). In addition to the Norwegian Polar Institute's subsequent annual expeditions, British, Polish, and Soviet workers have all made major contributions to our knowledge of the area's palaeontology. All the type collections arising from the Norwegian investigations are now housed in the Palaeontological Museum, University of Oslo, and the seventy-five type collections at the Museum form the largest single reference collection of material from Svalbard. However, the changing patterns of other countries' interests have led to the dispersal of type material throughout both Eastern and Western Europe. A registration of palaeontological type collections from Svalbard not housed in Oslo is in progress, and in April 1978 over 100 collections had been indexed and tentatively traced to thirty institutions in ten countries. When the index is complete we expect that the number of collections will approach 200. The largest collections outside Norway are in the Swedish Museum of Natural History in Stockholm and at the University of Uppsala, but it appears that many institutions have only one or two collections often comprising a very few specimens.

It is unrealistic to suggest that material from institutions with large collections should be relocated, for example to Oslo, but many institutions with small collections and little active interest in Svalbard research might reasonably contemplate the transfer or loan of these to the Palaeontological Museum in Oslo. This might be effected perhaps by an exchange for a more representative collection of Svalbard's fossils. It certainly seems unfortunate that, for example, a serious re-study of Svalbard's Mesozoic ammonoids would require a *Grand Tour* of Europe. Even if feasible, such a foray would first demand a major private investigation to determine which of the many possible institutions contain the relevant type material. This explains a need which is more pressing than the relocation of type collections, viz. a catalogue of all type and figured specimens from Svalbard with documentation of their present location. The need for this documentation is apparent from a consideration of the unfortunate number of palaeontological studies which have not incorporated comparisons with earlier workers' type and figured specimens—a procedure destined to produce nomenclatorial confusion. The successful preparation of such a catalogue is of course dependent upon the co-operation of all the relevant institutions. Curators reading this contribution who have not yet heard from us, may perhaps be kind enough to examine their own museum's catalogues and collections for material from Svalbard.

In this special case, Norway's administrative and research responsibilities for Svalbard are such that it is reasonable to expect that a Norwegian institution should prepare an index of all type and figured material from the archipelago, irrespective of where the material is located today. A more general lesson is that the preparation of such an index is extremely difficult because of the general lack of published catalogues of type material housed in individual institutions. Perhaps rather than indulge in long debates as to where type material should be located, we should encourage

more institutions to follow one of the ICZN's recommendations on good curation, viz. the publication of such catalogues. The statement that type material is the property of the whole scientific community is a somewhat empty platitude so long as the location of this material remains unknown.

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DISCUSSION

R. Williams. In relation to the question of repatriation of type material, some countries may well be bound by special legislation. In Canada, for example (the Cultural Property Export and Import Act 1977), type and other significant palaeontological specimens require export permits to leave the country. Normally such permits are granted on the condition that types are eventually returned to Canada. A possible future ramification of this law could involve the repatriation of type specimens.

H. W. Ball. In many large museums such as the BM(NH) the collections are regarded as international in scope. Since our science is one of comparison it is virtually essential to keep together related collections from different parts of the world. I would be extremely reluctant to see type and figured material going back to a country unless I could be assured of its conservation for the future in the way that we are trying to guarantee for ourselves.