

One final small point: the use of, for example, inches and °F alongside centimetres and °C is rather confusing, and it is to be hoped that the second edition of the book will use the metric system throughout.

AN EMINENT VICTORIAN

[Review by Maurice Hodgson* of Robert E. Johnson's *Sir John Richardson*, London, Taylor and Francis Ltd, 1976, xii, 209 p, £15.]

Polar exploration owes much to a number of physicians who performed with courage and remarkable tenacity: Edward Wilson, John Rae, Frederick Schwatka, are a few that immediately come to mind, but perhaps none surpassed John Richardson. He accompanied John Franklin on both his early Arctic journeys, led one of the earliest expeditions searching for Franklin, and generally devoted much of his life to the Arctic and Arctic research. He died in 1865 and, despite his acknowledged position in Arctic history, no biography has appeared since the publication of Reverend John McIlraith's eulogistic portrait in 1868. However, that lacuna has now been partially filled with the recent publication of a handsome volume by Robert E. Johnson.

In his introduction, Dr Johnson acknowledges a particular interest in 19th century physicians and brings to his study of Richardson not only his enthusiasm for the man, but his own training in medicine with which to judge Richardson as medical student, practitioner, researcher, and, for 17 years, Physician to the Fleets at the Royal Naval Hospital, Haslar. The biography is a useful source of information on early 19th century medicine in Great Britain and investigates some interesting anomalies of the period: for instance, the Admiralty's notorious favouritism which kept Richardson from the promotion his experience and talents deserved; and also the inability of Richardson, and other explorers, to acknowledge the possibility of integration into apparently hostile environments and so to become less dependent upon inferior stores brought out at great expense and difficulty from England.

Although Richardson played a significant role in medicine, nursing procedures and hospital administration, his name is linked first with Franklin in the same way that Edward Wilson is linked with Scott, and Johnson rightly devotes much of his biography to Richardson's Arctic experience. With the importance of this experience in mind, there are points in Johnson's book which need clarification. Perhaps in keeping with the biographer's avowed principle not to denigrate Richardson, Johnson has depended largely on accounts of Richardson in the Arctic which were bound to be favourable, notably Franklin's own narratives. Even John Rae, who developed an appreciation of Richardson during their joint search for Franklin, provides some caustic observations on Richardson's character in his letters to George Simpson. To Rae, Richardson organized the expedition badly, while his stubborn nature assured a difficult and often tempestuous relationship with his crew. It is unfortunate that Johnson did not make use of E. E. Rich's edition of Rae's letters. Again, there is no indication in Johnson's biography that he consulted George Simpson's Athabaska journal for corroboration of Franklin's version of the expedition. There are serious allegations in these documents against most of the officers on Franklin's expedition, the most serious being made by Willard-Ferdinand Wentzel, a factor of the North-West Fur Company and one of Franklin's guides: 'I once had a sincere esteem for him [Richardson] and feel it doubly disagreeable [*sic*] now to accuse him of conduct for which he richly merited to be punished.' Richardson had apparently told both Simpson and Wentzel that Hood and others had died of exposure, and it was not until Richardson released his account to the newspapers after he reached England that Wentzel learned of his summary execution of Michel following his suspected murder of Hood. Even if Wentzel and Simpson comment from their particular bias, no biographer of Richardson should ignore such unfavourable comments.

There are one or two other points that should be mentioned. As is so frequently the case with books dealing with exploration, the maps are generally disappointing: some lack clarity, while others are sections of larger maps and many readers would have difficulty relating those sections to the larger areas under discussion. Perhaps maps especially prepared for the book and omitting

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details not related to the narrative would be more useful and clear. Johnson does not elaborate on McIlraith's contention that Richardson was turned down by the Admiralty in his request to form an expedition to search for John Ross: Back was eventually given the command of the search party in 1833. Considering Richardson's disappointment later in being passed over for the appointment of Director-General of Medical Services in 1855, the reason for his earlier rejection might have thrown some light on his relationship with the Admiralty.

Sir John Richardson, with appendices and notes nearly equal in length to the text, gives the reader the impression of a scholarly approach to biography, but considering the points raised in this review it should perhaps be read with a degree of caution.

IN BRIEF

A COLD YEAR AT THE SOUTH POLE

Record low temperatures were set at the South Pole in 1976, the coldest year since 1957 when scientists started keeping records at the American station there. The National Science Foundation's Division of Polar Programs reported in April 1977 that the average daily temperature of -50°C in 1976 broke the previous record of -49.7°C set in 1959 and 1964. The coldest day last year was 8 August, when the mercury plunged to -76°C . The hottest day was 17 January when temperatures rose to -19.5°C . The lowest temperature ever recorded at the South Pole was -80.6°C on 22 July 1965; the highest was -15°C on 12 January 1958.

The Division of Polar Programs also reported that August 1976 was the coldest month on record at the South Pole, with an average daily temperature of -65.1°C . That broke the previous record of -64.4°C set in July 1969. Another record was set during the winter half-year (April-September) when the average reading of -60.7°C gave the pole the coldest winter ever recorded. The previous record cold winter was in 1968 when the average temperature was -59.9°C .

The two-year records indicate that the average temperature for the first 10 years is exactly equal to the average for the second 10 years: -49.3°C .

POLAR METEORITES

The largest meteorite ever found in Antarctica was discovered in Victoria Land last summer by a joint US-Japanese field party. The meteorite, weighing 407 kg in all, was found in 33 pieces scattered on top of the ice over an area of less than one hectare in the Transantarctic Mountains, 190 km north-west of McMurdo station. The field party, consisting of Dr William A. Cassidy, Dr Edward J. Olsen and Dr Keizo Yanai, also discovered 10 other meteorites in the same region, bringing the total weight of their find to 460 kg. All the samples were found lying exposed on bare ice surfaces in places where the continental ice mass has lost its snow cover and is apparently being worn away by strong winds. The ages of the meteorites are not yet known.

The search for meteorites in Antarctica was initiated as a result of the accidental discovery in 1969 of a similar concentration of meteorites by a Japanese team of glaciologists in the Yamato Mountains, about 300 km from Syowa station. During several field seasons, Japanese scientists have searched widely in that region and have recovered 992 meteorite fragments, which may represent as many as 330 individual meteorites. A significant aspect of these current discoveries is that the Antarctic continent now appears to be an area that lends itself more readily to the collection of meteorites than other parts of the world.

A CREATIVE ICE BREAKER

Franz Kafka earned his living in insurance, but did any creative writer lead a double life in the polar world? Here is one. The Russian satirist Yevgeniy Zamyatin (1884-1937), brightest spark, some say, of the revolutionary writers, author of *We*, a novel never published in Russia but a forerunner of Aldous Huxley's *Brave New World* and George Orwell's *1984*, was the naval