

It would have been nice to know a little more about the context of this information – about the history of ethnobotany among the Native Americans and indeed of the peoples themselves. One is left wondering what is happening to this vast body of information, beyond its incorporation in the book. Does it still exist among the peoples from whom it was collected; is it being lost from the oral tradition? And what is happening or has happened to these peoples?

The information in this book was previously scattered in a jumble around the literature. Suddenly, however, with this publication, Native American intellectual property has become available to us in a way in which it has never been before. Let us hope that this will not be abused by the exploitation of traditional knowledge for personal gain without equitable sharing of the benefits.

I have no hesitation in recommending this book as a fundamental and highly valuable source of fascinating information on the plants and the peoples of North America. It will doubtless become a key reference for anybody with an interest, be it academic or personal, in these fields.

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**The Journals of Hipólito Ruiz, Spanish Botanist in Peru and Chile 1777–1788.**

Transcribed from the original manuscript by Jaime Jaramillo-Arango, translated by Richard Evans Schultes and María José Nemry von Thenen de Jaramillo-Arango. Foreword by Santiago Castroviejo. Cambridge: Timber Press. 1998. xxxx + 357pp., 11 colour photos (of maps). ISBN 0 88192 407 5. £32.50 (hardback).

This book is another contribution to the long and complicated saga of that huge undertaking of the Spanish crown in the late eighteenth century, the exploration, collection and description of the plant and animal riches of their overseas territories in Mexico and South America. The Spanish botanists Ruiz and Pavon, together with the French botanist Dombey, spent eleven years traveling in Peru and Chile, during which they collected thousands of herbarium specimens, described many new species, and their two artists completed over 2000 plant drawings from life. All of which was to be assembled into a monumental illustrated multivolume work, the *Flora Peruviana et Chilensis*. Regrettably, various political, social and economic problems intervened and only three volumes were completed, out of eleven projected.

Ruiz wrote a journal while in the field in Peru, and this was transcribed by A. J. Barreiro and translated into English by Dahlgren (1940); however, on his return to Spain, Ruiz reworked his journals and produced two further, more complete, versions. These were lost for 150 years, finally being discovered by the Colombian surgeon-diplomat Jaime Jaramillo-Arango in the library of the Botany Department of the British Museum (Natural History) shortly after the end of the Second World War. Both these editions of Ruiz's journals were meticulously tran-

scribed by Jaramillo-Arango and published in Spanish as a single complete journal (Jaramillo-Arango, 1952). Here, we have the first English translation of the descriptive text of Jaramillo-Arango's work, together with a list of medicinal plants and scientific names.

The translation closely reflects the matter of fact style of Ruiz and gives a good view of the experiences, trials and hardships encountered while traveling in Peru two hundred years ago - attacks by brigands, serious illness, extremes of weather, getting lost and the loss of their collections by fire. There is a wealth of detailed information on plant and animal products used for medicine, for mending bones, assisting child-birth, for toothache, shampoo, aphrodisiacs and much more on *Cinchona* collection and coca usage. The centre of their fieldwork in Peru - Huánuco, Pasco and Junín

has been relatively little studied by botanists since their visit and remains a treasure house of little-known species. It is not unusual to come across species which are still known only from Ruiz and Pavon's collections.

For anyone familiar with the Ruiz and Pavon story and with an interest in natural history this is a fascinating book but, for the general reader new to the subject, it would be better to read it in conjunction with Steele's (1964) *Flowers for the King*. The latter not only places the Ruiz and Pavon expedition into the political and social context of the time but also brilliantly brings to life the personalities and prejudices of all the players.

This is a well-produced and printed book with excellent colour reproductions of the hand-coloured maps from the Spanish edition and although not cheap, it is good value and is recommended for students of Andean exploration, natural history and plant usage.

#### References

- DAHLGREN, B. E. (1940). Travels of Ruiz, Pavon and Dombey in Peru and Chile (1777-1788). *Publ. Chicago Nat. Hist. Mus., Bot. ser.* 21: 1-372.
- JARAMILLO-ARANGO, J. (1952). *Relación histórica del viaje que hizo a los reynos del Perú y Chile el botánico D. Hipólito Ruiz en el año de 1777 hasta el de 1788, en cuya época regresó a Madrid*. Madrid: Real Academia de Ciencias Exactas, Físicas y Naturales de Madrid. 2 vols.
- STEELE, A.R. (1964). *Flowers for the King*. Durham, North Carolina: Duke University. pp. xv, 378.

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