

BOOK REVIEW

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Review of: *A History of Cocaine: The Mystery of Coca Java and the Kew Plant*

REFERENCE: Karch SB. A history of cocaine: the mystery of coca java and the kew plant. The Royal Society of Medicine Press, London, U.K., 2003, 234 pp.

The title of this book is somewhat misleading. If you buy this book expecting a general text on the history of cocaine, you may be disappointed. The second part of the title is more descriptive of the actual contents of this volume: three historically interesting doctoral dissertations about the origins of the coca plant and the early coca trade. These dissertations have been translated specifically for this book and have not been easily obtainable prior to this publication in any language.

The first is entitled "The Coca Leaf—a pharmacognostic treatise" which was written in 1886 by Dr. Josef Nevinný at the University of Vienna. After a brief introduction to the genus of the coca plant, there is an interesting short history of the coca plant. The lengthy discussion of the geographical distribution, botany, planting and cultivation methods, harvesting, sale and distribution of coca is, at times, tedious. However, it does (along with the subsequent monographs in this collection) demonstrate that coca growing and subsequent manufacturing of cocaine was a globalized industry from the start. There follows an interesting section on the historical use and abuse of coca. One must remember that this document was written only 25 years after cocaine was first isolated from the coca leaf and around the time that it was discovered that cocaine was effective as a local anesthetic. While the authors' discussion of abuse is limited to coca, the possibility for abuse of the alkaloid is clearly foreshadowed here. (Curiously, the abuse of cocaine is not mentioned in any of the two later monographs). The next section of the monograph begins with a description of the anatomy of the coca leaf. This is hardly thrilling reading, but is information that is not often encountered elsewhere. Finally, there is short description of the early methods of cocaine extraction from coca leaves, the chemistry of cocaine, methods used to determine cocaine content and a brief description of the medical uses at the time.

The next dissertation was written in 1919 by Emma Reens at the University of Paris. Her thesis "Java Coca: an historical, botanical, chemical and pharmacological treatise" details the origins of coca cultivation in Java (Indonesia). As in the first monograph, there is a discussion of the growth and cultivation of the plant. Most interesting is a chapter on the trade business of Java Coca, which clearly highlights that the export of Java Coca (primarily to Amsterdam)

was significant to several economies. The author provides interesting tables that compare the source and amount of coca leaves exported and imported in the world while demonstrating the effects of supply, demand and quality on price. Next is a section describing the process of alkaloid extraction from the coca leaf. It is interesting to note the progress made in extraction chemistry since Dr. Nevinný's monograph! The author then describes her results in using Java Coca in the preparation of coca extracts described in pharmacopoeias of that period. Finally, the botany of Java Cocaine is discussed—again unique information but probably of limited interest to toxicologists.

"Coca: Its history, geographic distribution and economic significance" is the doctoral dissertation of Theodor Walger, written in Berlin in 1914 and later published in 1917. This monograph emphasizes South American coca. It begins with a wonderful statement when taken in context of the cocaine cartels of today: "It is said that the business of coca cultivation will be severely disrupted when the chemical industry finally succeeds in synthesizing cocaine, or in producing an effective substitute." Not yet, Dr. Walger, but the business has changed hands. This monograph begins with a concise and very readable botanical description of the coca plant, the general distribution of coca, its origins, and the history of its cultivation. The bulk of the monograph is devoted to the development and distribution of coca plantations in various countries. There is some incredible detail here, probably more than most people would want, but it is very interesting to read. The reader would do well to have a good atlas by their side as the author describes the towns and microclimates of South America with detail similar to a book on wine appellations. (Unlike wine, the author mentions that coca "cultivation was attempted in California . . . but failed"). After this discussion, the author concludes with a section on the economic significance of coca.

All three monographs have the original reference and additional informative footnotes added by Dr. Karch. A short biographical chapter precedes each dissertation. There is a final glossary-type chapter on persons, places and things and three appendices that are actually three more minipapers primarily on the botany of coca.

This book is recommended mainly to those interested in the history and origins of the coca trade and an interest in the botany of the coca plant. Readers that are interested in a more general history of cocaine would probably find another book by Dr. Karch, "A Brief History of Cocaine" to be more useful.

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