



UNIVERSITY OF  
CALIFORNIA PRESS  
JOURNALS • DIGITAL PUBLISHING

---

Review: Medieval Medicine

Author(s): Richard Evans Schultes

Source: *BioScience*, Vol. 27, No. 12 (Dec., 1977), p. 816

Published by: University of California Press on behalf of the American Institute of Biological Sciences

Stable URL: <http://www.jstor.org/stable/1297762>

Accessed: 13/08/2010 09:35

---

Your use of the JSTOR archive indicates your acceptance of JSTOR's Terms and Conditions of Use, available at <http://www.jstor.org/page/info/about/policies/terms.jsp>. JSTOR's Terms and Conditions of Use provides, in part, that unless you have obtained prior permission, you may not download an entire issue of a journal or multiple copies of articles, and you may use content in the JSTOR archive only for your personal, non-commercial use.

Please contact the publisher regarding any further use of this work. Publisher contact information may be obtained at <http://www.jstor.org/action/showPublisher?publisherCode=aibs>.

Each copy of any part of a JSTOR transmission must contain the same copyright notice that appears on the screen or printed page of such transmission.

JSTOR is a not-for-profit service that helps scholars, researchers, and students discover, use, and build upon a wide range of content in a trusted digital archive. We use information technology and tools to increase productivity and facilitate new forms of scholarship. For more information about JSTOR, please contact [support@jstor.org](mailto:support@jstor.org).



American Institute of Biological Sciences and University of California Press are collaborating with JSTOR to digitize, preserve and extend access to *BioScience*.

<http://www.jstor.org>

## MEDIEVAL MEDICINE

**The Medieval Health Handbook—*Tacuinum Sanitatis***, by Luisa Cogliati Arano (translated and adapted by Oscar Ratti and Adele Westbrook from the original Italian edition). George Braziller, Inc., New York, 1976, 153 p., illus., \$25.00 (75-21725).

Here is a surprising, fascinating, beautiful book—one characterized by fine scholarship—that takes us back six or seven hundred years in our thinking about health and medicine. *Tacuinum Sanitatis* is a collection of illustrated plates and their legends, compiled from five illuminated manuscripts of great importance in the development of medical botany and the herbals of the Middle Ages and later. These manuscripts for the most part were overlooked until recent times.

The five documents, all related in style and content, are the *Tacuinum of Liège*, the *Tacuinum of Paris*, the *Tacuinum of*

*Vienna*, the *Theatrum of the Casanatese Library* in Rome, and the *Tacuinum of Rouen*. They appear to have been produced during the last two decades of the 1300's and 1400's in the Po Valley of Italy. Each is thoroughly considered in the scholarly text that precedes the reproduction of a selection of the illustrations and their respective texts. The first clues to their existence came in 1895, 1896, and 1905 for the first three; the last two, although named in library lists earlier, were actually made known only during the 1950's.

Each document comprises an illustrated manuscript with succinct commentaries for each plate. All bear the characteristic of work done in the Po Valley during the so-called Gothic Period. Furthermore, although each was obviously the work of a different author, they all show in their texts and illustrations the mark of Arabian medicine. It is probable that the Arabic culture in Spain influenced the preparation of these health books. At least the source of inspiration of form of the *Tacuina* may

have been the historic Arabian physician Ibn Botlân of whose writings there are still extant a number in Arabic. The *Tacuina*, although not directly of his writing, may be considered to represent a kind of synthesis of them. The very term *Tacuina* comes from the Arabic *taqwîn*, meaning "tables," in reference to the legends beneath each illustration and outlining the nature, usefulness, dangers, antidotes, etc. of the subject of each plate.

This artistically produced volume presents 48 full-page color plates with the respective "tables" or texts. These are followed by 243 smaller illustrations, with texts, in black and white. Most of the plates represent plants. Of particular interest is No. XX (from the *Tacuinum of Vienna*)—the Fruit of the Mandragora. It figures a man together with a dog tied by a rope to the neck of a highly anthropomorphic root of the mandrake—an early representation of the curious method of collecting this toxic and narcotic root and the beliefs that persisted for hundreds of years that any person pulling the root himself would be driven mad by the shrieks emanating from the plant. The "table" for this illustration reads: "*Nature*: Cold in the third degree, dry in the second. *Optimum*: The highly fragrant variety. *Usefulness*: Smelling it helps alleviate headaches and insomnia; spreading it on the skin works against elephantiasis and black infections. *Dangers*: It stupefies the senses. *Neutralization of the Dangers*: With the fruits of ivy. *Effects*: It is not comestible. It is good for warm temperaments, for the young, in Summer, and in the Southern regions."

Following the plates and their "tables" there is a complete Table of Concordance and a Bibliography.

This volume is an extraordinary contribution to the history of medicine, to botany, to disciplines studying lifestyles of the 1300's and 1400's in Europe. It may immediately be recommended for all interdisciplinary libraries and research centers, and it will be extremely helpful as collateral reading in university courses.

The publisher has done a masterly job in high quality of publication, and, in this way, he has kept faith with the level of scholarship of the author. For the price, the book is a gem.

## MODELING CELL REARRANGEMENT

**Mathematical Models for Cell Rearrangement**, edited by G. D. Mostow. Yale University Press, New Haven, Conn., 1975, 271 p., illus., \$17.50 (74-29731).

This book contains a valuable review of work on the theory of cell rearrangement processes, which is central to the study of morphogenesis. Through it, four papers by Pyatevskii-Shapiro et al. and one by A. V. Vasiliev are now made accessible to English-speaking scientists, thanks to translation by Yčas. The balance of the book consists of seven American papers, starting with Steinberg's pioneering paper in *Science* (1963), which began this particular direction of work. Richard Campbell's 22-page annotated bibliography of the subject (including comments on the papers in this book) will be invaluable for any future workers in the field.

The bibliographies of the papers demonstrate the need for this book: The American authors cite the Russians even less than the Russians do the Western papers.

The principal characterization of these papers is that they are far more concerned with operating the mathematical models than with testing predictions which come out of the mathematics. This appears to be more true of the Russian work than of the Ameri-

can. It is not clear whether this characteristic reflects a philosophical attitude or the collective conclusion that Steinberg's basic concepts need no further proof. If the latter is the authors' motivation, then I believe they are correct. Still, it would have been valuable if more of their discussions had been carried further to the point where testable predictions were clearly stated. Thus, the book's title is valid, in that it refers more to *mathematical models of*, and not to the *physical explanation for*, cell rearrangement. Perhaps it is still a bit early to ask for a comprehensive explanation; if so, then this book will be an important help to those who seek such explanations in the future.

A major part of the scientific explanation for a phenomenon, such as cell rearrangement, must be the demonstration that the phenomenon (together with all that is involved in it) is compatible with the rest of science. A vitalistic theory for cell rearrangement would "explain" everything, of course. But it would lead nowhere, in a large part because it would be incompatible with physics and physical chemistry. It is, quite possibly, in the breaking down of one of the few remaining bastions of vitalism that the *physical* theory of cell rearrangement serves biological science the best.

ROBERT J. GOOD  
Department of Chemical Engineering  
State University of New York  
Buffalo, NY 14214

RICHARD EVANS SCHULTES  
Botanical Museum  
Harvard University  
Cambridge, MA 02138