

SECOND EDITION

COLPOSCOPY

**A Scientific and Practical Approach to the Cervix
and Vagina in Health and Disease**

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The Second Edition of this book is more comprehensive, better illustrated, more academic and more problem-oriented. It is also a guide to precise management. Wholesale revision, refinement and modernization — together with new studies of the vagina, vaginal adenosis and atypical colposcopic appearances — make this a complete, up-to-date and authoritative manual.

With Contributions by

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American Lecture Series®



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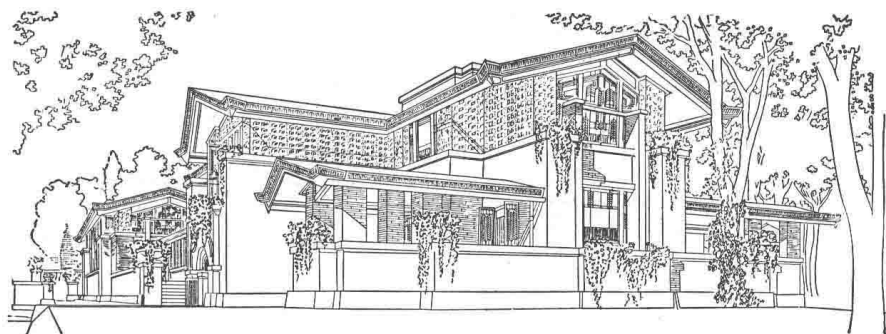
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AMERICAN LECTURE SERIES®

A Monograph in
The BANNERSTONE DIVISION of
AMERICAN LECTURES IN GYNECOLOGY AND OBSTETRICS

Edited by
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FOREWORD

IN 1971 a new book entitled *Colposcopy, A Scientific and Practical Approach to the Cervix in Health and Disease* appeared in this country by the authors Malcolm Coppleson, M.D., Ellis Pixley, M.B., and Bevan Reid, M.D., all of Australia. In the past seven years this book has required three printings and is now appearing with extensive revisions and additions as a second edition. America was ready for this book with its perennial curiosity which extends as thoroughly into the scientific community as into every other phase of life in this country.

After Hinselmann used his first colposcope some fifty years ago the application of the method to study the cervix by means of this relatively small magnification was limited almost entirely to the gynecologists of the continent of Europe. The large and famous gynecologic clinics had their colposcopes, which were demonstrated regularly, but their use was never enthusiastically received by the visiting American gynecologic surgeons. Many of the American professors in the past two generations, and many today, have felt that this instrument cannot see sufficiently into the endocervix to make it of great value. However, now it is appearing more obviously that the transformation zone in the vast majority of women can be visualized, except in the occasional younger woman and, unfortunately more commonly, in the woman after 60 years of age.

In this country, which gave birth to the cytologic diagnostic criteria which indicate abnormal changes in the cervix uteri, cytology has been relied upon almost totally to determine the presence of preclinical cancer and dysplasia of the cervix. While we have thought that the degree of error in accuracy of diagnosis after the first cytologic examination was 5 percent or less, it is beginning to appear that the false negatives may extend to 10 percent of patients who truly have an early lesion.

This book, *Colposcopy*, appeared at just the right time. It has become the standard of excellence in the use of this method in this country. Undoubtedly all involved will be interested in the second edition which contains much new material as well as important revisions, both large and small. The changes of meanings from only a few words can clarify a situation a great deal. Not only the many changes throughout this book, along with fresh comments on problem situations, are important, but in addition there are two new chapters by Adolph Staff, M.D., and Duane Townsend, M.D., among our most authoritative contributors to diagnosis by means of colpos-

copy in America. These chapters deal particularly with the DES problems.

The young resident in training today will have developed a reasonable skill in the use of the colposcope and will carry it with him into the practice of gynecology. The method has been more thoroughly introduced into this country by the book by Coppleson, Pixley and Reid than by any other stimulus.

Every now and then a book comes along which proves itself exceedingly popular and it is accepted by the medical profession with great interest. Mr. Charles C Thomas once told me that his publication of a small book on general surgery by John Homans of Boston astounded him because of the sudden and widespread acceptance of that book. As a medical student it was one of my treasured purchases. Now another book which fills a need and stands on its merit has become our standard of excellence in the use of colposcopy. Colposcopic findings again have been correlated with microscopic disease. The clinical methodology offered by these authors encompasses sound conservative techniques of treatment.

LAMAN A. GRAY, SR., M.D.

Editor for Obstetrics and Gynecology

PREFACE TO THE SECOND EDITION

NEARLY A DECADE has passed since this book was conceived and written. The appearance of a second edition became necessary with the rate of advance of the field of knowledge on several important fronts. First, there has been an overall trend toward increasingly conservative methods of management of cervical intraepithelial neoplasia necessitating a revision and rewriting of the aims and descriptions of these methods. We are aware of criticism of the possibilities for under treatment of invasive cancer that inexperienced and inappropriate use of the colposcopic method may allow. Accordingly, great care has been taken to provide guidance in order to avoid this error. Second, an increase in the occurrence of vaginal lesions associated with the maternal use of diethylstilboestrol prompted a full-scale treatment of the subject of the ontogeny and colposcopic morphology of the vagina preparatory to chapters by two distinguished American authors on the specific appearances so induced. Third, a new chapter on the occurrence of atypical appearances of doubtful or physiological significance became necessary as part of a critical evaluation of the colposcopic method. Fourth, the participation of some of the authors in numerous teaching programmes, seminars and the like at all levels of student seniority over the past seven years gave us first hand knowledge of the most common problems which arise in learning about the subject. This knowledge permits a comprehensive assembly of its many aspects into a more polished story.

In addition to four new chapters, extensive rewriting and revision of the text of the first edition means that little of the book remains in its original prose. The illustrations have changed both by extensive replacing of older photographs and the addition of nearly a hundred new illustrations.

We have hopefully set out to answer all questions which arise in a comprehensive study of colposcopy by descriptions and discussions whose accuracy is warranted by our close association with the several clinical, teaching and research aspects of the whole field.

PREFACE TO THE FIRST EDITION

THE COLPOSCOPE was invented through the labours of Hans Hinselmann in Hamburg over forty years ago. By virtue of the combination of a knowledge of optics and great curiosity about the origins of cervical cancer, he constructed an instrument capable of magnifying the image upon which a powerful light source was focussed. His main purpose was the discovery of a primary focus of the cancer. Instead of the simple nodule he suspected, he found a profusion of quite novel appearances which, with the aid of biopsy, were shown to represent variations in the pattern of the cervical epithelia. A glimpse of the pictures which follow in this book will indicate the range of these variations and perhaps give some idea of the complex task faced by this pioneer as he slowly and painstakingly categorised them in a series of papers over the next twenty years. Through him we learned to look for the origins of clinical cancer not in a focus, but in a sheet of epithelium, a concept which opened the way to a much clearer understanding.

The use of the instrument spread quickly throughout the continent of Europe helped by such disciples as Mestwerdt, Limburg, Wespi, Navratil, Antoine, Bret, Coupey, Cramer and many others, all of whom added refinements and modifications to Hinselmann's original concepts. More recently some newer potential of the technique has been realised. Koller and Kolstad in Norway have produced some beautiful photographs of the cervix by variations in the optics. They have used some of these photographs to quantitate the capillary vascular bed of the organ which they have been able to correlate with some aspects of carcinogenesis.

In Australia we have also developed the use of the instrument as a valuable research ally in attempting to define the natural history of the cervix. The pictorial record of this development lent itself to collation as a book.

This book is in many respects, an amplification of a chapter and the continuation of an approach developed in a companion volume, *Preclinical Carcinoma of the Cervix, Origin, Nature and Management* (Coppleson and Reid, 1967), to which the reader is referred for a more profound treatment of the practical as well as the more academic and abstruse aspects of the field.

ACKNOWLEDGEMENTS

A PUBLICATION of this kind has upon it the stamp of others than its authors. Friends and family, teachers and typists, and a thousand encounters in hospital corridors, scientific meetings and teaching sessions are all present somewhere between its covers. Mention cannot be made of all, but those who are not formally acknowledged will know their page, their conceptual contribution and technical participation.

It is befitting to acknowledge again a debt to Sir John Stallworthy in whose department at Oxford, England, one of us first looked down a colposcope over twenty years ago and whose encouragement has continued unabated in the interim. Our special thanks are directed towards the editor of the American Lecture Series of which this book forms part. At a time when the method had little acceptance Dr. Laman Gray invited the senior author to introduce the topic to an American audience through this influential series. It is comforting to see how his gamble has paid off in the now widespread and safe place that the subject now enjoys on the American scene. We continue to recognise his encouragement and guidance.

Much of the routine assembly of the book was accomplished at the King George V Hospital, Sydney and the Department of Obstetrics and Gynaecology, University of Sydney where encouragement and facilities were generously extended respectively by colleagues of the Visiting Medical Staff and by Professor R. P. Shearman. Dr. Colin Laverty, Chief of the Department of Pathology at King George V Hospital, deserves special thanks for advice, lengthy discussions, as well as for the provision of several of the microphotographs. For much active assistance in the Colposcopy Clinic at the same hospital, we thank Dr. Richard Reid and Miss Margaret Arnold. The illustrations are the skilful work of the Departments of Illustration, the University of Sydney and the Royal Prince Alfred Hospital under the direction respectively of Mr. Ken Clifford and Mr. Brian Magee. The drawings were made by Miss Julie Eichorn and Miss Fiona Pixley, daughter of the author. The typing of the manuscript was done by Mrs. Shirley Bottrell, Mrs. Judy Shade and Miss Pat Neill. Our thanks are due to all for their valuable help and sustained labours.

We have also received encouragement, advice and assistance over the years from Dr. William Chanen, Royal Womens Hospital, Melbourne, who has pioneered the entry and use of the instrument in that city, from Dr. Frank Pacey, Senior Cytologist, Institute of Clinical Pathology and Medical Research, Lidcombe, N.S.W., and from Mr. Walter Schroeder of Sydney.

It is difficult to overrate the influence of our frequent visits to the United States of America over the past seven years on the development and maturation of many of our viewpoints. Our special patrons in this country were Doctors Duane Townsend of Los Angeles, Adolf Staff of Milwaukee, Joseph Scott of Miami and John Marlow of Washington, who have been our hosts, guides, philosophers and friends. As illustrative of this influence is our inclusion of Drs. Staff and Townsend as guest authors. We are indebted to them for making this contribution to the book.

We also owe a debt for a less formal but very real contribution from numerous people in North America. Such has been the extent of contact at courses, meetings, symposia, lectures and the like that it has proved difficult to compile an exhaustive list. For this valuable dialogue we thank: Jim Abell, Joseph Ballina, John Bise, Lawrence Borow, Philip Brooks, Louis Burke, William Christopherson, Leonard Cibley, Bill Creasman, Arch Dillard, Philip DiSaia, Val Clark Donahue, Lawrence Donohue, Charles Dungan, John W. Greene, Jr., Earl Greenwald, William Hart, Arthur Herbst, Arthur Hertig, Lewis Hicks, Lorna Johnson, Howard W. Jones, Jr., Leo Koss, Philip Krupp, Leo Lagasse, Warren Lang, John L. Lewis, Jr., Gordon Lickrish, Michael Liebermann, Barbara Mathews, Dick Mattingly, Paul Morrow, Jack van Nagell, Lester Odell, Donald Ostergard, James Park, A. D. de Petrillo, John Queenan, Jim Reagan, Ralph Richart, Marvin Rodney, Milton Roy, William Russell, Edward Savage, Fred Schlichting, Albrecht Schmitt, George Schneider, Robert Scully, Hugh Shingleton, Mojmir Sonek, Jose Torres, Harold Tovell, George Trombetta, Carlos Vence, Alma Young, Maclyn Wade, Jim Walsh, James Weatherholt, Winston Weese, George Wied, George Wilbanks, Cecil Wright, Roland Zwick.

Colposcopy has now become world wide in its coverage and we have travelled extensively in many other countries. It is a pleasure to record our indebtedness to our foreign colleagues. Dr. Albert Singer originally from Sydney, now in Sheffield, and an adviser to the first edition of this book, and Dr. Joe Jordan of Birmingham are old established colleagues whose advice, cooperation and friendship we have valued for many years. Professor Per Kolstad, Oslo, Professor Erich Burghardt, Graz, Dr. James Maclean, Buenos Aires and Professor Santiago Dexeus, Barcelona have all influenced our views. Valuable discussions have been held with other leading exponents in various countries. In particular we acknowledge:

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We thank Pergamon Press for permission to reproduce a few illustrations from an earlier book, *Preclinical Carcinoma of the Cervix, Origin, Nature and Management*.

The publishers, Charles C Thomas, have rendered ready and willing assistance with the same enterprise to which we had been accustomed during the preparation of the first edition. We record our special thanks to Mr. Payne Thomas and to Mr. William Bried, for courtesy, help, advice and solicitude in our attempt to present the material in the best possible way.

MALCOLM COPPLESON

ELLIS PIXLEY

BEVAN REID

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