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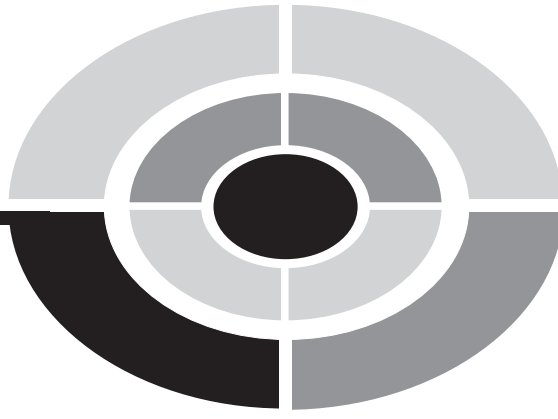
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# **ANATOMY DEMYSTIFIED**

**The Hon. Dr. Dale Pierre Layman, Ph.D.,  
Grand Ph.D. in Medicine (Belgium)**

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This book is fondly dedicated to my wonderful wife, Kathy. She is the “Anchor,” the solid “Rock” upon which we can all lean in times of trouble or need. She is my best and most patient friend.

I also wish to highlight Allison, one of my artistically talented daughters. It is through her creative efforts that our host – Professor Joe, The Talking Skeleton – has been brought to vibrant life.

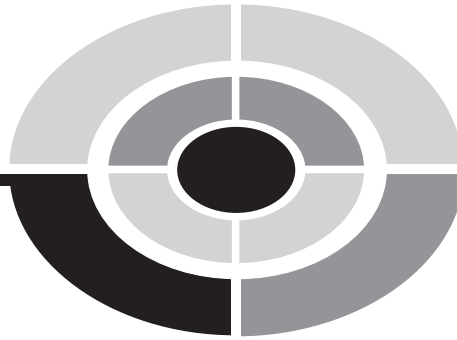
Finally, I wish to thank Janet M. Evans, President of the American Biographical Institute, and Nicholas S. Law, Director General of the International Biographical Centre (Cambridge, England). In many of their volumes, they have described my ideas for “Intuitive Geometry and the A&P (Human Anatomy & Physiology) Text.”

And, now, through the help of Judy Bass and Scott Grillo at McGraw–Hill, these ideas are being realized!

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# PREFACE

“Which comes first—the chicken, or the egg?” This book is about the “egg”—*human anatomy* or *body structure*. (An unhatched egg is an example of anatomy.) Its close companion, *PHYSIOLOGY DEMYSTIFIED*, is all about the “chicken”—*human physiology* or *body function*. (The process of laying an egg is an aspect of chicken physiology, after all!)

*ANATOMY DEMYSTIFIED* is for people who want to get acquainted with the fundamental concepts of human body structure, without having to take a formal course. But it can also serve as a supplemental text in a classroom, tutored, or home-schooling environment. In addition, it should be useful for career changers who need to refresh their knowledge of the subject. I recommend that you start at the beginning of this book and work straight through.

This book seeks to provide you with an intuitive, highly visual grasp of anatomy and its terminology. It takes the approach used by many of the early visual artists. It travels far, far back in time, back to the Time of the Ancient Pharaohs, and of their Great Pyramids rising majestically from the sands of the Egyptian desert! It is here that much of the formal study of anatomy first began, so it is here that *we* begin!

The book takes you on a *Journey Through Bodyspace*, represented by the Great Body Pyramid! Professor Joe, The Talking Skeleton, is our host. He is drawn as a cartoon standing upright and pointing, whenever key facts about Biological *Order* in the human body are being presented. But when he is fallen and fractured, our Good Professor is talking to you about facts of Biological *Disorder* in the human body. These key facts of Order-versus-Disorder will be about Anatomy, Physiology, or just Plain Body Functions.

As you go from body system to body system, you will also learn *where* to put many facts of Biological Order/Disorder, briefly writing them within the “grids or drawers” of the Great Body Pyramid. In this way, like putting your socks into a drawer, you will always know where to find the key body facts (“socks”) whenever you need them!

This introductory work also contains an abundance of practice quiz, test, and exam questions. They are all multiple-choice, and are similar to the sorts of questions used in standardized tests. There is a short quiz at the end of every chapter. The quizzes are “open-book.” You may (and should) refer to the chapter texts when taking them. When you think you’re ready, take the quiz, write down your answers, and then give your list of answers to a friend. Have the friend tell you your score, but not which questions you got wrong. The answers are listed in the back of the book. Stick with the chapter until you get most of the answers correct.

This book is divided into six sections. At the end of each section is a multiple choice test. Take these tests when you’re done with the respective sections and have taken all the chapter quizzes. The section tests are “closed-book,” but the questions are not as difficult as those in the quizzes. A satisfactory score is three-quarters of the answers correct. Again, answers are in the back of the book.

There is a final exam at the end of this course. It contains questions drawn uniformly from all the chapters in the book. Take it when you have finished all six sections, all six section tests, and all of the chapter quizzes. A satisfactory score is at least 75 percent correct answers.

With the section tests and the final exam, as with the quizzes, have a friend tell you your score without letting you know which questions you missed. That way, you will not subconsciously memorize the answers. You can check to see where your knowledge is strong, and where it is not.

I recommend that you complete one chapter a week. An hour or two daily ought to be enough time for this. When you’re done with the course, you can use this book, with its comprehensive index, as a permanent reference. What you now hold in your hand, I think you will agree, is a most *unusual* approach to the study of human anatomy!

We have of course, our most unique talking skeleton host, Professor Joe (and occasional glimpses of his somewhat mischievous sidekick, Baby Heinie). More importantly, this book represents the practical application of what I like to call *Compu-think*, or “computer-like modes or ways of human *thinking*.” This is reflected in its heavy emphasis upon binary (two-way) classifications, grid-associated reasoning, and frequent occurrence of summary word equations.

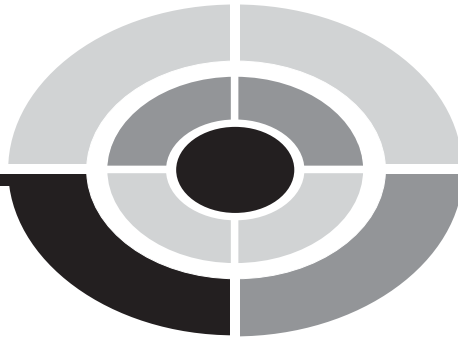
Suggestions for future editions are welcome.

Now, work hard! But, be sure to have *fun*! Best wishes for your success.

*The Hon. Dr. Dale Pierre Layman, PhD, Grand PhD in Medicine*

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# ACKNOWLEDGMENTS



The most interesting and entertaining illustrations in this book are mainly due to the talented efforts of one of my own daughters, Allison Victoria Layman. It is through her gifted eyes that my visions for picturing key body concepts have been successfully brought to life!

I extend thanks to Emma Previato of Boston University, who helped with the technical editing of the manuscript of this book. Thanks also go to Maureen Allen and the staff at Keyword, who helped me winnow out various errors and inconsistencies within the original manuscript.

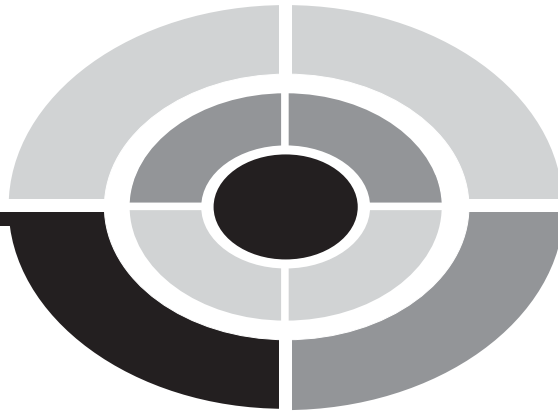
I particularly wish to thank Judy Bass, Senior Acquisitions Editor at McGraw-Hill. Judy has been *very* enthusiastic and supportive of all my writing efforts! This means *a lot* to a struggling author! She also deserves credit for her brilliant insight that we need two separate but closely-linked books—both an *ANATOMY DEMYSTIFIED*, as well as a stand-alone *PHYSIOLOGY DEMYSTIFIED*—in this series.

Finally, Mr. Scott Grillo (publisher) has been a quiet, steadfast, and kindly presence behind all of my writing efforts. I am most pleased to honor both Judy Bass and Scott Grillo within the distinguished pages of the *Dedication Section* in *2000 OUTSTANDING INTELLECTUALS OF THE 21ST CENTURY* (2nd Ed., 2003), just published by the International Biographical Centre (Cambridge, England). The unusual and creative thinking efforts being presented in these humble little volumes are closely being watched and reported on, within the Highest World Intellectual Circles!



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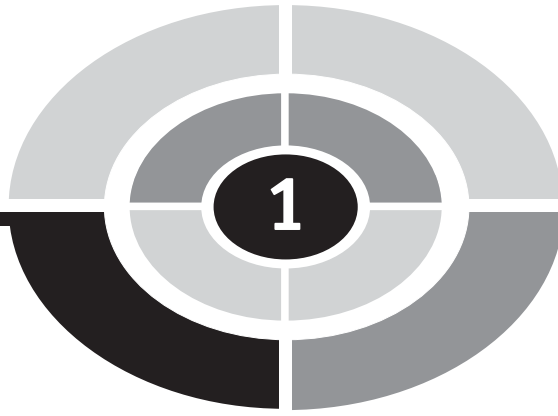


**PART 1**

# The Journey Begins

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CHAPTER

# Anatomy: Our Inner World of Bodyspace



Welcome!  
Welcome to  
ANATOMY  
DEMYSTIFIED:  
A Journey  
Through  
Bodyspace

Hello, there! I am Professor Joe, The Talking Skeleton! I have been selected as your guide for this book, *ANATOMY DEMYSTIFIED*. I am here to give





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