

Preface to the Fourth Edition

HOW TO DISSECT ORIGINALLY WAS INTENDED TO BE A CLEAR AND uncomplicated guide for students with little or no experience in dissection. Another objective was to articulate the dissections to produce the effect of an interconnected series paralleling the biological emergence of the groups represented by the individual dissections. Finally, the book was designed to humanize the disparate dissections by revealing anatomical relationships that ultimately result in a better understanding of our place in the world of living things.

As the writing progressed, the need to expand the scientific literacy of the dissectors became more pressing. The earlier chapters were written with simplified text and directions. Gradually, the experience gained in each chapter became a ladder of incremental learning for the next dissection, until the level of the final chapters was considerably heightened. This basic plan remained a self-injunction to balance simplicity with the need for sophistication, rather like moving from freshman to sophomore and toward the senior status for the two new chapters, "The Clam" and "The Perch."

The clam was included in this new edition to provide a better appreciation of a very large taxonomic group of animals common to human experience. The perch was chosen as an example of the group of animals that dominates the waters of the world, a group whose diverse development included organisms that foretold a future of the subphylum Vertebrata.

Somewhat more emphasis has been placed on the rationale of taxonomy and on the probable lines of evolutionary development. A taxonomic summary of chordate classification and an illustration of the Evolutionary Tree of Life that can be useful throughout the book are included at the beginning of the chapter on the fetal pig.

Twenty-two new illustrations and several new projects have been added. The book now covers the spectrum of most organisms generally used for dissections in science classrooms and laboratories and should have greater value for students and their instructors.

Once again I express my admiration and respect for Betty, my wife, companion, and personal editor, for her devoted assistance and time in preparing the fourth edition.

William Berman
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