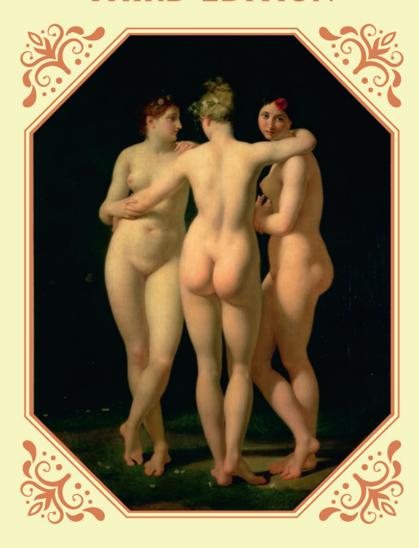
THE ART OF AESTHETIC SURGERY

Principles & Techniques
THIRD EDITION



FOAD NAHAI • FARZAD NAHAI



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The Art of Aesthetic Surgery

Principles and Techniques

Third Edition

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To Shahnaz My best friend and partner of fifty years whose beauty is only surpassed by the loveliness that radiates from within. You are an inspiration to us all, and your patience, understanding, sacrifices, and encouragement have made me who I am. Thank you for enriching my life. -Foad Nahai, MD, FACS, FRCS (Hon)

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Preface

It has been almost twenty years since my good friend and mentor John Bostwick, then chief of plastic surgery at Emory, and Karen Berger, another good friend who, at the time, was the CEO of Quality Medical Publishing, encouraged me to undertake the task of editing a textbook on aesthetic surgery. Their input and advice led to the publication of the first edition of The Art of Aesthetic Surgery in 2005. Six years later, in 2011, the second edition was published. The first two editions were an immense undertaking for me, but also rewarding and educational. Both editions were written to address the enormous demand for and interest in cosmetic surgery and the need for comprehensive information on that topic. I had not anticipated the warm reception both editions would receive from colleagues throughout the world, and I have been delighted, humbled, and gratified to witness its continued popularity and enthusiastic readership. Recent translations into Chinese, Korean, and Russian attest to the ongoing global need for education in aesthetic surgery. I never imagined, twenty years ago, that today I would be writing the preface for a third edition.

Why a third edition? Surely twice was enough for a project of this magnitude. The answer is obvious: this is a dynamic field continuing its rapid and significant growth, with numerous, exciting new developments. Interest in this topic has not abated over the years; in fact, it has grown stronger and more vibrant. While many of the procedures touted nine years ago are still being performed, others have been replaced by new, less-invasive approaches or techniques that emphasize volume replacement to enhance rejuvenation procedures. Furthermore, new technology, noninvasive techniques, and a number of new devices, fillers, and products have enhanced our ability to provide our patients a broader spectrum of options and improved outcomes. Clearly, after nine years there was a need for a revision of the book to reflect these dramatic and ongoing changes.

Today, nonsurgical cosmetic treatments, such as injectables, continue to gain in popularity, whereas the decline we had seen in some surgical approaches to facial rejuvenation seems to be reversing. Nowhere is this change more dramatic than in the area of brow rejuvenation. Another important trend has been the emphasis on volume enhancement in periorbital and facial rejuvenation, as well as surgery of the breast. In keeping with these trends, we have increased coverage of nonsurgical treatments and injectables and have added new sections and chapters dealing with volume and its role in facial rejuvenation and the role of fat grafting in breast surgery.

In contrast to the reduction in the number of invasive surgical procedures for facial rejuvenation being performed today, there has been a dramatic increase in breast and body-contouring procedures, in normal-weight patients, and in individuals who have lost massive amounts of weight. Accompanying this burgeoning interest and demand have been advances, the development of new procedures,

and refinements of existing techniques. In keeping with advances and demand for genital rejuvenation, we have expanded that section and added a new section on gender-affirming surgery.

I did not approach the task of this revision lightly. As with the first two editions, it involved many late nights and weekends spent writing and editing. A busy practice, numerous academic and societal commitments, a journal editorship, and an effort to bring more balance into my own life were all forces working against such an undertaking. Why, then, did I feel this was the right time to take on the responsibilities and make the time commitment for editing a third edition? Obviously, there was more than one reason.

My commitment to learning and teaching was a primary motivator. From my earliest writings on muscle and musculocutaneous flaps, to the editing of two editions of this three-volume work on aesthetic surgery, I have always felt an obligation to contribute to the literature and to help advance our specialty. This book represents a continuation of my lifelong dedication to this process. It has been a wonderful way to reach out to young and experienced surgeons alike and to offer them insight into the remarkable contributions made by leading experts worldwide. During academic travels and interactions with plastic surgeons and trainees all over the world, I have witnessed their interest in aesthetic surgery and their desire to master the basics of aesthetic surgery and learn about the latest techniques. This new edition has been written to address that need and to provide information on current advances that emphasize safe and best practices to all aesthetic surgeons.

Recognizing my many commitments and the increasing scope of the specialty led to the decision to invite others to assist me; namely, my son, Farzad Nahai as coeditor and section editor; Dr. Jeffrey Kenkel and Dr. John Hunter as section editors, with each responsible for two sections; and Dr. William Adams and Grant Stevens as section editors. I felt this would not only lighten my load and speed up the time to publication but would allow the coeditors to add their expertise.

Every chapter has been revised with new material added. Twenty new chapters, reflecting the growth and diversity of our specialty, have been included. The amount of online material has also grown, with nineteen operative videos, fourteen of which are new, included in this edition. The entire book is also available online for quick and portable reference. It is with great pleasure that I welcome 105 new contributors who, along with our previous contributors, bring valuable insights and considerable expertise to this new edition. The contributors, drawn from all parts of the globe, represent several disciplines, including the four core specialties. These contributors, all of whom have distinguished themselves as educators and innovators, have graciously succumbed to my gentle arm-twisting and that of the section editors to provide us with outstanding chapters on a diverse range of topics.

The positive feedback we have received on the clinical decision-making chapters prompted the expansion of existing chapters and the inclusion of new ones. The additions reflect the increase in the number of options now available for each patient. These chapters reflect my own and the section editors' daily decision-making process, not only in the operating room but also in the clinic, where we evaluate new patients and care for them after the operation.

My personal interest and fascination with human anatomy dates back to my first year in medical school. I recall one of my teachers telling the class, "You will learn anatomy three times and forget it three times." He went on to say that unlike other knowledge we would acquire over the years, anatomy would never change. Of course, he was right; anatomy does not change. However, it is important to note that we change, and our understanding of anatomy evolves and deepens with experience.

Back then, I never imagined that one day as a practicing plastic surgeon not only would I remember all the anatomy I learned, but I would also learn intricate details that were unimaginable then. Little did I know that in some modest way I would even contribute to that knowledge base. Interest in anatomic detail as it applies to aesthetic surgery continues with further clarification of facial anatomy, such as the fat compartments and more detailed descriptions of anatomy of the trunk and breast relating to emerging body-contouring procedures. In keeping with these new findings, all anatomy chapters have been appropriately updated.

The topic of patient safety also assumes a more prominent position in this edition, with a major chapter on safety considerations in aesthetic surgery, as well as specific chapters on problems and complications in different anatomic regions.

All volumes have been significantly updated with new information—each chapter reflects the latest information presented by experts responsible for advancing our knowledge in those areas.

As the book progressed from first to third edition, the cover also changed. The first edition cover with a modern rendition of *The Three Graces* was replaced with an even more contemporary rendition of *The Three Graces*. The third edition carries the masters version of The Three Graces.

It is my wish that readers will receive this third edition with enthusiasm equal to that of the first two editions. I hope that it will provide a source of new information, stimulate thought, and foster innovation. As with any writing project, this book has been a major undertaking, but it has also been a labor of love. I have learned as much as I have taught, and I continue to marvel at the outstanding work being done by my colleagues around the world. I am gratified to be able to share our learning and work with you in these pages. My goal for this book is to provide trainees, as well as experienced practitioners, with a solid foundation for learning basic principles and techniques in aesthetic surgery in order to enable them to build on it and advance this specialty that we all love.

Foad Nahai, MD, FACS, FRCS (Hon)

Acknowledgments

This book is intended to serve as a testament to all the surgical pioneers who laid the foundation for modern aesthetic surgery, as well as a tribute to current contributors worldwide whose ingenuity and skill are paving the way for future developments. While acknowledging my mentors, I also credit the young surgeons in whose training I have been privileged to participate. Their enthusiasm and quest for knowledge continues to stimulate me.

This work would never have been completed without the support and encouragement of my family, my partners, those with whom I work on a daily basis at the Emory Aesthetic Center, and my friends at Thieme Publishers. I would be remiss if I didn't mention all of them by name.

My wife, Shahnaz, has been a support and a part of my professional life for fifty years. She, more than anyone, has put up with my unusual hours and weekends away from home. My son, Farzad, now associate editor of this work, and my daughter, Fariba, have always been interested in what I do and have encouraged me in my efforts. My partners at the Emory Aesthetic Center Grant Carson—Bert Losken, Monte Eaves, Gabi Miotto, and Vince Zubowicz—provided encouragement, advice, and most of all, support in looking after my patients while I was working on the book. Trina Walker, my patient care coordinator, has been my right hand for her hard work and support.

Farzad Nahai, in addition to his role as section editor, worked diligently, capably assisting me with all aspects of putting this work together. The section editors—W. Grant Stevens, Jeffrey M. Kenkel, William P. Adams, and John G. Hunter—all lightened my load and assured that this publication would be the best possible.

I am indebted to all at Thieme, notably my friend and adviser Sue Hodgson, who demonstrated her professionalism and talent as an editor in her willingness to work and rework with me until we both felt we had a superb, scholarly, and "aesthetically" appealing product. Judith Tomat not only encouraged but also managed to corral all the contributors and section editors (and the editor as well) into submitting their manuscripts and videos in a somewhat timely manner. Sarah Landis provided the follow-up to process content for publication, gathering missing elements and keeping all aspects of the book in order and on target. Illustrators Brenda L. Bunch, Amanda Behr, Graeme Chambers, Amanda Tomasikiewicz, and Bill Winn provided quality images to accompany the text.

I acknowledge the outstanding contributors to the book, not only the original contributors who updated and in some cases totally rewrote their chapters, but also the new authors whose contributions have filled in any deficiencies that may have existed in the second edition. I am most grateful to them for so generously and readily sharing their expertise with us.

Foad Nahai, MD, FACS, FRCS (Hon)

It is an honor for me to be included in the third edition of *The Art of Aesthetic Surgery*, for so long referred to by me as "dad's book." When my father approached me to assist with the organization, writing, and editing of this book, I was thrilled—thrilled for the opportunity to contribute to the project in a meaningful way, but especially to have the chance to share this experience with him, working closely together to learn the ins and out of putting together a book like this one. It has been a joy for us to collaborate, so I am most grateful to my father for inviting me to be a part of this project and for his continued guidance, mentorship, patience, and leadership. As special as it is for him to share a passion for plastic surgery with me and work together on the common goal of publishing this third edition, it is an equally special experience for me.

The support of my wife Dana and my children Marcelle and Andre has also been important. I especially appreciate their understanding when I have needed to leave the house in the morning before they are awake to work on the book before my clinical day starts.

I would like to also recognize my mentors and their influence on me as a surgeon. The influence of my

dad on my career as a surgeon is immense and goes beyond the scope of this note to fully recount and detail. Stephen Mathes, whom I've been fortunate to know since I was a kid, was my chief during residency. He taught me the value of hard work and commitment to the patient. He was taken from us too soon, but I feel so fortunate to have had the time with him that I did. Bill Hoffman (who coauthored the photography chapter with me) was a big influence on me during my time as a resident. To this day I recall and still abide by many of his wise practices and anecdotes. David Young, Keith Denkler, Lorne Rosenfield, and Gil Gradinger were also major influences during my training and remain dear to me to this day.

I must make a special mention with regard to Ron Gruber. Ron was kind enough to allow residents who were interested in rhinoplasty to spend time with him in his private practice. I went to his office quite often, and Ron was always very welcoming and eager to teach me about rhinoplasty. Much of what I know about rhinoplasty and the success of my rhinoplasty practice I owe to Ron. Much of my chapter on rhinoplasty and my approach to

rhinoplasty is based on his mentorship and the approach he taught me. Without Ron's gracious time and teaching, I would probably not be the rhinoplasty surgeon I am today.

I would also like to mention my staff and partners at The Center for Plastic Surgery at MetroDerm, who supported me in my clinical practice to where I could take the time needed to work on this book.

Lastly, none of this would be possible without the excellent team at Thieme, especially Judith Tomat and Sue Hodgson, who both put in a lot of time and hard work to help make this third edition become a reality.

Farzad R. Nahai, MD

Thank you to Suzanne, Matthew, and Ashley for the many sacrifices you have made to allow me to pursue my professional dreams. Your boundless support continues to be the backbone of my successes.

Thank you to the students, residents, and fellows who have allowed me the privilege of teaching. You have driven

me to pursue excellence and allowed me to be a small part of your accomplishments.

To my patients, I am indebted to each of you for allowing me to care for you. It has been my pleasure and honor to do so.

Jeffrey M. Kenkel, MD

I thank Foad Nahai, MD, for conceiving of and first publishing in 2005 this internationally and critically regarded masterpiece in aesthetic plastic surgery. The impact of the initial text on the aesthetic surgery community, as well as its second edition in 2011, cannot be overstated. I am honored and humbled to be included by Dr. Nahai as a coeditor for this Third Edition, entrusted with the development of two new sections: female genital rejuvenation surgery and gender affirming surgery. Both additions

reflect remarkable changes in aesthetic surgery that have occurred since publication of the second edition and illustrate just how state-of-the-art *The Art of Aesthetic Surgery* has been and continues to be.

I also thank my chapter coauthors and all the authors who generously contributed chapters to both sections that I edited. I also offer very special thanks to Ms. Judith Tomat of Thieme Medical Publishers for her constant assistance, support, and positivity throughout the editorial process.

John G. Hunter, MD, MMM, FACS

I would like to acknowledge Dr. Foad Nahai and all of the section editors for their tireless work in completing this edition of *The Art of Aesthetic Surgery*. I would also like to

thank all of the authors who contributed to this landmark aesthetic surgery and medicine textbook.

W. Grant Stevens, MD, FACS

I acknowledge all surgeons who rise above the noise and seek to truly move the needle with advancement of the art and science of breast surgery.

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