

TABLE OF CONTENTS

List of Contributors

xix

PART 1 THE ANATOMY AND PHYSIOLOGY OF SINGING

SECTION EDITORS: GRAHAM F. WELCH AND JOHN NIX

1. Structure and Function of the Singing Voice 3
GILLYANNE KAYES
2. Voice Dysfunction and Recovery 31
TARA K. STADELMAN-COHEN AND ROBERT E. HILLMAN
3. The Healthy Voice, Lifestyle, and Voice Protection
(including Exercise, Body Work, and Diet) 53
JOHN S. RUBIN AND RUTH EPSTEIN
4. Physiology and its Impact on the Performance of Singing 67
FILIPA M.B. LÃ AND BRIAN P. GILL

PART 2 THE ACOUSTICS OF SINGING

SECTION EDITOR: DAVID M. HOWARD

5. Breathing in Singing 87
ALAN WATSON
6. The Sound Source in Singing: Basic Principles and
Muscular Adjustments for Fine-tuning Vocal Timbre 109
CHRISTIAN T. HERBST, DAVID M. HOWARD, AND JAN G. ŠVEC
7. The Vocal Tract in Singing 145
BRAD STORY

PART 4 THE DEVELOPMENT OF SINGING ACROSS THE LIFESPAN

SECTION EDITOR: GRAHAM F. WELCH

- | | |
|---|-----|
| 20. Socio-cultural, Acoustic, and Environmental Imperatives in the World of Singing
ROBERT WALKER | 413 |
| 21. Fetal, Neonatal, and Early Infant Experiences of Maternal Singing
SHEILA C. WOODWARD | 431 |
| 22. Mothers as Singing Mentors for Infants
SANDRA E. TREHUB AND HELGA RUT GUDMUNDSDOTTIR | 455 |
| 23. Singing and Invented Song-making in Infants' and Young Children's Early Learning and Development: From Shared to Independent Song-making
MARGARET S. BARRETT | 471 |
| 24. Children Singing: Nurture, Creativity, and Culture. A Study of Children's Music-making in London, UK, and in West Bengal, India
VALENTINE HARDING | 489 |
| 25. Singing and Vocal Development
GRAHAM F. WELCH | 509 |
| 26. Boys' Singing Voice Change in Adolescence
JENEVORA WILLIAMS AND SCOTT HARRISON | 533 |
| 27. Adolescent Girls' Singing Development
LYNNE GACKLE | 551 |
| 28. The Effects of Gender on the Motivation and Benefits Associated with Community Singing in the UK
DIANA PARKINSON | 571 |
| 29. Voice Management and the Older Singer
JANE W. DAVIDSON AND LYNNE MURRAY | 585 |

8. The Acoustics of Different Genres of Singing	167
JOHAN SUNDBERG	
9. The Developing Voice	189
DESMOND SERGEANT	
10. Perceptual Features in Singing	225
DAVID M. HOWARD AND ERIC J. HUNTER	
11. The Impact of Location on the Singing Voice	241
HARALD JERS	

PART 3 THE PSYCHOLOGY OF SINGING

SECTION EDITORS: GRAHAM F. WELCH AND KAREN WISE

12. The Neuroscience of Singing	257
BORIS A. KLEBER AND JEAN MARY ZARATE	
13. Intonation in Singing	281
JOHAN SUNDBERG	
14. Singing and Emotion	297
EDUARDO COUTINHO, KLAUS R. SCHERER, AND NICOLA DIBBEN	
15. Perceived Quality of a Singing Performance: The Importance of Context	315
EVANGELOS HIMONIDES	
16. Defining and Explaining Singing Difficulties in Adults	333
KAREN WISE	
17. Vocal Performance in Occasional Singers	355
SIMONE DALLA BELLA	
18. Singing as Inter- and Intra-personal Communication	369
GRAHAM F. WELCH AND COSTANZA PRETI	
19. Digital Libraries for Singing: The Example of the AIRS Project	393
ANNABEL J. COHEN AND KAREN M. LUDKE	

PART 5 SINGING PEDAGOGY

SECTION EDITOR: JOHN NIX

- | | |
|--|-----|
| 30. Systematic Development of Vocal Technique
JOHN NIX | 601 |
| 31. Addressing the Needs of the Adult “Non-Singer” (“NS”)
SUSAN KNIGHT | 621 |
| 32. Teaching the Professional Singer
JEAN CALLAGHAN | 651 |
| 33. Mental Preparation for the Performer
ALMA THOMAS | 667 |
| 34. Conservatory Teaching and Learning
MARY KING AND JOHN NIX | 689 |
| 35. Pedagogy of Different Sung Genres
JEREMY FISHER, GILLYANNE KAYES, AND LISA POPEIL | 707 |
| 36. The Extra-normal Voice
MICHAEL EDWARD EDGERTON | 729 |
| 37. Vocal Music and Pedagogy of Chinese, African, and Indian Genres
YANG YANG, AARON CARTER-ÉNYÌ, NANDHU RADHAKRISHNAN,
SOPHIE GRIMMER, AND JOHN NIX | 751 |

PART 6 THE COLLECTIVE “CHORAL” VOICE

SECTION EDITORS: URSULA GEISLER AND KARIN JOHANSSON

- | | |
|---|-----|
| 38. Contemporary Concepts and Practices of Choral Singing
URSULA GEISLER AND KARIN JOHANSSON | 775 |
| 39. The Youth Choir
JOY HILL | 791 |
| 40. Cultural History and a Singing Style: “The English
Cathedral Tradition”
TIMOTHY DAY | 805 |

- | | |
|--|-----|
| 41. Perspectives on Choral Conducting: Theory and Practice | 823 |
| COLIN DURRANT AND MARIA VARVARIGOU | |
| 42. Group Singing and Social Identity | 837 |
| JANE W. DAVIDSON AND ROBERT FAULKNER | |
| 43. Intonation and Staying in Tune in <i>a Cappella</i> Choral Singing | 851 |
| DAVID M. HOWARD | |
| 44. Choral Singers' Perceptions of Musical Leadership | 865 |
| DAG JANSSON | |

PART 7 THE WIDER BENEFITS OF SINGING

SECTION EDITORS: GRAHAM F. WELCH AND STEPHEN CLIFT

- | | |
|---|-----|
| 45. Can Singing have a Beneficial Effect on Lung Function
and Breathing for People with Respiratory Illness? | 889 |
| STEPHEN CLIFT AND REBEKAH GILBERT | |
| 46. Singing and Psychological Needs | 903 |
| JANE W. DAVIDSON AND SANDRA GARRIDO | |
| 47. The Effects and Benefits of Singing Individually and in a Group | 919 |
| TÖRES THEORELL | |
| 48. Unchained Melody: The Rise of Orality and Therapeutic Singing | 935 |
| THE REV DR. JUNE BOYCE-TILLMAN | |

PART 8 SINGING AND TECHNOLOGY

SECTION EDITOR: DAVID M. HOWARD

- | | |
|--|------|
| 49. Historical Approaches in Revealing the Singing Voice, Part 1 | 965 |
| HARM K. SCHUTTE | |
| 50. Historical Approaches in Revealing the Singing Voice, Part 2 | 991 |
| HARM K. SCHUTTE | |
| 51. Ave Verum Pentium: Singing, recording, archiving,
and analyzing within the digital domain | 1027 |
| EVANGELOS HIMONIDES | |

52. Practical Voice Analyses and their Application in the Studio	1049
GARYTH NAIR, DAVID M. HOWARD, AND GRAHAM F. WELCH	
53. Future Perspectives	1071
PETER PABON, DAVID M. HOWARD, STEN TERNSTRÖM, MALTE KOB, AND GERHARD ECKEL	
(i) Voice Range Profile-based Voice Quality Feedback	1071
Peter Pabon	
(ii) Hearing Modeling Spectrography	1077
David M. Howard	
(iii) Voice Synthesis	1080
Sten Ternström	
(iv) 3D Printed Vocal Tracts	1083
David M. Howard	
(v) Masterclass Teaching at a Distance	1086
Research Center for Opera and Technology, KTH Stockholm	
(vi) Virtual Acoustics	1089
Malte Kob	
(vii) The Voice in Computer Music Composition	1091
Gerhard Eckel	
<i>Author Index</i>	1097
<i>Subject Index</i>	1121