

Dance Science & Somatic Educators Book Summaries

Dear Reader,

The following summaries are not meant to be a comprehensive list of possible kinesiology, anatomy, or somatic textbooks. Rather, they are meant as a guide to provide you with some insight into how they could be used in the classroom.

The DSSE Group

**1. Bowden BS, Bowden JM. *An illustrated atlas of the skeletal muscles*. 4th ed. Englewood: Morton Publishing Company, 2015.
ISBN: 978-61731-172-7**

Overview

An illustrated atlas of skeletal muscles (4th ed.) begins with a clear, direct presentation of the skeletal structure including illustrations of bony landmarks, cartilage and ligaments. The illustrations are uncluttered and easy to interpret, and the authors offer suggestions for palpating key aspects of the human bony structure. Chapters 3-10 present the muscles of the body one muscle, or one small related group of muscles, per page. This method of organizing the presentation and the use of a simple, naturalistic color scheme make the presentations easy to use. Each presentation also includes a pronunciation guide, origins and insertions, actions each muscle produces when it contracts, synergists, antagonists, nerves that innervate the muscle, and suggestions for palpation. Special considerations, trigger points and pain referral patterns are also included in their own special location on each page. The consistent organization of the information on each page facilitates comparisons between muscles and makes the text particularly useful as a reference while reading other sources. The concluding sections describe muscle groups related by structure and function, nerve pathways, and strategies for studying and taking tests involving anatomical content. A glossary and subject index are included and the inside front and back covers display concise word prefix, root, and suffix translations.

How I use this text in my own classes:

An illustrated atlas of skeletal muscles is an ideal accompaniment to other textbooks and lecture presentations that “tell a story” about how the human body works in dance. I recommend the text as supplemental to the dance anatomy and kinesiology text assigned in my courses and I use it as a reference for my own study. I use some of the images from the text in lecture presentations and encourage students to use the text when preparing for exams.

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2. Calais-Germain B. *Anatomy of Movement*. Revised ed. Seattle: Eastland Press, 2007.
ISBN: 978-0939616572

Overview

Anatomy of Movement is a very practical text for dancers learning anatomy for the first time. The book covers basic scientific terminology (planes of movement, anatomical reference terms, descriptions of bones, joints, cartilage, ligaments and muscles), all with very clear, black and white illustrations that do most of the teaching. The illustrations are easy to color for greater depth. Within the text, joints and muscles are described in the context of movement and are arranged in the following order: trunk of the body, shoulder, elbow, wrist and hand, hip and knee, and finally the ankle and foot. Not covered in this text are conditioning exercises nor somatics. The text can be used as a resource for a basic Anatomy for Dance, Dance Kinesiology or similar class, supplying students with clear, concise scientific information.

How I use this text in my own classes:

I've used *Anatomy of Movement* in my Dance Kinesiology classes and found that the images provide students with very clear information. I often use the illustrations in conjunction with other textural material from different sources. At the University of Utah's Modern Dance Department, I teach a year long Dance Kinesiology course and I've found this book a nice supplement with other texts. I've also found this text an easy one to read out of order. For example—if your course outline progresses in a different sequence, *Anatomy of Movement* can still be one to reference to help illustrate a specific idea or provide a visual image for support.

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3. Clippinger KS. *Dance Anatomy and Kinesiology*. 2nd ed. Champaign: Human Kinetics, 2016.
ISBN: 978-1-4504-6928-9

Overview

Dance Anatomy and Kinesiology is a text that seamlessly blends the disciplines of anatomy and kinesiology into a resource written specifically for university dance programs. Clippinger's second edition is a more concise collection of anatomical and biomechanical principles, practical

exercises, tests and measurements, and chapter study questions, culminating in a text that is ideal for a curriculum that allows lengthy investigation in both anatomy and kinesiology courses, but also acts as a practical resource for a wider audience. While the text is a meticulously pared down version of her first, the addition of clearly defined learning objectives and video clips make this an asset to students, educators, performers, and teachers of other movement disciplines. The text opens with body orientation terminology, bone and joint architecture, and holistic considerations for the beginning student. The second chapter gives specific attention to the muscular system. Chapters 3-7 investigate significant regions of the body weighted with relevance to dancers. The final chapter allows students to synthesize the previous material by giving them the tools to analyze whole body movements. In effect, dancers are equipped with the knowledge to become more effective performers and teachers, capable of proper cueing of dance movements, and an increased understanding of techniques to prolong a career in dance.

How I use this text in my own classes:

I use *Dance Anatomy and Kinesiology* in my Anatomy for Dancers and Dance Kinesiology courses at Lindenwood University. Information that tends to overwhelm students at first glance is swiftly understood after exploring the video clips, concept demonstrations, physical tests and measurements, and dance cues that carry readers through each chapter. While I use the text for both courses, I use the architectural sections of each chapter in Anatomy for Dancers and save the movement tests, measurements and exercises for Dance Kinesiology. Revisiting the content in the chapters and physicalizing content at the second glance has been a successful teaching tool. I also incorporate supplemental color illustrations and videos and palpation techniques from other sources to further the students' understanding.

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**4. Dowd I. *Taking Root To Fly: Articles on Functional Anatomy*. 3 Revised ed. 2005.
ISBN: 978-0964580503**

Overview

Taking Root To Fly: Articles on Functional Anatomy is a collection of articles and illustrations that provide readers with both practical and poetic entries to exploring anatomy as experienced in movement. Through Dowd's personal stories as a movement educator and anatomist as well as very specific cues for embodying anatomical ideas, she encourages readers to experience the anatomy from the inside-out. This is a somatic approach. The articles are titled: Visualizing Movement Potential, On Breathing, Finding Your Center, Standing on Two Legs or Even One, In Honor of the Foot, The Upper Extremity: Enfolding and Exposing, Taking Root to Fly: The Human Spine, The Dark Side of the Brain: Working with the Dynamics of Touch Through the

Nondominant Hand, On Metaphor, and Metaphors of Touch. This text can be used as a resource for Anatomy for Dance or Dance Kinesiology courses, especially when physical application and somatics are included.

How I use this text in my own classes:

I've used *Taking Root To Fly: Articles on Functional Anatomy* in my Dance Kinesiology classes and have also drawn upon it to supplement my Dance Technique classes and Somatics-based courses as well. The illustrations are evocative and inspire movement. Dowd's personal stories as an educator invite reflection and awareness of larger contexts. The step-by-step suggestions for specific movement explorations are easily supplemented by a collection of DVDs available via the National Ballet School of Canada. The movement choreographies demonstrated on the DVDs provide dancers with practical applications that they can embody for greater movement ease, deeper strength, control and articulation, as well as awareness.

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5. Fitt SS. *Dance Kinesiology*. 2nd ed. New York: Schirmer Books, 1996.

ISBN: BN0028645073

Overview

Dance Kinesiology was the first comprehensive textbook designed to teach dancers anatomy and kinesiology as it applies to dancing. The emphasis is on topics that have practical value to dancers who are training for a career in dance. Following a brief introduction, the skeletal system is described from the ground up: Foot & leg through radius, ulna & hand. Individual differences and topics of special concern to dancers are described in ways that encourage dancers to build on their strengths and work around their structural limitations. As muscles are layered onto the skeletal structure, their special function in dance movement is described and muscular imbalances that are common in dance are explained along with recommendations for mitigating them. Overviews of physiology, somatotyping, and movement behavior are offered in three brief chapters before a series of six chapters describe applications of the information presented in the first four sections (e.g., promoting movement efficiency, reducing injury risk, conditioning for dance). The 54-page chapter on dance conditioning includes dance-specific exercises with diagrams and description, program outlines for general dancer fitness, and descriptions of special exercises that address specific challenges common in dance.

How I use this text in my own classes:

Dance Kinesiology is the required text for our second year, undergraduate dance kinesiology course at Florida State University. We read 85-90% of the chapters and spend some time

developing skills that include identifying bones, landmarks and muscles, and analyzing movement to determine the muscle groups active in specific dance movements. A study guide and video clips available elsewhere on the DSSE web site guide our work in the course. The emphasis in this course is on applying the information and skills to the dancers' own bodies. A handful of the undergraduate dancers join our first year graduate students the next year in a course that emphasizes using the principles of anatomy and kinesiology to train other dancers. The background the undergraduate dancers develop in the course that uses the Fitt text gives them an advantage in the seminar they take later with our graduate students. What I especially like about this text is the emphasis on practical and useable information, as well as the author's encouragement to take a constructive approach to using it.

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**6. Simmel L. *Dance Medicine in Practice: Anatomy, Injury Prevention, Training*. New York: Routledge, 2014.
ISBN: 978-0-415-80939-9**

Overview

Liane Simmel is a medical doctor working in Germany and Switzerland and former professional dancer. Her text *Dance Medicine in Practice* is a beautiful resource which presents concise kinesiological information designed to help dancers take care of their bodies and enhance their artistry. Simmel has created a practical guide for using anatomical language to understand structure and function of the body in movement. She provides an overview of the structure and function of bones, muscle, connective tissue and nervous system, followed by chapters devoted to specific areas of the body. Within the chapters, Simmel presents anatomical and mechanical information linked to dance specific movement in a section for each chapter called "Dance Focus: Load and Overload." Each chapter also features "Pitfalls in Dance" which identifies common problems or conditions which present risk of injury to the dancer. This section is followed by "A closer look – Self Analysis" providing very specific questions for the dancer to answer in understanding the structure and function of their body in dance movement. Finally each chapter features "Tips and Tricks for Prevention" which include exercises for awareness, strengthening, stretching and relaxation. Each chapter concludes with a check sheet of 'do and don't' criteria to help the dancer apply the information to their dancing. Simmel also discusses larger issues such as mental preparation, motivation, use of the mirror and dance as a profession in a chapter called "Dancing with Heart and Soul." The final four chapters cover nutrition, human growth and development, injuries and training recommendations. The text contains a good balance of anatomical drawings, photos and text boxes to help separate out and emphasize information. This text is appropriate for college level dancers with working knowledge of the

body and could supplement any dance science or dance technique class. The application to practice makes this a very user friendly text.

How I use this text in my own classes:

I've used sections of *Dance Medicine and Practice* in both my Dance Kinesiology course and in technique classes where analysis of movement and a deeper understanding of movement initiation is emphasized. The book is an extremely useful resource for students in dance pedagogy as specific recommendations for topics such as developing turnout, how to deal with hyperextended knees, finding neutral alignment and other general concerns are balanced with an overview of biomechanical principles of movement. My caveat when recommending the text is that I substitute the terms 'teaching and cueing tools' for "Tips and Tricks." I find that the information Simmel presents far surpasses the simplicity of this heading.

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7. Welsh T. *Conditioning for Dancers*. Gainesville: University Press of Florida, 2009. ISBN 978-0-8130-3390-7

Overview

A dynamic resource for dancers introducing them to the benefits of science-based approach conditioning. It is written in an informal style with familiar terminology which enables the reader to take a more active role by utilizing the principles of physical conditioning and immediately apply to their own training. Part 1 Dance Conditioning covers concepts such as dance injuries, warmup and cooldown, improving strength and flexibility, improving endurance and releasing tension, and eating to dance well. The concepts given supply the dancer the fundamental understandings to be able to choose exercises and training approaches to match their current needs. Part 2 is a Dance Conditioning Catalog which describes a variety of tailored exercises designed for dancers as a reference tool. Many of the exercises are informed from the pioneers of mindful exercise. They are supported by descriptions, variations, and detailed information that easily allows the dancer to individualize the exercise to meet their body needs. The book concludes with Part 3 which is a list of Dance Conditioning Resources. This final section outlines a catalog of books, articles, videos and Web sites to optimize your approach to training for your career in dance. Some of the many highlights of the book include the clearly described essential details of conditioning for dancers, the end of each chapter lists related materials and reference lists, as well as study guides to help you understand the main concepts.

How I use this text in my own classes:

Many dancers come into a university program believing they are in great shape just because they dance. This text supplies science-based conditioning, written in a language suitable for the freshmen as well as senior, that supplies immediate useful information. It gives them a visual big picture of the essentials conditioning tools they need for their own training and development to build their dance career. What I also really like is the in-depth details on all the exercises and the diverse reference lists. My students questions get answered quickly and thoroughly allowing class to progress with a strong platform.

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The students in my Dance Kinesiology course, after having completed Anatomy for Dancers, have responded very well to the format of this text. Most notably, they appreciate Welsh's expert but accessible voice. I find the chapter Study Guide questions are fantastic discussion generators. Other unique standouts are the "Eating to Dance Well" chapter and the "Dance Conditioning Catalog" which can function like a trainer as each exercise in the Catalog has descriptions, reminders (mostly having to do with alignment), variations if modifications are needed, and references to similar exercises.

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