

Table of Contents

FOREWORD ... xi

1

SOME BASIC CONCEPTS ABOUT MUSCLES

What is Muscle? 12

The Structure of Skeletal Muscle, to the Naked Eye 13

The Structure of Skeletal Muscle, Under the Microscope 14

Muscles Do Not Cause All Movements 18

Agonist, Antagonist, Synergist... 23

In Poses, Contraction Takes Different Forms 24

The Same Muscle Can Work Differently Depending on the Pose 26

Contraction is Not Always Where We Imagine It to Be 28

“Double Muscle” Contraction 30

Contraction May Involve Muscle in All its States of Length 32

Three Kinds of Reflexes Present in Yoga 34

A Few Words that Sometimes Cause Confusion 36

2

MUSCLE STRENGTH AND THE POSES

Observations on Muscle Strength 40

Strengthen the Muscles in the Back of the Body in *Utkatasana* (Chair Pose) 48

Strengthen the Muscles of the Lower Limbs in *Utkatasana* (Chair Pose) 50

Strengthen the Muscles of the Upper Limbs in *Bakasana* (Crow Pose) 52

Strengthen the Anterior Musculature in *Kumbhakasana* (Plank Pose) 54

Strengthen the Anterior and Posterior Musculature in *Navasana* (Boat Pose) 56

- Simultaneously Strengthen the Anterior and Posterior Muscles in
Purvottanasana (Upward Plank Pose) 58
- Strengthen the Posterior Muscles in *Salabhasana* (Locust Pose) 60
- Strengthen Muscles Which are Often Weak in *Matsyasana* (Fish Pose) 62
- Strengthen the Longus Colli in *Sirasana* (Headstand) 66
- Strengthen the Gluteus Medius in *Vrikshasana* (Tree Pose) 68

3

MUSCLE RELAXATION IN THE POSES

- Observations on Muscular Relaxation 72
- Shavasana* (Corpse Pose): Is Muscular Relaxation Totally Present? 78
- Relax the Deltoid Muscles in *Sukhasana* (Easy Pose) 82
- Support the Trunk for Muscular Relaxation in *Balasana* (Child's Pose) 86
- Relax the Adductors in *Supta Baddha Konasana* (Supine Bound Angle Pose) 88
- Relax and Contract on the Correct Side in *Ardha Chandrasana* (Half-Moon Pose) 92

4

MUSCLE LENGTH AND THE POSES

- Observations on Muscular Length and Muscle Lengthening 98
- Long Hamstring Muscles in *Dandasana* (Staff Pose) 104
- Long Hamstring Muscles and/or Gastrocnemius Muscles in *Adho Mukha Svanasana* (Downward-Facing Dog Pose) 110
- Long Gluteus Maximus Muscles as a Result of *Malasana* (Garland Pose) 114
- A Long Latissimus Dorsi Muscle in *Paschimottanasana* (Seated Forward Bend) 116
- A Long Trapezius Muscle in *Halasana* (Plough Pose) 118
- A Long Psoas Muscle in *Anjaneyasana* (Crescent Lunge on the Knee) 122
- Long Rectus Femoris Muscles in *Ustrasana* (Camel Pose) 124
- Long Adductor Muscles in *Samakonasana* (Straight Angle Pose) 128
- A Long Gluteus Minimus Muscle in *Padmasana* (Lotus Pose) 132
- A Long Pectoralis Minor Muscle in *Hasta Uttanasana* (Raised Arms Pose) 138
- A Long and Strong Pectoralis Major Muscle in *Dhanurasana* (Bow Pose) 142
- A Long Triceps Brachii Muscle in *Gomukhasana* (Cow Face Pose) 146
- Long Rhomboid Muscles as a Result of *Garudasana* (Eagle Pose) 150
- A Stretched Diaphragm in *Sarvangasana* (Shoulderstand) 152

5

FLEXIBILITY AND STRENGTH IN CERTAIN POSES

Flexibility in the Hamstrings for Exerting the Strength of the Psoas and Quadriceps 158

Flexibility in the Pectoralis Muscles for Exerting the Strength of the Deltoid Muscles 160

Flexibility in the Shoulders, the Trunk, and the Hips in *Natarajasana* (Lord of the Dance Pose) 162

Flexibility in the Shoulders and the Anterior and Posterior Hip in *Virabhadrasana III* (Warrior III) 164

Flexibility in the Shoulders, Hips, and Thighs for Exerting Strength in *Chakrasana* (Wheel Pose) 166

6

MUSCLE COORDINATION IN THE POSES

Balance the Muscles Forward and Backward in *Tadasana* (Mountain Pose) 172

Contract the Multifidus Muscle to Distribute the Movement in *Marichiasana* (Seated Spinal Twist) 178

Coordinate the Quadriceps and the Gluteus Maximus in *Virabhadrasana I* (Warrior I) 182

Regulate the Action of the Quadriceps and Protect the Patella in *Virabhadrasana I and II* (Warrior I and II) 186

Balance the Heel in *Garudasana* (Eagle Pose) and *Vrikshasana* (Tree Pose) Using the Lateral Ankle Muscles 190

Contract the Triceps to Protect the Knee Ligaments in *Trikonasana* (Triangle Pose) 194

Choose Between Two Muscles for Positioning the Pelvis in *Setu Bandha* (Bridge Pose) 198

Lower the Humeral Head in *Bhujangasana* (Cobra Pose) 202

Coordinate the Scalene Muscles for Clavicular Breathing 206

GENERAL INDEX ... 209

ENGLISH-SANSKRIT INDEX OF THE POSES DISCUSSED ... 214

SANSKRIT-ENGLISH INDEX OF THE POSES DISCUSSED ... 216

BIBLIOGRAPHY ... 219