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FRITZ KAHN, M.D.

MAN

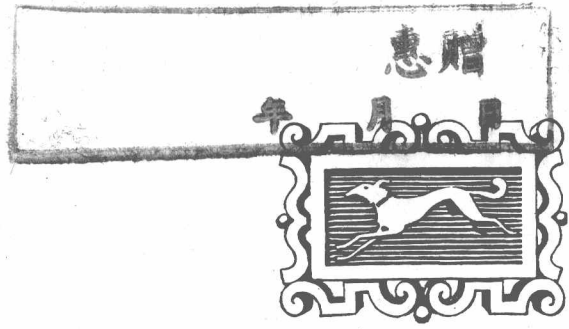
IN

STRUCTURE & FUNCTION

VOLUME I

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## OUR SEX LIFE

*A Guide and Counsellor for Everyone*

“Notable for its sane treatment . . . comprehensive, scientific.” — DR. HOWARD MADISON PARSHLEY,  
*Smith College*

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MAN  
IN STRUCTURE & FUNCTION

# Preface

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The human biology of 1943 is not the anatomy of 1880, which began with the statement: "The human body consists of a head, a trunk, and limbs"; it is not the biology of 1900 starting off with the assertion: "The cell is a small mass of protoplasm with a nucleus in the centre"; it is not synonymous with the diet book filled with tables of caloric values and protein contents — the human biology of 1943 is the study of man as the centre of the world, of an entirely new, completely unimagined world which has been disclosed to us during the past few decades, by the discoveries of modern science, and with the recognition of which there begins a new era in the study of man and the shaping and organization of human life.

Human biology of 1943 — a beating heart is suspended from a small apparatus. It has been beating since yesterday, the day before yesterday, for the past two weeks. "Today is July 10," says the man in the white coat. "It will still beat on September 10. From this container it receives salt; through these tubes, hormones; and from this small tank, oxygen — it can live for years" — the heart of a dead organism!

A research worker looks through an opening into the interior of a tube surrounded by a coil condenser, in which the lightning flight of hurtling electrons is interrupted by magnetic fields just as the path of light-rays is refracted by optical lenses — it is an electronic microscope. With a magnification of 30,000 times, he follows the path of the electrons through the nerve tissue and determines that the molecules in the organ of the soul are arranged in chains that wind spirally around the nerve fibres.

At a microscope a laboratory technician is manipulating an apparatus which is so delicate that one must use magnifying glasses to see the forceps and scissors with which he is operating. What is he doing? He is cutting up tetanus bacilli.

On a greenish plate one sees a beating heart, and out of a loudspeaker one hears a scientific "two-step"; *lub-dub, lub-dub, lub-dub* . . . it is the heart of a patient far away in a small country house which is to be observed and diagnosed — television in the service of human knowledge.

Twenty thousand flies in a room, but they do not fly about. They live in small cages, each identified by a number: parents, children, grandchildren and great-grandchildren, uncles, aunts, cousins, and second cousins of flies. — This is not simply the hobby of an eccentric. The mechanisms of heredity are being studied by means of these flies. On the basis of these studies maps of hereditary characters are being made. Some day mankind will erect a monument in honour of this fly.

Red and green lamps are lighting up on a model of an automobile. Here presence of mind is being measured. The person being tested has applied for a position as a bus-driver, but he does not pass the test. His reaction time is too great; he does not respond soon enough and is therefore unsuited for service on the streets of a large city.

A pigeon stands with twisted head on a window sill; it is as immobile as if it were made of clay. What is wrong with it? It lacks only one millionth of a gram of vitamin. A crystal no larger than a gram of dust is put in a quart of water and a few drops of this homœopathic solution are administered to the pigeon. In the evening it is again able to fly away. Hundreds of thousands of human beings were cured in a similar manner.

Do you see this rat? It is nursing a young rat. At first glance there does not seem to be anything remarkable about this, but just look a little closer: "she" is a male. And not even the father. We have turned a male chosen at random into a wet-nurse. His breast produces milk. He loves the young rat — this is mother love from ampules, hormone ampules; this is the magic of modern science. . . .

Still beating hearts of dead creatures, bacilli in the bodies of bacilli, suckling males — this is the biology of 1943. Man as the centre of the world — not the cadaver of the older anatomy, not the skeleton and the specimen preserved in alcohol, but instead man as he lives, acts, and thinks, man at his work-bench and at the family table, man at the wheel of his car and as an athlete in training; you, just as you live and are, as you work and suffer, your perfections and inadequacies — this is the subject of modern biology! And therefore it is not only as interesting and exciting as the best news reel, but is also full of wisdom of a very practical kind: the modern wisdom of life which enables the one acquainted with it to shape his life according to the precepts of modern science, to increase his abilities, to maintain his health, to overcome disease, and to live longer and more actively than his ancestors while participating in the joys and progress of our age.

# METRIC TABLES

## LENGTH

|                    |                   |
|--------------------|-------------------|
| 1 millimetre (mm.) | 0.0394 inch (in.) |
| 1 centimetre (cm.) | 0.3937 inch       |
| 1 metre (m.)       | 39.39 inches      |
| 1 kilometre (km.)  | 0.621 37 mile     |

## WEIGHT

|                                       |                |
|---------------------------------------|----------------|
| 1 milligram (mg.)                     | 0.0154 grain   |
| 1 centigram                           | 0.1543 grain   |
| 1 gram (1 cubic centimetre in volume) | 15.432 grains  |
| 1 kilogram (1 litre in volume)        | 2.2046 pounds  |
| 1 metric ton                          | 2,204.6 pounds |

## CAPACITY

|                          |                                       |
|--------------------------|---------------------------------------|
| 1 cubic centimetre (cc.) | 0.061 cubic inch                      |
| 1 litre                  | 0.908 dry quart; 1.0567 liquid quarts |
| 1 cubic metre            | 1.308 cubic yards                     |

## METRIC EQUIVALENTS OF COMMON MEASURES

|                       |                          |
|-----------------------|--------------------------|
| 1 inch                | 2.54 centimetres         |
| 1 foot                | 0.3048 metre             |
| 1 yard                | 0.9144 metre             |
| 1 mile                | 1.6093 kilometres        |
| 1 square inch         | 6.452 square centimetres |
| 1 square foot         | 0.0929 square metre      |
| 1 acre                | 0.4047 hectare           |
| 1 square mile         | 259 hectares             |
| 1 cubic inch          | 16.39 cubic centimetres  |
| 1 cubic foot          | 0.0283 cubic metre       |
| 1 cubic yard          | 0.7646 cubic metre       |
| 1 liquid quart (U.S.) | 0.9463 litre             |
| 1 gallon (U.S.)       | 3.285 litres             |
| 1 ounce, avoirdupois  | 28.35 grams              |
| 1 pound, avoirdupois  | 0.4536 kilogram          |
| 1 ton, short          | 0.9072 metric ton        |
| 1 grain               | 0.0648 gram              |



## VOLUME I

# Contents

---

### PART ONE

#### *FROM ELECTRON TO MAN*

|                                       |    |
|---------------------------------------|----|
| I. LIFE                               | 3  |
| Electron, Atom, Molecule              | 3  |
| The Substance of Life: Protoplasm     | 5  |
| The Microscope                        | 7  |
| The Cell                              | 9  |
| Cell-Division                         | 12 |
| Chromatin — the Substance of Heredity | 14 |
| Boy or Girl?                          | 16 |
| The Sex Cells                         | 17 |
| II. THE DEVELOPMENT OF MAN            | 20 |
| Fertilization                         | 20 |
| The Development of Body Form          | 22 |
| The Formation of the Organs           | 24 |
| The Biogenetic Principle              | 28 |
| Degenerate Organs and Atavism         | 34 |

### PART TWO

#### *THE SKELETON*

|                        |    |
|------------------------|----|
| III. CONNECTIVE TISSUE | 39 |
| Cell, Tissue, Organ    | 39 |
| Mucous Tissue          | 40 |
| Connective Tissue      | 40 |

|                                                               |    |
|---------------------------------------------------------------|----|
| The Principle of Exercise                                     | 44 |
| Keeping Connective Tissue Young                               | 44 |
| The Distribution of Connective Tissue in the Body             | 46 |
| IV . FAT                                                      | 47 |
| Adipose Tissue                                                | 47 |
| The Distribution of Fat Tissue                                | 47 |
| Fat as a Fuel                                                 | 48 |
| Fat as a Padding Material                                     | 49 |
| Fat as an Insulating Material                                 | 50 |
| The Regulation of Fat Digestion                               | 50 |
| Fat Metabolism and Obesity                                    | 51 |
| V . CARTILAGE, BONES, AND JOINTS                              | 54 |
| Cartilage                                                     | 54 |
| Ossification                                                  | 54 |
| Growth                                                        | 55 |
| The Architecture of Bone                                      | 57 |
| Bone-Marrow                                                   | 59 |
| Calcium and Gelatine                                          | 62 |
| Fractures of Bone                                             | 65 |
| The Joints                                                    | 66 |
| Sprains                                                       | 70 |
| Dislocations                                                  | 71 |
| VI . THE THEORY OF BODY PROPORTIONS                           | 72 |
| The Erect Posture                                             | 72 |
| The Body — a Three-Storey Tower                               | 74 |
| The Proportions of the Adult                                  | 74 |
| The Proportions of the Child                                  | 76 |
| The Regulation of Body Proportions by the Endocrine<br>Glands | 76 |
| The Size of the Body                                          | 80 |
| People Become Larger                                          | 81 |
| The Forms of the Bones                                        | 81 |
| VII . THE SKELETON                                            | 84 |
| The Structure of the Skeleton                                 | 84 |
| The Vertebral Column                                          | 84 |
| Curvature of the Spine                                        | 88 |

## CONTENTS

[ix

|                                 |     |
|---------------------------------|-----|
| The Thorax                      | 90  |
| The Ribs                        | 92  |
| The Pelvis                      | 92  |
| The Arm and Leg                 | 95  |
| The Hand                        | 97  |
| The Foot                        | 98  |
| The Structure of the Skull      | 100 |
| The Skull Spaces                | 101 |
| The Cephalic Index              | 102 |
| The Cranial Sutures             | 103 |
| The Base of the Skull           | 103 |
| The Human Forehead              | 105 |
| The Facial Skeleton             | 105 |
| The Cavities of the Face        | 106 |
| Intermaxillary Bone and Harelip | 108 |
| The Lower Jaw (Mandible)        | 108 |

### VIII. THE TEETH 111

|                                        |     |
|----------------------------------------|-----|
| The Human Tooth — A Fish Scale         | 111 |
| The Dental Root                        | 111 |
| The Pulp Cavity                        | 112 |
| The Wall of the Tooth                  | 113 |
| Enamel                                 | 115 |
| The Teeth                              | 115 |
| The Dental Formula                     | 117 |
| The Wisdom Teeth                       | 118 |
| Dental Diseases                        | 118 |
| Caries                                 | 118 |
| Anomalies in the Position of the Teeth | 119 |

## PART THREE

### *THE MUSCULATURE*

|                                                        |     |
|--------------------------------------------------------|-----|
| IX. GENERAL MYOLOGY                                    | 123 |
| The Smooth Muscle Fibre                                | 123 |
| Gooseflesh                                             | 123 |
| The Pupils                                             | 125 |
| The Muscles of the Circulatory System and Hypertension | 125 |

|                                                    |         |
|----------------------------------------------------|---------|
| The Muscles of the Respiratory Passages and Asthma | 127     |
| The Muscles of the Œsophagus                       | 127     |
| Intestinal Inertia                                 | 127     |
| Colic                                              | 128     |
| Hollow Organs                                      | 128     |
| The Striated Muscle Fibre                          | 128     |
| Muscle Fibre and Automobile Motor                  | 129     |
| The Arrow Poison, Curare                           | 132     |
| Voluntary and Involuntary Movements                | 132     |
| Fatigue — Lactic-Acid Poisoning                    | 133     |
| Exhaustion                                         | 135     |
| The Second Wind                                    | 135     |
| Rigor Mortis                                       | 135     |
| The Law of Time                                    | 135     |
| Rest by Means of Activity                          | 136     |
| Muscle Twitch and Muscle Tone                      | 137     |
| Learn to Relax!                                    | 138     |
| Tonus                                              | 138     |
| Muscle Sense                                       | 140     |
| Training                                           | 142     |
| Tendons and Inflammation of the Tendon Sheaths     | 144     |
| Flexor and Extensor                                | 146     |
| The Human Muscle Machine                           | 146     |
| <br>X. SPECIAL MYOLOGY                             | <br>148 |
| The Muscles of the Head                            | 148     |
| Mimic Asymmetry                                    | 150     |
| Right-Handedness                                   | 151     |
| Asymmetry of the Legs                              | 151     |
| Left-Handedness                                    | 154     |
| The Cause of Asymmetry                             | 154     |
| Ambi-Culture                                       | 156     |
| The Musculature of the Trunk                       | 156     |
| The Abdominal Musculature                          | 157     |
| Hernia                                             | 158     |
| Man Walking — a Pendulum Machine                   | 160     |
| The Path of Life                                   | 163     |
| The Arm                                            | 163     |

## PART FOUR

*THE CIRCULATION OF THE BLOOD*

|                                               |     |
|-----------------------------------------------|-----|
| XI. THE HEART                                 | 169 |
| Man a Combustion Engine                       | 169 |
| The Circulation of the Blood                  | 171 |
| The Heart                                     | 171 |
| The Valves of the Heart                       | 173 |
| The "Primum Oriens"                           | 174 |
| The Wall of the Heart                         | 175 |
| The Coronary Vessels                          | 175 |
| The Pericardium                               | 177 |
| The Action of the Heart                       | 178 |
| The Pulse                                     | 181 |
| Is the Heart an Auto-Mobile?                  | 182 |
| The Motor of the Heart                        | 182 |
| The Automatic Regulation of the Cardiac Tempo | 182 |
| The Cardiac Nerves                            | 183 |
| The Heart Sounds                              | 185 |
| The Electrocardiogram                         | 185 |
| The Nervous Heart                             | 186 |
| XII. THE BLOOD-VESSELS                        | 189 |
| The Structure of the Arteries                 | 189 |
| The Capillaries                               | 189 |
| Vascular Neurosis                             | 193 |
| The Veins                                     | 193 |
| Varicose Veins                                | 194 |
| The Vasomotor Nerves                          | 194 |
| Vasomotor Tonus and Cerebral Activity         | 195 |
| Shock                                         | 197 |
| Knockout                                      | 198 |
| Blood-Pressure                                | 199 |
| Hardening of the Arteries                     | 199 |
| XIII. THE BLOOD                               | 203 |
| Sea Water in Our Bodies                       | 203 |
| Blood and Lymph                               | 204 |

|                                   |     |
|-----------------------------------|-----|
| The Bone-Marrow                   | 205 |
| The Blood Cells                   | 206 |
| The Blood Pigment                 | 207 |
| Anæmia                            | 209 |
| Chlorosis                         | 210 |
| Red Blood and Green Leaves        | 212 |
| Blood Platelets                   | 212 |
| Blood Coagulation                 | 213 |
| Hæmophilia                        | 214 |
| Loss of Blood                     | 215 |
| Blood Transfusion                 | 216 |
| Blood Groups                      | 217 |
| XIV . LYMPH                       | 219 |
| Lymph and Cerebrospinal Fluid     | 219 |
| The Lymph-Vessels                 | 220 |
| Lymph Nodes                       | 221 |
| Tonsils and Appendix              | 221 |
| Lymph Glands                      | 224 |
| The Spleen                        | 224 |
| The Leucocytes                    | 225 |
| Wandering Cells                   | 225 |
| Wound and Wound-Healing           | 226 |
| XV . MAN AND BACILLUS             | 230 |
| Bacilli                           | 230 |
| Man and Bacilli                   | 231 |
| The Bacillus as a Domestic Animal | 231 |
| The Virus                         | 234 |
| The Bacteriophage                 | 236 |
| Toxin                             | 236 |
| Antitoxin                         | 237 |
| Serum                             | 237 |

## PART FIVE

## RESPIRATION

|                                                  |     |
|--------------------------------------------------|-----|
| XVI . THE RESPIRATORY GASES                      | 241 |
| The Nitrogen of the Air — The Tragedy of Mankind | 241 |

# CONTENTS

[xiii

|                                       |     |
|---------------------------------------|-----|
| The Nitrogen Mystery and Its Solution | 242 |
| Oxygen                                | 244 |
| Life at Altitudes above 13,000 Feet   | 245 |
| Carbonic Acid                         | 247 |
| Carbon Monoxide                       | 250 |
| Car Sickness                          | 251 |
| The Water Vapour of the Air           | 251 |

## XVII. THE NOSE 253

|                                                        |     |
|--------------------------------------------------------|-----|
| Man's Air Apparatuses                                  | 253 |
| The Nose                                               | 253 |
| The Nasal Cavity                                       | 254 |
| The Nose as a Traffic Regulator of the Respiratory Air | 254 |
| The Nose as a Steam-Heating System                     | 254 |
| Pharyngeal Tonsil and Adenoids                         | 255 |
| The Nose as a Vacuum Cleaner                           | 257 |
| Removing the Dust from the Windpipe                    | 258 |
| The Nose as a Sterilizer                               | 259 |
| The Reflex                                             | 259 |
| The Reflex Cold                                        | 261 |
| The Nose as Olfactory Organ                            | 262 |

## XVIII. THE LUNGS 263

|                             |     |
|-----------------------------|-----|
| Trachea and Glottis         | 263 |
| The Respiratory Chambers    | 263 |
| Asthma and Emphysema        | 265 |
| The Pleura                  | 265 |
| The Gaseous Exchange        | 265 |
| Man Does Not Sink in Water! | 267 |
| The Respiratory Centre      | 269 |

## XIX. THE VOCAL APPARATUS 270

|                       |     |
|-----------------------|-----|
| The Larynx            | 270 |
| The Vocal Cords       | 270 |
| Change of Voice       | 272 |
| The Resonating Spaces | 274 |
| The Voice             | 275 |
| Speech                | 276 |

|            |     |
|------------|-----|
| The Lips   | 277 |
| The Tongue | 277 |

## PART SIX

### DIGESTION

|                                          |     |
|------------------------------------------|-----|
| XX. THE PROBLEM OF NUTRITION             | 281 |
| What is "Food"?                          | 281 |
| The Two Tasks of the Digestive Apparatus | 281 |
| Carbohydrates                            | 283 |
| Fats                                     | 285 |
| Protein                                  | 286 |
| The Glands                               | 290 |
| Ferments                                 | 291 |
| XXI. THE MOUTH                           | 293 |
| Digestion in the Mouth                   | 293 |
| Chewing                                  | 293 |
| The Salivary Glands                      | 294 |
| The Regulation of Salivary Secretion     | 294 |
| Salivation and Psyche                    | 295 |
| Salivation and Nutrition                 | 296 |
| Dental Tartar                            | 298 |
| The Salivary Ferment                     | 299 |
| Deglutition                              | 299 |
| The Uvula                                | 299 |
| The Epiglottis                           | 300 |
| The Gullet (Œsophagus)                   | 301 |
| Artists in Swallowing                    | 302 |
| Human Ruminants                          | 303 |
| XXII. THE STOMACH                        | 304 |
| The Structure of the Stomach             | 304 |
| Movements of the Stomach                 | 305 |
| The Gastric Glands                       | 307 |
| Hydrochloric Acid                        | 308 |
| Pepsin                                   | 309 |
| Rennin                                   | 310 |



# CONTENTS

[xv

|                                                            |     |
|------------------------------------------------------------|-----|
| Fat in the Stomach                                         | 310 |
| Roast and Extractive Substances                            | 311 |
| Be Happy during Meals!                                     | 311 |
| <b>XXIII. THE LIVER</b>                                    | 314 |
| The Liver — the Filter between the Intestine and the Heart | 314 |
| The Structure of the Liver                                 | 314 |
| The Disintegration of the Blood Cells                      | 317 |
| The “Humanizing” of the Food                               | 317 |
| The Detoxification of the Food                             | 317 |
| The Liver as a Fluid Reservoir                             | 317 |
| Bile                                                       | 318 |
| Gall-bladder and Gall-stones                               | 319 |
| Liver and Emotion                                          | 321 |
| <b>XXIV. THE PANCREAS</b>                                  | 322 |
| The Pancreas and Its Four Ferments                         | 322 |
| The Islands of the Pancreas                                | 325 |
| <b>XXV. THE INTESTINE</b>                                  | 326 |
| The Length of the Intestine                                | 326 |
| The Parts of the Intestine                                 | 326 |
| The Intestinal Mucous Membrane                             | 328 |
| The Intestinal Musculature                                 | 328 |
| The Intestinal Folds                                       | 330 |
| The Cæcum                                                  | 330 |
| The Cæcum — A Hydraulic Press                              | 331 |
| Digestion in the Intestine                                 | 331 |
| The Intestinal Villi                                       | 332 |
| Cellulose                                                  | 335 |
| Putrefaction in the Large Intestine                        | 336 |
| The Appendix                                               | 336 |
| Intestinal Gases                                           | 337 |
| Fæces                                                      | 338 |
| Constipation                                               | 340 |
| The Therapy of Constipation                                | 341 |