

The Biophysics of Kriya Yoga

Janice Hadlock

Illustrations by Ben Bateson

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Books

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Websites

www.CovidTreatment.info (note: no space between Covid and Treatment. Dot-info, not dot-com). The information on this website was approved by the NIH's NCCIH for sharing with all audiences as of Dec 2, 2022. This website explains what causes the symptoms of COVID-19 and Long COVID, how to easily diagnose Long COVID by hand, and shares a simple, highly effective self-treatment for both conditions. Details available in English and Mandarin.

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Parkinson's Recovery Project

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The Biophysics of Kriya Yoga

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Cover design, Ben Bateson. Front cover: The Courtyard of King Janaka [painting purchased at open-air market in Delhi, 2016.]

For

Paramahansa Yogananda

Table of Contents

Introduction	i
Chapter 1 In the Beginning	1
Chapter 2 Some Tangential Topics	9
Chapter 3 Learning Kriya Yoga	25
Chapter 4 Getting Physical: Energization and Posture	27
Chapter 5 The Little Kriya	39
Chapter 6 Waking and Sleeping	49
Chapter 7 Listen, Listen, Listen...	55
Chapter 8 Neutralizing the Breath	63
Chapter 9 Neurological Modes	81
Chapter 10 The Middle Path	97
Chapter 11 The Elliptical Kriya	113
Chapter 12 Kriya: Some Odds and Ends	125
Chapter 13 Devotion	129
Chapter 14 Kriya Plus Devotion	139
Appendices	
Appendix I "The Fascinating Fascia" by R. Lord	149
Appendix II <i>The Spiritual Maxims</i> of Br. Lawrence	157
Appendix III Channels, Nadis, and Meridians	167
Appendix IV Maps of the Channels	173
Appendix V Kundalini, Sushumna, Ida and Pingala	187
Appendix VI Five Elements and Dragons	191

Appendix VII More About Pause Mode	197
Appendix VIII Treating Depression, Post-Traumatic Stress, and Anxiety	207
Appendix IX Turn Your Radio On	213
Appendix X My Life With Yogananda	215

“Kriya plus devotion: it works like mathematics. It cannot fail.”
- Paramahansa Yogananda

Introduction

Paramahansa Yogananda proclaims that Kriya Yoga is a science. It is. This book expounds on some of the scientific principles – bioelectric, wave-related, and postural – that underlie the techniques of Kriya Yoga. The purpose of this book is to answer questions about the science behind Yogananda’s yoga techniques and to thereby encourage his followers to be even more motivated and enthusiastic about their yoga practice.

Prior to the age of personal computers and cell phones, the information in this book could not have been written up in a manner easy to understand, or even made believable. The science principles demonstrated in the chips of our computers and cell phones and in the electromagnetic wave signals of our modern communication formats are some of the same principles we need in order to understand the body electric and its relationship to the soul. The body’s WiFi-like connection with the Divine, the constantly shape-shifting bioelectric circuits of the body’s connective tissue “chips”, and the “software” instructions carried via the Life Force’s various wave signals make up our biological programming. Through the techniques of yoga taught by Self-Realization Fellowship, this programming can be consciously altered so that a person can know their soul’s blissful nature and can communicate with the Divine. (WiFi is a wireless networking technology that allows devices like computers, phones, and “smart” home products to connect to the Internet or communicate with each other via radio waves.)

After nearly fifty years of the research that led to this book, I cannot possibly put a number on how many times I was utterly baffled by some yogic or medical mystery. Aside from the straight-forward and consistent yoga teachings of Self-Realization Fellowship (the organization founded by Paramahansa Yogananda), many traditional writings about yoga are vague and even contradictory. Also, on a related bioelectric note, the Chinese medicine texts used in American schools are often confusing and wildly mistranslated. Since the mid-twentieth century, the officially atheist government of the People’s Republic of China, in order to remove any whiff of Taoism from the ancient medical scriptures, has modified and even deleted some of the wordings, especially those related to the flow of invisible – and therefore mysterious and even mystical – sub-dermal electrical energy, to the point that the texts we use in western acupuncture schools often don’t make any sense.

Throughout these years, in response to my almost constant questions, my guru, Paramahansa Yogananda, frequently and firmly suggested new directions of thought or indicated that something pertinent to my queries and prayers was staring me in the face. I often had *no* idea at first why some of his information might have implications for either medicine or self-realization.

Eventually, by combining information from the infant field of bioelectrics and various other science fields with ancient Chinese medical and Vedic (ancient Indian) scriptures, together with gentle but steady shoves on the part of the guru and many

forehead slaps on my part, my confusion transformed into a clear picture of what is technically going on in the body and mind during Kriya Yoga from a bioelectrical standpoint. This gave me a completely new understanding of what occurs during certain spiritual disciplines or the lack thereof. I could not have understood and then organized the information in this book without the daily insights, encouragement, and gentle corrections given to me by my beloved Yoganandaji. This book shares this new understanding, as well as addressing some of what the guru refers to in *Whispers From Eternity* as “error accumulations of countless centuries.”

The word Kriya means action, deed, or effort, from the Sanskrit root meaning “to do”. These days, the word Kriya might be used to mean anything from Mystical to Extra Strength. Anyone can refer to their program as kriya or even Babaji’s kriya, even though it might have nothing to do with the teachings of Mahavatar Babaji or Yogananda. So to be clear, in this book, I’m using the words Kriya Yoga to refer specifically to the Kriya Yoga taught to Lahiri Mahasaya by Babaji, passed along through the Self-Realization Fellowship/Yogoda Satsanga Society (SRF/YSS) line of gurus, and available to the public through the written teachings, the Lessons, of SRF/YSS. The low-cost meditation Lessons are available at www.Yogananda.org.

Walking the line between explaining for the book-reading public just *how* Kriya Yoga works, while *avoiding* telling non-Kriyabans how to *do* the Kriya Yoga techniques, my wording has been intentionally incomplete. At times, when I do need to refer to something specific about the techniques, I refer the reader to the appropriate Kriya Lesson, including the page number. A Kriyaban (practitioner of Kriya Yoga), filling the gaps in my writing with what they already know about the Kriya techniques *or* by reviewing their Kriya Lessons, will be able to make sense of the material herein. A person who does not have the Kriya Lessons will not be able to piece together from this book just what the Kriya techniques actually are.

I carefully tested the sharing of this scientific, mostly biological information in ashrams in India and around buffet tables at SRF get-togethers in California. Afterwards, listeners confirmed that I am *not* disclosing the techniques of Kriya Yoga even as I explain the biophysics of it. Many recipients of this information have found that their practice of Kriya Yoga has been enhanced, even transformed, when they came to understand what they are actually doing and why.

The information in this book came from my life-long science and medical studies and research, directed always by my guru. Now that we live in an age where the use of bioelectric and cyber-physics principles have become familiar, even commonplace, my guru wants this information to be shared with the Kriya Yoga-practicing world. During my nearly fifty years of being in a constant, intimate relationship with my guru, he has generously answered, if sometimes obliquely or over years, nearly all of my nattering questions. I have now been asked to share these answers with others.

Because some people ask, I offer a bit here about my relationship with SRF. I read *Autobiography of a Yogi* and started taking the SRF meditation Lessons in 1977, when I was twenty-five years old. Because I live in California, I was able to attend SRF convocations almost every year, and visit yearly many in-state sites that were made sacred by the presence of my guru. In my early years on the SRF path, I had the

great blessing of being able to meet and talk with many of those monastics who had personally known Yogananda. I received an in-person blessing from Sri Sri Daya Mata, and had two correspondences with her. In 1999, I submitted to her a fifteen-page essay on the spiritual aspects of my experiences with Parkinson's disease. She felt its message important enough that she requested the essay be published in the then-quarterly *Self-Realization Magazine*.

What an honor! I deeply wanted to do this for her. I met with two of the monastics on the print crew. They asked me to condense the fifteen pages down to one and a half and "don't leave anything out." I simply wasn't able to do that. In the years that followed, my inability to fulfill her request in a timely manner rankled. I hoped that someday I would find a way to share the information in that essay with the public, maybe in a less cramped format.

In 2010, I learned from a brahmachari (a junior level monastic) that my essay had been kept on a windowsill in the print shop for years. When monastics joined the crew at the print shop, they were requested to read that short treatise. This information, further reflecting Daya Mata's desire that the material be shared, deepened my chagrin.

Today, this book is the long-delayed fulfillment of Sri Sri Daya Mata's request. It includes the spiritual principles presented in that writing, plus much more information specifically about Kriya yoga – information that I did not have when I wrote her the original essay.

Since my guru plopped his *Autobiography* onto my metaphorical lap, I have never wavered or doubted in my relationship with Yogananda. Not for one moment.

Since joining SRF, I have addressed thousands of questions to my guru, mostly having to do with medical conundrums and the how and why of the yogic path. Most of my questions were focused on the specific physiological changes that occur in response to a person's illness or to an individual's practice of yoga, and why. Maybe the illness slant is due to my years as a medical professional: primary care provider, acupuncturist with a doctoral degree in Chinese medicine, professor, medical researcher, oft-published scholar in various Chinese medicine topics, as well as being a beginner-level yogi. I have written six textbooks, mostly in the field of Chinese medicine. Today, in 2025, I am long retired from clinical practice, but still writing and lecturing.

Some of the confusing, poorly translated and even mistranslated phrases in the official English-language Chinese medicine texts of the 1980s were made clear to me by my discovery of similar but more specific phrasings in the Vedas and Yogananda's brilliant Gita translation, *God Talks with Arjuna*. Oppositely, practicing Chinese medicine and studying its ancient scriptures helped make clear to me many biological principles of Raja (Royal) yoga. My lifelong love of modern physics enables me to unite, in this book, some aspects of these two ancient fields of study, using what I hope is a simple, modern English vocabulary.

I pray that I am following my guru's instructions correctly. If you feel that some or all of my explanations or principles are incorrect, please ask the guru for his opinion and advice. Or, to use one of his oft-repeated phrases, "Do not take my word for it. Prove it to yourself."

This book does not add anything to the very complete instructions for Kriya Yoga given in the SRF Lessons, although it does add a spot of history and quite a bit of the underlying science. Much of the science was re-discovered only recently. The science explains *how* Kriya Yoga works to create an inner stillness in which you can experience greater perception of your soul and its connection to the Divine.

The *science* behind the *devotional* requirement that accompanies the techniques of Kriya yoga is also included in this book. Kriya Yoga is only a collection of psycho-physiological techniques that affect primarily the spine, brain, and consciousness. In order for a yogi to open their heart and experience the bliss of soul union with the Divine, their practice of Kriya *must* be combined with devotion.

*“Right beneath the flesh is a tremendous current.
By the pickaxes of Self-Realization,
I have found that Life Force again.
I and my Father are One.
I am not the flesh.
I am a bundle of electricity behind this body.
– Paramahansa Yogananda ¹*

Chapter one

In the Beginning

We must start with the chakras. Doing Kriya yoga temporarily alters the behaviors of the chakras.

What is the point of learning about the chakras and their role of energy conversion in the body? Yoga is said to “awaken the chakras.” More accurately, yoga awakens our *awareness* of the ever-active chakras. When, through practice of Kriya Yoga, you become able to feel, hear, and even see the chakra energy system with your intuitional perception, you will want to differentiate between your immortal soul and your temporary, mortal-body life-support system. When you are ready to merge yourself with Universal Bliss during meditation, you will need to temporarily sever the connections between your soul and your body’s power plant. Until that time, your increasing perceptions of your chakras due to increasing stillness in meditation can encourage you by showing you that you are on the right path: moving towards soul awareness.

Some chakras are locations where wave energy can convert into particle form, among other functions. Where, for example, energy in electromagnetic waves can convert to electrons. Like other types of electricity generators, from giant turbines spinning in reservoir dams to swirling blades of wind generators, certain chakras (literally, “spinning wheels”) inside the hollow spinal vertebrae generate electricity.

Electromagnetic waves enter the body at the back of the neck, at the medulla oblongata. As wave energy (defined on p. 12) pours into the medulla, most of it travels to an area near the top of the head: the vicinity of the 7th chakra. The 7th chakra can serve as a reservoir, where incoming energy can be stored until needed. Much of this energy, in most of us, ends up traveling down inside the spinal column to torso chakras, on an as-needed basis. Inside the spinal column’s hollow core, or “vertebral tube”, the stream of energy rotates at specific locations: at the chakras. At some chakras, the electromagnetic wave energy can spin and convert into electrons.

When one is *awake* and in need of energy, the electrons newly formed at chakras flow *downward*, towards the bottom of the spinal tube. The electrons flow

¹ <https://yogananda.org/how-to-use-thoughts-of-immortality-to-awaken-your-true-self>. The version on this cited webpage has been slightly modified from the quote that I use. The quote I use is quite old. I do not know what page/journal/book I first found it in.

down to the inside of the lowest of the lumbar (low back) vertebrae, to where the fifth lumbar vertebra meets the sacrum. The sacrum is a vertebral bone with a somewhat triangular shape. The sacrum bridges the left- and right-side hipbones. The sacrum's hollow space, in its center, is wide at the top of the sacrum, narrow at the bottom, and circular, giving the sacrum's central hollow space a conical shape.

And now, a word of cheerful encouragement: some of the test readers for this book found this first chapter and the next a bit challenging because of the science-based material involving both anatomy and bioelectricity. If you are ill at ease in the realm of science, be not afraid. Just wade through the first two chapters and you'll be home free.

Transforming the Inner-spinal Current

After the inner-spinal electrons flow down inside the hollow spinal tube and then into the top of the sacral "cone" then, when the stream of electrons emerges out from the *bottom* of the hollow sacral cone, it has been transformed into a low-amperage, high-voltage current. (The sacrum is not literally hollow: it is packed with nerve endings. But from a technical physics perspective of electron flow, the cone does not have a solid metal core, and can therefore be considered a "hollow" cone.)

"Low amperage" means a relatively small-ish number of electrons passing a given point in a given time span. In the case of the body's non-neural currents, currents that flow over fascia, amperage is measured in *milliamps* – a thousandth of an ampere. "High voltage" means, in this case, a few to one hundred *millivolts*: just enough "pull" on the electrons that they are able to keep moving past any resistance presented by the chemistry of the body's fascia. Fascia is also called connective tissue. A specific low-amperage/(relatively) high-voltage system is needed for a human's non-neural electrical system. The electrical power in the non-neural currents is much less than the electrical power in the nerves.

"Non-neural" means *not* related to the nerve cells. Nerve cells are large *cellular* structures, the long extensions of which are covered with a non-conductive myelin sheath. The nerve cells are mainly used for motor and organ function and sensory awareness. Nerves are structures we learn about in basic anatomy classes.

The *non-neural* electrical system is the flow of electrons over the molecules

that make up the fascia. The fascia is a highly conductive membrane made of tiny struts of constantly shape-shifting molecules. Fascia overlays every part of the body, including the organs and bones. Fascial tissues make up 66% of the solid (non-water) tissues of the body. After the low-amperage, high-voltage current emerges from the lower sacrum, it then flows along the fascia surfaces. To learn more about the highly conductive behaviors and other fascinating properties of fascia, please see Appendix I, p. 149.

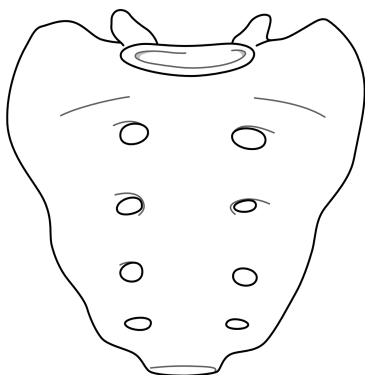


Fig 1.1 Sacrum, anterior (from the front of the body) view

Just as electrons flow over every inch of fascia, electrons also flow to the perimeters of individual cells. At the cell perimeters, or “cell walls”, the non-neural flow of electrons consists of the back and forth movement of single ions across the cell wall. At the cell wall, the positive and negatively charged ions move in fractal patterns reflecting the larger currents of the non-neural system – and vice versa. This back and forth of positive and negative charges at the cell walls is called ion flux. The ion flux behavior around a cell’s perimeter at any given moment gives the cell instructions on how to behave: which portion of its DNA to express at that moment; which proteins to make.

In the field of bioelectrics, the non-neural currents are sometimes referred to as the “software of life”: like the electrical currents in our computer’s chips that instruct the computer, the non-neural currents carry instructions throughout the body on how to be a living system.

“Right beneath this flesh is a tremendous current...”

The low-amperage, mildly high-voltage current emerging from the bottom of the sacrum can flow down the coccyx and then out into the body at the anus, into the web of sub-dermal (just under the skin) fascia. The flowing electrons of this under-the-skin current, and the many millions of bifurcations and sub-currents that branch off from it and dive deep into the body, provide instruction and power for any and all biological functions. The body’s electrically-driven biological functions, ranging from protein production inside cells, to digestion, organ behaviors, and thoughts, all contribute to the body’s internal noises and distractions that can prevent stillness of body and mind during meditation. Kriya Yoga can alter these currents.

Electron Flow When Waking and Sleeping

When a person is *awake*, the bounteous, newly formed electrons inside the spinal tube flow *up* the back (posterior) inside of the spinal tube to the base of the neck and then *down* the front (anterior) inside of the spinal tube. When electrons flow down the *front* inside of the spinal tube, they can flow into the top of the sacrum. After being transformed in the sacrum into electrical currents of the correct amperage and voltage, the currents flow out the bottom of the sacrum, down the coccyx, and into the body.

Note carefully: when *sleeping*, the very few, if any, newly formed electrons inside the spine flow in the reverse directions: *up* the front inside of the spine to the base of the neck and *down* the back inside of the spine. In this flow pattern, electrons *cannot* enter the sacrum. Instead, the few, if any, electrons newly-formed while sleeping, stay in the spinal tube.

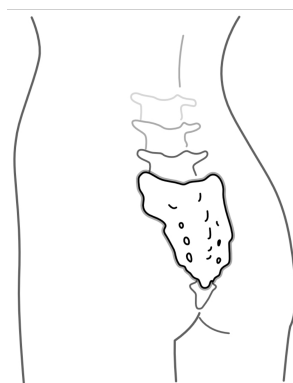


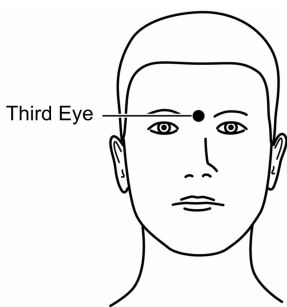
Fig 1.2 The location of the sacrum, posterior view
The bone above the sacrum is the 5th lumbar vertebra.
The bone below the sacrum is the coccyx, or “tailbone”.

Two of the Many Aspects of Kriya

Two of the main results of practicing Kriya are: 1) making the body and ego behave as if sleeping while at the same time heightening one's mental alertness, and 2) turning off the need to breathe.

Aspect 1) Reversing the Inner-spinal Current: sleeping body/ alert mind

If the electrons inside the hollow spinal tube flow in the *backwards* direction, flowing *up* the front side of the hollow spinal tube (towards the head), as they do when one is sleeping, in a coma, or in response to Kriya practice, the electrons cannot flow, or only barely flow, into the sacral cone. During sleep, the amount of energy flowing into the medulla from outside the body decreases. The amount of electromagnetic wave flow from the 7th chakra to the torso chakras decreases. Electron *creation* at the chakras decreases. The number of electrons, the amount of energy, flowing out into the body from the sacrum ceases or is greatly decreased when sleeping. When electron flow in the front inner-spinal current goes *upward* in response to Kriya Yoga practice, a high level of body-wide, relaxed stillness, *as if sleeping*, ensues.



The *upward* flow pattern of the electrons moving on the *front* of the inside of the spinal tube also turns off one's *sensory* awareness, what Yogananda refers to as "sense telephones". Just as sensory awareness is turned off while sleeping, it is also turned off as a result of the Kriya-induced upward flow of inner-spinal, front-side electrons.

While *awake*, the electrical currents that flow through the brain's frontal lobe (in the vicinity of the Third Eye) maintain consciousness. During *sleep*, they are diverted away from the brain's frontal lobe: consciousness drops away.

Fig. 1.3 Location of the Third Eye

Again, when the amount of energy in the frontal lobe of the brain has significantly decreased, the consciousness turns *off*: one sleeps, or is comatose.

In response to Kriya Yoga practice, the energy flow to the brain's frontal lobe and the Third Eye is *increased*. *Unlike* during sleep, during Kriya Yoga, the consciousness and mental focus are *heightened*.

The heightened consciousness during Kriya that the guru speaks of is the result of greater amperage in the brain's frontal lobe, in the vicinity of the Third Eye: another condition resulting from the practice of Kriya Yoga. More on this subject will be addressed in chapter eleven: The Elliptical Kriya.

The guru often mentions in his talks and writings that meditation allows the *mind* to be conscious even while the *body* is *as if* sleeping. The SRF Sunday Service readings, compiled for the general public, have regular references to meditation serving to create a condition in which a person can be highly conscious and self-aware even while the body, ego, and sensory awareness behave as if sleeping.

The 2nd Kriya: Lesson 7

In this book for the general public I do not offer any information regarding how to do the techniques of Kriya Yoga. For detailed information explaining how, exactly, the inner-spinal currents are affected by the Kriya techniques, please read in the *new* SRF lessons, released in 2019, in Kriya Lesson 7, the second of the lessons on the subject of the 2nd Kriya technique: “Supplementary Techniques and Additional Information about Kriya Yoga”, beginning on page 13. This information about inner-spinal currents was *not* included in the *old* Lessons (prior to 2019).

The information in the above lesson relating to the spinal currents is *not* specific to the 2nd Kriya techniques: the information actually applies to the basic, 1st Kriya Yoga techniques. This information might just as well have been included with the instructions for basic Kriya Yoga. I don’t know why this information was inserted into the lessons on the 2nd Kriya, instead of the 1st. I suspect that there was just so much information in the 1st, or “basic” Kriya lessons that the editors decided to spread things out, and so put this 1st Kriya information about spinal currents in with the lessons on the 2nd Kriya. The techniques of the 1st (basic) Kriya are the ones that serve to induce the conditions that the guru often spoke of in his public lectures: the body and ego behave as if sleeping, while conscious self-awareness (soul-awareness) is heightened.

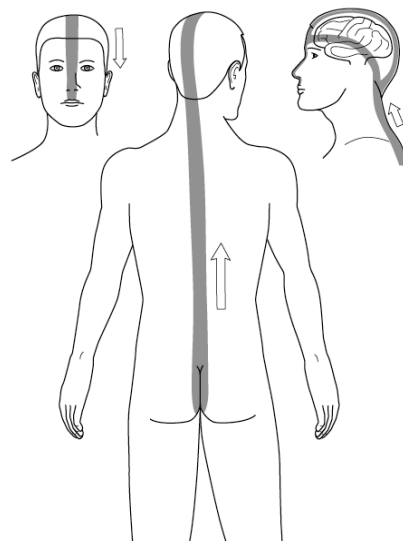


Fig. 1.4 Two routes: showing the subdermal Du channel when waking *and* when sleeping, showing both the awake, through-the-head current *and* the sleeping, over-the-top-of-the-head current. When sleeping, the Du channel flows over the head – it does *not* flow through the frontal lobe. With a diminished energy level flowing through the frontal lobe, consciousness drops away. This current is *not* an inner-spinal current. The Du channel flows subdermally, just under the skin, until it gets up to the neck.

If you have received the SRF lessons on the 1st (basic) Kriya Yoga, you might have already, at this point in this book, put two and two together and understand how these Kriya techniques cause spinal electrons to flow upwards inside of the spine *and* also cause increased amperage in the frontal lobe.

The reversal of the inner spinal currents is just one of the ways in which Kriya Yoga helps to still the body: by making the electrons on the front inside of the spine flow upward, the body is physically stilled and sensory awareness and ego-based thoughts are turned off, as they are when one is sleeping.

Aspect 2) Neutralizing the Breath: stopping the *idea* of breathing

The in-out fluctuations of the relentless breath agitate the body and mind. To quiet the distraction raised by the very *idea* of breathing – that is to say the *causal*

aspect of breathing – the *idea* of the breath must be “neutralized”: converted to an energetic equivalent of sum zero. ¹

Ee and Aw

The inherent sounds of human inhalation and exhalation, as well as the metaphorical in and out sounds of the Universal Breath, have, for millennia, in Eastern philosophy, been considered to be ee and aw. Ee is the sound of inhalation. Aw is the sound of exhalation. These are onomatopoeic words: they emulate the actual sounds made while inhaling and exhaling. These two sounds are not a secret: for thousands of years they have been used in Asian philosophy to denote the sounds of an individual’s breath, as well as the metaphorical sounds of the Divine, universe-creating “Breath of God”.

Imagine this: you run as fast as you can up a steep hill. Then, when you get to the top, gasping for air, bending forward while resting your body weight with your hands on your knees, the sounds of your desperate breath will be an audible ee-haw, ee-haw, ee-haw. Rather like the braying of a donkey.

¹ Patanjali is considered one of the foremost philosophers of yoga. His birthdate is unknown, but considered possibly to be circa 200 BC. In his most famous work, the *Yoga Sutras*, he wrote: “The life current is either outward [flowing out into the body from the sacrum], or inward [flowing up towards the head], or balanced [not moving in either direction.]” from *The Yoga Sutras of Patanjali*; Charles Johnston; Watkins; 1974, London; p. 57. [Bracketed writing is mine.]

Paramahansa Yogananda, in his *Autobiography of a Yogi*, says that Patanjali begins his *Yoga Sutras* with the definition of yoga as “the neutralization of the alternating waves in consciousness” (Chitta vritti nirodha—1:2). This has also been translated as “cessation of the modifications of the mind-stuff. “Mind stuff” might also be translated as the “idea level”, “consciousness level”, or “causal level” (non-tangible level) of existence.

The modern usage of the word “neutralize” meaning kill or destroy, derived from the U.S. military usage in the 1960s, is *not* the usage intended by the various translators of Patanjali’s *Yoga Sutras*. The word “neutralize,” in Patanjali’s more classical sense, means to bring the level of something to zero by adding a balancing amount of the opposite. An example of this is when we speak of neutralizing the pH of something: bringing an acid or a base to neutral by adding the same amount and strength of an opposite base or acid.

Understanding the biophysics of Kriya yoga will help make clearer the meanings of Patanjali’s famous Eight-fold Path. The eight steps of this path are

Yama – the “do not” rules for moral living: do not steal, covet, lie, injure others, be sexually incontinent, and so on

Niyama – do the right thing: be pure in body and mind, be content in all circumstances, practice self-discipline and devotion to God

Asana – right posture

Pranayama – Life Force control

Pratyahara – interiorization of the mind

Dharana - concentration

Dhyana - meditation

Samadhi – divine union

Many people who are not familiar with using the words ee and aw as representations of in and out breaths might nevertheless be familiar with the Chinese words Yin and Yang, which mean the same thing. In Chinese, despite their Anglicized spelling and gross mispronunciation in English, the words Yin and Yang are pronounced very closely to the sounds ee and aw and were historically imitations of the sounds of the breath. Today, In China, “Yin and Yang” has a wide range of meanings, depending on context. The words Yin and Yang meaning of “sounds of the breath” or “...of the Universal breath” is rarely employed in modern Chinese. This meaning has spiritual, Taoist implications. The atheist government of the People’s Republic of China frowns harshly on religious references or terminology.

Patanjali and the In and Out Breaths

By *thinking* of and applying the sounds of ee and aw in *opposition* to the ee and aw sounds of the originating *thoughts* that create the actual, physical breath, one can, as Patanjali says, “neutralize” the energy in the very *idea* of the breath: neutralize the causal breath. When the energy level of the *thought* of the breath becomes zero on the causal plane, it is then reflected in the body’s behavior: the body is not compelled to breathe because the *idea* of breathing, the very thing that *creates* the drama of breathing, has been temporarily canceled out. This “neutralization” is based on the same principle as noise-canceling headphones.¹

The subsequent reduction in physical breathing, and eventually the cessation of breathing and the cessation of heartbeat brings a cessation of metabolism. The carbon dioxide and oxygen levels in the bloodstream are profoundly altered when metabolism ceases: as Yogananda says in his *Autobiography*, the blood can become decarbonated and recharged with oxygen. The energy in the non-neural currents that had been used for metabolism and heartbeat purposes can then be used for other jobs such as conscious healing and perception and control of the Life Force.

For now, just know that the long-recognized breath sounds of ee and aw, when applied in opposition to the *thoughts* of those same sounds that lead to the creation of breath itself, cancel each other out, as suggested by Patanjali. This is a second way that the body can be stilled during Kriya Yoga meditation.

Chapter eight of this book, “Neutralizing the Breath”, will go into details about the long-time usage of the two words “ee” and “aw”, their pronunciation in Chinese and in spiritual pursuits, and breathlessness, among other topics.

¹ a) “Some others offer the outgoing breath to the incoming breath and the incoming breath to the outgoing breath”. *The Yoga Sutras of Patanjali*; Charles Johnston; Watkins; 1974, London; p. 57.

b) “Other devotees offer as sacrifice the [sound of the] incoming breath of prana in the outgoing breath of apana, and the [sound of the] outgoing breath of apana in the incoming breath of prana, thus arresting the cause of inhalation and exhalation [rendering breath unnecessary] by intent practice of pranayama [the life-control techniques of Kriya Yoga]. *Bhagavad Gita* IV:29.

[Bracketed words are mine.]

Patanjali and the Eight-Fold Path: Pranayama and Pratyahara

In Patanjali's Yoga Sutras, he explains that the soul creates and stays in the body by descending down through the spine, along the route of the chakras. Like a river with areas of eddying, an individual's Life Force flows down into the spine and swirls at the chakra locations, generating electrons from the electromagnetic waves that pour into the body at the medulla oblongata. The electrons stream out into the body from the sacrum, becoming the electrical flows of the non-neural channels.

In the embryo, even before the spine is formed, the *idea* of the spine and the chakras is implanted via the Intelligent electron flow that circles the embryo and unifies the earliest blob of undifferentiated, embryonic cells. (See chapter 14, the Belt channel, p. 140.) As the embryo's head and spine take shape, wave energy flows into them, entering via the area that will become the medulla oblongata. The energy flows up to the area developing into the brain and also down into the area forming into the spine.

At death, when the soul exits the body, the stream of electrons flows in reverse: from the spine, up towards the neck and head, and then exits – as electromagnetic waves – from the medulla or from the 7th chakra at the top of the head. In sleep, the “mini death”, the Life Force current that's in the spine, the electrons inside the spine, flows up towards the neck and head, but does *not* exit the body, as it does during death. During sleep, most inner-spinal electrons on the *front* side of the tube flow up to the neck and then down the *back* inner-side of the spinal tube. During *Kriya*, the inner-spinal electrons, the Life Force, are sent upwards, towards the neck, but do *not* immediately flow down the back side of the spinal tube. To learn what happens after the electrons approach the neck, one must apply for the Lessons on Kriya Yoga. During Kriya, one creates *upward* movement of the electrons on the front side of the vertebral tube, movement *somewhat* mimicking that of sleep.

Kriya also neutralizes the idea of breathing. The idea of breathing is another aspect of Life-Force activity. Because Kriya Yoga literally changes the direction of the Life Force in the spine *and* stops the root cause of breathing, it is a method of Life Force control.

In Sanskrit, *Pranayama* means Life Force control: control of the electrons in the spine and the non-neural system. *Pranayama* is the fourth step in Patanjali's eight-step (“eightfold”) path.

Pratyahara means turning off the five senses and interiorizing the mind. *Pratyahara* is the fifth step in the Eight-step path. By bringing one's focus to the inner spine and center of the brain and reversing the flow of inner-spinal electrons, as one does during Kriya, one does just that: turns off the awareness of the five senses and literally interiorizes the mind.

These two aspects of Kriya meditation practice 1) inner-spinal electric current reversal and 2) neutralization of the idea of the breath, will be expounded on in the chapters ahead, along with other Kriya meditation-related topics ranging from the biological significance of knee, hand, and shoulder positions and the electrical significance of the finger positions during two of the SRF techniques, to the tuning of the “heart radio”. But first, some meditation-related side topics should be addressed.

"Today I will seek Thee, O Father, as the ever-increasing bliss of meditation. I will find thee as boundless joy throbbing in my heart."

– Paramahansa Yogananda ¹

Chapter two

Some Tangential Topics

Some important side topics are the role of the 1st chakra, the physiology of the sacrum, quick definitions of amperage, voltage, and wave energy, some historical points about our rapidly changing understanding of wave-to-particle conversions, and, most important, the reasons behind the healthy, biological *necessity* of having an intimate, devotional relationship with some aspect of Universal Love.

The First Chakra

The sacrum is made up of five sacral vertebrae, fused into one bone. The lowest chakra, the "coccygeal" chakra, is located at the 4th fused vertebra of the sacrum. It is the main chakral manifestation of the Maya-induced desire to be alive, to procreate, and to move energy outward – out into the world, as opposed to inward, back towards God. This chakra is highly active when a person is awake and lively. Yogananda refers to this chakra as the "knot" that pulls electrical energy down from inside the spine and coils it down through the sacrum.

When a person is awake, the high level of activity in the 1st chakra is a main force in pulling electrons down through the hollow spine and sacrum and out into the body. When a person is sleeping, in a coma, or while doing Kriya Yoga techniques, the energy in the 1st chakra becomes greatly diminished. The number of electrons flowing down the front inner side of the spinal tube and down into the sacrum is also greatly diminished during sleep, coma, and Kriya. In sleep and coma, the inner-spine electrons are nearly motionless, or are drawn upwards along the front inside of the tube, up to the base of the neck, and down the *back* inside of the tube. Electrons do *not* flow into the sacrum from the *back* inner side of the tube.

The 7th chakra, at the top of the head, is the opposite end of the spinal chakra system. When the 1st chakra's energy level is greatly diminished, as it is during sleep and Kriya practice, the pull from the 7th chakra becomes dominant, pulling the front-side inner spinal electrons upward and pulling one's *consciousness* towards the top of the head: towards soul awareness.

The polarity of the heart chakra, the 4th, or "middle" chakra, also helps to determine which direction the inner-spinal electrons will flow. When a person is awake and active, the direction of inner-spinal electron flow is usually down (towards the sacrum), from the heart chakra. When a person slips into sleep, coma, deep Kriya meditation, or a deeply devotional, heart-oriented state, the lower three chakras are fairly dormant. The heart chakra flips its polarity and the electrons flow

¹ *Metaphysical Meditations*; Paramahansa Yogananda; Self-Realization Fellowship, Los Angeles; 1964, 2016 printing; p. 54.

from the heart chakra upwards, towards the neck, or during Kriya, towards the head. In the breathless state, the 1st chakra temporarily turns off *completely*. The energy in the electrons in the spine and sacrum can convert back into wave form: “astral form”. With *zero* pull from the inactive 1st chakra, the electromagnetic wave energy in the spine *doesn’t* convert into electrons: the astral (wave-based, non-particle) energy in the sacrum and spine can then flow uninhibitedly upwards, and is referred to as “Kundalini rising.” In this state, conscious awareness of the movement of wave (astral) *energy* inside of one’s body manifests – can be intuitionally perceived – even though the physical *body* is profoundly motionless, as if in *deep* sleep.

Amperage and Voltage: Definitions

In most multi-celled animals, including humans, their non-neural electrical systems require low amperage, relatively high voltage currents. Amperage is the measure of “how many electrons at a time move past a given point.” Voltage is the measure of “how much pull” is being exerted on the electrons.

For a quick analogy, consider a waterfall. The *amount* of water going over the fall in a given period of time can be analogous to amperage: the amount of electrons moving past a given point at a given time in an electrical current: the “How much.”

The *height*, or “altitude differential”, of the waterfall drop determines the amount of energy with which gravity accelerates its pull on the water up until it hits the ground: the pull of gravity on water can be analogous to the voltage, the “pull,” or “voltage differential” acting on the electrons in a current.

In humans, the configuration of our hollow spinal column and the cone-shaped hollow in the sacrum allows the assortment of electrons that are generated at the torso chakras to be transformed into an organized current that is exactly the amperage and voltage that we need to sustain the body’s non-neural electrical system: the system that instructs, powers, and regulates all of our body functions. Before our hodge-podge of new, chakra-generated electrons are safely released out into the body from inside the hollow spine/sacrum, their amounts per second and their “pull” must be transformed into a specific very low amperage, relatively-high voltage current. The conical shape of the sacrum’s hollow core and no doubt many other factors drive this transformation.

The Sacrum: Transforming the Inner-spinal Electron Flow

I have reason to believe that the sacrum is the location where recently created, flowing electrons are transformed into a very low amperage, relatively-high voltage current for use in the fascia.

The core of the sacrum resembles some aspects of a Tesla coil. A Tesla coil is an invention of Nicola Tesla (1856-1943). A Tesla coil is a hollow-cone platform made of coiled wire, used to transform moving electrons into a low-amperage, high-voltage current. As the electrons spiral down the coiled wire from the wide end to the narrow end, the amperage and voltage of the moving electrons are transformed.

The sacrum is *not* literally a Tesla coil. For one thing, there are no wires inside the core of the sacrum. For another thing, the electrons in living organisms always flow in what is called a “Direct (one-way) Current”, or DC. Man-made

electrical systems might flow in either DC or AC (Alternating, or back-and-forth Current), based on design. The input flow of electrons for a Tesla coil, whatever its origin, ultimately must be AC, an alternating current. The output of a Tesla coil is always AC: a current not suitable for living systems. In living systems with a sacrum, the flow of electrons spiraling down through the sacrum to the coccyx is always DC. So the sacrum is *not* exactly the same thing as a Tesla coil. But...

Some years ago, Yogananda pointedly drew my attention to the subject of Tesla coils and connected it to the subject of the sacrum. After much meditation, visualization-based experiments with volunteer patients, and many, many questions addressed to my Guru, I came to the understanding that the hollow cone shape of the sacrum is related, in some way, to the hollow cone shape of the Tesla coil, and that both of them serve to convert electrical currents into low amperage, high voltage currents. (For more information on what it was like to be informed by my guru on this subject, see page 226: “The Guru as Research Partner”.)

The subject of how inner-spinal current is modified as it passes through the sacrum is not yet even remotely a subject for current researchers. The lab science supporting or denying this conjecture of the sacrum’s role in bioelectric regulation might not be available for a few hundred years. But for some reason, Yogananda pointed out to me that the sacrum’s role in electrical regulation can be better understood in light of the Tesla coil, so I’m presenting that here.

Changing Capacity for Understanding Science Over the Last One Hundred Years

One might ask, why didn’t Yogananda go into more details about the transformation of electromagnetic and other types of waves into the body’s electricity and other “particle” forms? He was writing in a different scientific era than our own. I’m sure that he understood these transformations, but there was no way to write this up that would have been plausible for readers of his day. In 1920, we had a crude but functional understanding of how to mechanically convert electromagnetic waves into currents of moving electrons, but our fuller understanding of wave-to-particle conversion was still many decades in the future.

For example, in 1952, the year Yogananda passed and the year in which I was born, the idea that lightwave energy could *easily*, passively be transformed into moving electrons was laughable. Theoretical physicists had written equations showing that such transformation *should* be possible. But even so, twenty years later, in 1970 when I was studying botany at university, my professors, some of them internationally top-ranked research biologists, were utterly baffled by the transition from sunlight energy into the electrical and chemical energy stored in plants. They referred to the photosynthetic process as having a mysterious, black box “Z scheme” during which this incomprehensible transition of sunlight into electrical energy took place. My professors hoped that the Z scheme for converting lightwaves into electrical energy in plants might be figured out in a few *hundred* years.

Today, just fifty years later, most houses in my neighborhood sport solar panels. These panels calmly convert lightwaves into moving electrons. Not one person on my block finds this particularly astonishing.