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Ask the Advanced Faculty

Ray McCall M.A., Certified Advanced Rolfer™

Dr. Rolf said that the most important part of a session was our beingness with the client. Could you speak about what this means, and how our ability to truly be with another person affects our effectiveness as Rolfers?

A Our state of mind or consciousness has a profound effect on the outcome of Rolfing. The more conscious we are, the more we are able to be present with a client without having a preconceived outcome or agenda for his or her process. It gives the client the freedom and support for the work to evoke what is next in his or her life, be it physical, mental or emotional.

Being aware of ourselves and our process, as contrasted to being self-obsessed with ourselves and our process, allows us to have and maintain a witness position. If we do not have a witness position, we have no ability to distinguish between self and another. It is necessary to distinguish between others and one's self in order to know if what we are doing in a therapeutic intervention serves the client's needs or our needs. If we cannot witness, we can only react to others; with witnessing we are able to reflect and respond in ways that serve others. In addition to keeping us honest, the witness position provides an opportunity for the client to heal in ways that are not possible if it is absent.

Witnessing allows us to create and maintain a container and provides a clear mirror for the client's process. If you go to the fun house at an amusement park, you can stand in front of a mirror that makes you look short and fat or one that makes you look tall and thin; both are distortions. You cannot learn how you actually look by standing in front of such mirrors. Only a clear mirror, one that does not distort your image, will enable you to see how you actually look. To the degree that we are able to be a clear mirror for our clients, we provide the opportunity for them to reclaim their projections, the parts of themselves, positive and negative, that they project out onto others. Seeing those parts of themselves reflected back clearly and without judgment creates the possibility of their owning and integrating those aspects. As the practitioner, it is our responsibly to hold a safe space, a container, for this transformative process. It is also our responsibility to seek support (a more experienced Rolfer, a competent therapist) when we need someone to hold and provide a container for our process.

In addition to its importance in the dynamics of the therapeutic relationship, our ability to witness allows us to monitor and regulate our own nervous systems. Why is this important to our clients? Recent research (Allan Schore: affect regulation) shows that infants learn to regulate their nervous systems through resonance with their caregiver (right brain hemisphere to right brain hemisphere). All of this happens pre-verbally. If the caregiver has a disregulated nervous system, the infant will have a disregulated system. It is possible to repair this maladaption by being in proximity to a nervous system that is regulated. It happens non-verbally, right brain to right brain. The practitioner client relationship mimics the parent-infant relationship. To the extent that we are regulated, we provide a reference beam for clients to learn to regulate themselves. The details are beyond the scope of this venue. If you wish to explore this topic more fully, I recommend *Parent-ing from the Inside Out* by Daniel Seigel, M.D. and Mary Hartzell, M.Ed.

So, if consciousness and the ability to witness are so important, what are some ways that we can cultivate that ability? Contemplative practices increase awareness. Meditation, martial arts, flower arranging and dance are all contemplative exercises. They provide the opportunity to work with our minds — to practice noticing the space between our thoughts rather than the thoughts themselves.

Rolfing[®] Like a Yogi

By Zeb Lancaster, Ph.D., Certified Rolfer™

Within the context of "wholism", the viewpoint that work on the whole body is more effective than work done on just one part, lies the mind-body connection. And I write with the hope that my words will allow fellow practitioners the chance to strengthen this vital link in themselves and also for those within their practice.

With that said, the premise of this paper is to show that by applying yoga principles and practices to Rolfing sessions it is possible to achieve a level of healing that interfaces with mind and body. I will also emphasize that the ground from which all change happens is energetic.

WHAT IS YOGA?

Many people think of yoga as a way to help them achieve a balance of flexors and extensors. True, when executed skillfully, yoga postures do help to balance the medial and lateral arches of the feet, thereby activating the inner line of the legs. This in turn balances the pubic bone and tailbone. As this support reaches up to the next "station", it equalizes the opposing structures of T12 and the sternum, which invites the shoulder girdle to free itself from the ribs and neck and opens up the thoracic outlet. The head is then able to naturally find balance on the neck. The final result is a physical posture that mirrors the Rolfing paradigm of "equipoise."

Both yoga and Rolfing recognize the significance of activating core strength so that the extrinsic muscles can be used for what they are good at: large movements rather than the subtleties of gait. As the intrinsic/ phasic and extrinsic/tonic muscle tissues differentiate, we move with the grace that comes with freedom from postural patterns of tension. We begin to realize that we can engage with life without over-efforting. As we take the strain out of the system, we no longer "accelerate while our emergency brake is on."

YOGA AND THE PHYSICAL BODY

In yoga philosophy, all of the above dynamics can be understood in terms of the three elemental forces or building blocks, collectively called *gunas: sattva, ragas* and *tamas*. When considered in this light, yoga takes on new meaning and importance. It is much more than a series of postures.

Yoga philosophy also considers the energy of emotion and how it relates to structure and function. Ragas is the energy of passion, motion, and desire and relates to the "fight-flight" sympathetic channel of the autonomic nervous system (ANS). Like the Chinese principle of "yang," excessive ragas manifests somatically as a hypertonicity and emotionally as mania and hypervigilance (over focused). Tamas is the emotional quality of inertia, fixity, and dullness and relates to the relaxation response of the parasympathetic component of the ANS. Excessive tamas, analogous to the Chinese principle of "yin", is associated with hypotonicity and manifests emotionally as depression and hypovigilance (being checked-out).

The balance of ragas and tamas is vital to health, and it's no wonder that the term yoga implies "union". And when these two opposing qualities (ragas and tamas) are balanced, the third guna aspect, sattva, is the result. To be in sattva balance is to experience a state of reciprocity with identical life force operating with balanced movement.

As can be seen, the yogic principle of the gunas bridges our physical structural tendencies, energetic style and emotional dynamics. When these three aspects are integrated, we realize our true form (*svarupa*) and find peace. One way to facilitate this integration is to apply the principle of the gunas to the subtle body.

YOGA AND THE ENERGETIC BODY

Yoga understands that the body is a collection of interrelated energy channels. The most important channels are the *shushumna*, *ida* (relating to tamas) and *pingala* (relating to ragas) channels. The ida and pingala are on either side of the shushumna, the central channel.

The ida and pingala weave back and forth across the central channel, and where they cross is where the chakras can be found. If the shushumna is not open, our energy and emotions get caught in the two peripheral channels. When "prana," our life force, is balanced, then our core energy awakens and rises up the central channel taking our state of mind and perception to a higher level.

Consistent with the principle of the gunas, we have three basic energetic responses to life's events: 1) energetic-charge (ragas); 2) energetic-discharge (tamas); and 3) relaxation (sattva). Alternately, these three primal forces form our life-force pulsation. Basically, our body-mind complex is motile energy that pulsates through this three-beat cycle.

In energetic terms, the vibrations we carry within our minds and bodies reflect our reality. When either the charge or discharge tendencies become chronic conditions, the emotional and physical impact results in a loss of presence (including mental and emotional obsessions), physical imbalance (including structural hyper- and hypotonicity), and chakra imbalance. Note: The normal curves of the spine are a physical expression of the ragas and tamas tendencies.

The expansive and contractive energetic cycles of the gunas are the energetic ground from which our emotional and physical life takes shape.[1] Let us take a look at how this works.

Like all other biological organisms, the human body continually produces energy. Essentially, all energy is a form of dynamic positive (ragas) and negative (tamas) charges or waves of energy that are constantly vibrating. These energetic vibrations form an endless series of sine-waves rising and falling at different rates. Light, sound, electricity and electromagnetic radiation are all expressions of this vibrating energy. The

YOGA & ROLFING

energy in our bodies is no different; it is a result of cycles of charge and discharge based on these fundamental principles of energy. The electric current traveling through the nervous system is a series of sine waves creating vibratory impulses.

The polarization and depolarization of the nervous tissue is an example of how this life force travels through the body. This has a direct affect on our muscular system. When a muscle is hypertonic, it has built up an energetic charge and is unable to release it. The long-term result is tighter, shorter muscles with reduced joint range. When our muscles have hypotonicity, they are unable to build an energetic charge, they are slow to initiate a muscle contraction, cannot maintain a contraction for long and do not fully contract before they relax again. The long-term result is loose and very stretchy muscles that never realize their full potential.

YOGA BALANCE WITHIN ROLFING SESSIONS

As Rolfers, if we were to approach each session applying yogic principles and practices to the imbalanced nervous systems we see every day, we would greatly enhance our effectiveness. Yoga approaches creating balance by *practicing paradox;* that is, by engaging opposing tendencies at the same time to support recalibration and balance. I recall the Ashtanga yoga teacher Richard Freeman once saying, "where opposites meet magic happens."

For example, in a yoga practice, we build a charge and focus on staying grounded, and as we engage the ground we focus on building energy and heat in the body. As we exhale we maintain an awareness of the essence of inhaling, and as we inhale we stay aware of the quality of exhaling. "Paradoxical breathing" is another way to describe this. As we flex or extend we simultaneously engage the opposing action creating an isometric dynamic (thereby balancing "internal" and "external" upper- and lowerbody postural tendencies). As we effort, we hold an awareness of surrender (which allows energy to flow), and as we push off from the earth we settle in (Rolfer/movement theorist Hubert Godard's "sky" and "ground"). Gravity paradoxically allows an equal and opposite ground reaction force (GRF) to animate and lift the body. With a little imagination we can find ways to apply this on the Rolfing table.

A second essential way yoga achieves balance is through *tapas*.[2] The root word tap means "to burn," or "to glow." Tapas is something we do in order to keep us physically and mentally healthy. It is a process of inner cleansing by removing things that we do not need through painstaking selfapplication. Tapas is pursued through the "frustration" of the body-mind's habitual inclinations.

More specifically, in the practice of yoga postures (asana), tapas is created whenever we deliberately direct our actions and awareness in a manner that balances focused effort (*sthira*) and ease (*sukha*). In a Rolf session, we create tapas when we guide the client to allow his attention to be in the present while he relaxes and breathes to release bound tissues. The moment the client begins to hold his breath, we know too much effort is happening. If the client slows his breath to a resting state, we know too much ease is creating an imbalance.

This has a direct application to emotional states as well. By learning to calm down if anxious (unable to release energetic charge/ragas) or speed up when depressed (unable to build an energetic charge/tamas), we engage in the practice of tapas and free the rubbish in our minds and bodies. Mindbody yoga practices of asana, conscious breathing, visualization, sounding mantras and present-centered meditations all contribute to this end.

As we deliberately create balance we develop energy and heat in the body. Depending on our physical and emotional condition, we apply either more effort or more surrender to our mind-body practice so as to alter habits that we don't need. As we become aware of imbalance, we may first experience a sense of discomfort, a feeling of wanting to squirm away from our condition. But as we once again balance focused attention with effort and surrender, we can begin to feel the edges of our state of mind and body begin to change as if they were burning. This is the heat of tapas.

YOGA BALANCE AND THE THERAPEUTIC CONTAINER

A third central way that yoga supports balance is by creating a "container" or "holding environment" of sorts, within which we come to life. This "holding environment" is established in a variety of ways.

In yoga, we start by first creating a container

with our awareness through a process called *nirodha* (Yoga Sutra 1.2). Rodha comes from the root *rudh*, meaning, "to be wrapped in;" the prefix *ni* means "great internal intensity." Just as a child needs the parent to provide a safe emotional container the young one can return to after exploring, to "put himself back together," nirodha gives us a safe haven.

The most obvious examples of nirodha are when we are so focused on what we are doing that nothing else comes to mind; not the past (tamas) or future (ragas). In this state the full rapture of being alive is awakened. Embodiment is a sort of "indwelling" where we are "wrapped in great internal intensity." When one is embodied, the fundamental existential questions of "Who am I? and "What am I doing with other people?" disappear. The experience of embodiment provides a safe container for the felt sense of authenticity.

We also create a holding environment when we don't impose our agenda and yet engage the client and are contactful. The child development theorist Donald Winnicott made the observation that infants need a mixture of contact and breathing room within a safe context, which he described as "parallel play." This balance allows the infant to learn to self-regulate within the context of a relationship. With this ability to self-regulate as an adult, we can then tolerate and enjoy intimacy as well as aloneness. Rolfing is a kind of "parallel play" that has potentially profound consequences.

YOGA BANDHAS AND THE BODY'S DIAPHRAGMS

Finally, in yoga we create a holding environment by engaging the *bandhas*. The word bandha means "to bind or tie together, to close." In yoga, bandha means "to lock" and we execute this by contracting certain areas of the torso in a particular way. The old texts tell us that by using the bandhas we create an energetic container that enables us to direct "fire" to the exact place where we are blocking the flow of energy in the body.

The three most important bandhas are located in the neck, the solar plexus and the floor of the pelvis. These three areas are recognized within the Rolfing paradigm as structural and functional diaphragms. The diaphragms of the body act as a sort of hydraulic valve system maintaining the different pressure gradients that allow us to function in relation to gravity without collapsing. The human body is 80% water; it is as if our flesh floats in a bed of fluids. The fluid body is expressed through its motility, a quality that underlies the Rolfing notion of the ever-changing plastic body. Then again, in craniosacral therapy, the "breath of life" is an expression of the potency of spirit that manifests as somatic energy. According to craniosacral teacher and author Hugh Milne, this energy is thought to influence our flesh via body fluids. The flow of somatic energy causes body fluids to flow. Embryology studies have shown that it is the initial flow of fluids against the cell membrane that creates the human form.

Therefore, control of the primary diaphragms of the body plays a profound role in our personal evolution. They serve as a dam system of sorts that enables us to selfregulate the body, and to step up and build energetic charge or step down and spread the charge throughout the body. As we practice conscious breathing in conjunction with engaging the bandhas, we experience a feeling of pressure in the core of the body and a feeling that we are heating up. This heat is the internal fire of tapas that burns off blockages in the core.

If one learns to develop a sympathetic resonance with the "practice of paradox," tapas and creating a "holding environment" while Rolfing or practicing yoga, it is possible to develop an ability to restore one's natural energy cycles while cultivating the quality of sattva. And sattva is a state that reflects the Rolfing principle of "adaptability."

In this sattva state, the energetic intensity that accompanies life's drama can actually feel nourishing rather than overwhelming. The ANS is balanced, allowing us to respond to life's challenges appropriately. Physically, we have optimal tonus; emotionally, we are able to maintain a broad perspective.

RHYTHMIC ENTRAINMENT

Another hugely beneficial aspect of approaching Rolfing like a yoga practice is that it allows the potential for "rhythmic entrainment" to occur. This happens when two waveforms develop a similar frequency and "lock into phase" with each other, meaning that the waves oscillate together at exactly the same rate, with the same resonance. When we are in rhythmic entrainment, we are influenced psychologically and physiologically. We are also on a

deep subconscious level of inner vibration, as this state allows the wisdom inherent in mind-body practices to manifest.

On a purely physical level, our body's structural tendencies are to a large extent determined by muscle tone. Muscle tone occurs at an involuntary level. Stretch receptors deep in the muscle detect change in muscle length. These receptors then tell the brain there is a stimulus, and the brain tells the muscle to contract in response. By "practicing paradox," tapas and creating a "holding environment" in a Rolfing session, we effectively recalibrate the "neural set-point" for responding to stimuli. We can effect changes in muscle responses because it improves the brain's ability to perceive changes in muscle length, preventing it from over- or under-responding to stimuli. This increases our ability to respond to life's events optimally.

In the sattvic state that results, energy in our system spreads out throughout the entire container of the body rather than getting bound in muscular patterns of tension. We feel a sense of aliveness in the core areas of the body, often described as "streaming" current-like sensations, as we face the challenges of daily life unfolding before us. These physical sensations are the expression of a natural reciprocal buildup and release of energy and a sign of what in yoga is called prana or life-force. As bound energy is repeatedly spread throughout the body, we experience more aliveness throughout all the chakra centers.

Because energy is not getting bound up in muscular holding patterns or being directed at emotional fixations, it gets directed towards enhancing our sense of Self. This is a state that embodies the Rolfing principle of "wholism." The Rolf practitioner approaches each session in a way that invites a shift in the whole mind-body dynamic, and the client has an inner experience of integration.

The increased experience of aliveness within us creates a subtle change in the body's physiology that has a direct impact on our attentional stance. As energy spreads throughout the body, we develop a broad understanding of life's events that holds wisdom. Rather than being hypervigilant and maximizing response in a fight-flight stance, or hypovigilant and minimizing response to distressing situations such as in dissociation, we have an inner awakening that is relaxed and yet alert. When we

learn to remain relaxed and energized, we have a cortical physiological change from a state of high arousal to one of low arousal. When we don't get thrown off balance due to physical injury or our emotional fixations, the body-mind system quiets down and invites a profound inner peace. This is a stillness that is infinite and cannot be bound by form. Ultimately our physical forms live within this formlessness. This is a journey from gross to subtle where the body itself becomes a conscious vessel of spirit. On this journey, Sri Aurobindo Ghose explains, "Limitations recede as the body becomes more plastic and responsive." This was echoed by Ida Rolf.

[1] As one vibration flows into another it creates the energetic expression of *samsara*. In Sanskrit, samsara literally means, "that which flows together." It is the perpetual flux of existence, the relationship of life as we know it. A three-dimensional expression of this is the helix, much like the shape of genetic DNA.

[2] The earliest term for yoga-like endeavors in India is tapas.

Rolfing[®], Yoga, and Integration

By Karen Lackritz, Certified Advanced Rolfer™

Give me a lever long enough, put me in the right place, and I can move the world. —Archimedes

The key to all life experience is movement.

—Ida P. Rolf

he essence of Rolfing[®] and yoga is integration. To give Archimedes a lever long enough in our body, and put it in the right place, is the essence of integration. The femur, the longest bone in the body - when connected from the feet and legs, up through the pelvic floor, and connected to the psoas - becomes our body's greatest tool for movement. When the body is integrated, the lines of transmission travel through layers of fascia and ligaments, through the suspension system that weaves through layers of tissue. Rolfing releases restrictions and connects the body along its core, integrating inner and outer structures; yoga puts the body in the right position and moves it. In my Rolfing practice, I have blended yoga philosophy and principles, both spiritual and physical, with my knowledge of Rolfing.

Visualize a John Friend Anusara Yoga workshop with one hundred yoga practitioners lined up in rows of twenty per row, filling the gymnasium floor, all of us in one big synchronized downward dog. This is a pose where hands and feet are on the mat, the head hangs, and the bottom rejoices in the air. John is a magical, instructive teacher who talks us through each pose. He speaks of the Sanskrit words chit ananda, which means, "to recognize", and how in the recognition of consciousness, there is joy. John's words weave in with the breath, instructing the student to draw in to the core of the pose. With the exhale, expressing through the heart, a matrix of yogic principles align the body toward an integrated state of awareness. Then he says, "let your coccyx draw down toward your heels and the top of your sacrum in and up toward your heart." With toes spread, I squeeze my lower legs toward each other, and with fingers intentionally spaced I squeeze the



Vasisthasana honors the sage Vasistha who taught the dharma of wisdom and integrity.

radius bones of my lower arms isometrically toward each other. I reach my sitting bones and tailbone toward my heels, and the base of my sacrum in and up toward my heart. Then magic happens. My torso extends out of my pelvis, I automatically inhale more deeply, and my mid-thoracic spine extends with a few subtle pops. We jump forward in *Uttinasana*, or forward bend. I once again draw my tailbone to my heels, and my sacrum in and up as I extend with an inhale. As I exhale, I fold into the pose, my chest presses into my knees. Wow, a new experience.

This brought my mind into a full state of questioning and exploring. For the next ninety minutes, I played with the concept of differentiating the movement of my tailbone from the movement of the base of the sacrum. My breath was fuller, all of my poses were deeper, and I felt connected in my body in a way that produced euphoria. The dura wraps around the spinal cord and attaches at the second sacral segment. Do the sacrotuberous and iliolumbar ligaments allow the sacrum to float within the pelvis, or is the sacrum actually differentiated at S2? I continued my exploration.

On the yoga mat, on another day, the intention for my yoga practice was to give myself a ten-session series through yoga, in a two-hour period. I have been Rolfing for a long time now, long enough that the Rolfing series lives in my bones. So there I was with myself on the yoga mat, Rolfer and Rolfee, contacting tissue, core, sleeve, intention, and unwinding into a deeper form of integration, freeing the psoas, freeing the sacrum. Sometimes it felt as if I were wrestling myself on the sticky mat, and sometimes it felt like I really could experience the essence of letting go into integration. I could experience the relationships within myself, and a kind of freedom within the arches of my feet, into the core of my legs, into the pelvic floor, the front of the sacrum through the kidneys, the base of the heart, the front of the cervicals, and into the core of the cranium. I practiced the sensations of extending through the crown of my head as I simultaneously reached into the heels and through my feet. The most incredible releases seemed to happen for me when I anchored my coccyx and lower part of my sacrum - sacred bone - toward the floor, and moved the upper part of my sacrum in and up toward my heart. My body opened to a new state of integration and strength.

Now the interesting application - from a Rolfing perspective - is when I apply yoga principles to my Rolfing clients. I am not talking about doing yoga poses, or asanas, with my clients, but positioning and moving parts of the body as we do in a yoga practice. For instance, in the first session of the Rolfing[®] Ten Series, the intention is to open the breath, horizontalize the pelvis, and initiate work at the base of the cranium. Enhancing the breath in a Rolfing session, combined with certain yoga principles, may involve moving the head of the humerus deeper in the socket to free up the ligaments of the shoulder girdle and to assist in releasing the lower cervicals. With the client supine, I put one hand under the torso near the transverse processes of the thoracic spine, and with my other hand I move the head of the humerus slightly up towards the head, and then down towards the table. As the head of the humerus moves to the back side of the body, the thoracic spine begins to let go, and the tension and restrictions

YOGA & ROLFING

in the mid-thoracics begin to change. The clavicular ligaments and the first rib may need to be released to allow the head of the humerus to go deeper into the body. This facilitates differentiating the shoulder girdle from the ribcage, releases the thoracics, and enhances the breath.

Anusara Yoga defines Universal Principles of Alignment, and a secondary series of loops and spirals, to work the body around in various poses (see Figure 1). It can be compared to the blocks in the Rolfing graphic of the "Little Boy Logo"[®]. Instead of blocks, the picture looks more like gears going through the body at specific locations. The locations of the loops are at the ankle, calf, thigh, pelvis, kidney, shoulder or heart, and the skull. The loops have axes running through the horizontal plane, and the intersection of the loops mark important focal points of the body, such as the pelvic floor, the thoraco-lumbar junction, and the intersection of the hard and soft palates of the mouth.

Synthesizing information from both yoga and Rolfing has produced profound results in my Rolfing practice. Once restrictions are released, the combination of yoga and Rolfing – within the framework of a Rolfing session – allows integration to be sustained, which facilitates the healing process. As



Figure 1 A lateral view of the loops and spirals as illustrated in John Friend's Teacher Training Manual. Used with permission of John Friend, author of the *Anusara Yoga Teacher Training Manual.*

an example, in Rolfing we commonly differentiate the pelvis by freeing the sacrum from the ilia, a practice also demonstrated in yoga. In yoga, the sacrum can be influenced in two directions. When the sacrum is differentiated, yoga practice becomes dynamic. The tailbone and the apex of the sacrum, influenced by the sacrotuberous ligaments, assist to stabilize the legs and anchor the body. The base of the sacrum moves anteriorly and up toward the heart. In essence, this promotes the stability of the pelvic bowl, along with the action of the sacrum going anterior and upward, lifting the contents of the lower belly out of the pelvic bowl. In my Rolfing practice, at the end of a session when the client is on the Rolfing bench, I encourage him to anchor his pelvis by reaching his sitting bones into the bench. As I work down either side of the spine, I encourage the client to lift in and up — from the base of the sacrum — lifting out of my hands, up through the base of the heart, and through the center of the cranium. This is perhaps the most effective method I have found for defining and enhancing an integrated state in the client at the end of a Rolfing session.

The inward and outward "spiraling" of the femurs in a yoga pose can be compared to the internal and external models defined by advanced Rolfing instructor Jan Sultan. In the external model, the pelvis is posteriorly tilted, and in the internal model, the pelvis is anteriorly tilted. In yoga, the anchoring of the tailbone creates the action of a posterior pelvis, and when the sacrum moves in and up, this creates the action of an anteriorly tilted pelvis. This combination expresses integration in the body, and allows the structure to move toward greater potential of movement and enhanced depth of breath. This combination allows the spine – from the lumbars, through the thoracics and into the cervical spine – to be more fully extended.

One way we assess integration in Rolfing is to follow the connected fascial relationships running through the core of the body (Sultan). These lines of transmission follow through fascial and ligamentous lines that run up the front of the sacrum, through the crura of the diaphragm, and up the front and back surface of the heart. They run through the suspensory ligaments, such as the sternopericardial and thoracopericardial ligaments that support the heart, through the front of the cervicals, behind the hard palate and up to the center of the head. The profound connection between Rolfing and yoga is that Rolfing[®], through intention and precision, allows a person to access balance along these lines of transmission, creating freedom though the body and an enhanced state of awareness. yoga provides precise intention that moves through these opened lines of transmission. In both the Rolfed body and yoga practice, integration is truly felt as an enhanced, energetic system producing a heightened sense of well-being.

In Rolfing, part of the integration process involves the intention of releasing restrictions and enhancing underlying support. With the ancient wisdom of yoga philosophy and its application of poses, the Rolfed body can investigate new openings of awareness. Blending these two practices in the Rolfing room has enhanced my client's Rolfing experience. With the blending of yoga and Rolfing, including the complexities of movement of the sacrum and the pelvis, a deeper sense of awareness and an electrifying integrated state can be realized and available for all of us.

END NOTE

Vasisthansana is a pose representing the sage, Vasistha, the teacher of the dharma. According to my yoga teachers, Vasistha represents integrity and wisdom, a pose I dedicate to my teachers of Rolfing and yoga.

Rolfing and Yoga By Will Johnson, Certified RolferTM

The consciousness that passes as normal in the world at large is a consciousness of separation. It is also a very disembodied consciousness. Fittingly, the word yoga means "to yoke" or "to join together" and suggests a path of practices that can put the pieces back together through healing the sense of estranged separation (self and other, mind and body, inner and outer, body and world) and the pervasive sense of disembodiment that accompanies it.

One of the most important things that yoga (specifically hatha yoga) can do is to help initiate this shift from a place where we're literally out of touch with the sensations of our body to a place where we can actually feel the tingly, sparkly, alive, active, vibratory free dance of sensations that's going on at all times in every cell of the body. Rekindle a felt awareness of the body as a unified field of shimmering tactile sensations, and you start entering a very different world, one in which the straitjacket of separation comes flying off and you're released into a birthright feeling state and consciousness that the Sufis call the "condition of union". And as we become more proficient in feeling sensations, the claustrophobic feeling tone of separation starts melting away, our conventional sense of personal boundaries expands exponentially, and we suddenly start experiencing ourselves as merged and connected with everything that is. It's a wonderfully comforting, natural, and relaxed condition. It's also filled with grace.

The individual sessions of Rolfing can also powerfully stimulate the awareness of sensations in the part of the body that is being touched, but where the goals of Rolfing and yoga truly begin to interact is through the conscious exploration of balance: the playful embodiment of what Dr. Rolf always referred to as "the Line". Elemental Rolfing theory tells us that, through playing with balance, the body learns how to let gravity provide it with its source of support. This allows us to keep on relaxing unnecessary myofascial tension because, if gravity is providing us with our support, then we don't need to provide it ourselves. We also know that the best strategy to not feel something is to tense the body. Therefore, relaxation allows us to feel the sensations of the body that formerly we were unable to feel, and true relaxation is only possible in a condition of balance.

If you want to come out of what spiritual teachers refer to as the "nightmare of separation" and enter into the embrace of union, you need to feel the body from head to foot as unbroken, shimmery, tactile presence. I've been spending quite a bit of time working with the words and practices of the Sufi mystical poet Rumi, and what I'm suggesting here accords directly with what Rumi's father taught him as "*ma'iyya*": God (or whatever word works for you) cannot be found in the mind alone, it cannot even be found in the heart alone, but needs to be felt as distinct physical sensation in each and every small part of the body.

From the point of view of physiotherapy, the sessions of Rolfing are ends in themselves. But from the point of view of yoga, the initial Rolfing sessions are like a preliminary practice that prepares someone to start consciously exploring the yoga of the Line. And for this exploration to succeed in shifting our awareness of self from the consciousness of separation to the consciousness of union, it needs to be actively explored, just like hatha yoga, on a daily basis. I believe this exploration is best carried out within the context of all four primary postures of the body: sitting, standing, moving, and lying down.

Sitting meditation practice, of any tradition, is most powerfully explored through surrendering to the Line. Sit every day with the awareness of alignment and relaxation. Feel how the most surrendered breath can cause subtle, resilient movement throughout the entire body. Open to the feeling awareness of the entire body. Watch what happens to the mind when you do this. Sitting can be a very stable posture in which to explore the Line, just remember that the entire body is always subtly moving on the breath or relaxation is lost.

Standing invites more expressive movement, and the exploration of the Line in a standing posture takes us right back to Shiva who, as legend has it, brought the body-oriented practices of yoga and dance to the planet. The "Sudaba" (Surrendered Dance of Balance) practices that I speak of in my book Yoga of the Mahamudra: The Mystical Way of Balance are lessons on how to play with the Line in a standing posture, thus allowing spontaneous movements to occur wherever and however they want (the body does not naturally want to stand still). [Editor's note: Yoga of the Mahamudra is reviewed later in this issue.] The following suggestions are also vital for fully experiencing Sudaba: Open as much as possible to an awareness of sensations and feeling presence throughout every single cell of the body, surrender to a breath that wants to breathe the entire body, watch the mind and let go of the thoughts (and the physical tension that forms with them) whenever they arise, and remember to see what's here to be seen and hear what's here to be heard (in addition, of course, to feeling what's here to be felt!). It's a wild and wonderful practice. Shiva's dance is a dance of the Line.

When I lie down on my back, I can best explore the Line through consciously moving my awareness through my body and making sure that subtle, resilient movement can be felt at each and every joint of my body. I learned this simple practice from movement teacher Judith Aston, and it's developed into a very revealing path of inquiry. If a part of the body has stopped moving in response to the breath, unpleasant sensation is bound to accumulate, no relaxation is possible, the shimmery presence of the body will be blanketed over, and I will very likely be off somewhere lodged in a thought (the second yoga sutra of Pantanjali tells us that the purpose of yoga is to calm the thought waves in the mind) — which, by its very nature, speaks from the perspective of separation. Ah, resilient breath!

I'm pretty much a stickler for doing regular practices. If I want the blessings that come from a moment of effortless, "Lined" consciousness, then I need to do intentional practices that keep supporting me to be in touch with this condition. I remember once

YOGA & ROLFING

hearing an interview with Rudolf Nureyev. This world-class dancer was asked why he religiously attended daily workouts and classes for the youngest members of the company. He said something to the effect that, if he misses a day, he begins to feel his muscles losing their tone; and if he misses two days, he can feel his spine begin to atrophy.

Balance feels good, and it is of course constantly changing from one breath to the next. Our challenge is to open to the radically different quality of consciousness that surrendering to the yoga of the Line naturally stimulates. Then we can come out of separation.

The interesting question for me, when it comes to the topic of Rolfing and yoga, is do we want Rolfing to be only about alleviating painful symptoms, or do we want Rolfing also to be "yoga," a path of evolutionary practices based on the felt exploration of the embodiment of the Line?

Let me leave you with a Rumi poem that's going to appear in a new collection of translations that will be published this fall: *Rubais of Rumi: Invitations to Ecstasy* (Nevit Ergin and Will Johnson , available from Inner Traditions in Sept. 2007). You could say that it's his ode to Rolfing:

look at your body as a whole it looks like a sprawl of drunks who've fallen asleep on top of each other if you want them to be your friends then wake each of them up don't just step on them and go on your way

Ida Rolf and the Two Paradigms

By Sam Johnson, Certified Advanced Rolfer™



Ida Rolf, 1924

The history of Ida Rolf's early work in the field of biological chemistry, long before her creation of structural integration, has always been a very short story. A Ph.D. from Columbia, a decade of work at the Rockefeller Institute, a few papers published, and then she left the world of science, later taking a long, meandering path to creating the work we all share.

I've recently read some new information about the world she left, and about the context in which she entered her first profession, that makes the story much more full and rich. It also gives an appreciation of the magnitude of the leap she took in developing her namesake work, and offers us some insights on the potential and the pitfalls of our field.

Dr. Rolf officially entered the world of scientific medicine in 1917, when she was hired to work in the Chemistry Laboratory at the Rockefeller Institute for Medical Research. However, the story starts earlier than that.

To understand the culture into which she was walking, the important date is September 12, 1876. On that day, Johns Hopkins University was launched in Baltimore, Maryland. Thanks in large part to it first director, William Welch, the single most influential figure in American medical history, Hopkins would change the face of American science and medicine and usher in a paradigm shift that dominates the health sciences in the Western world to this day. For the first decade of Ida Rolf's professional life, she was a product of that paradigm shift.

HIPPOCRATES AND WHOLISM, PART ONE

The founding of Hopkins was important in part because of the chaos that existed in American medicine for most of the 19th century. It was chaos created by a vacuum. The medical practices that had existed largely unchanged since the days of Hippocrates, had begun to fall out of favor, as the emergence of the scientific method began to shed doubt on their effectiveness. But for all that science was discovering, no treatments had emerged to replace the old therapies.

The great irony (for our field and for many other so-called "new paradigm" approaches to health), is that the paradigm that existed prior to the scientific medicine revolution looked a lot like what we describe as "new". This paradigm, which dominated Western and Middle Eastern medical thought for over two centuries, was founded largely on the writings of Hippocrates and his colleagues and was based firmly on the principle of wholism.

Hippocrates saw health as a reflection of balance in the body, and illness consequently was a result of imbalance. Internal imbalance, caused by living habits, environmental factors, hygiene, etc., led to disease. From that idea followed the belief that if a physician could intervene in such a way that balance was restored in the body, illness could be healed. Hippocrates, in the fifth century B.C., not Hahnemann or Sutherland or Still or Alexander or Rolf, can be credited with first popularizing that notion in Western thought.

(The approach to health promoted by the Hippocratic writers was similar in spirit to the other great wholistic traditions that existed at the time – traditional Chinese medicine and Vedic medicine in India. Both had existed for thousands of years before Hippocrates, and both stressed balance, although their systems of healing diverged greatly.)

Hippocrates stressed the importance of trusting in a sick person's innate power to recover and heal. He was the first Western physician to articulate what would become known as vis *medicatrix naturae* – the healing power of nature. He also hinted at an understanding of the power of the immune system, speculating that diet, rest, cleanliness and hygiene were factors in these individual differences in resistance to disease.

However, there were two problems. First, many of the treatments that were developed were harsh and sometimes deadly. Poisonous purgatives, bloodletting, and cauterization (burning the skin) often resulted in the death of the patient. Second, there was not any testing done to see if treatments actually worked. This problem of rigor—of submitting one's ideas and treatments to rigorous testing—would continue to haunt the wholistic world centuries later.

Complicating things further was that the physicians of the era were forced to speculate about what went on inside the body. Dissection was not done on humans and thus there was very little actual anatomical knowledge of the human body. The Greeks of the Hippocratic era frowned on dissection, and then later through the Middle Ages, the Church forbade the dissection of bodies. It was not until Vesalius in the 16th century performed dissections and drew pictures of what he found, that the inner workings of the human body were studied and mapped for the first time. (He barely escaped death for his heresy.)

DESCARTES AND THE DAWN OF REDUCTIONISM

And so it went, for two thousand years. The course of Western medicine continued largely unchanged until the 17th century. In 1628, years after Vesalius' dissections, William Harvey traced the circulation of blood, a feat that has often been called the greatest achievement in the history of

medicine (although a Muslim physician, Ibn Nafis, has been credited with essentially the same discovery four hundred years earlier in Cairo).

But the really significant sea-change that took place at the time came from the philosopher Rene Descartes. In the middle of the 16th century, he put forth the notion of dualism: that the human mind and body are distinct entities, neither which directly affects the other. In his view of dualism, everything in the realm of the physical operates by purely mechanical properties. Descartes included the body as part of the physical realm, viewing it as a biological machine with no free will.

One of the properties of a machine or mechanism is that it can be broken down into smaller constituents, or smaller mechanisms. It can be reduced to its parts. Thus Cartesian Reductionism was born, and it would set the stage for the paradigm shift that would change the course of science, and later, medicine as well.

Dualism was useful at the time – it also separated the physical from the spiritual, which allowed scientists to study the physical universe without charges of heresy from the Church. It laid the foundation for Isaac Newton's revolutionary work in mathematics and physics and for the development of the scientific method. But the view of the body as a machine would later lead to a purely mechanical approach to medicine. It would lead to minimizing for three centuries the understanding of the effects on healing of a patient's beliefs and attitudes, his emotions and faith, and of the power of the doctor–patient relationship.

Descartes also published in 1637 his Discourse on Method, which would lay the foundation for the development of the scientific method. This was a crucial addition – the scientific method would give scientists a schematic for studying nature. It gave reductionism its tool to study the parts systematically.

While developments in the physical sciences exploded after Newton, things moved more slowly in the biological sciences. In the 1740s, James Lind conducted a controlled experiment and discovered that scurvy could be prevented by eating limes (and since then British sailors have been still called "limeys"). Then in 1798 Edward Jenner published a work that would become a beacon of the new scientific method. He discovered that immunizing people with

cowpox would also inoculate them from smallpox. As important as the discovery was, possibly more important was the rigor of his methodology. He made certain that his findings were repeatable and airtight before going public. For the first time, a researcher in the biological sciences had held his own feet to the fire.

The breakthroughs came faster as the 19th century dawned. In France, Xavier Bichat discovered that organs were composed of discrete material (often found in layers) that he called "tissues". Pierre Louis began to use autopsies to compare healthy to diseased tissue. In England, John Snow ingeniously used mathematics to track a cholera outbreak and concluded that contaminated water had caused the disease. In doing so, he founded the field of epidemiology. And in Germany, Jacob Henle and others formulated the germ theory of disease, which would be a landmark development of the 19th century.

Something else was happening as well, that would fundamentally affect the doctor-patient relationship. Researchers (and later clinicians themselves) were now using instruments to study and diagnose patients in a widespread way. The stethoscope was invented. Doctors incorporated the use of thermometers, which had been invented two hundred years earlier, to measure patients' temperatures. Pulse and blood pressure were measured. The laryngoscope and ophthalmoscope were developed. Most significantly, the microscope with an achromatic lens came into use in the 1830s and a whole new universe of possibilities exploded for researchers, allowing them to study a world that had never before been seen.

This reliance on instruments created a new distance between doctor and patient. Doctors began to rely less on their observations and their senses (a central plank in Hippocratic thought), and more on instruments, numbers, and data. To the dismay of many critics at the time (and more than a few critics since), the human body became an object to be tested and prodded (Descartes!), the results analyzed by the fields of mathematics and chemistry.

Germany was the center of the medical universe during this period. Numerous laboratories were established, with the greatest scientists of the day actively probing the nature of the body, exploring its parts and their functions in a manner that exemplified the modern scientific method. The Hippocratic writers had believed that nature should be passively observed, and then theories developed. The German laboratories demolished this idea – they set up controlled experiments that poked and prodded and manipulated nature to see what secrets they could find. Jacob Henle, the first to formulate modern germ theory, summed up a basic credo of the new method, "Nature answers only when she is questioned." ¹

The problem with all this was that, as revolutionary as the new medicine was, very little of it yet translated into new treatments or preventions of disease. The old ways were falling out of favor, and physicians increasingly were abandoning the treatments that had been accepted for thousands of years. But nothing was there to replace them. A vacuum existed. (Wholistic medicine would partially step in to fill the vacuum during the 19th century, but more on that later).

In a bit of irony, some of the first practical discoveries that saved lives lay in the area of cleanliness and public hygiene. Scientists found that contaminated water caused cholera, typhoid was passed by food and drinking water, plague was spread by fleainfested rats... The scientists were discovering the lifesaving power of cleanliness and hygiene, a fact pointed out by Hippocrates many centuries earlier.

While Europe was bubbling with scientific discovery in the 1800s, America was almost totally uninvolved in the revolution. The United States was experiencing the same vacuum of effective treatments that existed in Europe. To add to that, the state of research and clinical training in America was so abysmal that the president of Harvard in 1869 said "the ignorance and general incompetency of the average graduate of the American medical schools....is something horrible to contemplate". Many states had no licensing for doctors at all. Many medical schools had no admissions standards, save for a willingness to pay the fee. No American medical school let its students perform autopsies or see patients. No American medical school taught students to use microscopes. By the mid-1800s not a single university or institution in America supported any medical research whatsoever. Many American physicians were making their pilgrimages to study at the great research centers in Europe; but they came home to a giant void where their education and skills had no outlet. American medicine was still in limbo and adrift. That was about to change.

THE REVOLUTION HITS AMERICA

When Johns Hopkins died in 1873, he left a large trust to found a university and hospital. His trustees, seeing the numbers of American medical students who were studying in Europe, decided (against the advice of the most well-known educators of the day) to model the university after the great German universities. It was at those universities that open inquiry and research were not just allowed, but demanded, and where students were expected to meet strict entrance requirements, something unknown in any American medical institution. The trustees intended to create an institution that would be as rigorous as its European counterparts.

After its founding in 1876, the new president of Johns Hopkins University began assembling an international faculty, and the school started modestly by offering graduate courses. In 1884 William Welch was hired to found and run the medical school. The medical school itself would not open for nine more years, but the Pathological Laboratory opened right away. And almost immediately, American medicine was transformed, and Welch would eventually become one of the most (if not the most) influential scientists in the world.

Welch had trained as a doctor and studied extensively in Germany. He had worked with and studied under the greatest scientists in Europe; and at a young age (he was only 34 when offered his position at Hopkins), he was already highly regarded in the profession. And more importantly, he had also developed contacts and friendships across the scientific world. He was not a great researcher—over his career he made only minor contributions to the field—but he had a rare gift to inspire trust and loyalty from almost everyone he came into contact with, and he had impeccable judgment, both about people and about science.

He assembled a faculty and opened his laboratory, and the Hopkins campus very quickly became something unique, a cauldron of inquiry unlike anything anyone had seen before. The faculty, researchers and students would meet on a daily basis, socializing, debating, collaborating, generating new ideas, prodding each other, in an environment that colleagues would liken to the passionate single-mindedness of a monastery. Everyone shared the vision that they were creating something new and important. The students did something no U.S medical students had ever done before: they visited hospitals and saw patients and made diagnoses, learned to use laboratories to test their ideas, performed autopsies. They didn't just attend lectures like students at other schools; the immersed themselves in the science and the practice of medicine.

Knowing that this was available, students flocked to Hopkins. Their entrance requirements were strict, unheard of in America, but students arrived in droves anyway. It was the place everyone wanted to be. It also became the place that every trustee at every competing university wanted to (or was forced to) emulate. Their graduates and researchers were in demand—some hospitals would only hire Hopkins-trained doctors. Of the first four Nobel laureates in medicine or physiology, three were trained at Hopkins (the fourth was trained in Europe). Hopkins graduates would move on to run medical schools at Harvard, Yale, Columbia, Rochester, and elsewhere, and would transform them to Hopkins standards.

Welch was the driving force behind all this, and he continued to press for change. He began directing the flow of millions of dollars into research, to laboratories and researchers he deemed worthy. One of his protégés would spearhead the effort to force minimum standards on medical schools and on physicians themselves. Within twenty-five years of accepting his post at Johns Hopkins, Welch would have overseen the transformation of medicine in this country, and that transformation allowed the American scientific community to catch up with and in some areas surpass that of Europe.

Meanwhile, the assault on infectious diseases continued in laboratories across Europe, and real results were appearing. The germ theory had opened the floodgates for researchers. In 1880 Pasteur successfully vaccinated animals against cholera, then anthrax. Cholera and typhoid were being contained for the first time, based on an understanding of how they spread. Then finally, in 1891 in Berlin, researchers successfully cured a patient suffering from diphtheria using an antitoxin. It was the first actual cure of the new era. Researchers in New York City learned how to mass-produce the antitoxin, and it became widely available. Doctors now had an actual tool to prevent and cure deadly disease. It would be the first of many.

The field of medicine was now a science, and the reductionist revolution was nearly complete. Its successes were created in the laboratory (and increasingly in the operating theatre as well). The fields of pathology, epidemiology, chemotherapy, forensic science, and bacteriology, were all exploding. The battleground of medicine had moved from the physician's office to the laboratory.

The magnitude of the paradigm change from the days of Hippocratic thought was stunning. For two millennia, health was understood to be a reflection of balance at a systemic level. Now the focus had shifted from the macro to the micro, from the whole system to the minute parts. Reductionism was the order of the day, and Hippocrates had given way almost completely to Descartes. Medicine was now a study of tiny things, the smaller pieces of the machine that could only be seen with help. The microscope was the most powerful tool in the researcher's arsenal, and it symbolized the shift – it brought the world of tiny things to light. The modern cures were imparted from the outside, aimed to do battle with the microscopic, external invaders that attacked the body.

And research was where the action was. The next big development would involve the research institution that would become a model for the scientific world. In 1901, overseen by William Welch, the Rockefeller Institute for Medical Research was founded.

THE INSTITUTE AND ITS MISSION

Here is an institution whose value touches the life of every man that lives...Who has not felt the throbbing of desire to be useful to the whole wide world? Here at least is a work for all humanity, which fully satisfies and fills that glorious aspiration...Your vocation goes to the foundations of life itself...²

> Frederick Gates to the staff of the Rockefeller Institute on the tenth anniversary of the laboratories, 1914

The Rockefeller Institute's purpose was straightforward – to give scientists the resources to do research in medical fields. It had a broader aim than the European institutes, most which focused primarily on

infectious diseases. Rockefeller aimed at the full scope of medical practice. In addition to studying infectious disease, its scientists would explore surgical techniques (paving the way for organ transplants) and would begin research into cancer (Peyton Rous, a Hopkins grad doing research at Rockefeller, discovered in 1911 that a virus can cause cancer, and half a century later he won a Nobel Prize for his efforts). They also did the basic work that would lead to one of the great scientific feats of the 20th century—the mapping of the DNA molecule.

Welch picked a protégé, Simon Flexner, to head the new institute. Flexner created the institute in his mold - "sharp, edgy, cold."3 He was described as rough, brilliant and intimidating. He was feared, by some of the best scientists in the world. He demanded only the best to work for him, and would dismiss those whose work he believed did not match his standards. But he could be patient and nurturing when he saw promise, and he gave wide latitude when he saw a researcher with real talent. He also valued openness and debate, friction and disagreement, and he sought out individualists, mavericks unafraid to think in new directions, and encouraged regular, lively exchanges of ideas. His goal was to create not an institute but a living organism, and the result was an environment that was equally demanding and exciting, provocative and creative.

From the beginning, the new institute regularly made headlines, not just in America but internationally. It immediately had a huge impact on the scientific world and on the public as well. Accomplishments were publicized, often and with much fanfare. The press loved Flexner and his institute, and he loved them back. Although it had its critics who mocked the publicity machine, Rockefeller quickly became to research what the Hopkins had become to medical study and training - the place to be for a scientist wanting to make a name for himself in research. The Rockefeller Institute would be involved in, and often at the center of, seemingly every significant medical development in America for some time to come.

This era, the late 19th to early 20th century, has been referred to as the golden age of American medicine. Major discoveries were occurring seemingly every day, vaccines and treatments for some of humanity's deadliest diseases were appearing, and the biological sciences were the center of the medical universe. Many of the processes for preparing cultures, conducting research, treating infectious disease, etc., that were developed during those early days, are still in practice today; and in some cases, the early researchers achieved results with patients that were superior to more modern pharmaceutical approaches. The great plagues that had stalked mankind for centuries – smallpox, cholera, typhoid, bubonic plague, yellow fever - were being contained and lives were being saved from epidemic by the millions.

IDA ROLF, CHEMIST

This was the scientific culture in which Ida Rolf started her professional career. She had earned her undergraduate degree from Barnard College in 1916, and officially began working as a technician at the Rockefeller Institute in 1917. At about the same time she also began her doctoral studies at Columbia University. So she was accepted as a biological chemist, at the zenith of the biological science-driven revolution in scientific medicine, at the institution that was ground zero for laboratory research in America, arguably the most prestigious place in the world for a scientist to work.

It is commonly thought that she was accepted because of a lack of qualified men at the time – the boys were off at war and so women were given a chance to study and practice in the scientific arena. This may partly explain her acceptance to Columbia (she didn't begin her studies at Columbia until late 1917, after the U.S. entry into the war), but probably not to Rockefeller itself. She apparently had some connection to the Rockefeller family of organizations in New York City while still an undergraduate at Barnard. An April 3, 1916 entry in the Barnard College newspaper mentioned Ida Rolf, then a senior soon to graduate, as an alternate for a fellowship, and noted that she was "doing work in chemistry at the Rockefeller Foundation".4 The Rockefeller Foundation was a charitable foundation, also established by the Rockefeller family, which at the time focused on the sciences, public health and medical education. It is not known whether she actually worked for the Foundation, or whether the entry was a misstatement and she already was doing work for the Institute. But at any rate, this was over a year before the United States entered World War I.

Rockefeller had many women employees at the time, but most were apparently only

in lower or entry-level positions. It was much less likely for a woman to advance up the rungs of the scientific ladder. In 1918 Ida Rolf returned to Barnard to talk to undergraduates about employment at Rockefeller. She reported that "…in all the laboratories women are employed without discrimination and hold many responsible positions."⁵

However, in *A History of the Rockefeller Institute*, George Washington Carver makes almost no mention of women scientists in that early era. All of the department heads and numerous associates and assistants are mentioned, along with their work, and there is scarcely any mention of any woman. In a description of the head of the Chemistry laboratory, Carver notes "approximately 40 men"⁶ passing through his lab during his tenure. The author describes an organization which was almost exclusively the domain of men, at least at the level of researchers.

Most of the women who were employed at Rockefeller very probably began either in administrative positions or started as technicians in the laboratories. Moving up was the challenge. Ida Rolf was apparently one of the very few who did advance.

Ida Rolf was officially first listed as an employee at the Institute sometime in 1917. She also began her studies in Biological Chemistry at Columbia in late 1917. At the time, Rockefeller was basically functioning as a post-doctorate university. Almost all the scientists already had their Ph.D.'s before being hired. However, like Ida Rolf, several others began as technicians and used their work at Rockefeller to earn Ph.D.'s from Columbia. Most would spend a few years – five to seven at most – at the Institute, then leave to take university positions or work in industry. Only a very few would become full Members with lifetime tenure.

Dr. Rolf was soon working in the Chemistry Laboratory as an Assistant to Phoebus Levene. Levene was brought to the Institute by Flexner in 1905 and two years later was named as a full Member and was appointed as head of the Chemistry Laboratory. He had emigrated to the U.S. in 1893 and, like Ida Rolf, enrolled in Columbia and began his research in chemistry. Over the course of his professional life, he contributed a huge body of research in biological chemistry across several areas of interest. He is most known for two major contributions (and one major mistake he made) with regard

to the discovery and understanding of the DNA molecule.

THE LEVENE LABORATORY



Levene was cultured and highly educated, conversant in six languages, an art lover, generous and popular with his colleagues. He also was in some ways an imperfect fit for Rockefeller. Flexner was initially concerned that Levene was "esoteric in his scientific interests"⁷ (the meaning of that statement is unknown, but it leads to a curiosity about whether Levene, as Ida Rolf's direct supervisor, influenced her in her own esoteric pursuits during the 1920s). He also had developed a reputation as an ineffective administrator – the practical details of running a laboratory often escaped him.

Levene had another quality that may have eventually led to Ida Rolf's restlessness at Rockefeller. All the department heads had full control over their laboratories. Some gave their assistants and associates wide leeway to follow their own research interests. Levene was at the other extreme - his assistants were expected to do only research that Levene himself found compelling. They had little freedom to explore their own interests; and as a result, he developed fewer prominent scientists than the other department heads. This led Flexner to express concern in 1919 that Levene's scientists "...were not being trained for independent work."8 His department had a lot of churn - scientists would leave, looking for other opportunities. As popular and well-liked as he was, and despite his reputation as an excellent teacher, he didn't have a gift for developing talent.

After a year as a technician, Ida Rolf was named as an assistant in 1918. In 1920 she received her PhD from Columbia and in 1922 she was promoted to Associate, the highest non-tenured position for a scientist at Rockefeller. She remained as an Associate until her departure. From 1919 to 1927, she published fifteen research articles that are

> known, in addition to her doctoral dissertation, mainly on two phosphatides, lecithin and cephalin.

Dr. Rolf's role, through most of her time at Rockefeller, was to further explore the structure and nature of lecithin and its chemical cousins (the phosphatides were one of Levene's personal areas of interest). It

was the step-by-step, detailed work of laboratory science – how to extract lecithin efficiently from egg yolks, how to more exactly determine its chemical structure. Her published papers are, in a word, dry (one scientist who has read them, describes them as a wonderful cure for insomnia).



Simon Flexner Phoebus Levene

Rolf's research was all co-authored with Levene - his name always appeared above hers in their papers. It was common at the time to have heads of laboratories put their name on any research that came out of their laboratory, regardless of whether the laboratory head had actually participated in the study. So it is not know whether he actively worked with her in her published research or simply acted as supervisor.

TWO WARS

Through the early years of Ida Rolf's tenure at Rockefeller, the work and environment of the Institute was heavily influenced by two wars. The first was World War I. Although the war began in Europe in 1914, President Woodrow Wilson was determined throughout his first term to keep the country out of the conflict. His campaign theme in his 1916 re-election campaign was "He Kept Us Out of War." He did not finally request that Congress declare war until April 1917, after a series of German submarine attacks on American merchant ships. The war draft was instated in May 1917.

As soon as war was declared, virtually every public and private institution in the country was converted in one form or another to the war effort. This included most educational institutions. After America committed to the war effort, there was some fear at Rockefeller that scientists would be lost, either to enlistment or to the draft.

So Flexner arranged to have the entire Institute incorporated into the army. The Rockefeller Institute officially became Army Auxiliary Laboratory Number One. Scientists received officer rank and were saluted by sergeants, who were abundant in the hallways, holding rank over janitors and technicians (which at the time would have included Ida Rolf). The work of the staff was changed. Most researchers either began instructing military doctors or shifting to war-related research. At least one biochemist studied poison gas. Another worked on bomb-making materials. Others trained army doctors in treating infectious disease. As a technician (and as a woman), Ida Rolf likely would not have been offered a commission. There is no record that she was offered one, and it is likely that she spent much of her time during her first years in class work and doctoral work at Columbia.

The second war, and one in which Dr. Rolf might have played a minor role, was waged at laboratories worldwide, and with a much deadlier enemy. In late January 1918, in Haskell County, Kansas, a local doctor began noting patients suffering from what seemed to be a particularly violent, fastdeveloping and deadly form of influenza. It is believed by epidemiologists that a local soldier home on leave later carried the flu back to his army base, where it gradually worked its way across the country, across the ocean on troop ships, and eventually to almost every corner of the earth. It was the likely beginning of what became the deadliest plague in human history, the influenza pandemic of 1918-1919, with a worldwide death toll estimated as high as 50-100 million lives lost.

It is difficult to conceive today of the level of hysteria and paralyzing fear that swept the country (and the rest of the world) as

the virus spread slowly from one city, one army base, one state to another. It was a strain of flu never seen before, characterized in part by the speed and ferocity with which it killed. Countless cases were recorded worldwide in which people who showed no symptoms at all, suddenly were struck down and dead within hours. And unlike most influenza, it struck the most viciously at the most vigorous members of a population - somehow, it attacked the immune systems of the healthiest people so suddenly that their own immune response killed them, and killed them with a breathtaking speed. Using the upper estimates of the death toll (which are conceded by many epidemiologists today to very probably be reasonable estimates), 5% of the world's population was killed, and an unusually high percentage of that number were young adults, the healthiest members of the population. Most of the deaths took place worldwide during a horrific twelve-week span in late 1918.

The epidemic was made worse by the propaganda machine that was in full force to rally support for the war effort. The government didn't want fear of influenza to distract the country from a total support for the war, and so accurate and truthful information about the danger was not communicated to the public until too late in city after city. The army ignored the advice (the pleadings, more accurately) of its own surgeon general and didn't take adequate safeguards, and its bases were devastated by the virus.

In the hardest-hit communities, public and private business simply shut down—no one wanted to go near anyone else. Entire households died, time and again, because no one would go near their homes to help, afraid of the virus. The supply of doctors and nurses was hopelessly inadequate to make even a minimal impact in most areas.

By late 1918, when the deadly second wave of the epidemic was in full force and the magnitude of the crisis was tragically apparent, a massive worldwide research effort had already mobilized to isolate the influenza virus, to find effective treatments, and to develop a vaccine. The scientific community focused its attention (as much as possible with the war still in full sway) on the disease. The Rockefeller Institute was no different, and some of its best and most well-known scientists would tackle the problem and later spend most of their professional lives on influenza-inspired research.

It is possible to make some guesses about the nature of Ida Rolf's research. Her work was centered on the nature of phosphatides, and in particular, lecithin. Lecithin plays a key role in the structure of cell membranes – without it, cells couldn't maintain their structure distinct from their surroundings. Lecithin was discovered in 1846, and by the time of Dr Rolf's work at Rockefeller, was a source of curiosity in biochemistry. Some of the interest may have had to do with the nature of viruses.

When a virus attacks the body, much of the life-or-death action takes place at the cell membrane. It is at the membrane that the virus attempts to attach grappling hooks and bind itself to the cell (or in the case of influenza, to slip into the lung cell itself and totally avoid detection by the immune system). So an understanding of lecithin's role in the structure of the cell membrane would be important to understanding what actually occurs at the virus' point of attack.

It is not known if Dr. Rolf's work with lecithin took place in the context of the Rockefeller Institute's focus in the midst of the influenza epidemic to understand the nature of how a virus attacks the body. But it is worth noting that Levene paid very little attention to lecithin until early 1918, and then published dozens of articles and papers on the subject, with Ida Rolf and others, until the 1930s when he seemed to lose interest in it. So her work was probably partly pure science and possibly at least in part stimulated by influenza and infectious disease research.

FROM CHEMISTRY TO PHYSICS

In 1925 Dr. Rolf applied for a leave of absence to study in Europe. She had wanted to continue her studies in Europe ever since graduating from Barnard, like countless other scientists had done since the late 19th century, but the war prevented her from traveling. By 1925, from the tone of letters she wrote to Simon Flexner during her leave, she was in need of a rest and break from her work, and was increasingly restless at the Institute. She was granted the leave late in the year, and in January 1926 she sailed for France to begin her trip by studying at the Pasteur Institute.

While she was en route, Flexner wrote her. He enclosed a check for \$200 to help pay for her stay in Europe, and he confirmed what she was feeling about her relationship with Rockefeller. He said in part, "I have thought for some time that you had both received and given services to the Institute which about fulfilled the advantages to us both."9 He encouraged her to begin looking, soon after her return to America, for another position. (This is pretty consistent with what is known about Flexner. Ida Rolf had been employed at the Assistant/Associate level for seven years, about the maximum time for most non-tenured employees to stay with the Institute. Flexner was never shy about telling scientists what he thought was best for them and when it was time for them to go.)

Dr Rolf received the letter while in Paris. She replied in a handwritten note to Flexner. "... I am in complete accord with your opinion that the period of maximum efficiency of that tenure, for both the Institute and myself, is past."¹⁰ She went on to describe her relief at not having to make the decision to leave the Institute. She expressed her gratitude towards Flexner and Levene for the opportunity they had given her and her sense of obligation to repay them for the chance afforded by the leave of absence. She sounded both relieved and excited, describing her adventures in learning French and her studies at the Pasteur Institute.

Dr. Rolf, in *Ida Rolf Talks: About Rolfing and Physical Reality*, mentions studying physics in Zurich during her leave, and visiting Geneva to study homeopathy.¹¹ Not much else is known about her time in Europe, including when she returned.

(How exciting must it have been to study physics in Europe in 1926? The 1920s were possibly the most exciting period in the history of physics, and Europe was the scene of the drama. Heisenberg, Schrodinger, Niels Bohr, Einstein and others were hashing out the details of quantum mechanics, creating an entire new physics and changing our understanding of the universe at a rapid-fire pace. Ida Rolf began her shift to physics at almost precisely the moment that the world of physics was experiencing a paradigm shift every bit as significant as that ushered in by Descartes.)

Two more papers later appeared in 1927, coauthored by Dr Rolf and Levene, concerning lecithin and cephalin. They possibly represented work she completed before her leave, or possibly she returned to complete her work before parting ways with the Institute. Her tenure at Rockefeller was officially

over in 1927 when she left the world of scientific medicine for good. Approximately fourteen years after her last scientific article was submitted for publication, around 1940, she saw her first client, a piano teacher in the Bronx, doing the work that would later develop into structural integration.

And you see all of this is a something, which if you are really considering man,...you have to think of in those terms, because this is the man, the man is the energy field, the energy consolidation....In terms of the orthodox methods used by your doctor, in general they are dealing with the chemistry of the body. They are not dealing with this low man on the totem pole, this forgotten man, this forgotten element of the body, this element of the actual physics of the body.¹²

Ida Rolf, 1966

Ida Rolf had begun her career as a product of the biggest paradigm shift in the history of medicine. From the 1920s to the early 1940s her professional shift took her from scientific medicine back to wholism. There is irony in her trip to Europe. During the last decades of the 19th century, American scientists had made their pilgrimages to Europe to embrace the biological sciences. It was where they could go to study the tiny things, so they headed towards the microscope. Decades later she made her pilgrimage as a scientist as well, but it also symbolized her transition. She began the leave as a biological chemist, studying at the laboratory founded by Pasteur. Then she left the microscope behind and in Zurich, studied mathematics and physics, the language of energy. Just as Descartes was achieving supremacy in American science, she headed back to Hippocrates.

WHOLISM, TO AND FRO

Meanwhile, wholism had taken a hit during the scientific paradigm's emergence as a dominant force. During the vacuum the American medical world experienced in the 19th century, several wholistic disciplines had emerged. Homeopathy and Natural Hygiene arose in the early 1800s, and then in the last decades of the century, chiropractic, naturopathy and osteopathy were developed. All were firmly in the wholistic tradition, all dedicated to the Hippocratic goal of supporting a return to systemic balance as the basis for healing. All enjoyed varying degrees of public favor (John D Rockefeller had a homeopathic physician even as he was forming his namesake institute.)

However, the early 20th century was not kind to the new modalities. The political and cultural environment was swinging almost totally in favor of biomedicine. In 1910, commissioned by the Carnegie Foundation, the Flexner Report was issued, authored by Simon Flexner's brother Abraham. Its aim was to examine the conditions in American medical schools, and it was a scathing indictment, recommending that 80% of all medical schools be shut down. But it focused on homeopathic and osteopathic schools as well, and it was blistering in its assessment of their activities. The report used the terms "utterly hopeless", "absurdly inadequate", and "fatally defective" to describe the wholistic schools that Flexner visited. He regarded chiropractic as not even worthy of consideration, calling chiropractors "unconscionable quacks" and recommending that "the public prosecutor and the grand jury are the proper agencies for dealing with them". He regarded wholistic or alternative approaches as "indefensible"¹³ in the new era of scientific medicine.

Out of the Flexner Report, wholistic schools and practitioners came to be viewed, by the medical world and to a degree by the public at large, as incompetent at best, and as frauds at worst. At the same time, William Welch was using his powers to direct the flow of research money in the field, and the money decidedly did not flow in the direction of any of the wholistic disciplines. As a result, wholistic practitioners were left marginalized on the fringes of health care.

(One of the ironies of D. Rolf's career is that the brother of her boss at Rockefeller—and she had a great deal of admiration and respect for Simon Flexner— had as his partial goal the eradication of the field in which she would later spend most of her professional life.)

EINSTEIN AND WHOLISM, PART TWO

But while reductionism was reigning supreme in the medical world as the 20th century dawned, the scientific world was about to undergo another tectonic shift. Hippocrates was about to fight back, and in the unlikely person of a Swiss patent clerk. In 1905, Albert Einstein published two papers, one on special relativity theory and one that would help develop quantum theory (Max Plank had introduced the idea that energy is quantized five year earlier). In 1916, while Ida Rolf was graduating from Barnard College, Einstein added gravity to the mix to present his general relativity theory. (Gravity according to Einstein is not a force as Newton claimed, but a warping of space-time. The Earth doesn't move in an elliptical orbit around the sun; rather, it moves in an apparent straight line through the curvature of space.)

The implications of relativity theory and quantum theory, and their impact on science and culture in the 20th century are way, way beyond the scope of this article (Fritjof Capra alone has several books on the subject). But 20th century physics – especially quantum theory - set a scientific framework by which wholism could be understood and appreciated. It also showed Descartes to be wrong, or at least limited, in at least one key way.

Descartes believed in a physical universe made of discrete parts, which could be studied and understood. Quantum theory has shown this not to be the case. At the smallest, most fundamental level - the atomic level - the smallest particles are not discrete things, but are more accurately thought of as interconnections (the word "particle" itself is inadequate and misleading at the atomic level). Quantum theory leads not to things, but to constant relationship. The world can be broken down into parts to a point, but as the parts get tinier and tinier, they become something else, less accurately thought of as parts and more accurately as a complex web of relations.

Descartes also believed that there is absolute truth in science, and that truth can be proven by the scientific method. In *The Turning Point*, Fritjof Capra argues: "Twentieth century physics has shown us very forcefully that there is no absolute truth in science, that all our concepts and theories are limited and approximate."¹⁴ The critics of reductionism argue that the scientific method, while useful and powerful, has its limits in understanding reality.

(A note about relativity theory is useful here. Einstein never believed that his theory should or could be accurately applied to moral or metaphysical matters. A great many philosophers and physicists believe that Capra and others have misused relativity theory by making claims about its application to relativism in other arenas. Quantum theory is a different matter, and Capra is probably on firmer ground by applying it to these issues.)

The world thus appears as a complicated tissue

of events, in which connections of different kinds alternate or overlap or combine and thereby determine the texture of the whole.¹⁵

Werner Heisenberg

Your security comes only from relationships...A Rolfer's only secure ground in a body is to establish balanced relationship. That is your secure ground, and it is not possible to convert it into something that is solid like a wall.¹⁶

Ida Rolf

RESEARCH AND THE TWO PARADIGMS

It is easy to understand how the biomedical revolution came to dismiss wholism. Scientific medicine and the modern scientific method make for a perfect marriage. Both are firmly rooted in Cartesian assumptions...the universe is composed of discrete parts that can be isolated and studied and understood. Relationships between the parts do matter, but the nature of each part can be studied and understood in isolation from the others.

The contributions of the reductionist approach to medicine have been enormous. An obvious example is modern surgery and trauma care. Another example is the area of infectious disease, where countless lives have been saved because of the discoveries made by scientific medicine. The great plagues that killed millions throughout human history are now largely preventable and treatable. (Ironically, many of the breakthroughs in fighting the great plagues validated Hippocrates – keeping the water supply clean, washing hands, and keeping the environment clean of waste, were some of the early breakthroughs that helped to arrest the deadliest diseases.) The scientific method has provided a model for rigorous inquiry that has been adopted by all the sciences.

However, in many ways, we are witnessing today the biomedical revolution taken to its logical extreme. If humans are biological machines, then biology is the answer for all problems. What we now see are drugs introduced for every conceivable affliction, every aberration from the norm, physical and emotional. The marriage of the scientific method and biological medicine has resulted in Viagra, Prozac, and the little purple pill. On the other hand, wholism and the scientific method make for an uneasy relationship. One of the basic assumptions of wholism – the primacy of relationship, the interrelatedness of all aspects of the universe – makes studying the parts to be much more of a challenge. Wholism by its very nature resists the notion of isolating – the act of isolating the parts for the purposes of research will lead to a result that is incomplete and partial.

The question arises: Can effective research be done within the wholistic paradigm? Our field is a wonderful example, since it is difficult to imagine a more thoroughly wholistic discipline. (The human being considered as a relationship within gravity - Einstein and Heisenberg would have been proud.) So what part of structural integration is the key part - the sequence of the series? The relationship between the practitioner and client? The techniques used? The experience and training of the practitioner, or his hands-on skill, or ability to listen, or his intelligence, or capacity for compassion? The client's willingness to change? Which session makes the most difference? How do you possibly separate out those factors from the whole of the process?

A vivid example of the difference between the two paradigms is the placebo effect (defined as the improvement in health not attributable to treatment). The Cartesian paradigm regards the placebo effect as a factor to isolate out to gauge a treatment's effectiveness. Wholism embraces the placebo effect – the client's belief, psychology and expectations about the treatment are a vital part of the treatment itself. The very definition of placebo, useful in reductionism, is meaningless in wholism.

Having said that, there is much that wholism can learn from Descartes. From its beginnings, wholism has had a problem with rigor. It has traditionally been too easy and tempting for wholistic practitioners to write off their failures or missteps without rigorously testing their ideas, and without making sure that their treatments actually do what they claim they do. There was some truth to Abraham Flexner's critiques of wholistic schools. They made claims that they never bothered to verify. To this day, wholistic practitioners too often claim benefits for their approach without a shred of anything other than self-selected "successes" as proof.

This is a challenge for structural integration, even though our field claims to not cure or treat anything. We as a profession have a strong desire for research, to validate our field's effectiveness. But effectiveness at what? What do we want research to prove about our field? Do we desire proof that it improves overall health and vitality and functioning (defined by what?) To prove our effectiveness, research must start breaking our work, or its effects, down into pieces. Does it improve balance? Does it lessen pain? Does it provide more energy (and proven by what means)? Does it strengthen the immune system? Does it lessen or alleviate the symptoms of a variety of diseases and conditions?

It is a fair question to ask ourselves exactly what we want from research. It is also important to note that research is, to a large degree, a phenomenon of another paradigm. As useful and powerful and insightful it will be to interact with the Cartesian paradigm and the world of scientific research, it may also be useful to remind ourselves that we are not of that paradigm. Our assumptions are fundamentally different from theirs. Descartes may be a wonderful dance partner, worthy of spending time with and learning from, but he goes home to a different bed than ours.

But Ida Rolf was from that world, and she was a scientist long before she created structural integration. So I would throw out a couple of reasons that research is vital to our field, among the many other worthy reasons for us to continue to press for the scientific community to poke and prod us.

First, we need our feet held to the fire, as does every discipline that makes claims about its effects on health and well-being. It is good and healthy and honest to be rigorous and to have our claims and beliefs examined continually. As children of Hippocrates, that is the greatest lesson we can learn from Descartes – continuing to ask hard questions about our work and what it does, and inviting others to do the same, and paying attention if the answers do not meet our expectations or hopes.

Second, it honors our founder and her spirit of inquiry. Through her, we have our roots in Descartes. The woman who created our field was raised professionally in the world of scientific medicine, and her story is the story of two paradigms, not one. To honor her best, and to honor the spirit of our own beginnings, means honoring the best of both worlds.

EPILOGUE

By the middle of the 20th century, the Rockefeller Institute's glory days as the center of

American medical research were over for good. In 1955, the Institute began admitting graduate students for the first time. Its vitality could no longer be maintained as purely a research institution, and admitting students was an acknowledgement on the part of its leadership that times had changed. In some ways, it had become a victim of its own success. In large part because of the Institute's influence, a career in teaching and research had become so desirable that graduate schools, with their ongoing dialogue between teacher and student, had become the hotbeds of research. Rockefeller could no longer compete with colleges for the best and brightest scientists. In 1965 it would officially change its name to Rockefeller University. During its prime, in the early part of the 20th century, it had been at the center of a revolution in medicine, the place to be for pure scientific research in the biological sciences and the most important scientific institution in America. But its moment in the sun had passed.

At about the same time, in late 1954/early 1955, Ida Rolf taught her first structural integration class west of the Mississippi River, at the Kansas City College of Osteopathy and Surgery. At the time, she called her creation Postural Dynamics and taught it in roughly the same ten-session series format that she would still be teaching two decades later. In almost every way imaginable it was a world apart from her professional beginnings almost forty years earlier in the chemistry laboratory at Rockefeller. But...in the class, she and her students conducted two research projects, including a study of the effects of her work on cholesterol levels. As enormous as her professional leap had been, she was still poking and prodding with the spirit of a scientist, straddling two worlds.

So, what next? Ida Rolf courted Descartes and then chose Hippocrates, but that was her story. Now we as a profession have choices to make. We are a young field, already with some self-inflicted wounds, trying to fit the pieces back into a coherent and healthy whole. We get to grapple with how to define ourselves, who we are, how to speak about our work and how to relate to a wider world of medicine and health that often does not share our sensibilities, how to adapt while the sands continue to shift. We face questions in how and when to meet others halfway, when to play on their turf, when to stand our ground, and how to continually stay rigorous with ourselves.

Our choices fan out before us, continually. We write our story now.

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Licensure: An Existential Dilemma

By Heidi Massa, J.D., Certified Advanced Rolfer™

s State licensure of Rolfing[®] structural integration practitioners good for us? This is more than a practical question. It might be the turning point at an existential brink. To me, the answer is obvious. Not now. Not ever. No way. Granted, I assert an extreme position — perhaps because I'm a dyed-inthe-wool libertarian for whom some of the scariest words in the English language are, "I'm from the government and I'm here to help you." But beyond that, it is a reflection of what I feel Rolfing is and who we, its practitioners, should be.

THE JUSTIFICATIONS FOR REGULATION

The State's strongest argument is that in the absence of its benevolent oversight, Rolfers present a threat to the public. We might be incompetent or unethical, or even harm someone. But one need look no further than our insurance premiums to see that this argument is specious: Rolfers can buy insurance in the amount of \$2 to \$3 million per occurrence for yearly premiums that barely cover the cost of administering the policies. Such is the actuaries' judgment on how likely we are to harm anyone. The infrequency of ethics violations are similarly telling: In my time as a member of our own Ethics and Business Practices Committee since 1997 - despite our eminently fair and open policy toward public complaints - I know of only two cases in which we had to discipline members for ethical improprieties.

Our track record is this good because we are a self-regulating body. Our private regulation through certification is superior to public regulation through licensure. No one knows more than we know about what we do, or has greater motivation to make sure Rolfers are competent and responsible in their dealings with the public. And no one has a greater ability than we have to discipline and correct practitioners who have violated the public trust. But would State regulation – as opposed to the private variety we already enjoy through our training, certification, continuing education and ethics implementation procedures — advance any properly informed and motivated interest of our own? If so, none of its proponents has ever articulated one to me. They propose a gamut of questionable justifications, and cluster into five camps.

Those who take Big Government for granted. Because they see regulation as a natural condition, a necessary corollary to the existence of Rolfing is the need to regulate it. *Isn't everything regulated?* Not yet. That regulation is becoming ubiquitous does not make it a law of nature.

Those who believe regulation to be inevitable. They don't see regulation as natural or even good - only unavoidable. Let's hurry up and get ourselves regulated before someone else does *it for us.* This recalls the argument that the impositions of technology are inevitable. Can't stop progress, you know. In fact, regulation is just another man-made tool. In the mid-19th century, Karl Marx articulated the absurdity of being slaves to our tools, which are, after all, no more than the work of our own hands; more recently, Stanley Kubrick warned of the consequences. The threat the Inevitability Camp recognizes is real, but can be met by exempting ourselves from regulation as well as by embracing it.

Those who are insecure. They argue either that State regulation would save the public from untrained or unscrupulous practitioners, or that it would protect their own legitimate practices from unfair competition by pretenders. *Mommy*, *Mommy* – *Billy's telling lies to Sally so she'll play with him and not with me!* This infantilizes everyone but the regulator. With today's information

resources, the public is quite able to verify practitioners' credentials. Impostors will be discovered; and incompetents will not survive the rigors of the marketplace. Rolfing will thrive by the well-deserved reputations of competent and responsible practitioners – just as each of us succeeds or fails on our own merits.

Those with low self-esteem. To feel good about themselves, they need an authority figure to validate them. We demand to be recognized and treated like professionals! But professionalism does not issue from degrees, certificates or licenses. It is a state of being, a calling to bring specialized skill or knowledge to the world. We feel the power of a professional by instinct; and just as instinctively, we sense the weakness of anyone who whines about not being treated like one. The NCBTMB comes to mind.

Those who need bigger practices. They want regulation so they can make more money. With state licenses, they could more easily bill health insurers. I could have so many more clients if only I had a license! But why should we expect health insurance payments? Health insurers pay for health care, and Rolfing is not and should not be described as health care. Persons having doubts about this should check their states' medical practice acts and stay out of jail. When we started our Rolfing training, each of us knew that Rolfing is not alternative medicine. To claim otherwise to an insurer or a client is fraud. Those who need to be co-opted into the insurance morass just to make a buck should take responsibility for that personal deficit and get some other credential. Pass a state massage exam and hire yourself out in someone else's office. Go to school for physical therapy or osteopathy. The options are many.

THE EXISTENTIAL IMPLICATIONS OF REGULATION

To me, the obvious best choice for any human being is to make a living free of State imprimatur or interference. Given the twisted reality of today's world, that might mean seeking *regulation* of Rolfing by legislative exemption. This is a reality in several states, often based in part on the existence of our trademarks. Absent exemption, we have four options – listed below from bad to worst:

1. Continue the fine American tradition of civil disobedience (they have to find you

to shut you down);

- 2. Seek licensure specific to structural integration (SI) from state departments of professional regulation;
- 3. Accept "bodywork" licensure through state massage boards under standards appropriate to SI; or
- 4. Submit to "massage" licensure by state massage boards under generic standards.

Civil disobedience or licensure of SI as a distinct profession are alternatives to exemption that we can live with. However, any form of regulation by State massage boards is unacceptable. Beyond the difficulty of backing out from under the dubious shelter of the massage umbrella, it would accelerate the degradation of RolfingTM from a profession to a technique. This is already happening as massage schools purport to teach SI. It does not help that the Rolf InstituteTM implicitly represents itself on its web site and elsewhere as a graduate school for massage therapists wanting more - and is even seeking to get the School certified as a massage school by COMTA. And all of this goes hand-in-hand with regulation by state massage boards: If the Rolf Institute operates a massage school, why shouldn't other massage schools teach SI? And why shouldn't massage boards regulate it?

Anyone perceiving me as alarmist, elitist and paranoid would be correct – but those attributes don't make me wrong. The infiltration of SI by massage therapists wielding power tools might not kill us, but it is debilitating. Massage schools should not teach SI – and Rolfers or other SI practitioners should not instruct massage therapists – because our habits of mind are and should remain fundamentally different. Police academies cannot produce Navy Seals just because both cops and Seals use guns and chase bad guys. The key is not subject matter, but existential orientation.

The Socratic dialogue *The Ion* illustrates the problem. Ion is a Homeric bard. He travels to public festivals to recite Homer. To ancient Greeks, bards were inspired by muses; a bard had a special calling — just like any *profess*ional. Socrates asks Ion why he doesn't do Hesiod, too.

"But I can't do Hesiod," exclaims the perplexed Ion. "I'm a *Homeric* bard!"

Socrates presses on: "So what? Don't Homer and Hesiod talk about the same things? War, peace, the gods, agriculture, politics, and so on? Why shouldn't you do both?"

Poor Ion is dumbfounded. He must have been thinking, "Where shall I even begin to explain myself to this clod?"

In the dialogues, what Socrates says is not necessarily the best position; he often makes his point by playing a naïf or buffoon. Socrates' line of questioning here is deliberately preposterous. It shows not even the slightest sense of the bardship calling. It's as clueless as asking a Catholic priest why he reads the Bible every day, but not the Koran. "What's the difference? They're both holy books in the Abrahamic tradition, aren't they?"

This is exactly our problem. "You're a Rolfer. Surely you do massage, too. Both touch the body and release tight tissues, don't they? Don't clients in both modalities get on a table with their clothes off and have you touch them? People do feel better after Rolfing, don't they? And, I've heard that fascia runs along the same planes as acupuncture meridians. Gosh, that must mean you do Chinese medicine, too." In each instance, the questioners miss the essence of the subject. They would fancy anyone with a Sub-zero and a Vulcan to be a chef; and anyone who plants a bush to be a gardener.

Rolfing is not a technique, a formula, or a bag of party tricks, nor is it just a peculiar take on human anatomy. To the contrary, it is a singular view of the world, actualized by practicing a certain protocol for making decisions about how to optimize the function of a human being. Like any profession, it's about being - not doing. The essence of our training is to form *Rolfing beings*. And, yes, the students get some tools along the way. A massage school can deliver tools, techniques and formulas; but it can't reliably produce Rolfers because it is the rare student that can be formed into both a Rolfing being and a massage being. They're different animals.

State licensure or regulation of Rolfers as anything less than a distinct profession would further blur the distinction between Rolfing and massage not only for the public, but for ourselves. There's quite a bit in a name. If we fail to stand up for who we are, we are in danger of becoming less.

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Zen and the Art of Healing

By Jeffrey Maitland, Ph.D., Certified Advanced Rolfer™

t has been over twenty-five years since I asked my Zen teacher, Kyozan Joshu Sasaki Roshi, "How do you heal people?" When this question arrived I had been practicing Zen for quite a while and making a living practicing a gentle, but highly effective form of manual therapy known as Rolfing[®]. Understandably, I was quite interested in the nature of healing. "Who better to ask about healing," I thought, "than Roshi?"

At the next sesshin (Zen retreat) I attended I resolved to ask Roshi my burning question during sanzen. To my great consternation as soon as I found myself in his presence, I utterly forgot my question. The intensity of koan practice was simply so overwhelming and compelling that it obliterated all of my other concerns. No matter how hard I tried, sanzen after sanzen, I lost my question. I knew, of course, that sanzen was about koan practice. It was a profound opportunity to meet the Roshi where he was by manifesting the wisdom that knows the activity of the Source. It was not a time to be posing my questions and chatting with the Roshi about theoretical matters. But here I was, caught in the exasperating position of being possessed by a question that wouldn't leave me alone and losing it when I was with the only person in my life I thought could answer it.

I continued with my best effort to answer my koan and at the same time to remember to ask my question when Roshi was finished instructing me. But my best effort got me nowhere. Finally, during the last sanzen of the retreat I somehow recovered my will and memory again and asked Roshi, "How do you heal people?" Without a moment's thought, he answered, "Ahhh, Doctor, you must become one with them!"

BABY WISDOM

Although I had been practicing with Roshi long enough to have some notion of what he

meant, I really didn't begin to understand his answer until years later. When the meaning and experience of Roshi's answer finally began to dawn on me, it was accompanied by a memory of an experience in which the wonder of oneness was first revealed to me. It was just a glimpse, however, and happened a few years before I began practicing Zen. Although I remembered it as a deeply moving experience, I certainly didn't grasp its significance at the time.

I was in my last year of graduate school writing my Ph.D. dissertation on Kant's aesthetics. My wife had gone to work and it was my turn to take care of our infant daughter. She was particularly fussy that day, requiring a lot of attention and love. That afternoon she awoke from a fitful nap full of tears. As soon as I picked her up, she wrapped her little body around me and stopped crying. As I comforted her she immediately melted into me with such sweet open heartedness that I lost all sense of my self and completely dissolved into her. I was so moved by the depth of the boundless, unencumbered love and oneness in which we were embraced that my eyes filled with tears.

Years later and after countless sanzens with Roshi I came to understand more clearly the love that was revealed to me by the grace of my daughter. Prior to the birth of your self and beyond all boundaries, the unencumbered love that manifests when you drop your self permeates the entire cosmos. It sits at the Source of everything – you and me, our experience of time and space, and the contents of our world – and manifests when you thoroughly dissolve your self and become one with the Source. Babies are filled with this love because, like the Source, they have no self, will, or agenda to get in the way. Short of spending years doing *zazen* (Zen meditation), holding a baby is one of the sweetest and purest ways to get a felt sense of it.

HEALTH IS RETURNING TO ZERO

Contrary to a popular way of thinking, oneness with the Source is not some sort of peak experience that only shows up in extraordinary moments or as the result of years of relentless effort. Although most of us don't realize it, we die to our self and become one with the Source, and then resurrect thousands of times a day. In the very first instant you perceive the people and things of your world, your self and the object of perception, your experience of space and time, all disappear into the unity and love of the Source. In the very next instant, faster than the blink of an eye, self and world, subject and object, and your experience of time and space, reappear. Also contrary to a popular interpretation of Buddhism, your mind does not create the world and its contents in some Kantian-like fashion. Rather you, the objects of your perception, your experience of space and time, and the contents of your world all arise and disappear together. All day long, day after day, vou and vour world die in love, resurrect in love, and are sustained in love. Zen meditation is not about willfully trying to get rid of the self - it is disappearing in love moment by moment, after all. Rather zazen is about contemplating the love and ever-ongoing self-begetting activity of death and resurrection that is the heart of everything.

This experience of oneness and unencumbered love is also at the center of healing. "Health," Roshi once said, "is going to zero." Zero is one of the many terms he uses to refer to unity with the Source. When you dissolve your self by returning to zero you simultaneously dissolve your conflicts and fixations. If you let go completely and experience what is called the great death, you will drop all your suffering and dis-ease and resurrect a new self that is free and at peace with the world. The great Zen teacher Hakiun made a similar point in his famous *The Song of Zazen.* He wrote, "Even those who have practiced it [zazen or zero] for just one sitting will see all their evil karma erased." A person who truly experiences zero is also capable of manifesting the love of the Source in every thing she does, and, what comes the same thing, manifesting the wisdom that knows the activity of the Source.

Typically it takes years of Zen practice to grasp the full significance of your and the world's death and resurrection. Coming to this understanding requires you to repeat-

edly burn away your conflicts and fixations in the fires of sesshin and daily zazen. Then at some point you will begin to manifest the freedom from dis-ease that inevitably results from this kind of practice and with it you will get inklings of what it means to say that health is returning to zero.

As it turns out, going to zero is also essential for the work of healing. The closer the healer is to zero as he does his work, the more effective, effortless, and profound his work becomes. The astonishing phenomenon that every healer must come to appreciate is that the more selfless, spacious, unencumbered his heart is, the more the client's body willingly and eagerly communicates the secrets of its dis-ease to his hands and senses. The body actually shows where and what its problems are to the open-hearted healer. In order to hear what the body has to say, the healer must transcend the ken and confines of his ordinary, everyday ways of thinking and drop his self by returning to zero. Since zero is without will, guile, or agenda, the body instantly knows and trusts the healer who practices zero.

The body and the whole of our being participates in, or better, is this ocean of sentient feeling and when approached with an open reverential heart, immediately recognizes itself in the being of the healer. The intelligence of the body knows what it needs to be well and in the loving openness that arises in the unity of client and healer it reveals its problems. As far as the actual healing goes, the healer who practices zero allows the body's intelligence to find its own way to health. Since he doesn't willfully force the direction the healing takes or blindly apply formulaic protocols, the body more readily and easily gives up its dis-ease into the openness and love the healer manifests.

The practice of zero is not just about healing, however. It is about something much bigger. By transcending the fixations of ordinary thinking, ultimately the practice of zero makes it possible to experience the true nature of what is by means of a profoundly awake, unencumbered activity of feeling. In the last analysis this activity of feeling is the same unencumbered activity by which the Source knows itself and we know the Source.

THE HEALER'S WAY OF BEING: FOUR WAYS OF FACILITATING HEALING

In order to better understand the way of

healing I only sketched above, it will be helpful to lay out some of the other more familiar ways of facilitating healing and compare how they accomplish their results. To avoid confusion, I need to confess at the outset that I come to this discussion as a practicing manual therapist. As a result, I articulate the four ways of intervening in terms most suited for and familiar to the manual therapist. With a little more explanation, however, this way of dividing things up can be shown to apply to all systems and disciplines of healing.

The most common way of facilitating healing is through what can be called the Direct Approach. Most people are familiar with an example of this kind of intervention from being treated by osteopaths and chiropractors. The technique is delivered as a high velocity, low amplitude thrust that "pops" or releases a fixed joint. A different kind of direct technique that is designed to release soft tissue can be found in the practice of Rolfing[®]. These direct soft tissue techniques effectively release fibrous myofasciae that interfere with normal function and the body's ability to balance in gravity. For example, when a Rolfer places her client in a seated position directing him to curl forward while applying heavy pressure with her elbow as she runs it down his back, she is employing a direct myofascial technique.

Direct techniques are many, but these two examples should be sufficient to illuminate how the direct approach works. With respect to manual therapy, all direct techniques employ the direct application of energy to problem areas. The purpose is to release fixations and restrictions by forcing the body to change in a predetermined way. Recall the experience of getting your neck adjusted, for example. The practitioner turns your head and neck in the direction it is stuck and cannot turn easily. Then when he cannot turn you any further, he applies a quick thrust forcing your neck past its motion barrier thereby freeing the facet restriction. The adjustment is usually accompanied by a pop, but it needn't be to be effective.

At bottom, the direct approach does not permit the body to release in its own way. There is no attempt to listen to how the body needs to be approached because the healer is forcing his will and intentions on the body in a very basic way. Direct techniques, like all techniques, have their limitations. But the fact that direct techniques force change on the body should not imply that they are not beneficial. In most cases they can be highly effective.

The second form of intervention can be called the *Indirect Approach*. It is more refined than the direct approach because it takes advantage of the body's intelligence and drive toward wellness. Like so many remarkable techniques, indirect techniques were discovered and cultivated by the osteopaths. Instead of taking the lesion to its barrier or pressuring soft tissue to release in a certain direction, indirect techniques do just the opposite.

For illustration, let's look at an overly simplified example. Imagine a structure that is bent to the left. Instead of trying to straighten it out by pushing it to the right, the indirect approach gently takes the lesion further into its strain. In the application of the first part of the technique, with the body's permission the practitioner slowly and carefully pushes the structure further to the left as though to complete an arrested gestalt. When the structure reaches the limit of its strain and cannot go any further, a pause or suspension of activity occurs. Then after a moment of stillness an amazing shift happens. All on its own, the structure begins to move this way and that in the most unpredictable ways as it unwinds itself out of its left side bending and eventually straightens itself out. In the second part of applying an indirect technique, the practitioner's job is to suspend his will, drop any intention for change, and let the body find its own way to normal.

Unlike the direct approach where the practitioner's orientation is one of willfully forcing change, the remarkable effectiveness of the indirect approach rests on the practitioner's ability to cultivate the body's natural propensity to seek normal function. The practitioner accomplishes this extraordinary feat not by any simple act of changing techniques, but by fundamentally changing his orientation to the client. He shifts his orientation from willing and intending change to allowing the body's intelligence to find its own path to healing. For the second part of the treatment, if only for a brief and not always clear moment, he returns to zero and the client's body does the rest.

The third approach to facilitating healing is best exemplified by the work of William Garner Sutherland, D.O. His discoveries constitute nothing short of a Copernican

revolution in how to deliver therapy. From his discovery of the inherent movement of the cranial bones, coupled with his understanding of the importance of the craniosacral system and how to manipulate it through indirect techniques, to his astonishing discovery of the breath of life, Dr. Sutherland's revolutionary discoveries and ways of working are brilliant, momentous, and many. In order to advance our discussion of how to facilitate healing, instead of enunciating all of his contributions, I want to focus our attention on the discovery that came to him late in his life, a phenomenon he called the breath of life. The approach to facilitating healing that evolved from its perception is known in most circles as Biodynamic Craniosacral Therapy. For our purpose we will call this third approach *The* Organizing Forces Approach. This approach includes any system of facilitating healing that requires the healer to change her orientation as a way to activate the organizing forces to perform the work of healing. This approach also judiciously applies the use of intention to affect the organizing forces.

Unlike the previous two ways of facilitating healing, the organizing forces approach does not at first involve the administration of any kind of technique. When the practitioner places her hands on the client's complaint, there is no application of subtle pressure, no attempt to gently move a structure, no application of energy, no negotiation with the body, and above all, no intention to change or heal anything. In the first phase, the healer's primary job is not to change her client, but to fundamentally change her orientation toward her client. She must get out of the way, drop her self and any agenda for change she might have, and simply listen to what the body wants to reveal to her. Before she applies any technique, she also must keep a wide perceptual field and hold open or allow a space to appear in which the ordering forces in and around the client can manifest. Simply stated, the healer must return to zero. Otherwise, in this first phase, even the slightest intention to help the client or intervene in some way that contravenes what the body wants can interfere with the healing and in some cases actually create further dysfunction. When the forces reveal the patterns of dysfunction and how they want to be treated, the second phase begins. In the second phase, the practitioner decides to either allow the organizing forces to perform the work of healing or employs techniques that use intention to direct the forces to behave in certain ways.

As a preliminary way to get a handle on what these organizing forces are, consider a water fountain. Like the human body, the form of the fountain remains relatively constant while the constituent materials are being constantly turned over and renewed. The difference, of course, is that in the case of a water fountain the organizing force that maintains the form is an external machine, while in the body, the organizing forces that sustain and maintain us are inherent to life and the wholeness of the body itself. This last point is important. The organizing forces are in no way external to the wholeness of the body. They are a manifestation of wholeness itself. Since the wholeness lives in every detail, much in the way the complete image of a hologram is manifest in all the pieces of a broken holographic plate, the wholeness of life and its organizing forces are one and the same and live in every detail of the body.

Dr. Sutherland's momentous discovery was learning how to perceive these forces and how they work. Even more remarkable was the realization that when the practitioner cultivates what we are calling the practice of zero, the intelligence of these forces is stimulated to do the work of restoring health. The manner, order, and timing in which this intelligence treats the client's problems is called the inherent treatment plan. These forces are not senseless mechanical forces, but posses a kind of intelligence that knows what is best for the organism and knows how to best use the knowledge and skills of the practitioner for restoring health. These organizing forces want to be perceived. They act with purpose and intelligence, are goal directed, respond to the practitioner's intentions and intentionality, and are sentient through and through.

The mother of these organizing forces was called the breath of life by Dr. Sutherland. Although it has been subject to all manner of speculative metaphysical and theological interpretations, the breath of life in all its incarnations can be perceived. The breath of life manifests in three distinct but related expanding and contracting, or inhalation and exhalation, phases called the long tide, the mid-tide, and the cranial rhythmical impulse (CRI). The CRI occurs eight to fourteen cycles a minute, the mid-tide is two and a half cycles a minute, and long tide occurs one cycle every one hundred seconds or six times in ten minutes.

The long tide is the most powerful expression of the breath of life and is perceived as

a large potent field phenomenon around the body that also envelops the practitioner in its spiral-like centrifugal/centripetal motion. The breath of life generates a potency that conveys its ordering function through the fluids of the body. The fluids become potentized with the ordering nature of the breath of life. The breath of life also creates a biosphere that surrounds and is part of the wholeness of the body. With the creation of the biosphere comes the manifestation of the mid-tide, which has a longitudinal fluctuation. It is less intense than the long tide and, like the CRI, more associated with the particularities of the client's individual embodiment.

Following Dr. Sutherland's early ways of working, dysfunction of the CRI is usually handled by means of direct and indirect techniques. By changing his orientation and using his intention the healer can call on the mid-tide to release restrictions throughout the body. Unlike the mid-tide and the CRI, the long tide does not seem to respond to intention or any techniques or attempts on the part of the practitioner to affect its functioning. It appears when the practitioner approaches zero. When it shows up it in a session, it works on the dysfunctions it uncovers according to its own design and accelerates the healing process.

Our investigation into the third approach to facilitating healing demonstrates two profoundly important points about the nature of healing. First, it shows that healing can occur simply in response to the orientation of the healer. Indeed, as long as the healer practices zero it is possible for him to heal without the application of any technique whatsoever. Second, the organizing forces approach partially revealed what is at work in all forms of healing. As we continue our to deepen explorations, it becomes increasingly more evident that what makes itself present in all healing is a loving faceless activity that cannot be reduced to technique, intention, will, skill, or the application of force. Yet, even though it cannot be reduced to any of these ways of intervening, it nevertheless is present and at work in each.

This loving faceless activity manifests most clearly in the fourth way of facilitating healing. For it to make itself known to us, we must change our orientation from trying to heal through the application of techniques to practicing zero with the client. We must also work without touching the client. Practicing zero without touching the client allows this loving faceless activity to come

to presence in the intervention form most suited to the problem and perform the work of healing. When all is said and done, the fourth way demonstrates most clearly just what Roshi said. Healing is about being one with the person to be healed. Or what comes to the same thing — it is about being one with the Source and its unifying love.

The fourth way of facilitating healing is often seen as a form of energy healing. But since energy healing techniques are found in every approach, calling the fourth way an energy approach is not precise enough. For reasons that will soon be clear we will name it The Zero Distance Approach. The fourth way of facilitating healing cultivates the loving faceless source of healing. Embracing and being embraced by the unifying, unencumbered love of the Source, it allows the coming to presence of that activity which is not reducible to technique, intention, will, skill, or the application of force, and yet, is present in all healing. In retrospect we can see that the fourth way is prefigured in the second and especially the third ways. Consequently, at first glance the fourth way appears to be a variation of the third form of intervention. But it actually differs in two ways. First, it does not resort to technique or intention because its way of working is completely a function of the orientation of the healer. Second, and perhaps most surprisingly, the fourth way does not involve touching the client.

To get a feel for how the fourth way works let's look at a simple allegory. Imagine a room that contains many workers and various powerful tools to assist them with their maintenance and repair work. The room is dark, however - pitch black, in fact. Normally, the darkness poses no problem. The workers are comfortable and happy in the dark, and as long as the work is routine the workers can do it blindfolded, as it were. But when there are emergencies the workers need to not only see, but see with informed eyes. Unfortunately, even though the workers are very motivated and want to get to work as soon as possible, they do not know how to turn on the lights and their eyes don't work very well. In emergencies the healer is absolutely critical because his first job is to turn on the lights. His other job is to simply lend his attention to the problems the workers uncover and continue attending to them while they are being repaired until he no longer feels them. Neither of the healer's jobs require his onsite presence to be effective. Also the healer's work is not

about rolling up his sleeves, pitching in, and working alongside the workers. What the workers need from the healer to do their work, it seems, is the light and the informed perceptual vitality the healer brings. Repairs are complete when the healer no longer feels there are any more problems. When there is nothing left to feel or attend to, the light withdraws.

Central to the fourth way is the practice of zero (or unification with the client) in which healing is the result of the healer's orientation rather than the application of technique or intention. Equally important is the healer's ability to maintain the experience of unity while simultaneously being able to see and feel what is chosen to be worked on and the manner in which problems are released. Since the healer schooled in the fourth way does his work without touching his clients, his perception is not narrowed down by the limitations inherent to perceiving with his hands. Becoming free of his hands allows him to expand his perception so that he sees with his whole being, body and all. When he listens with his whole being, rather than just the hands alone, he sees and feels more. His perception is much more vital and expansive. Deeper, more difficult problems are more precisely revealed. He also sees and feels more ordering forces and energies than were revealed in the third way. And most remarkable of all, his perception of, and effect on, his client is not limited by distance. It does not matter whether the client is in the room or on the other side of the world. Either way the healer's orientation still provides a loving space in which the body eagerly reveals its problems and is healed. Whether he is in the room with the client or in another country, the zero distance healer's job is fundamentally twofold: to become one with the client (clear a space or light up the room) so that the myriad organizing forces and energies can appear in order to do their work, and see and feel what is being worked on until it is no longer felt.

Before we leave the four ways of facilitating healing, I want to clarify a point about their use. I don't want to leave the impression that in trying to differentiate clearly between them in thought, I am advocating that they should be kept separate in practice. In the hands of experienced practitioners educated in all four approaches, they are often mixed together according to what is deemed the best and most effective treatment that can be tailored for the individual client.

INTENTIONALITY AND INTENTION

These days among healers of every persuasion you often hear it said that intention is more important than technique. Sometimes it is stated more modestly as intention is every bit as important as technique. Unfortunately, just as often as you hear one of these claims made is how often you never hear it explained. Therapists nod their head in enthusiastic approval when they hear a version of this maxim stated, but what does it really mean? What is the relationship between intention and technique? Does intending make it so or does intention plus technique make it so? Unfortunately, these maxims embody confusion between intention and intentionality which obscures the important insights they are trying to express. As we shall see, if healing and the increased effectiveness of technique both can be a result of the orientation of the healer, then it is the nature of the healer's intentionality (what I have been calling his orientation) that makes all the difference, not his intention.

In order to better grasp the relationships between orientation, intention, and technique we need to flesh out the concept of orientation. What I mean by orientation is the same as what is referred to in phenomenology as intentionality. One of the important discoveries of phenomenology was that intentionality is an essential structure of our being. Intentionality is an orientation toward and opening onto the world. It is always directing itself toward and being solicited by the world. We are much less passive receivers of incoming data and much more active interrogators reaching out, groping for variegated contours of meaning or sense. Phenomenologists tend to refer to the meaning-bearing intentional capacity of consciousness by saying, "Consciousness is always the consciousness of something."

In order to see through the confusions surrounding intention and technique, it is crucial to realize that intention and intentionality are not the same concepts. Intentionality is an essential structure of every form of consciousness. The intention to do something, therefore, is just one example or kind of intentionality. According to phenomenology, any form of consciousness you can imagine is a form of intentionality. Daydreaming, anger, fear, sadness, lust, problem-solving, hope, faith, charity, forgiveness, feelings, negotiation, abstract

thinking (indeed all forms of thinking), gardening, perception, and so on are all forms of intentionality.

Every time you try to describe some form of consciousness, notice how a preposition turns up in your description. In saying, "I am angry *at* you,' or, "I am happy *for* you," or, "I am afraid *of* guns," or, "I am thinking *about* her," or, "I am not sure *of* all the implications of the proposition," the placement of the preposition usually indicates a form of intentionality. The preposition displays the way in which consciousness is oriented toward reality and that consciousness is already embedded in a context and imbued with meaning. Consciousness is always the consciousness *of* something.

Imagine that you are looking at a flower. You can distinguish two sides to this situation: your consciousness and the flower, or datum as meant. If you are studying the flower as a botanist, the flower becomes an object to be classified or analyzed, and your consciousness is in the reflective mode. If you are lost in the beauty of the flower, the flower is no longer an object, but a wondrous bursting forth of color and life in which you are participating, and your consciousness is in the prereflective mode.

Depending upon what sort of thing you are looking at and whether you are objectifying it in reflection or participating with it in prereflection, your orientation will be correspondingly different. The prepositions that occur in your descriptions of experience, ("I was overwhelmed *by* its beauty") indicate that you are embedded in and actively engaged in many ways and at many levels with the world.

The prereflective absorption and participation with beauty is obviously different from the prereflective intentionality involved in witnessing an automobile accident. The reflective understanding involved in classifying a flower is quite different from reflecting on and reporting an accident hours after it has occurred. The way in which you are oriented toward reality depends upon the nature of that toward which you are orienting (a flower or an automobile accident) and whether you are orienting reflectively or prereflectively. Each of these ways of orienting is a kind of intentionality.

Intentionality is a meaning-bearing, multifaceted orientation to and engagement with the world. Because of our philosophical tradition, when we hear the word *consciousness* we most often think of a non-bodily,

non-spatial, self-reflexive, isolated, private, mental phenomenon. But what we call consciousness is not something non-bodily and private at all. Rather it is very much a spatial, bodily orientation toward and engagement with the world. Intentionality is a way of bodily orienting and being present. Since self and body cannot be separated, the very nature of our being-in-the-world is a bodily directing-itself-toward. Consciousness is a psychobiological orientation, a way of coming to presence, a way of occupying, inhabiting, and organizing space, a way of spatializing intentions, purposes, energies, and desires. Fundamentally, intentionality is a meaning-bearing psychobiological orientation to and engagement with the world, a way of being bodily toward and with the world.

With this all too brief explication of intentionality behind us we can return to the relationship between intention and technique. Recall what we discovered in our examination of the four ways of facilitating healing. We learned that the closer the healer is to zero, the more his psychobiological intentionality manifests the unifying love of the Source, and as a result, the more effective, effortless, and profound his work becomes. Whatever techniques he may employ become that much more effective. We also learned that the psychobiological orientation of the healer was sufficient to bring about healing. From these observations we can conclude that the healer's intention, attitude, or thinking is not as therapeutically significant as many therapists imagine. Rather, it is the nature of the healer's psychobiological intentionality, his orientation to and engagement with the client, his way of being bodily toward and with the client that makes all the difference not his intention.

Clearly, intentionality is profoundly more important than intention. All by itself, just holding an intention for change is not enough to effect change in a client. More than any other kind of technique, intentions are effective only to the extent that they are held by a healer whose psychobiological intentionality is oriented correctly. But if the effectiveness of both technique and intention are enhanced by the healer's intentionality, then the maxim that intention is more important than technique cannot be true for two reasons: 1) intentions administered without the right kind of intentionality have little or no effect; and 2) when the healer uses his intention to

effect change, he is employing intention as a technique. Consider the implications of the second point. If intention is just another kind of technique, if it is just one technique among many, then the maxim reduces to the nonsensical claim that technique is more important than technique. For the same reason, the more modest maxim that intention is equally important as technique also reduces to nonsense, namely, that technique is just as important as technique. For the sake of clarity, the various maxims should be refurbished to simply recognize that intention is a technique the effectiveness of which is dependent on the intentionality of the healer. If we want to create a maxim we could say that intentionality is more important than intention and technique. But the truly important point is that the psychobiological intentionality of the healer who practices zero is the way to the faceless loving activity that sits at the heart of all healing.

CONCLUSION

Having come to the end of our exploration of the Zen of healing, I recall Roshi's simple statement about becoming one with the person to be healed and I am struck by how many words it took to get here. This realization is a reminder that although the intellect is not irrelevant to our quest, the insights articulated here arose from the always-ongoing practice of learning how to see and feel freely without the encumbrances of everyday perception.

Embryology: The Emergence of Function and Form

By Carol Agneessens, M.Sc., Certified Advanced Rolfer™

Editor's Note: The December 2005 issue of *Structural Integration* contained three articles on "biodynamics" written by Rolfers. Subsequent to that, an exchange of Letters to the Editor appeared wherein it was clarified that the word "Biodynamic" is used in different contexts by Franklyn Sills (with whom many Rolfers have studied "Biodynamic Craniosacral Therapy"), by Jim Jealous, D.O. (who teaches osteopaths the "Biodynamic" model as it applies to Osteopathy in the Cranial Field), and by Dr. Erich Blechschmidt, an embryologist. As the term "biodynamics" is not service-marked, and as the paradigm is of interest to Rolfers, *Structural Integration* will continue to publish articles on the topic, but ask authors to identify the basis of their use of the term.

The basis for all body form is embryology. In understanding embryology, we understand how the adult structure came to be. Embryology does not stop at birth; we have the potential for change all along. In a sense, we are embryos throughout our lifetime.¹

A ccording to *The New Webster's Lexicon of the English Language*, embryology is the branch of biology that is concerned with the formation of the embryo from conception through birth.² This paper explores the science of embryology from the perspective of biodynamic craniosacral therapy (BDCST), and from the embryological research of Eric Blechschmidt.

BDCST attunes to the three major therapeutic forces: "dynamic stillness", "primary respiration", and the "mid-tide"/"fluid body" tempos that Dr. William Sutherland (the founder of osteopathy in the cranial field) began working with in his osteopathic practice in the later years of his life. Dr. Eric Blechschmidt, the German embryologist, used the term "biodynamic" to" refer to the forces in the fluids which caused order and organization to occur."3 A biodynamic approach to embryology is an exploration of the movements, occurring through the fluid body, which sustain, shape and resource the 'whole' person. This paper represents my personal understanding and integration of the embryological work of Dr. Eric Blechschmidt, the writing and lectures of Dr. James Jealous, the continuing study I have pursued with Thomas Shaver, D.O. and Michael Shea, Ph.D., and the way in which these approaches continue to inform my ongoing education as a Rolfer[™],

Rolfing[®] teacher, and Rolfing Movement[™] instructor.

Embryology offers the humbling experience of touching a living function. An understanding of embryonic development, differentiation and birthing broadens the scope of structural knowledge and expands the conversation that a body is able to 'speak' and that a practitioner can learn to 'hear'. As a practitioner of structural integration for more than twenty-five years, the realm of embryology has stretched my understanding of human morphology and unlocked a doorway into the dynamic process of life unfolding. My hope is that the following article will inspire embryological inquiry and study and highlight the importance of this branch of science as a means of deepening our knowledge of integration and of the inherent motion within our bodies.

Embryology broadens the conversation and relationship I can engage in with another's system. An embryological understanding enriches the scope of dialogue. If the body holds memories, it also holds the memory of its beginnings – not through cognitive process and cortical circuitry, but through the instinctual knowing and bio-kinetics that are shaping its form and that continue to move, shape and maintain both function and structure in the adult body. Our experiences are imprinted in the fluids of our bodies as well as tissues, bones, and cellular memory.⁴ Embryology expands somatic understanding, deepening contact with the pre-conscious impulses and gestures within tissues, bones and physiological systems as well as with the metabolic motions that are directing and shaping the process of growth. Dr. James Jealous, D.O., the foremost teacher-physician of the biodynamic model of osteopathy in the cranial field, speaks of three different bodies. The first is the physical body, which is our soma made up of connective, nerve and visceral tissues. The second is the fluid body, which is the living, instinctual organism. The fluid body permeates and contains the physical body. The fluid body carries 'lesions', which can be felt as a hardened and un-responsive density within the tissues. The fluid and physical body both respond to what Sutherland called "primary respiration" or the "tidal body" which transmits or carries the potency of life. The fluid body is holographic – or as Sutherland, is often quoted as saying, "Every drop knows the tide."⁵

...All living things were water things, living inside the sea. Then a few hundred million years ago, maybe a little more – just a little while, really in the big history of the Earth – the living things began to be living on the land as well. But in a way you can say that after leaving the sea, after all those millions of years of living inside of the sea, we took the ocean with us. We carry oceans inside of us.⁶

It is possible to touch the *ongoing process* of development and change that is the adult embryo. For many years, I have been a dedicated student of a biodynamic approach to craniosacral therapy. BDCT allows the sensation and lived experience of these formative processes perceived through a dynamic stillness that is at the embryological core of midline formation and through synchronization with the very slow universal tempos that shape and organize the arising of function and structure. These tempos and the embryological imperative that informs anatomy can be touched, through learned processes that cultivate sensorial states of perception. BDCT is a perceptual unfolding, grounded through the lived experience of a practitioner's body. The disciplined practice of *allowing* is a whole-body sensation. The art of perceiving certain tempos of growth, the qualities underlying these tempos and the dynamic morphology of the embryo

support an acausal way of thinking and being. These sensory states contact the movement of life that vivifies all living things. This movement is undiminished, whether we are ill, aged or healthy. By coming into relationship with the underlying wholeness, it is possible to cultivate a relationship with an intelligence that is bigger than my oftentimes-narrow assumptions about what a body is.

THE SHAPING OF EXPERIENCE

The child's position in the uterus is thus important in its structural development and alignment. Whether the head is to the right or to the left of the knees, where the arms are in relationship to the spine– these factors establish the individual pattern of the vertebral column.⁷

It was Ida Rolf's assumption that this spinal shaping is established as early as the first week of pregnancy.8 Such primary rotations are augmented and compensated by intrauterine limitations during late pregnancy. The threads of embryological understanding weave a three-dimensional tapestry between an individual's movement patterns, structural design, perceptual preferences and early intrauterine imprints. At one time or another, we have all felt the whole-body moldings, arising from accident, injury and other life experiences, mirrored though the connective tissue. Imagine contacting the origin of these shapes as imprints from the intrauterine environment. An individual's history of accidents and injuries may actually be a recapitulation of his or her formative embryological and fetal period.

Experiences in life create shapes of experience that express as patterns or perceptual preferences. These patterns or perceptual preferences organize around a center, or fulcrum, leading to a compensated system. Below is a case study illustrating the breadth of experience that meets our hands.

CASE STUDY: MICHELE L.

Michele, a 26-year-old woman, came to see me because of what she called "her terrible posture and scoliosis." She had been receiving a continuing series of advanced Rolfing[®] over the years to address her postural issues and had benefited greatly from this work. According to her physical therapist, Michele had a 20° curvature. What I saw was the gestalt of her struggle: her left shoulder rolling forward "into" her sternum (as if being pushed from behind), rotations, compressions and s-curves shaping her spine, a deep concavity in the center of her sternum, the spiraling strain through her right pelvic bones, pelvic floor and legs. She complained of the pain and struggle she experienced while trying to "stand upstraight" and feel aligned with her life and her youth. For many years, she had been battling chronic fatigue..

As we began working, I casually inquired about her mother's pregnancy and her birth process. Michele quickly answered that she had been a large baby and was born two and a half weeks overdue. Her mother opted for a C-section. *The way the baby lies within the uterus determines the ultimate pattern of the spine.*⁹

As I worked with Michele, I entertained the possibility that the compressive forces arising between the walls of her mother's womb (the environment) and her growing fetal body (the formative experience) contributed to her structural discomfort. Her body did not end at the edges of her skin. Rather, I perceived a fluid membrane extending beyond the edges of her physical boundary. My current understanding of the fluid body involves that part of us that does not stop at the edges of our skin but permeates into the space around us. The fluid body feels like a viscous-filled membrane, enveloping and permeating the physical body. The compressive forces arising between the uterine walls and the growing embryo imprinted these malleable tissues. Protoplasm is the first moldable substance of life that can be imprinted with an image.¹⁰ The imprints or lesions held within an individual's structure are also held within the fluid body. Within the intrauterine environs, we begin as an undifferentiated mass of protoplasm, about the size of a mulberry.

Throughout the sessions, my hands were passively receiving the embryological imprints her system revealed. Through an afferent recognition of the origins of her spinal patterns, and by perceiving these beginnings via a 'slower-than-slow' tempo of not-doing, Michele's system began to express its history. The felt-reality of her early uterine confinement, which seemed to be at the core of her structural issues, expressed itself through a variety of shape changes and internally sensed pressures. By recognizing these shapes, and listening to the release of the corresponding connective tissue holding, her structure began to change.

After a few sessions, Michele reported that it was easier for her to stand up straight and that her feeling of being upright was sustained between sessions. She reported that her chronic sense of being "compressed from behind" had diminished greatly and was no longer a source of discomfort.

In the fourth session of our Rolfing series I held the spiraling shapes of her tibia, fibula, leg tissues and feet. By the fifth session, I began working with the concavity in the center of her sternum. The delicate function and early shaping of heart and pericardial tissues rose into my hands. I was not looking or searching her system for this history. A felt-reality of this movement arose as if to be seen and acknowledged as a process occurring in time that was now able to complete itself.

Presently, the concavity in the center of her sternum has begun to soften. Her clavicles now appear to support the emergence of her thorax through their subtle yet essential response to breath and movement. In all of these sessions, it was as if we were working within a non-linear time capsule, touching the beginnings of functions developing into a form and echoing Michele's embryonic journey.

Our work allowed direct feedback about the nature of the forces that sustain and maintain present-time structures. Through an understanding of embryology, and with a felt-sense of working within the slow tempo of primary respiration and stillness, I was able to dialogue with her system's memory of its beginnings. These early embryological imprints are functional patterns; when acknowledged, they transformed and mobilized the structural shifts necessary for integration and balance. "We are embryos throughout our lifetime." As the developmental arrests within a client's system are recognized by the practitioner, the reality of what we might imagine a body to be is turned around, upside down and inside out. Yet as these embryological functions are 'worked with', a coherent maturity emerges throughout the individual.

Biodynamic Principle: One's embryonic journey does not stop at birth. The potential for change and differentiation continues throughout a lifetime.

Heraclitus, the Greek philosopher (486 BC), said "you can never put your foot in the same river twice". Knowledge of embryonic development broadens and enriches the 'river' of contact. Structural issues are often

directly related to the intra-uterine environment or a difficult birth process. The organizing patterns initiated at that moment in time continue through our lives. They are whole-body patterns that shape every nook and cranny of the body, including the fluid space around it, and yet, *the body is always at potential to change.*¹¹

Biodynamic Principle: The tempo of your work supports an individual's system opening (in time) to the potency of life moving through it.

According to biodynamic theory, embryonic growth is carried by the rhythm and wave of primary respiration – the pulse that carries life.¹² This tempo continues throughout a lifetime and carries us through to death. When I contacted Michele's system from this very slow pace, her adult embryo emerged. I did not search for these imprints. They arose and I recognized the shaping. The tempo of primary respiration allows for the differentiation of these embryonic imprints to arise from an individual's system.

How slow is slow? Primary respiration has a 100-second cycle. And what does a 100second cycle feel like? If you haven't a clue, then the following experiential exercise may be helpful. This exploration will give you the sense of the pace of 'slowing down' that needs to occur within your own system in order to perceive these movements. Primary respiration is not a technique. It is a state of consciousness. The tempo of primary respiration is a superficial way to sense it. The quality of sitting in primary respiration is a deeper, dimensional, and whole-body experience and brings within it a state of mind.

Somatic Exploration

Set a tea timer for fifty-second intervals that will repeat for about five minutes. Sitting with the palms of your hands together, let your hands open slowly for fifty seconds, then come back together slowly for fifty seconds, continuing this for five minutes. First notice the timing, and then notice if your mind begins to wander. Notice what, if anything, arises as you slow to this pace of primary respiration.

Biodynamic Principle: The space surrounding the body is as much a part of the body as our physical matter.

The semi-permeable membranes of our cells exchange information with the interstitial spaces around them.¹³ In much the same

way, the body as a unified and holographic structure exchanges information with its surrounding environment. Our bodies cannot be viewed as separate from the environment in which they live and breathe. There is a mutual exchange, whether we acknowledge it or not.

A *fluid body* permeates the physical body. The fluid body is different than the physical body:

A patient's physical body is actually inside the fluid body. ... The thing is that when we are healthy, the fluid body and the physical body commingle, so they feel like one substance and so you could say when a person is healthy you can't feel an acute boundary at the edge of the skin.¹⁴

We do not stop at our skin boundary. There is a resonant field surrounding the body that is continuous with the permeating matrix of wholeness. This resonant field is as real – as much a part of the body – as the physical matter of our anatomy. It is not empty space but alive and vital. The fluid body is not just the electromagnetic field of auric studies. The fluid body is not a water body. It is not watery at all, but rather a kind of viscous substance that can be viscerally sensed. The fluid body cannot be relegated to the interstitial fluids or extracellular matrix. It is not that. This 'body' is perceiving, intelligent and responsive. In cultivating a sense of my fluid body, a sense of connection to something other than my small self emerges. Perhaps health is a reflection of the coherence between our physical and fluid bodies.

Somatic Exploration

Recall a time in your life when you experienced a deep connection with something in nature (a place, an animal, a tree or cave, etc.). Remember that time. Remember the sensations that you experienced. Can you name some of those sensations? Through this connection, do you remember having a sense of communion with something bigger than yourself? – intelligence, a presence? This sense of 'other' or presence is non-personal.

Biodynamic Principle: The fluid forces that shaped the embryo are dynamic and function in the maintenance of structure throughout a lifetime.

The embryo grows by varying pressures, gradients and concentrations of proteins and genetic materials along with the interaction and formative movements of metabolic fields. The embryo is shaped by pressure gradients from within and without interacting with its protoplasmic fluid nature. We are mostly fluid and the embryo is 99% fluid.

Protoplasm means the first moldable substance. It's the first substance of life, which can maintain an image, which can sustain an image, which can imprint with an image....So we have this kind of jello-like elastic protoplasm that can take in an idea and express it as a form.¹⁵

A therapist can learn to have a sensorial experience of the movement of protoplasm being shaped by the interaction of the metabolic fields and the morphogenic forces of tensegrity. Primary respiration is initiating the shaping, and moving the field. Embryonic growth synchronizes with this rhythm. Growth is a function of the external world shaping the internal world and vise versa.

Detecting the fluid body surrounding and permeating the physical body requires both discipline and the cultivation of a listening and receptive contact. As practitioners of structural bodywork, we have developed skill of an efferent quality. Structural change is effected through our hands. Essential to the sensing of the fluid body and the kinetic movements that are shaping the embryo is afferent contact and perceptual receptivity. It is an afferent, or allowing, hand that senses the subtle shifts and movements within the fluid body.

Somatic Exploration

Picture yourself within a gelatinous egg that permeates to the center of your core and extends around you about eight to twelve inches. The fluid body is breathing right out through the skin. Without effort or will can you develop a sense of this body. Can you sense a vitality, a wholeness and breath? Can you sense this body sensing you?

Biodynamic Principle: "Life is matter in motion." (Andrew Taylor Still, founder of osteopathy)

The embryologist Blechschmidt used the phrase "metabolic field" to describe the mechanism by which fluids 'behave' to both form and differentiate the growth of the developing embryo. The submicroscopic movements that these fields direct are ordered and precise in their tempo and direction. In Blechschmidt's understanding, these metabolic forces are moving at a slow tempo, *this growth all occurs according to a pulse – the natural rhythm of the developing*

*organism.*¹⁶ According to biodynamic theory, the tempo of embryological development is found to have a 100-second cycle.

Is it not a striking phenomenon that in the midst of flowing movement forms arise, not through any differentiation of substance, but simply through the interplay of currents and their forces?¹⁷

Blechschmidt identified different metabolic fields that order the kinetic development of the embryo. He elaborated nine different fields of motion by which fluids behave internally, creating function, out of which emerges structure: corrosion, contusion, distusion, dilation, retension, detraction, densation, loosening and suction. These mechanisms are driven by the metabolism of cellular tissues.

Biokinetics is the study of how the fluid body (as a moving system of metabolic fields) congeals, solidifies and differentiates into the structural components of the embryo, whether the blood, lymph, bone, muscle, nerve tissue, etc. This stepping down into form and the refining of structures and functions from the biodynamic self-organizing whole, defines the embryonic process.

The entire embryo functions as a whole unit to maintain its metabolism. The various metabolic fields dance together all at once. Restraint in one area is countered with growth in another area, and vice versa. Flexion of the embryo occurs as a result of the dorsal branches of the aorta tethering the neural tube to the more ventrally located, and more slowly growing, aorta. The more rapidly growing neural tube bends forward as a result. The aorta and dorsal aorta branches restrain while the neural tube grows.¹⁸

These metabolic fields can be experienced moving the adult 'embryo': shaping, maintaining, and sustaining the health of the organism.

The developmental motions and relationships between the fields are important considerations in the healing process as the embryo in the adult continues to generate its form, maintain its form and repair its form moment to moment. Healing would then be considered to be...synchronized with Primary Respiration, containing the original function of the metabolic fields so that any imprinted memory of stress or trauma that occurred at that time could be uncoupled and resolved into the process of stillness and reoriented to midline (function).¹⁹

Somatic Exploration

Find a comfortable place to lie down, supporting your body as needed. Settle into a felt-sense of the weight of your body being supported by the table, bed or floor that you are lying upon. Breathe. Imagine the inside of your body to be 'fluid-filled' and contained by the limiting boundary of your skin. Place your hands on your lower abdomen. Slow down and allow your perception to open to the quality and tempo of primary respiration. Sense the viscosity of your fluid body enveloping you, with its natural potency. Notice the vibratory aliveness of the space around you ... You may begin to sense long, slow wave-like motions moving from the space surrounding your body, through your body.

Through biodynamic study, I have been able to expand my appreciation of the body's inherent motility to include the possibility of tissues and systems being moved by something from outside the body, specifically primary respiration shaping both function and structure.

CASE STUDY: KAREN B.

Karen, a forty-five-year-old mother of two, came to see me about the severe wrist pain she was experiencing. She works as a computer programmer. Initially, I thought her complaints stemmed from her work, and possible carpel tunnel or thoracic outlet syndrome. However, she did not complain of any of the nerve impingement symptoms that usually occur with these presenting conditions. Instead it was the ligamentous tissues in her wrist that were chronically inflamed, and aggravated by an uncommon stiffness in her arms.

During our second session, I had the impression that I was holding the arm of a fragile bird. The bones felt as if they had not fully formed even though her arms looked 'normal'.

Karen had a difficult time finding weight in her arms, and there was very little sense of direction/orientation in her elbow. Her arms did not swing when she walked. Both arms felt tethered to an encapsulating tension around her heart. It seemed that in order for Karen to experience the relief she was seeking, she needed to develop a sense of weight through the bones of her arms

and an easing in what I sensed as tension in the center of her chest. Another curious note: Karen often spoke of feeling tiny and small, although her image of 'being small' was not my experience of her. I imagined that somewhere in time, the development of the bones of her arms had been arrested. Without looking for any specific cause, I stayed open to the felt-reality of the development of the embryonic limb buds. With a contact that allowed this possibility, the metabolic forces were momentarily engaged and 'something' began to change. I began with her right arm and cradled her elbow and forearm with my right arm. I contacted her thoracic spine (T4+T5) with the palm of my left hand. Both hands were engaged yet transparent in their contact. I waited and settled more into myself. I made a note that the sense of weight coming through her bones was negligible. Very slowly, Karen's elbow began to drop into my palm. I waited, challenging my curiosity and desire to direct the result. I waited as a slow, spiraling gesture of her 'embryonic' elbow began to lengthen and orient toward the back of her body. I began to sense subtle shifts in the density and weight of her bones. When she returned for her third session, her arms seemed more lively and hung in a different way. At this time, Karen still experiences a degree of wrist pain, but it seems to 'come and go' rather than be a chronic companion.

CONCLUSION

Life is that calm force sent by Deity to vivify all of nature.

Andrew Taylor Still, D.O. (founder of Osteopathy)

Sensing the arrested development within adult tissues has turned inside-out my reality of structure, function and what it is possible to perceive. Touching an embryological process is a humbling experience requiring an attitude of allowing 'something' to unfold within its own time. It is through a cultivated and whole-body receptivity to a permeating wholeness and vitality of the potency of life, moving through my hands, unobstructed by (my) personal directives or intentions, that this process reveals itself. The mind always wants to take a closer look because it is so amazing. However, that kind of curiosity seems to close the system. It is like watching an animal in the forest or a bird in a tree: with gentle awareness (without thought), and a wide peripheral sight, the animal or bird will remain in a

human's field of vision. Similarly, with the cultivation of a perceptual state that reaches to the horizon, the embryonic expression of embedded history might have the safety and space to be expressed.

As I explore the far reaches of a biodynamic state of perception, there is an allowing of the wholeness of life, this "breath of life", this potency that moves life, and which moves through me, my hands, my client, and is undiminished. I have to get out of the way. Usually it is with the recognition of the embryologic field that a client's system is released from an arrested pattern, and evolves from that point. There is also a systemic response in the client's field, which verifies to me that 'yes' that was somewhat important for the organism. At the same time, my own mind will go through a shift in consciousness. Sometimes a client will tell me that something is different but they can't name it specifically. In Karen's case, I no longer heard her describe herself as child-sized, and her arms began to swing more naturally as she walked.

The secrets and stories embedded within the many dimensions of our bodies carry our personal histories in the layered wrappings of tissues, cells and fluid imprints. The forces that shape the embryonic body continue to sustain, shape and heal the 'adult embryo'. These are the expansive, thrilling and transformative moments in my practice that leave me both awed and inspired by the incredible complexity and intelligence of this living process we call a body.

Our bodies are a central focus for our experiences as human beings. Therefore, it is important to carefully examine what typically makes up our conception of a 'body'—for the 'typical' is taken for granted all too often. A fresh perspective, grounded in 'felt-reality', thus may emerge from a kind of experiential review and challenge of our usual preconceptions.²⁰

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Introduction to Dr. Langevin's Research

By Robert Schleip, Ph.D., Certified Advanced Rolfer™

There has been very little research in the past three decades on the relationships between connective tissue morphology and the central nervous system. Similarly, the role of fascia in musculoskeletal dynamics has been largely overlooked among back-pain scientists. The following article, by Helene Langevin, M.D. is therefore of particular interest, as it offers a model that integrates connective tissue plasticity mechanisms with several well-explored areas of research in chronic back pain such as pain psychology, postural control and central neural sensitization.

Langevin is a French-Canadian internist and acupuncturist and works as research associate professor of neurology and orthopedics at the University of Vermont. Recently featured in the *Boston Globe* Sunday magazine *Profile*, she is a celebrity in the acupuncture field and in fact one of the highest funded acupuncture researchers internationally. Having had the pleasure of spending some personal time with her, during her recent lecture trip to Europe, I was deeply impressed by the unusual combination of a laser-like sharp critical mind, complemented by a very warm and compassionate heart.

Langevin's first acupuncture study, begun in 2000, demonstrated that the Fascia superficialis (subcutaneous tissue) was involved in producing the "tug" (or needle grasp) observed in acupuncture needling. Her team had designed a robotic needling device that showed that when the needles are inserted into the skin and then turned, the superficial fascia holds onto the needle and wraps around it, much like spaghetti wound around a fork. Langevin's further research has shown that this fascial stretch creates an active response in the connective tissue cells (fibroblasts), which could activate certain cellular pathways and facilitate healing.

Among structural bodyworkers, it was her study "Relationship of acupuncture points and meridians to connective tissue planes" (Anat Rec 2002; 269: 257-65) that attracted the most attention. Using ultrasound imaging on cadaver tissue sections, Langevin and her team found an 80% correspondence between the sites of acupuncture points and the location of intermuscular or intramuscular fascial planes. She therefore proposed that the anatomical relationship of acupuncture points and meridians to fascial planes is relevant to acupuncture's mechanism of action and suggestive of a potentially important integrative role of fascial tissues. Langevin's further research of the superficial fascia revealed that the fibroblasts in this tissue form a body-wide interconnected cellular network, suggestive of important integrative functions at the level of the whole body.

In October of last year, Langevin won a major grant from the National Institutes of Health's National Center for Complementary and Alternative Medicine, bringing her grant-funding total over the past seven years to more than \$4.4 million. This most recent award will fund research to compare the acupuncture needling response in the fascia of eighty patients with back pain and eighty patients without back pain. In a previous pilot study conducted by Langevin and her colleagues, it appeared that needle response was abnormal in people with low back pain.

Langevin is on the Scientific Review Committee of the International Fascia Research Congress (to be held October 4-5, 2007) and has been one of the advisors for this landmark event from the very beginning. The following paper, which readers may enjoy as preparation for the Congress, was recently published in the journal Medical Hypotheses. This is an unusual Medlineindexed journal, devoted to serving as a bridge between cutting-edge theory and the mainstream of medical and scientific communication. The respectability of this journal is demonstrated by the outstanding scientists on its seventeen-member editorial board (such as neurologists V.S. Ramachandran and Antonio Damasio or the Nobel laureate Arvid Carlsson). Langevin's article proposes a new explanatory model for chronic low back pain, which for the first time integrates the role of fascial tissue and the nervous system by proposing that these two systems are linked via changes in motor behavior. It is suggested that the described interactions play a key role in the natural history of chronic low back pain, as well as in its treatment. Readers who will attend the Congress look forward to finding out how recent scientific findings from Langevin's team, as well as other presenters, fit the clear and testable predictions made in the concluding section of this article.

Pathophysiological model for chronic low back pain integrating connective tissue and nervous system mechanisms

By Helene M. Langevin, M.D. and Karen J. Sherman, Ph.D.

SUMMARY

Although chronic low back pain (cLBP) is increasingly recognized as a complex syndrome with multifactorial etiology, the pathogenic mechanisms leading to the development of chronic pain in this condition remain poorly understood. This article presents a new, testable pathophysiological model integrating connective tissue plasticity mechanisms with several well-developed areas of research on cLBP (pain psychology, postural control, neuroplasticity). We hypothesize that pain-related fear leads to a cycle of decreased movement, connective tissue remodeling, inflammation, nervous system sensitization and further decreased mobility. In addition to providing a new, testable framework for future mechanistic studies of cLBP, the integration of connective tissue and nervous system plasticity into the model will potentially illuminate the mechanisms of a variety of treatments that may reverse these abnormalities by applying mechanical forces to soft tissues (e.g. physical therapy, massage, chiropractic manipulation, acupuncture), by changing specific movement patterns (e.g. movement therapies, yoga) or more generally by increasing activity levels (e.g. recreational exercise). Non-invasive measures of connective tissue remodeling may eventually become important tools to evaluate and follow patients with cLBP in research and clinical practice. An integrative mechanistic model incorporating behavioral and structural aspects of cLBP will strengthen the rationale for a multidisciplinary treatment approach including direct mechanical tissue stimulation, movement reeducation, psychosocial intervention and pharmacological treatment to address this common and debilitating condition.



Figure 1 Pathophysiological model for chronic low back pain linking somatic and behavioral components.



Helene M. Langevin, M.D.

INTRODUCTION

Despite considerable research efforts, chronic low back pain (cLBP) remains a poorly understood condition causing substantial disability, work absenteeism and health care costs [1-4]. While it is known that many patients with an episode of acute low back pain improve clinically without specific treatment, it is less clear why others progress to develop recurrent or chronic symptoms [5]. It is generally recognized that cLBP is a dynamic, fluctuating condition with multifactorial etiology and complex pathogenesis. Historically, mechanistic models for cLBP have tended to focus on musculoskeletal tissues, on the nervous system, or on behavior. In this paper, we propose a new, dynamic and integrative pathophysiological model for cLBP bringing together recent research on movement and neuroplasticity along with wellestablished connective tissue remodeling mechanisms (Fig. 1). We hypothesize that plasticity in both connective tissue and nervous systems, linked to each other via changes in motor behavior, playa key role in the natural history of cLBP, as well as the response of cLBP to treatments and placebos.

WHAT IS ALREADY KNOWN ABOUT MECHANISTIC FACTORS CONTRIBUTING TO CLBP? TISSUE STRUCTURAL ABNORMALITIES

To date, a considerable amount of research on low back pain has focused on structural abnormalities of spine-associated tissues (e.g. disc herniation, facet joint degeneration) with emphasis on diagnostic imaging (e.g. X-ray, CT scan, MRI). However, the association between symptoms and imaging results has been consistently weak, and up to 85% of patients with low back pain

cannot be given a precise pathoanatomical diagnosis using these methods [6]. This, along with the generally poor predictive value of diagnostic imaging in cLBP, and the often disappointing effects of many "lesionspecific" treatments such as intra-articular corticosteroid injections [7], has spurred research efforts toward" non-structural" psychological and behavioral aspects of cLBP, and away from tissue pathology.

PSYCHOLOGICAL FACTORS

A number of studies [8-10] have reported that, in patients with acute or subacute low back pain, measures of emotional distress are associated with the future development of chronic pain and disability. Psychosocial factors potentially contributing to emotional distress in patients with cLBP include job dissatisfaction, poor social support and the influence of pain-related behavior on work and family dynamics [11,12]. A key component of pain-related behavior is fear of pain with consequent decrease in physical activity [13,14]. While rest may be initially important in the face of acute low back injury (e.g. disc herniation, muscle sprain), it is increasingly recognized that timely resumption of physical activity is critical to successful rehabilitation [15]. However, after an episode of acute low back pain, patients often remain sedentary because of fear that movement will cause pain. Such behavior is particularly detrimental since decreased recreational activity leads to deconditioning, which further impacts emotional well being [16,17].

MOVEMENT PATTERN ABNORMALITIES

A growing body of evidence supports the notion that both pain and fear affect not only how much, but also how patients with cLBP actually move. Abnormal trunk muscle activity during postural perturbation, impaired control of trunk and hip during arm movements and abnormal postural compensation for respiration all have been documented in cLBP [18-21]. Several models have been proposed to explain such abnormal movement patterns including the "pain-spasm-pain" model (reflex sustained co-contraction of agonists and antagonist muscles) [22] and "pain adaptation" (slowing and decreased range of motion due to selective increased activation of antagonists) [23]. Although it has been proposed that altered muscle activation patterns in cLBP can stabilize the spine during move-

ment, thus preventing further injuries, this adaptation comes at the cost of a limited range of motion [24]. Recent experiments in addition suggest that, in normal individuals, fear of pain by itself can cause altered trunk muscle activation patterns during limb movement that resembles those observed in patients with cLBP [25]. Both experimental back pain (painful cutaneous electrical stimulation) and anticipation of pain (without electrical stimulation) caused increased activity and co-contraction of superficial muscles along with delayed or decreased activation of deep muscles. Thus, patients with cLBP appear to have a constellation of motion-limiting muscle activation patterns that may be initiated or aggravated by emotional factors.

NEUROPLASTICITY AND CENTRAL SENSITIZATION

In addition to abnormal movement patterns, patients with cLBP have been shown to have generalized augmented pain sensitivity and cortical activation patterns suggesting abnormal central pain processing [26]. Ongoing pain is associated with widespread neuroplastic changes at multiple levels within the nervous system [27-29] including primary afferent neurons, spinal cord, brainstem, thalamus, limbic system and cortex [30-33]. Recent neuroimaging data have uncovered distinct "brain networks" involved in acute vs. chronic pain, with chronic pain specifically involving regions related to cognition and emotions [34]. Recent findings of reduced pre-frontal cortex N-acetyl aspartate levels and decreased pre-frontal and thalamic gray matter density also have been described in cLBP, compared with controls, suggesting neuronal or glial loss, possibly due to toxic effects of prolonged excitation [35,36]. At the level of the somatosensory cortex, functional reorganization of somatosensory areas has been documented in chronic pain [37]. In patients with cLBP, magnetoencephalography assessment of cortical activation during painful stimuli showed a shift and expansion of the cortical area representing the low back towards the leg [38]. Pronounced shifts in motor cortical activation patterns during movement in patients with phantom limb pain (but not in pain-free amputees) also suggests that neuroplastic changes during chronic pain may involve motor as well as sensory cortical reorganization [39]. Indeed, current models increasingly view chronic pain as a multisystem output, the "pain neuromatrix" including both sensory and motor components [40-42].

PROPOSED ROLE OF CONNECTIVE TISSUE REMODELING IN CLBP

We hypothesize that connective tissue remodeling occurs in cLBP as a result of emotional, behavioral and motor dysfunction. We further hypothesize that increased connective tissue stiffness due to fibrosis is an important link in the pathogenic mechanism leading to chronicity of pain, fearavoidance and further movement impairment.

EFFECT OF MECHANICAL STRESS ON CONNECTIVE TISSUE

Abnormal movement patterns can have important influences on the connective tissues that surround and infiltrate muscles. A hallmark of connective tissue is its plasticity or "remodeling" in response to varying levels of mechanical stress [43]. Both increased stress due to overuse, repetitive movement and / or hypermobility, and decreased stress due to immobilization or hypo mobility can cause changes in connective tissue [44,45]. A chronic, local increase in stress can lead to microinjury and inflammation (overuse injury, cumulative trauma disorder) [46-48]. A consistent absence of stress, on the other hand, leads to connective tissue atrophy, architectural disorganization, fibrosis, adhesions and contractures [49-53]. Factors influencing whether atrophy or fibrosis predominates during stress deprivation include the concurrent presence of inflammation, tissue hypo-oxygenation and cytokines such as TGFIH that promote fibrosis [54,55]. Fibrosis therefore can be the direct result of hypomobility or the indirect result of hypermobility via injury and inflammation.

CONNECTIVE TISSUE/MUSCLE INTERACTIONS

In muscle, plasticity of perimuscular and intramuscular connective tissue plays an important role in how muscle responds to mechanical stress. It has been shown, for example, that during the early phase of immobilization, loss of muscle length is primarily due to shortening of muscle-associated connective tissue, which is only later followed by actual shortening of muscle fibers [56]. The poorly understood

phenomena of "myofascial trigger points", "taut muscle bands" and "muscle spasm" also may contribute to connective tissue remodeling and fibrosis. Although there is some controversy as to the definition and nature of these entities, and whether or not they are related to each other [57-59], decreased tissue pH and increased levels of inflammatory cytokines were recently reported in myofascial trigger points in the presence of pain [60]. Thus, the presence of painful muscle contraction or tender foci within perimuscular fascia may add to the factors promoting hypo mobility and tissue fibrosis. Regardless of its original cause, connective tissue fibrosis is detrimental. as it leads to increased tissue stiffness and further movement impairment.

EFFECT OF CONNECTIVE TISSUE PATHOLOGY ON SENSORY AFFERENT MODULATION

Tissue microinjury, inflammation and fibrosis not only can change the biomechanics of soft tissue (e.g. increased stiffness) but also can profoundly alter the sensory input arising from the affected tissues. Connective tissue is richly innervated with mechanosensory and nociceptive neurons [61]. Modulation of nociceptor activity has been shown to occur in response to changes in the innervated tissue. Tissue levels of protons, inflammatory mediators (prostaglandins, bradykinin), growth factors (NGFs) and hormones (adrenaline) [30,62,63] all have been shown to influence sensory input to the nervous system. Conversely, nociceptor activation has been shown to modify the innervated tissue. Release of Substance P from sensory C-fibers in the skin can enhance the production of histamine and cytokines from mast cells, monocytes and endothelial cells [64,65]. Increased TGFp-1 production, stimulated by tissue injury and histamine release, is a powerful driver of fibroblast collagen synthesis and tissue fibrosis [54,66,67]. Thus, activation of nociceptors by itself can contribute to the development or worsening of fibrosis and inflammation, causing even more tissue stiffness and movement impairment.

CONNECTIVE TISSUE REMODELING AND LOW BACK PAIN

We propose that, in patients with cLBP, connective tissue fibrosis can occur in the lower back due to one or several of the following factors: (1) decreased activity, (2) changes in

muscle activation patterns causing muscle co-contraction, muscle spasm or tissue microtrauma and (3) neurally-mediated inflammation. To date, there is a paucity of published research devoted to connective tissue in relation to low back pain, reflecting the overall lack of attention to unspecialized "loose" connective tissue and fasciae compared with specialized connective tissues such as cartilage. We hypothesize that connective tissue remodeling may play an important role in the pathophysiology of LBP because (1) plasticity in response to changing mechanical loads is one of connective tissue's fundamental properties and (2) pathological remodeling (fibrosis) due to changes in tissue movement is well documented in other types of connective tissues (e.g. ligaments, joint capsules).

DYNAMIC PATHOPHYSIOLOGICAL MODEL LINKING SENSORY, MOTOR AND EMOTIONAL COMPONENTS OF LBP WITH CONNECTIVE TISSUE PLASTICITY

Most episodes of acute low back pain resolve, allowing resumption of normal activities. We propose that, in contrast, patients who develop fear of movement in response to the acute pain episode will be more likely to develop cLBP. In our pathophysiological model, this progression to cLBP first involves changes in the amount and pattern of movements leading to connective tissue remodeling and locally increased tissue stiffness. Peripheral and central nervous system sensitization will then contribute to tissue inflammation, emotional distress, pain-related fear and decreased movement. Additional psychosocial factors such as family dysfunction, secondary gain, job dissatisfaction and litigation can further contribute to decreased physical activity and to the vicious cycle illustrated in Figs. 1 and 2.

In both connective tissue and nervous system, plasticity responses are characterized by changes over time and the potential for reversibility. The mechanism presented in this paper is compatible with the complex natural history of low back pain including temporal variability (i.e. waxing and waning of symptoms and disability in recurrent low back pain) and potential for "feedforward" acute exacerbation of symptoms (i.e. acute flareup). An acute flare-up of pain may be triggered by any situation causing locally increased inflammatory cytokines, decreased tissue pH or oxygen content. In fibrosed connective tissue and muscle, blood and lymphatic flow may be chronically compromised by the disorganized tissue architecture and thus vulnerable to unusual muscle activity (e.g. beginning a new work activity or sport), or to conditions causing further decrease in perfusion such as prolonged sitting. Once local activation of nociceptors is initiated, peripheral and central nervous system sensitization mechanism amplify both the tissue inflammation (via release of inflammatory neurotransmitters such as Substance P) and the perceived pain, leading to distress, fear of movement



Figure 2 Relationship of proposed chronic low back pain pathogenic mechanism to precipitating factors and non-pharmacological therapeutic interventions.

etc. Each exacerbation of pain potentially leads to increased movement restriction and fibrosis, setting the patient up for more painful episodes.

The proposed model links several welldeveloped but separate areas of research into a comprehensive and testable model that plausibly explains why a patient with acute low back pain (e.g. due to acute back sprain) may go on to develop chronic or recurrent low back pain. By explicitly including connective tissue plasticity as part of the mechanism, the model incorporates additional factors that have not been linked mechanistically to the pathogenesis of low back pain. Testing this model will first require confirming the primary hypothesis that connective tissue fibrosis occurs in cLBP, then testing the relationship between movement, connective tissue fibrosis and persistent pain.

EFFECT OF TREATMENTS AND PLACEBOS

In addition to its role in the pathological consequences of immobility and injury, the dynamic and potentially reversible nature of connective tissue plasticity may be key to the beneficial effects of widely used physical therapy techniques as well as "alternative" treatments involving external application of mechanical forces (e.g. massage, chiropractic manipulation, acupuncture), changes in specific movement patterns (e.g. movement therapies, tai chi, yoga) or more general changes in activity levels (e.g. increased recreational exercise) (Fig. 2). Connective tissue remodeling also may be important in the therapeutic effect of pharmacological treatments commonly used for cLBP via direct effects on tissues (anti-inflammatories), reduction of muscle spasm (muscle relaxants) and/or paininduced fear of movement (analgesics, anxiolytics). The effect of placebos in cLBP also may involve decreased fear of pain with consequent increased physical activity and beneficial connective tissue remodeling effects. Improving our understanding of therapeutic mechanisms is key to developing more effective treatment strategies for cLBP with minimal adverse effects. While manual or movement-based treatments have the advantage of not causing druginduced side effects (e.g. gastritis, sedation), these treatments could conceivably worsen cLBP if applied forces actually cause inflammation due to excessive tissue stretching or pressure. A paradoxical aspect of connective

tissue remodeling is that it potentially underlies both beneficial and harmful effects of mechanical forces, including those used therapeutically. It is well known in physical therapy, for example, that application of direct tissue stretch to ligaments and joint capsules needs to be gauged carefully to avoid causing increased tissue inflammation [44]. Indeed, understanding how much force (or movement) is beneficial, and how much can be harmful is one of the challenges of these clinical modalities. The hypothetical model presented in this paper suggests that behavior modification and movement reeducation may be most effective in the early stages of cLBP (before extensive tissue fibrosis has occurred) and that combining these approaches with carefully applied direct tissue stretch may be necessary in cases of long standing hypo mobility with pronounced fibrosis and stiffness. Understanding the underlying pathophysiology of cLBP will help optimize the selection of the best treatment or treatment combination.

FUTURE TESTING OF THE MODEL AND CLINICAL SIGNIFICANCE

The model presented in this paper predicts that beneficial connective tissue remodeling can result from a variety of therapeutic interventions. The model also suggests that measures of connective tissue remodeling may become useful tools for evaluating the response to pharmacological and non-pharmacological treatments for LBP. Recently developed non-invasive ultrasound based techniques such as ultrasound elastography can be used for evaluation of connective tissue structure and biomechanics in vivo [68-70]. Such techniques may become useful tools to objectively document changes in connective tissue over time and thus measure the effects of various treatments. Eventually, these techniques may be useful to guide treatments in clinical practice.

The development, testing and implementation of effective treatment strategies are highly dependent on understanding the pathophysiological mechanisms of the condition being treated. An integrative model incorporating behavioral and somatic aspects of cLBP will strengthen the rationale for a multidisciplinary treatment approach including direct mechanical tissue stimulation, movement reeducation and psychosocial intervention. Understanding how these various treatments may work synergistically in cLBP will support efforts to develop appropriate integrative approaches to treat this common and debilitating condition.

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[70] Langevin HM, Konofagou EE, Badger GJ, et al. Tissue displacements during acupuncture using ultrasound elastography techniques. Ultrasound Med Bioi 2004;30(9): 1173-83. This new section will appear periodically to recognize certain individuals who have made an extraordinary contribution to the Rolf Institute. The most appropriate and effective way to do that is by initiating a new feature in our journal, simply to thank them for all their efforts. There are many people over the years who deserve to be thanked for their contributions, but we will start by singling out three more recent people to begin with. Please keep us informed as to individuals who are deserving of special recognition!

- The Editorial Staff

Thank You to Karna Knapp

It has been over a year since you moved on from the Rolf Institute[®] of Structural Integration. Things are going well, you will be pleased to know.



us would like to acknowledge the contributions you made that helped our organization survive and prosper through many challenging moments. As you know, ours is not an easy ship to sail.

However, all of

You came here back in 1993 in the years just following the "split," first as our office manager and then as our membership director. You were one of the crew that helped the board and interim director to manage the Institute in 1994. Shall we count the number of directors you served under?

Under your care, we learned about service mark issues, or if we didn't, it wasn't your fault. Goodness knows, you tried to help us get it right. You diligently tracked down the service mark violators in the U.S. and helped others protect the mark throughout the world. You helped us to remember our "dues" and administered changes of membership status and listened to our stories of hardship and special needs.

You tirelessly organized board meetings and annual meetings. You facilitated *Rolf Lines*, then *Structural Integration*, and put out *Fascial Flashes*, issue after issue. You were the central organizer for that special "meeting of reconciliation" in 2004.

You reminded us that just because a big unsolvable problem loomed over us, we didn't have to become grumpy and polarized. You demonstrated what it means to be a solutions-based person, one who sees constructive possibilities amidst tough choices.

You nurtured the Institute's transition from Pearl St. to the Canyon Building and then ultimately our departure from Canyon and transition to Gunbarrel.

You ultimately became the single person we depended on for institutional memory, to remember what works and why, and to remember who we are when we needed to speak to the "Institute." Yours was the voice of a friend whom we knew, behind the menu of phone options.

What a workout it must have been! How you must have yearned for a break from it all. The *unselfish* side of us is glad you were able to find your next step in life.

Bless you, from us all. Thank you for giving so much of yourself to the mission of structural integration.

Thank You to Stephen Paré

The Rolf Institute, and particularly the staff of Structural Integration, would like to thank Certified Rolfer Stephen Paré for his long tenure of service on our journal. In 2001, Stephen joined the editorial team, a group of Rolfers who volunteer their time to work with authors submitting articles to the journal. Out of his interest and dedication, Stephen became Editor in Chief - another volunteer position - about a year later. In this role, he was the interface between the editorial team and Karna Knapp, who was Member Services Director of the Rolf Institute and also the journal's Managing Editor. He and Karna had the sometimes-challenging duty of wrangling busy Rolfer-authors and Rolfer-editors to tight deadlines so that the journal could meet its quarterly production schedule. While Stephen extends much credit to Karna, who made it happen, in his words, by "kicking my butt every three months", Karna says that Stephen "was always very

knowledgeable about everything...and he was always right there." They worked well as a team and really enjoyed brainstorming for future issues.

One of the outcomes of Stephen's tenure is that the journal has become increasingly professional. He played a key role by actively soliciting articles from the membership, increasing the use of graphics, and helping to create a new "look" that accompanied the name change from *Rolf Lines* to the more descriptive *Structural Integration: The Journal of the Rolf Institute.*

Stephen held the role of Editor in Chief for about four years, then continued to work with authors on projects in the pipeline for about another year. He has since retired completely from journal duties, but continues his Rolfing[®] practice and the avid pursuit of photography. Thank you, Stephen.

Thank You to Tessy Brungardt



The Board of Directors, the staff and the membership of the Rolf Institute[®] thank Certified Advanced Rolfer Tessy Brungardt for her many years of service as Board Chair. Her hard work

and dedication have made a significant contribution to the betterment of the Institute.

Her investment of self is particularly meaningful because we know how demanding life can be. It is an honor to recognize Tessy for her outstanding work. While Tessy will no longer be serving on the Board, she will continue her role as an Advanced Rolfing instructor.

Yoga of the Mahamudra: The Mystical Way of Balance by Will Johnson

Reviewed by Anne F. Hoff, Certified Rolfer™



n the December 2006 issue of *Structural Integration*, I interviewed Will Johnson, a Certified Rolfer whose lifework as a Rolfer and author has been an ongoing exploration of the body as a doorway and path to spiritual unfoldment. As such, he is a key proponent of what could be called the "mystical" side of Rolfing®: the viewpoint, which hearkens back to Dr. Rolf herself, that Rolfing is about more than integrating the structure in gravity; that such integration itself becomes an evolutionary force acting on the client's life in many dimensions – body, mind, spirit.

In Yoga of the Mahamudra: The Mystical Way of Balance (2005, Inner Traditions), Johnson interweaves his understanding of the body as a vehicle on the path to higher consciousness with the mahamudra teachings of Tibetan Buddhism, which delineate an evolved quality of pure consciousness. Johnson discusses some of the metaphors used in Tilopa's eleventh-century Buddhist teaching "Song of Mahamudra" - "do nothing with the body but relax," "empty the mind, and let the mind cling to nothing," and "become like a hollow bamboo" - from the viewpoint that these are actually "very specific structural coordinates and conditions in the body" (p. 7, 8).

While this may sound esoteric, reading further one comes to descriptions of dynamic balance that sound like the hallmark of the "Rolfed" body:

Moments of balance generate a feeling tone throughout the entire body that is unmistakable. When we're not in balance, we're unable to feel the body as a unified and integrated phenomena because there are too many small parts of it that are in conflict not only with one another, but with the gravitational field as well. But when the conditions of balance emerge, the body knows and recognizes it in a flash. It is that distinct and different a feeling. (p. 77)

For Johnson, this integrated feeling tone is not the endpoint – as it might be in the ten-session series of Rolfing. Rather, the process of learning to surrender to everchanging balance is the starting point, an ongoing practice that leads to awareness of sensation and a concomitant cessation of mental activity, and ultimately on to a deeper experience of self (prompted by the question, *Who am I?*) and the fruit of the *mahamudra* teachings.

Readers of Johnson's other books will see familiar themes. For example, in *The Posture of Meditation* (1996, Shambala), Johnson discussed how alignment based on ease supported the practice of and reasons for sitting meditation. *Rumi Gazing at the Beloved* (2003, Inner Traditions) delineated how gazing practice activated awareness of sensations that led to mystical states of union consciousness.

Part One of Yoga of the Mahamudra maps out the latest terrain of Johnson's thought, working from the mahamudra teachings. What will be most interesting to Rolfers attracted to the mystical journey, as well as to practitioners of movement arts such as Authentic Movement and Continuum, is Part Two, which is a presentation of "somatic koans". These are essentially Johnson's invitation to the reader to "dance" - to join him in his practice of intensely exploring dynamic balance, following it into the mysteries and states of consciousness it reveals. For the reader who wants to consume the book mentally, these koans will be somewhat interesting but ultimately elusive. For those who choose to stand up and explore through their own experience of embodiment, Johnson promises a whole other level of adventure.

Equine Structural Integration by Jim Pascucci

Reviewed by Susanna Baxter, Certified Rolfer™

with Equine Structural Integration: Myofascial Release Manual Manual (2007, Sane Systems Press), Certified Advanced Rolfer Jim Pascucci has undertaken quite a challenge. Although equine massage and acupressure manuals abound, very little has been published to date regarding structural integration of horses. As a compendium of equine structural integration, Pascucci's book is wide-ranging in its subject matter, touching on topics from general palpation techniques to the instincts and behavior of horses. It includes discussions of safety-related matters, such as appropriate restraints for the horse; the ins and outs of working with handlers; and the body language through which horses send social signals or display release of stress.

As a horsewoman and Rolfer, I applaud Pascucci for his insistence that anyone intending to work with horses must be – or become – intimately familiar with them. Gaining first-hand knowledge of one's prospective clients both enhances the practitioner's perception of equine movement and behavior and creates a safer environment for all. Pascucci emphasizes that his own current ability to evaluate equine movement aberrations developed only from long and intensive study of the horse, as well as consultations with veterinarians and other equine experts.

Many of us are accustomed to interacting with cats and dogs and have some sense of their natures; thus, we can translate the principles and techniques of integrative work with humans to work with pets. But as a client, a horse is nothing like a cat or a dog. First — and not inconsequentially — it weighs, on average, 1400 pounds. It is a huge prey animal that is easily startled and readily exhibits fight-or-flight behavior when it senses peril. A practitioner can unwittingly threaten a horse by bringing a laser-like attitude to the work — what Pascucci calls "predator eyes." Moreover, horses are herd animals, and herd hierarchy is complex. Pascucci mentions certain equine social dynamics and how these play out in the therapeutic environment, but he does not attempt a comprehensive discussion of how a human gains the trust and respect of a horse. Again, this knowledge comes from hours spent interacting with and observing horses, as well as further study of detailed existing literature about equine behavior patterns.

Even beyond herd dynamics, life in an unnatural environment with daily human interaction creates a unique equine mentality. Pascucci acknowledges that whereas wild horses are reared in a herd consisting of diverse age groups, domesticated equines are often weaned at only a few months of age. This causes a general lack of mental maturity, as foals do not have the opportunity to fully integrate the norms of equine social behavior. Commonly, horses raised in this manner display some confusion as to whether they identify more with human or equine behaviorisms. Thus, Pascucci remarks that it's important not only to understand functional herd dynamics, but also to evaluate the relationship between horse and handler in order to determine whether they have sufficient mutual respect. As the handler is usually involved in restraining the horse while you work, the handler must have adequate control of the animal to maintain everyone's safety.

Additionally, it has been my own experience as an equine structural integration practitioner that a horse's entire attitude can be affected merely by the presence or absence of its owner or handler, as the horse has habituated patterns of behavior around that person based on their relationship boundaries. It is my personal recommendation that practitioners avail themselves of the numerous published guides on equine



training, ranging from "natural horsemanship" concepts to more traditional methods of pressure and release. This understanding is invaluable for maintaining a healthy therapeutic environment.

Following introductory sections on the horse as a client and the basics of fascia, Pascucci describes techniques for manipulating a horse's body, dedicating one chapter to each anatomical region: the head, the neck, the shoulder, etc. For each region, he provides a chart that lists each muscle's origin, insertion and actions. Unfortunately, the references for these landmarks are often only photographs of anatomical areas so small that they fail to show the location of their subjects in the context of the horse's entire body. This book neither is nor claims to be an atlas of equine anatomy; those wishing to practice Pascucci's techniques will require additional reference materials.

In conclusion, *Equine Structural Integration*: Myofascial Release Manual is an excellent guide to what is required for a comprehensive understanding of equine structural integration. Pascucci has amassed sufficient data through his own experience to give credit to his work, and his engineering background lends a clear, scientific tone to his presentation. The book also begins the enormous task of bridging from the world of horses to that of bodywork. But like any beginning, it has only touched the surface of a complex subject: although Pascucci has done well to include knowledge from both domains, an equestrian would find the anatomy and physiology discussions incomplete, while a structural integrator would find the discussion of equine behavior overly general. However, when accompanied by supporting resources, the book is valuable as both an introduction and a continuing reference for anyone considering or actually practicing equine structural integration.

The Fasciae – Anatomy, Dysfunction & Treatment by Serge Paoletti

Reviewed by Stephen Evanko, Ph.D., Certified Rolfer™



European Osteopath Serge Paoletti, D.O., brings us what might now be the most comprehensive organization and presentation of the current knowledge about fascia in his book *The Fasciae* – *Anatomy*, *Dysfunc*-

tion & Treatment (2006, Eastland Press). He begins where all fascia begins — with embryos, and a short, rich trip through embryonic development and the derivatives of the various layers. This 300-page book includes detailed descriptions of the anatomical distributions and attachments of various fasciae throughout the body, with diagrammatic and three-dimensional illustrations that are reasonably well-drawn (fascial layers colored and easy to follow). The few descriptions and illustrations of nerves and vessels, however, are by no means exhaustive. I would have appreciated more information regarding nerve pathways in relation to fascias.

Paoletti gives an interesting synopsis of various biodynamic phenomena, wherein the cells of developing tissues organize themselves within different metabolic fields, such as densation fields, retention fields, dilatation fields, etc., and thus give rise to various tissues as development progresses. Although the book jacket mentions a connection between these embryonic cellular organizing fields and the inherent tissue motility we practitioners sense through our hands, his explanation left me a bit fuzzy on how — and if — these processes were indeed related.

The book also illustrates and describes connective tissue at the microscopic level, and offers a few details regarding biochemistry. This section would have been well served by more careful editing, and I found myself wanting to see real micrographs of the tissues instead of drawings. A short overview of connective tissue pathologies discusses the central role of connective tissue for many disease processes.

Chapters on the various roles of the fascia – such as suspension, protection, separation and compartmentalization – are well written. Paoletti discusses the idea of cleavage planes in the body, corresponding to the softer connective tissues that form the seams between muscles and how these cleavage planes facilitate palpation of deeper areas. These are also the spaces through which nerves travel; and having taken Rolfer Don Hazen's wonderful class on nerve manipulation, I particularly like to explore these places when I am working.

Another chapter discusses fascial mechanics, including the concept and roles of fascial chains. Although his discussion is similar to Certified Rolfer Tom Myers' *Anatomy Trains*, Paoletti includes more discussion and treatment of internal chains, such as the meningeal chain and central chain. This is *apropos* for a book written from the osteopathic perspective, which would naturally include craniosacral and visceral approaches. He also brings in the idea of lesional chains, the paths that membranous tensions can follow to propagate over long distances. In my view, the ability to feel these lesional chains is crucial for effective structural integration.

The last third of the book is dedicated to quite a number of techniques for listening, palpation and mobility testing, and treating the fascia. Paoletti emphasizes how "listening" is feeling fascial restrictions using the hands; and that we as practitioners apply our own fascial systems to those of our clients in order to sense and understand the problems. He also states the principles and general technical aspects of inductive (i.e., indirect) techniques, as well as numerous direct techniques. I found many of the tests and treatments new and useful and have added them to my toolbox. One example is a release of the iliolumbar ligaments with the client standing. Paoletti makes the point that the ligaments "must support weight in order to be ready for treatment". With considerable variation on this technique, I've found work in the iliolumbar and iliac crest area with the client standing to be quite effective.

All in all, this is a well-done book, and a valuable reference for anyone interested in fascia. I would happily recommend it for the libraries of all Rolfers and other structural integration practitioners.

Anatomy of Hatha Yoga: A Manual for Students, Teachers and Practitioners by H. David Coulter

Reviewed by Claudius Nestvogel, Certified Rolfer™

utside of a dissection room, anatomy is very much a visual-imaginative enterprise. Even those amongst us with a very vivid three-dimensional imagination are confronted with the tedious task of translating two-dimensional pictures in anatomy texts into internal spatial representations. Unfortunately, even the best anatomy atlases are rather bland and uncreative in supporting readers in this enterprise, as most illustrations refer to a person in the upright position, with minimal variation even in the positioning of the limbs. One has to refer to books on kinesiology or anatomy aimed at students of physical education to gain information about the anatomy of the body in more animated positions. But even there, the variety of the material is usually limited to discussions of bending, lifting weights, jumping, and running.

In this regard alone, H. David Coulter's Anatomy of Hatha Yoga: A Manual for Students, Teachers and Practitioners (Body and Breath, Honesdale, PA, 2001) fills a gap. Coulter systematically covers all the major yoga positions (asanas) from an anatomical point of view, but does not stop there. He includes relevant physiology concerning the workings of muscle, breathing, and the autonomic nervous system. Needless to say, this book is a gem for serious yoga students and teachers. And it is a fine book for Rolfers as well, not only because Rolfing and yoga share common interests, but also because of the author's credentials. Not only has Coulter practiced yoga since 1974, he is also a shiatsu practitioner and a Ph.D. in anatomy. Hence, he knows his stuff.

Coulter presents the generally accepted facts and theories of anatomy and physiology. He has written a kind of textbook, not a book about the latest news in research or data from unreplicated studies and speculative theories. His remarks (p. 29 on) about critical thinking and the basics of empirical scientific methodology are addressed to the yoga community, where science and "metaphysics" sometimes mingle into pseudoscientific gibberish, but they are relevant to the Rolfing community as well, for basically the same reason.

The book is written in a lively, easy-tofollow style full of fitting metaphors and elucidating examples. At the same time, the text is at times dense with information and should be read slowly to allow ample time to digest the material. Very often Coulter helps his reader with this, explaining how the anatomical and physiological facts have useful application in bodywork and movement work, well beyond yoga.

The first chapter about muscles, connective tissue, and nervous control is a concise, clear presentation of the necessary basics of this subject. In its discussion of stretching, it demonstrates implicitly the gap that exists between the traditional fascial hypotheses of Rolfing and the mainstream of physiology.

The second chapter covers the anatomy and physiology of breathing, including topics as hypo- and hyperventilation, constricted thoracic, empowered thoracic, abdominodiaphragmatic, thoraco-diaphragmatic, and paradoxical breathing. Developing from this there follows a thorough discussion of yoga exercises, such as different leg lifts, sit-ups and nauli (differentiated activation of the abdominal musculature with the belly "sucked in"). All of these exercises put various constraints on the breathing mechanism to achieve certain effects. A deeper understanding calls for knowledge of the musculature of the abdomen, the pelvis, the thighs, and the pelvic floor, which Coulter provides in this third chapter. As the constraints Coulter discusses are also present - although to a minor degree - in the sundry inhibitions of breathing by habit and structure that we find in our client's bodies, this material can be very useful for us Rolfers.

This, of course, applies as well to the subsequent presentations of the various yoga postures in Coulter's book. They are grouped systematically with relevant anatomical background in chapters entitled: "Standing Postures", "Backbending Postures", "Forward Bending Postures", "Twisting Postures", "The Headstand", "The Shoulderstand", and "Relaxation and Meditation".

The beauty of this anatomy text is that it goes way beyond routine discussions of "this muscle has its origin at this part of this bone and inserts at that part of that bone." It is much more like a laboratory inquiry: "Well, what exactly happens, if I put my body into this position, turn my limb over here, and breathe like this?" As such, this book should not only be read but also *practiced*. If the reader puts it down and tries the different positions and exercises, it will really come to life.

The one major shortcoming of Anatomy of Hatha Yoga is the way it is illustrated. Presumably for financial reasons, Coulter chose to resort to the public domain: to old anatomy texts and their black-and-white illustrations. The illustrations cover the necessary basics, but it is very clear that having a modern atlas of anatomy at one's side while working with Coulter's book would be highly desirable. Also, the presentation of anatomy is far from complete. Not every muscle is mentioned; notably, the feet, the hands and the face are very much neglected. One last complaint: this book is printed on strong, alkaline glossy paper and therefore made to last, but the light reflected from the pages can be distracting.

Overall, I highly recommend this wonderful book, which is textbook/workbook of anatomy as well as some physiology in action. If the reader is practicing yoga or experienced in other kinds of movement work and a newcomer to anatomy, Anatomy *of Hatha Yoga* – along with a good anatomy atlas - would be an excellent and inspiring curriculum for learning anatomy through experience. As such, it could become a classic along the lines of Mabel Todd's The Thinking Body. For a non-yogic Rolfer, it is a wonderful way to ponder anatomy and the workings of the body, helping one to understand the needs and problems of all his clients, not only those who are practicing yoga.

Marvin Solit, Remembered By Jean LeVaux

Marvin Solit, director of the Foundations for New Directions in Cambridge, MA, passed away December 29, 2006. A native of the Bronx, he graduated as an osteopath from the Kansas City College of Osteopathy and Surgery in the 1950s. There he met Dr. Ida Rolf whose perspectives influenced his own. He became her protégé, and would have shifted entirely to Rolfing[®] were it not for the compelling drive he felt towards non-directed healing.

Marvin became well-known for his combination of osteopathy and Rolfing. Then, in the early 1960s, having explored other healing modalities, he was inspired by a colleague to "just stand and pay attention" to his feelings. This turned out to be the key to his future. It was to alter his entire practice. He disassembled the traditional client-therapist relationship to encompass not only the personal, but also the interpersonal and community levels. He stopped making appointments; instead he invited people to come when they wanted, stay as long as they liked and contribute as each saw fit. He removed obstacles in the path of "unwinding trauma".

His parameters of wholism expanded with the recognition that language, perceptions, work, education, culture and the environment all affect health. In this dynamic and nurturing environment, personal lives evolved.

Although not widely known in Boston, Marvin was in contact with such thinkers as Ashley Montagu, Buckminster Fuller, Stephen J. Gould, Lynn Margulis and Vladimir Ginzburg. He explored with NASA whether his unwinding approach to healing might be useful to astronauts in the aftermath of weightlessness.

A true Pythagorean, Marvin sought to represent universal principles. He created models of the wave/particle, the tensegrity of the cell, the "six great circles" (underpinning Platonic Solids), electromagnetism, etc. He presented two workshops recently: "The Geometry of Transformation" and "Syner-



getics 3". The following are some memories from those who knew him:

■ So what was my father Marvin all about? In his work and his life, he came to realize that the world profoundly lacked models that could help us understand things in a truly holistic way. So he set out to find some, and create some new ones, and then create some more. This was necessary because, after all, current models by their very nature *limit us* - they filter out important things, and prevent us from seeing the world in new ways. Breakthroughs in models and technology almost always accompany breakthroughs in science.

Until the very end, he was a seeker, and a connector. He was ahead of his time in so many ways, and accepted that most of the world was not really ready for his ideas. However, so many of his ideas have eventually proven to be on target.

- He was very much at the forefront of holistic healing, way before it was in vogue. Now holistic health is everywhere, and osteopaths are quite conventional!
- His approach to business presaged the movement today for flexible work

arrangements and more enlightened polices and practices around work and work-life balance.

- He knew, from his own experience and research, that the mechanisms of evolution were not just long-term gradual changes "natural selection" but could be essentially done *in real time* and amazingly, this idea has been found to be true as researchers delve into the world of the genome and the various switches and receptors that respond directly and predictably to environmental changes.
- The geometry of the six great circles that will unlock new way of understanding physics.

Matthew Solit Son

Although I met Marvin only once in my life, he impressed me by his dedication to Synergetics, his depth of knowledge of the subject, and also by his strong belief in the 'simple complexity' of nature.

Although Marvin mailed to me his dvd with Synergetics 3 some time ago, it was just yesterday morning when I, for some unexplained reason, decided to put aside all my activities and began to watch the dvd. Just as it was several years ago during our brainstorming session organized by Marvin and Foster Gamble on the structure of atoms at Marvin's house, I saw again a very confident and extremely competent Marvin sharing with other people his lifelong discoveries. Marvin told me about his belief in the importance of the six great circles and advised me to investigate if these circles define the orientation of the prime elements used in my model of a nucleon. When I was watching Marvin's dvd, I was amazed by Marvin's discovery of a completely unexpected correlation between the six great circles and the golden ratio. I am glad that I was able to share my amazement with Marvin before his untimely death.

Vladimir Ginzburg

Mathematician, author of "Prime Elements of Ordinary Matter, Dark Matter & Dark Energy"

■ I met Marvin in 1960. I was working construction, shoveling concrete, had hurt my back, was dating a woman from Germany whose German friend was a patient of Marvin's. I went to see him. He was wearing a white coat. I had often feared that

MEMORIAL

men in white coats might get me.

I got 'rolfed' that first session at Marvin's. The pain of the treatment far exceeded any of the symptoms I had come with, a punishment that I relished since I arrived in his presence riddled with shame and guilt...but I left standing up straight with a copy of Alfred Korzybski's *Science and Sanity* under my arm, on loan from Marvin – the first of many generosities I was to experience from him over the next thirty years. *Science and Sanity* was the first book I ever had which I would read over and over, in small sections, finding it fresh and new each time.

I didn't realize at the time how serious the guy in the white coat was about discovering the structure of the universe and getting his language to correspond with it.

Marvin discarded his white coat, along with office hours, appointments, and osteopathy. Even at my age and with my considerable developmental deficits, I knew that these were acts that took a tremendous amount of courage. During the ensuing years I can only imagine what guts it took to stay the course that Marvin had chosen. It was certainly not the easy road. As far as I could tell, Marvin never strayed from his original commitment to his original vision.

Marvin Solit rarely thought a thought or advanced a concept that was not entirely unique. He was a human working model of inventive escapades beyond the comprehension of most other humans.

Marvin was a very warm person, filled with humor, and paradoxically the most unsentimental man I ever knew. He held to his principles in the face of what I would call unspeakable difficulties and challenges. His path was not for sissies.

Barry Hughes

Foundation for New Directions - community member of thirty years

■ Marvin was more than a great friend, he was a pillar upon whom I could lean when I needed encouragement and intellectual stimulation. He was someone I could talk to, and that is a rare commodity. I only hope that he derived the same satisfaction that I did from our conversations and exchanges of ideas. Marvin was a true original. He enriched my life immensely...

Dr. William Day

Chemist, author, *The New Physics*, Genesis on Planet Earth

 Marvin Solit was of a unique character; Quan says his eyes were those of a holy man. In many ways a European intellectual stranded in the American wasteland, there was yet something quintessentially American about his inventiveness and indefatigable spirit. If he was American, he was of another time - a pre-beatnik, a leftist radical of the 1930s, when there was still a hope of a socialist vision in these United States. As the hope for American culture faded, so did Marvin, climbing ever-higher into the esoteric realms of geometry and physics. And yet he was daily grounded by his work with movement and exquisitely sensitive to the inner life of anyone he was with.

So almost anything you say about him can be contradicted with equal truth. Such is the nature of a great man. Marvin and Harriett were beacons to so many lost souls, and navigable waypoints for a great many found ones....we will miss them both, but a larger concern for me is where will we find this *kind* of person again? Are they still being made? Are they still being nurtured?

Tom Myers

Certified Rolfer™, Director KMI

Marvin brought such technical brilliance together with such human compassion and healing power. He helped me solve my quest for how the phi ratio fit into the structure of the atoms of the periodic table and I will always treasure the memories of my days sitting with Marvin and his remarkable models while he patiently shared his hard-won insights.

> Foster Gamble Mathematician

■ From our first meeting — where we discussed how Buckminster Fuller's concept of the tensegrity mast column would be a suitable suspension system to model some of the marvels of the human spine — to our last phone conversation sixteen months ago — where he tried to entice me back to the fold, to digitally 3-D model, some advanced geometry systems, that he was then abuzz with — the constant about Marvin through all these encounters was his fantastic child-like energy and passion for the pursuit of knowledge.

Marvin radiated the qualities of passion and curiosity shared by the great thinkers and artists of our ages. He stood out by having a genuine spirit of the shaman, jokester and healer all rolled into one rich loving personality. He was the real deal!

Peter Davidson Artist, sculptor

Research Foundation Announcement

The Board and the Research Committee of the Rolf Institute[®] of Structural Integration is proud to announce the establishment of the Ida P. Rolf Research Foundation, created to encourage and support valid, peer reviewed scientific research into subjects significant to the understanding and validation of Rolfing[®] structural integration in both theory and practice.

Research has always been part of the RISI's mission. Finally, we have gathered the resources to press forward. However, one of the Foundation's principal functions is to serve as a recipient of grants and donations to fund research. We would be pleased to accept financial support from you, your clients, and others who appreciate and wish to enable the continuing development and validation of Dr. Rolf's work. Contributions to the Foundation, which is a 501(c)(3) organization, are tax-deductible to the extent allowed by law.

The Foundation will be announced to the public at the October 2007 First International Congress on Fascia Research in Boston. Hope to see you there!

Valerie Berg

On behalf of the Board and the Research Committee

INSTITUTE NEWS



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Graduates



Phase 3, March 2007, Europe From left to right, front row: Hilde Bönig, Sam Sykes, Becki Ruud, Claudia Studen, Martin Klinger. Back row: Karl Petersen, Uwe Rößler, Robert Schleip (Instructor), Isabell Brandt (Assistant Instructor), Andreas Klingebiel, Nicole Nagel.



Unit I, February 19, 2007 Boulder, CO From left to right, front row: Michael Polon (Instructor), Lilah Perry (Assistant Instructor); Jodi Haines; Karin Sandberg; Yuki Furuie; Sabrina Motta. Middle Row: Janice Sullivan; Yuriko Naoi; Andy Browder; Joshua Malpass. Back row: Rosalie Reymond; Ann Shankle; James Penn; Steve Rogers; Adam Oostema, Michael Valenti. Not shown: Ronda Bowlin, Jon Martine (Instructor), Suzanne Picard, (Instructor).



Unit 2, February 2007, Brazil From left to right, front row: Maria Beatriz Vasconcellos, Lucila Brandão, Ana Cristina Guida. Middle row: Alfeu Ruggi (Assistant Instructor), Adriana Raucci, Monica Epperlein, Maria Cristina Ibiapina. Back row: Nailê Braga, Eloisa de Souza, Rosângela Baía, Paula Mattoli (Instructor), Eliana Grotti, Liliane Nakabara, Marlene Isola (Certified Rolfer).

2007 Class Schedule

BOULDER, COLORADO

Unit I: Foundations of Rolfing Structural Integration/ FORSI

June 4 – July 16, 2007 Coordinator: Michael Polon

August 27 – October 8, 2007 Coordinator: Michael Polon

January 28 – March 7, 2008 Coordinator: Juan David Velez

Advanced Foundations of Rolfing Structural Integration/ AFORSI

July 15 – July 28, 2007 Instructor: Juan David Velez

September 9 - September 22, 2007 Coordinator: John Schewe/Suzanne Picard

March 16 – March 29, 2008 Coordinator: Jon Martine / John Schewe

Unit II: Embodiment of Rolfing & Rolf Movement Integration

June 4 – July 26, 2007 Instructor: Libby Eason Principles Instructor: Carol Agneessens

September 24 – November 15, 2007 Instructor: TBA Principles Instructor: Jane Harrington

October 15 – December 14, 2007 Instructor: Harvey Burns Principles Instructor: Mary Bond

January 7 – February 28, 2008 Instructor: Valerie Berg Principles Instructor: Lael Keen

Unit III: Clinical Application of Rolfing Theory

June 4 – July 27, 2007 Instructor: Ray McCall Anatomy Instructor: John Schewe

August 20 - October 12, 2007 Instructor: Russell Stolzoff Anatomy Instructor: Juan David Velez

October 15 – December 14, 2007 Instructor: Jon Martine Anatomy Instructor: Jon Martine

March 3 – April 25, 2008 Instructor: Ashuan Seow Anatomy Instructor: TBA

Advanced Training 2007

Phase II: August 6 - 17, 2007 Instructors: Ray McCall, Advanced Instructor & Jon Martine, Assistant/Co-Instructor

2008

Phase I: April 28 – May 16, 2008 Phase II: August 4 - 15, 2008 Instructors: TBA

Rolf Movement Training Location: TBA Dates: TBA

SEATTLE, WASHINGTON

Advanced Training (Extended Format) Instructors: Tessy Brungardt, Advanced Instructor & Michael Murphy, Assistant/Co-Instructor.

Phase I: April 30 – May 18, 2007

Phase II: July 30 - August 10, 2007

TOKYO, JAPAN

Rolf Movement Certification

September 25 - October 19, 2007 Instructor : Carol Agneessens Assistant : Hiroyoshi Tahata

GERMANY

Phase I: Foundations of Rolfing Structural Integration

July 30- August 18, 2007 Instructors: Giovanni Felicioni, Konrad Obermeier, Pierpaola Volpones

Phase II: Embodiment of Rolfing & Rolf Movement Integration

October 8 - November 28, 2007 Instructor: Pierpaola Volpones

Phase III: Clinical Application of Rolfing Theory

January 28 - March 21, 2008 Instructor: Ray McCall

AUSTRALIA

Unit I: Foundations of Rolfing Structural Integration/ FORSI June 9-10

Phase I: The Rolfing Touch -Myofascial Approaches Instructor: Michael Stanborough

June 16-17

Phase II: Fascial Perspectives – Understanding Structure Instructor: John Smith June 23-24

Phase III: Authentic Presence – Therapeutic Contact Instructor: Ashuan Seow

Unit II Embodiment of Rolfing & Rolf Movement Integration

Oct.29-Dec. 21, 2007 Instructor: Ashuan Seow Assistant Instructor: TBA

Unit III Clinical Application of Rolfing Theory

April 7 –May 30 Instructor: Micheal Stanborough Assistant Instructor: TBA

BRAZIL

Phase I June 2-4 & 6-7, 2007

Phase II

July 21-23 & 25-26, 2007 Instructor: Liz Gaggini

SALVADOR - BAHIA

UNIT III

October 8th – December 13th, 2007 Instructors: Pedro Prado, Cornelia Rossi and Paula Mattoli

POUSADA FAZENDA MARISTELA – TREMEMBE – SÃO PAULO

Advanced Training Instructors: Hubert Godard and Pedro Prado February 11th – March 14th, 2008

ISLAND OF SANTA CATARINA

Rolfing® Movement Training

November 5-November 29, 2007 Instructors: Lael Katharine Keen and Kevin Frank

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