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In this issue of *Structural Integration: The Journal of the Rolf Institute*® we explore the topic of feet. I invited San Diego Rolfer™ Michael Boblett to be Guest Editor; he seemed the perfect person, having written about feet in previous issues. I'll let him first introduce the articles and interviews he so carefully shepherded, before returning to discuss the material in our Perspectives section.

From Michael Boblett, Guest Editor, "Considering the Feet":

We last had a Journal theme devoted to the feet in June 2011 (Vol. 39, No. 1), with some follow-up in the December 2011 issue (Vol. 39, No. 2). All of those articles still bear relevance – so I invite you to revisit them – yet there is more to be said. As feet and support in the field of gravity are particularly relevant in the field of Rolfin® Structural Integration (SI), we are now circling back to this topic.

We start with two Rolfin 'lineage holders', Mary Bond and Jan Sultan. Bond shares an excerpt from her forthcoming book, Your Body Mandala: Posture as a Path to Presence, and takes the reader from a mechanistic view of the foot to an understanding based on the flow of information back and forth between feet and the rest of the body. My interview with Sultan is a free-range romp through many aspects of the foot – from the role of the 'eye of the foot' in Chinese medicine to eccentric vs. concentric muscle movement in different approaches to exercise. Our dialogue was hardly linear, but the principle of holism in Rolfin SI informs us that a broad view is intrinsic to our work.

We then get down to practical tools and advice in articles by Beatriz Pacheco, Michael Boblett (yours truly), and Anne Hoff. In her essay "Maps of the Feet," Pacheco shares a new frontier – a tool she has developed for client education, engagement, and assessment. Adding in her professional knowledge as a speech therapist, she explores the effects of oral reflex functions, such as chewing and sucking, on clients' weight bearing through the feet and their perceptions of the same. I continue my earlier work with "The Three-Dimensional Foot, Part 3," focusing on practical exercises for all foot typologies, as well as larger questions of managing client expectations and client demographics. Hoff's "The Psychobiology of Feet – With Particular Attention to Childhood Issues" shows how traumas and medical interventions to feet and lower legs can greatly impact clients' embodiment as well as biomechanics.

The next two pieces focus on the natural state of our feet, and regaining that state through barefoot walking and minimalist shoes. My interview with Samuel Oltman, ND (of Northwest Foot and Ankle in Portland, Oregon) focused on foot 'rehab' from a lifetime of wearing shoes, ranging into proprioception, interoception, and a discussion of joint inflammation. Karin Edwards Wagner's article guides readers concerning shoes and minimalist footwear, providing a great resource for both practitioners and clients. This is not just a list of brand or style recommendations. It's a comprehensive guide to evaluating your shoes.

We close the theme with "The Three Dimensional Animal, Part 2," where I draw on my background in anthropology to go back to the roots of the anthropoid primate lineage to discuss the continuing balance between articulation and stability in the human foot.

Following this sprawling selection of articles, we have our Perspectives section, which is also wide-ranging. We start with two luminaries in our community. Michael Salvesson, another lineage holder, uses his article to explicate an important point: Rolfers love to learn other modalities (craniosacral work, nerve work, etc.), but it is important that we practice these within an over-arching methodology of Rolfin SI so as to not lose sight of our own uniqueness. We then have another one of our Advanced Faculty interviews, this time with Peter Schwind, a thought leader in the field of bodywork. In this interview we learn a whole lot more about Schwind, and particularly his important contributions in bridging between Rolfin SI and osteopathy.

Then we learn from Hiroyoshi Tahata about the unique Japanese concept of *ma* – which relates to both time and space, particularly emptiness in space and intervals in time. Tahata brings *ma* into the 'yielding' work he and fellow Rolf Movement® faculty member Carol Agneessens developed, again pioneering new territory and showing us how the subtlest aspects of our work can in and of themselves support phenomenal structural changes.

Next, Szaja Gottlieb interviews David Lesondak, author of *Fascia – What It Is and Why It Matters*. Gottlieb reviewed Lesondak's book for this issue, both lauding it for its exceptional and accessible roundup on the current state of fascia research and taking issue that Lesondak – perplexingly for an SI practitioner – seems to dispense with the idea of gravity, a hallmark of SI from its inception with Rolf. Their feisty dialogue looks at this point in great detail. Rounding out our Perspectives section, we have a tribute to Hadidjah Lamas, a very early student of Dr. Rolf.

We close the issue with two book reviews. The aforementioned review of *Fascia: What It Is and Why It Matters*, and a review of *Hands-on Parenting: A Practical Guide to Massage for Happier, Healthier, Smarter Kids*, Robert Toporek's legacy contribution on the importance of bodywork for the optimal structural (and broader) development of infants and children.

We hope you enjoy these many and varied contributions to our field.

Anne F. Hoff
Editor-in-Chief

Michael Boblett
Guest Editor

Ask the Faculty

About Feet

Q: Looking at our theme on the feet from the viewpoint of Rolfing® Structural Integration (SI), what can you share with us about any of these: 1) assessment (e.g., is there a foot typology or model you use in assessment?); 2) hands-on work (e.g., how much do you find that foot issues require foot work, versus tracking problems into the lower and upper leg and pelvis – and elsewhere?); 3) movement (e.g., what foot movement exercises do you like to teach your clients?); 4) psychobiological issues (e.g., the meaning of different morphologies and function to clients and the process of transformation).

A: For me, the foot is one of the very important places in the body to address. By function of its many small bones and joints, ligaments and muscles, both intrinsic and extrinsic, it can and does adapt to any imbalances in the body above it and irregularities in the ground below it. The 'principle of support' states that for the client to be able to reach a higher level of order in the body there must first be support for that higher level of order, and the feet are one of the big go-to places from which we can obtain that support.

When I look at feet I am very curious about the relationship of the arches of the feet. Well-functioning arches with a harmonious relationship to each other and the rest of the body are the basis for an alive and springy diaphragm system, for transmission of the impulse of the walk throughout the rest of the body and transmission of the weight of the body to the ground, and for a healthy spine. Here are some of the questions I ask myself when I look at the arches.

Longitudinal Arches

- Are the longitudinal arches dynamic, being able to lengthen and flatten and spring back throughout the cycle of movement of the foot?
- Is the medial arch well supported on the lateral arch and able to become soft and long at push-off and high and stable in the stance phase?
 - Does it show a preference for one phase more than the other? (i.e. high and fixed or low and flat?)
 - Does it collapse when the client goes into weight bearing or does a shallow knee bend?
- Is the lateral arch able to stay in contact with the ground through all phases of

the gait cycle (desirable), or does it get pulled up by a collapsing medial arch?

- Does the lateral arch have elasticity and the capacity to lengthen and spring back?

Transverse Arches

- What do you see in the midfoot (subtalar and mid-tarsal joints) when the client does a shallow knee bend or is in the stance phase of the gait cycle? A shallow knee bend gives you an idea of how the feet act when they are weight-bearing, with the advantage of happening a little more slowly so that you have time to see it.
 - Can the midfoot widen as the weight comes through it?
 - Does the midfoot maintain its stability or does the medial arch 'fall' off the lateral arch?
 - Does the midfoot have flexibility or is it rigid with no give?
- What do you see in the metatarsal arch?
 - Is it able to maintain its arch-like structure or does it collapse? Does it collapse medially? Does it collapse in the middle?
 - Do you see a bunion joint? (Bunion joints emerge when the healthy relationships of the transverse arches break down, both at Chopart's joint and in the metatarsal arch.)

When I work with the feet, I think both in terms of coordinative techniques and tissue techniques.

If the foot tends towards being a high, fixated structure, I will do mobilization work with the joints of the foot; help to soften the plantar fascia, retinacula, and interosseous membrane; and work with

the client in terms of feeling how the foot can yield to the floor and to the weight that comes through from above.

If the foot tends towards valgus and the medial and transverse arches tend to collapse, I will work to help organize the plantar fascia (since the pattern of collapse will be present there); work with the interosseous membrane to help get differentiation and aliveness in the long muscles that have their superior insertions in the interosseous membrane and on the tibia and fibula; and I will do a lot of work with coordination.

When the transverse metatarsal arch collapses, a large part of the work of restoring it is perceptive and coordinative (functional).

[In my article "The Arches of the Feet in Standing and Walking, Part 1," published in the June 2011 (Vol. 39, No. 1) edition of this journal, I give instructions for three different coordinative interventions for clients who have a tendency to collapse in the arches of the feet.]

As with anywhere in the body, feet are never just feet – they are part of a global relationship that must always be taken into consideration, be it in the alignment of the major joints of the leg, the spine, up into the head and eyes, or down into the arms. And since body/mind/psyche/spirit is an inseparable unit, the psychobiological aspect will always be present in working with the feet, or anywhere else in the body. Although generalizations are invariably too limited to encompass the mystery that is a human being, often what we find in the feet has something to do with the way we relate to issues of support and grounding. The feet are also highly responsive to compensations coming from the upper body (descending issues) where we make adaptations having to do with our relationship to other people and to our environment.

In short, the feet are adaptable and responsive structures that have a potent effect on the rest of the body and are always worth the time and effort of further study.

Lael Katharine Keen
Basic & Advanced Rolfing Instructor
Rolf Movement® Instructor

A: Over the years I have seen patterns repeat themselves in our structures that led me to create my workshop on Structural Aging. The feet were a crucial part of this.

I remember a quote from Ida Rolf about how the feet should feel like a bag of bones or a bag of marbles. Many clients walk as if their feet are blocks of cement, and this translates into a shuffle, a loss of ankle movement that transmits as a loss of full range of hip movement and onward up the body.

Feet should be 'juicy paws' that sense the earth and our place on it no matter the terrain. So yes, I assess the 'juiciness' of the foot. Can I literally wring it out and feel the bones, the tarsals, the metatarsals, and the calcaneus, move in various directions? Can the navicular and the cuboid move and translate the foot into pronation and supination in order to respond to uneven terrain? Can each joint of the toes flex and extend to use the full range of the toe hinge? Without the toe hinge, full leg extension is going to be near impossible, thus locking up the anterior/posterior tilting of the pelvis.

Another Rolf quote is "the foot is in the lower leg and vice versa." However, unless we can get the foot to rock and roll through all its bones, ligaments, and joints, the lower leg, the interosseous membrane, and the fibula can't translate the spiraling movement we need up to the inner and outer hip joint.

Ida's "toes up, ankle up, knee up" is still the best movement and tracking exercise we can teach our clients. From the very beginning, I like to teach clients the awareness that feet, knees, and ankles need to talk to each other. I also like teaching abduction of the big toe to help resolve bunions. (A tango-dancer client showed me how she cured her bunion by constantly abducting her big toe.) Also, it seems many people don't let the big toe land as they walk and push off. I call this "let the nose of the plane land." This translates into opening the front of the pelvis, getting a longer stride, and creating the necessary spiral for the spinal rotations we need. Fluid youthful movement starts or ends in the feet.

With all the padded and athletic performance shoes on the market, many people have lost their sensing of the earth below us. I always mention support to clients as a big psychobiological issue – What is the support in their bodies? What supports their life? Can they 'let down' for support? But mostly I find that with juicy paws the entire body takes on a new youthful feel and walk that transforms the whole structure.

Valerie Berg
Rolfing Instructor

A: My answer to this question is a look at sprained ankles and the possible implications for the structural organization of the lower limb. Trauma in the ankle – in most cases, a sprain is in the area of the lateral ligaments – very often goes along with instability of the joint, particularly if there are multiple traumas. This manifests in physical instability, and/or in a subjective feeling of insecurity. Both lead to a kind of specific compensation pattern, as follows.

- The weight of the body tends to be distributed into the lateral arch, which increases the possibility of repetitive trauma and ongoing destabilization of the lateral ligament and retinacula.
- The medial arch is inactive regarding weightbearing and push off. The weight 'remains' on the lateral side of the foot.
- Over time, this mechanism can lead into arthrosis of the ankle joint, knee, and/or hip.

Some observations are that the instability of the ankle joint seems to be accompanied by a structural limitation of flexibility and adaptability 1) in the tarsus itself, 2) in the transition from tarsus to metatarsus and, 3) in the relationship of the metatarsals. In detail, from heel strike to push off, proper transition of forces through the tarsus towards the medial arch requires a certain flexibility regarding tibial-talar glide and a balanced relationship of the navicular and cuboid bones. Limited flexibility of the tarsus can disturb the navicular-cuboid balance and is the first step for the lateralization of weight. Subsequently, the balance of the cuneiforms and the metatarsals can be disturbed as described above. As already mentioned, limited tibial-talar glide accompanied by limited dorsiflexion can be part of what 'forces' the foot into its lateral components.

The cause of limited dorsiflexion very often is based in 'cranialization' of the fibula. Let me explain what I mean by this. The fibula is like a 'connecting rod', meaning that it moves caudally in dorsiflexion of the foot and cranially in plantar flexion. Particularly when the fibula is pulled cranially by high tonus of the biceps femoris, the lateral ligament is elongated and limits dorsiflexion. I assume that it's not just limited due to mechanical restrictions, but also to proprioceptive ones.

Now let's look at my suggestions for work and the implications at different levels.

First, the **physical structure**. For the proper transition of forces through all participating parts of the foot and lower leg, we need to carefully analyze how the individual parts are working together and allow a safe transition from heel strike to weight bearing to push-off phase. In my clinical experience with clients with traumatized ankles and ligamentous instability (mainly lateral), I often observe restrictions of flexibility and adaptability in the tarsus-metatarsus relationship, which I would interpret as a compensation for instability in the ankle joint.

Hands-on work to mobilize this relationship involves opening the fascial beds of all participating bones and joints, particularly the tarsus and the five metatarsals. This opens space for ankle pronation and reestablishes the appropriate participation of fibular muscles and a balanced and differentiated relationship of agonists and antagonists for pronation-supination.

Change in the physical structure has implications for **coordinative structure** – coordination and balance in walking and a regulatory effect on the tonicity of the whole lower leg. The work I have described leads to a 'medialization' of force distribution and very often – in my observations with clients – proper inward rotation and extension in the hip. This is reflected in improved push-off and balanced support of the whole foot. There is also an effect on **perception** – clients report improved resiliency in their daily activities and security and support from below – and a **psychobiological impact** as feelings like insecurity or fear of repeated trauma are reduced and the joint feels increasingly reliable.

Jörg Ahrend-Löns
Rolfing Instructor

A: I'd like to offer a perspective on the foot from the viewpoint of yielding¹ work, using a case study. A person may lose trust in his or her sense of ground through the feet – for example through an injury, such as stepping on a nail, or through experiencing a big earthquake. In such cases, the person's body may not allow yielding through the foot into the ground, even when the scar tissue is completely healed or when there is no more shaking, because the foot or feet may still feel that the ground or a downward orientation is insecure. This might decrease the capacity of support – one of the Rolfing principles of intervention – even if there is no structural problem.

My case study is a typical one about a problem of the foot's 'perception' in relation to the ground. In this case, a male client undergoing a five-session series of Rolf Movement work stepped on a nail with his left foot after his fourth session, so he favored that foot over the other for a while. As he over time began to notice tension in his right hamstrings while walking, he came back in six months later for a follow-up session. Remembering the nail incident, I felt that we had to enhance his capacity to yield to the ground through the left foot.

Further, he told me of another factor that may be related – that in childhood he had suffered from asthma and was in and out of the hospital. While we don't know if it was the case with this individual, sometimes in the medical treatment of babies and infants, blood samples are taken from the bottom of the foot around the calcaneal arterial network (CAN) and plantar venous network (PVN), meaning that the area (see Figure 1) could have been subject to needling. (This was the case for my friend's son when he was in an intensive care unit being treated for heart disease.) My speculation is that such medical intervention to the foot at an early developmental stage could impact not only the local area, but the whole body.

I could have tried to release the client's right hamstrings in a direct intervention, but I judged that it would have only a temporary effect. As the nail injury seemed to be the causal restriction, my assessment was that the left foot needed more support. I thus decided to use a 'yielding' approach, also incorporating 'ma'. (I will discuss this

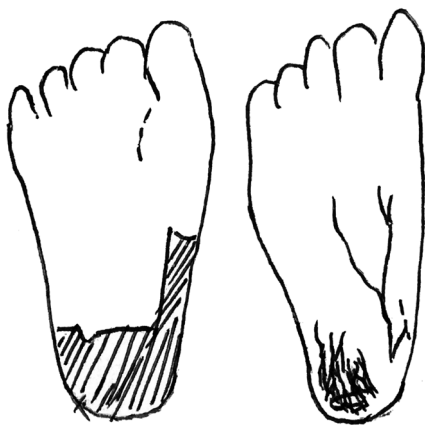


Figure 1: Target area for needling for blood draws in infants on the plantar surface of the foot (shaded area in drawing on left) and related vascularization (drawing on right).

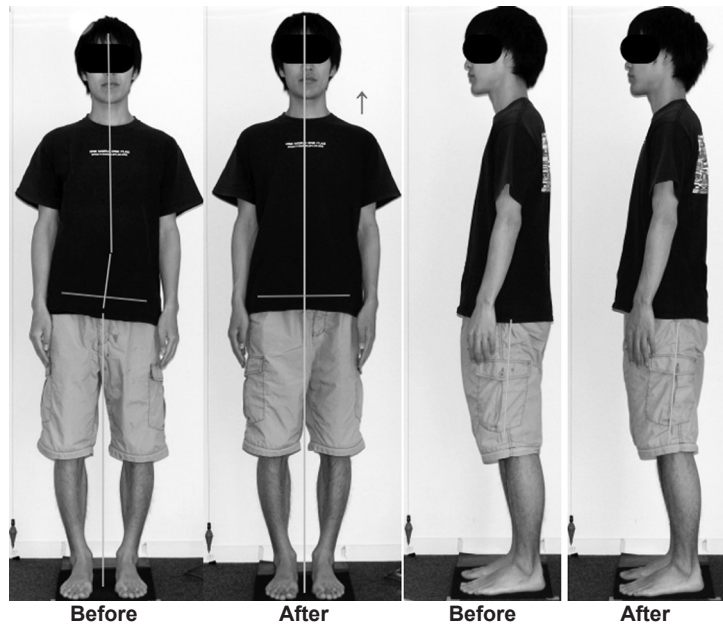


Figure 2: Client after one session of yield work, primarily to the left foot, with some integrating work to the right. Working with the foot can affect the whole structure.

method further below.) I focused on the left foot – the area that had been punctured by the nail, and around the calcaneus for the possible needling in childhood. I then worked with the right foot briefly for integration. My hypothesis was that the foot would derive more capacity to yield to the 'scaffoldings', and then recognize the ground as a safe matrix, allowing the body's system to settle. Although the process sounds rather simple, the results can be profound: as seen in Figure 2, working with yield through the foot created more balance side to side for my client, and his body also organized around the midline. Further, he reported that he felt safe and had no tension in his right hamstrings.

I will now describe the yielding intervention that I used, which draws on a refinement to that technique that is based in the Japanese concept of *ma*. *Ma* relates to space and time, and particularly to negative space and to intervals. When I talk about 'good *ma*', you could in some sense draw a comparison to 'good feng shui'. (The concept of *ma* and its application in Rolfing SI is discussed in my article "Working with *Ma*" on page 44. There you will find greater discussion of terms used in yielding such as 'conditioning', 'scaffolding', and 'comfort' or 'good *ma*'.)

While my client had a particular injury to his foot, I believe that working with the sole of the foot in this application of yielding could also be generally effective to enhance support, which for some clients might allow

the body to let go of compensatory holding in the upper body. Thus, I will discuss this intervention in general terms, so that you can apply it with your own clients. The work is done with the client supine on the table.

- After conditioning (the settling process of yielding), wait until the client's body invites you with a sense of 'comfort' ('good *ma*').
- Ask the client to draw his/her knees up, and place a sheet of slip-resistant material such as Dycem^{®2} underneath the feet.
- Provide touch as 'anchorage' underneath the foot.
 - The foot will start yielding into your hand.
 - You may observe decompression of the hip joint.
- Consider the overall quality of yielding to the ground through the whole sole.
- Ask the client to find the optimal placement for his feet, to have a sense of ground. (The joint decompression and core expansion that tends to come with the yielding process means that the client can find a new, more stable, relationship to the ground. With the client supine on the table with knees up, it is usually a wider and more matched stance of the feet into the Dycem sheet. Although this is a very simple intervention, it sometimes has dramatic effects.)

Notes

1. For more on yielding, see the following articles, both in *Structural Integration: The Journal of the Rolf Institute*®: “Yielding” by H. Tahata and C. Agneessens, June 2012 [40(1):10-16]; “Rolf Movement® Faculty Perspectives: The Art of Yield – An Interview with Hiroyoshi Tahata” by K. McConnell and H. Tahata, November 2015 [43(3):3-4]

2. More on Dycem nonslip material: I want to thank Jonathan Martin, who introduced this material in his Neural Mobilization class in Japan. Used in yielding, it is quite a useful tool for the client to feel safe as its tacky surface provides traction under the feet that prevents any sense of slippage. After decompressing joints, the body needs safe scaffolding to find a new relationship with the ground and how to stand. Putting a Dycem sheet underneath the feet may also stimulate blood vessels around the plantar area through tactile contact with the tacky surface. I find this particularly powerful working with clients who experienced the earthquake in Fukushima, and always use this material in my workshops there. It seems that, with the Dycem ‘ground’, people regain a sense of stability in nature. You can order Dycem nonslip material on Amazon by searching for “Dycem.” It comes in rolls that can be cut into sheets of the desired size, as well as in mats and other forms. When the material loses its tacky quality, rinse it in soapy water, allow it to air dry, and reuse.

Hiroyoshi Tahata
Rolf Movement Instructor

A: The multiple levels of the question reflect the richness of both Rolfing SI and Rolf Movement Integration as well as the feet. Many of us have had the opportunity to reflect on the mechanical relationships of the feet and lower legs via the question from our current curriculum about the feet and the structures that support the various arches (this was formerly part of the written questions required for enrollment in Unit 2 of the Rolfing training). From that exploration of the basic anatomy, we begin to explore relationships in the lower leg and beyond.

In my Rolf Movement training, I was encouraged to consider the reflection of the movement through the arches and the pelvic floor (and vice versa). I find both of these helpful in beginning to expand my way of thinking about the feet. When I

begin to include a perceptual/coordination model of working with the feet, my way of considering their importance to the human system in gravity develops yet further, bringing the foot firmly into the orientating mechanism of the person, not just a base on which the rest of the structure is placed.

A good example of this occurred in my office recently. I’ll report the session as a case study of what can happen when we approach the feet from a place of radical inclusion of the whole system, rather than a limited construct of anatomy or a model of the body, one in which the power of Rolfing SI and Rolf Movement can show up.

I was working with a young woman who experiences depression and anxiety. She is very active in her body, in theater and dance, and also on a moment-to-moment basis. As we talked, she continually shifted her thoracic spine, shoulders and arms, looking for a way to find support and ease. She found lying on the table – and even sitting – made her feel “vulnerable” across the top of her thighs, her pelvis, and her belly. We worked to find a way for her to feel safe by using a stuffed animal to cover her inguinal area and keeping at least one foot in contact with the table while she was supine. Working very slowly, within her capacity to adapt to the hands on-work by continually orienting visually, through her feet, and through the safe contact with her pelvis, she was able to notice some length through her low back, pelvis, and leg. Along the way, she experienced sadness as well as a series of memories about her feet, including some lovely ones about having her feet in contact with various surfaces (the earth, her mother) that she found pleasing. We included those memories to help anchor her as the uncomfortable feelings of vulnerability and sadness passed through her. I worked with traditional, ‘grippy’ contact in the structures of her feet and lower legs only.

We then moved to sitting. The only input I gave her was to notice the texture of the mat under her feet. From that, she was spontaneously able to organize herself in a new way. She found that by using her feet to explore the floor, she was able to actively use her legs to support herself and found that not only was she more comfortable, not needing to constantly shift, looking for support for her thoracic area and should girdle and arms, but that she also felt she was “not trapped,” and had “choices” about where she was and what she could do. She found that in walking,

the notion of the “center of her foot” being the place from which her core ignited left her feeling delighted and energized. She left her session with a huge smile, and at least something of that uniform brilliance we look for in the tenth hour of the Ten Series.

I made a number of choices in this session to restrain my physical contact to her feet and lower legs, but also to include her whole being – the rest of her physical structure, emotional range, perceptual and coordinative structures – in the session. What happened, by honoring the meta principle of holism, is that she found a new relationship with gravity as well as with herself. This, I think, is a way to potentiate my understanding of the anatomical relationships into a transformative session.

Duffy Allen
Rolfing Instructor

A: Feet: our ‘bipedal’ paws, transporting earthlings over and through the surfaces and spaces of our lives. Feet are shaped by the shoes and paths we tread in and upon as well as the attention and care we give them. In my ‘auditing’ phase of Rolfing training, *Jim Asher spoke of feet as a reflection of the aging process.* I remember the elegant stride of my grandfather slowly devolving into a slow shuffle.

Feet: a complex relationship of bones, ligaments, joint functions, and essential articulations. Anatomically the toe hinge, lisfranc (the joint at which the metatarsal bones/cuneiform bones connect), and ankle joint are necessary participants in cultivating the movement from foot to knee, femur through hip joint, sacroiliac joint, pelvis, with the essential transmission via the push-off carried by the psoas and lift through to the heart/ thorax. Without good articulation of these joints, the transmission needed for contralateral flow is unlikely to occur naturally.

Guiding a client into his/her feet during manipulative work

When the client is supine, try these cues:

- -“Breathe into your legs /feet as if they are lungs.”
- -“Flex your feet toward your nose – lengthening through the underside of your foot and toes.”
- -“Sense the back of your legs. Allow your heel to drop into the table, lengthen through the back of your knee and through the heel.”

Or, supine with knees bent, feet flat on the table, have the client press into his/her feet, especially through the big toe engaging pelvic floor. As you work, keep in mind the image of a fan. The plantar fascia of the foot spreads like a fan and imitates the 'double fanning' of the pelvic floor on either side of the perineum.

Engaging the feet in back work

As the practitioner, sense the client's connection through to his/her feet. Have the client imprint / press his/her feet into the floor.

- You may sense the client 'present' in one heel and the ball of the opposite foot. Have the client press into the 'missing' heel or ball area. Sense this connection through his/her legs into the low back.
- Have the client press into the balls of his/her feet. What sensation is there? I link this connection to feet with patterns in the client's driving.

From sitting to standing

Have the client place one foot in front of the other, lean forward from the hip joints and *press* (not push) his/her feet into the floor as he/she rises. This is simple to teach clients, and then we practice and it gets carried through to their everyday life. Usually the response is "I haven't been using my feet and legs." This little exercise gets reinforced with each session.

Feet and self-image

Many women prize small feet. I look for the relation between their height and the size/support coming from below – their feet. Sometimes the shoes a person wears speak to a desire to appear taller or feel sexier or more fashionable. When I see the work that the session has gained backslide due to the choice of footwear, it becomes a teaching moment keyed to the client's sensation and connection to her feet, stride, and sense of ground. And I invite a curiosity to her experience, breath, connection to ground, etc. when in her shoes. And then I let it go.

Carol A. Agneessens
Rolfing Instructor
Rolf Movement Instructor

Rolf Movement® Faculty Perspectives

The Feet – Learning and Landing

By Rebecca Carli-Mills, Certified Advanced Rolfer™, Rolf Movement Instructor

In 1980, foot, ankle, and lower-leg issues brought me to a Rolfer's office. A week before, an orthopedist told me that I would have to stop doing what I loved, dancing, if I wanted to live without pain. My first Ten Series enabled a brighter future, and I have been interested in healthy lower-limb function ever since. Throughout my years in private practice, I have benefitted from study with a wide variety of wonderful teachers, authors, and colleagues and my lower-limb function has continued to evolve and actually improve. I remember when Hubert Godard said that often we begin to age by losing proprioception through our feet and ankles. By offering our clients an alternative path to this common progression of aging, we can contribute greatly to the quality of their life experience.

Lines of Inquiry

There are many key lower-limb relationships that are essential to understand in order to facilitate ease in human uprightness and locomotion; the following list is very brief, but includes some of my current favorite topics for research and exploration:

- The role of the soleus muscle in postural equilibrium and metabolic rate.
- The importance of the ability to find the center of mass/gravity (G) directly over the transverse tarsal (Chopart) joint.
- The synergy of the Chopart and subtalar joints to facilitate elastic foot motion and resilient adaptation to varied terrain.
- The efficacy of the proximal and distal first and second metatarsophalangeal (MTP) joints in the propulsive phase of gait and in support of hip extension and fluidity in G' (the upper gravity center).
- The abundance of proprioceptors in the feet and ankles.

For all of these relationships, there are many manual techniques for restoring motion and movement exercises to re-pattern coordination. Thus, it is important to develop an ample repertoire to address

the wide variety of people with issues that walk into our offices. When any of these relationships are missing, dysfunctional, or restricted, motion or stability must be restored for optimal function, or an alternative solution found. For example, in the case of hallux limitus, whereby there is restricted movement available to the first MTP joint, a rocker type of soled shoe may be helpful in providing hip extension and fluidity in G'. But there isn't one ideal that we can apply to everyone. For example, some people are well suited to 'barefoot' or five-finger shoes, while others are not, perhaps for physical reasons or because their worldview doesn't allow them to be comfortable with this footwear.

However, no matter which techniques you employ or what footwear you recommend, my sense is that what underlies success for clients in sustaining the changes and achieving lasting corrections is reawakening their capacity for sensing and relating to the ground through their feet and ankles. This needs to be a primary embodiment goal. To live in one's feet and ankles and value them as primary conduits of connection to the earth makes our work more potent, lasting, and transformative. Having a felt sensory experience such that we can relate to and resource the ground allows us to be more adaptable and orientated; stress becomes less debilitating because we have an avenue for support and action. Our ongoing capacity for proprioception in our feet and ankles directly relates to our ease in uprightness and locomotion.

Arriving in Our Feet

How do we help our clients cultivate their ability to move into their feet – arriving, yielding, connecting, being responsive to the ground, transmitting energy and propelling them through space with ease? How do we facilitate an experience that allows for a perceptual, psychobiological shift in meeting and receiving the ground? How do we cultivate a body image that doesn't stop somewhere above the ground, but includes our relationship with the ground, so that gravity truly becomes the therapist?

As Rolfers, we need to consider our clients' relationship with the ground in our body reading or movement analysis. When they stand, do they allow the ground to support them or do they brace elsewhere? Do their feet understand that their primary role is to meet and relate to the ground? What is the quality of the footstep – does it slap the ground – barely disturb it – rush past it? Use your imagination: if you were the ground, how would it feel to have this person walk across you? Would you feel welcomed and included? Perhaps these questions sound ridiculous, but I encourage you to give them a try. By allowing ourselves to ask these types of questions, along with all the technical and biomechanical ones, we may avail ourselves of information that shapes our interactions with clients in new ways, offering depth and potency.

An important place to start is with landing; we need to arrive – actually land during the landing phase of gait so that our joints can unlock and our proprioceptors can awaken and send signals to our brain about necessary adjustments relevant to the terrain.

Somatic Exercise

One of my favorite experiences for the landing phase of gait follows, but first a note on the 'equipment' used. Many clients have been taught to roll around on a tennis or lacrosse ball; some do this mindlessly while watching TV or keep one under their desk. Some have been instructed to press hard, use a lacrosse ball, and "work those tight spots out." These approaches will do nothing toward cultivating a felt sense of feet or renewing one's relationship with the ground. As an alternative, I recommend the Franklin Textured Ball™ (see <http://bit.ly/2FgFwGA>) – the green faceted balls designed by Eric Franklin. (Certainly, there are other options; the criteria is that the object needs to provide some reciprocity in give, have textural interest, and not create discomfort.)

Try this somatic exercise for yourself, or use these instructions to guide a client.

Stand barefoot with one hand lightly holding onto a dresser or something at about waist level for balance. In the beginning, doing this without holding on makes it less effective. It is not intended to be a balance challenge; it is about going deeper into sensation to awaken proprioception.

Stand with feet hip-joint distance apart, and start by guiding awareness to register the

sensation of your feet on ground as a baseline: notice what parts of the foot meet the ground, perhaps there are images that come to mind to capture felt experience. Place one foot on the ball with knee bent and keep the other leg with a straight knee and foot on the ground.

Begin with the ball underneath the Chopart joint, slightly anterior to the talus; find a spot between the navicular and cuboid where the ball seems to 'fit'. Both your heel and forefoot will be off the floor. Steadily increase pressure on the ball until your knee is straight and that side of the body is entirely supported by the ball. The Franklin ball will give, as you see in Figure 1, yet stay sensually interesting because of the facets. You may find yourself progressively shifting more of your weight to the ball side, which is fine. Images are useful, such as: warm melting through the ball, curiosity about the ground underneath the ball, releasing into the ball, or sensing the ball touching you as you touch it. There is very little visible movement – this is a continual state of melting.

To receive full benefit throughout the body, keep your body upright with head aligned, gaze



Figure 1: Somatic exercise using the Franklin Textured Ball.

even and soft. Stay for about thirty to sixty seconds. Notice potential shifts in breathing, diaphragm, jaw, and eyes. Make sure you are not blocking the effects by holding the pelvic floor or shoulder girdle. This should not be painful. If it is, perhaps more cushioning is needed in the beginning.

Create increased interest by inquiring about the felt sense of the temperature, shape, and texture of the experience. After thirty to sixty seconds, you can slowly twist a bit to slightly pronate, supinate, evert, and invert the foot on the ball. However, these movements are done with continuous foot melting in relationship to the ball, they are not biomechanical movements that happen above the ball. Spend some time with each movement to notice the effects. This will cultivate the foot's natural pronation/supination action and transition across the

transverse arch, which is necessary for effective propulsion in gait.

Slowly release from the ball and stand with both feet on the ground – note awareness of sensation and differences. We learn by engagement with experience, which includes comparison; what does this sensation teach you about where your foot started?

You may move the ball to another spot, perhaps towards the lateral arch if the foot is locked in supination and you want to encourage more awareness of the lateral arch. Or in the case of hammertoes, this exercise can be done with the forefoot melting into the ball, phalanges reaching toward ground in plantar flexion; use the opposite foot on top as gentle pressure to increase the tissue adaptability of the extensor tendons. Keep the foot weighted into the ball throughout. If one has diminished or collapsed arches, this promotes resiliency by awakening proprioception and increasing sensory awareness; the small twisting actions are especially beneficial in these cases. Think of enhancing function through learning and awareness. There are no rules, except that this is not a mindless rolling experience or a quick fix. This is an awareness experience with specific parameters to speak to one's ongoing sense of weight connecting to the ground.

Try (or with a client, guide) walking after completing one foot to notice differences. However if a person's sacrum alignment is vulnerable, I recommend completing both sides prior to walking.

If you try walking, notice the beneficial effect of this landing exercise on the propulsion phase of gait through the action across the transverse arch along the axis of the first and second rays.

I encourage you to be creative with this exercise once you embody and understand the intention behind it. You can give it as client homework, use aspects in table work and tracking, teach it during a movement group, and, of course, use it for self-care.

Rebecca Carli-Mills holds BA and MFA degrees in dance. She earned certification in Rolf Movement Integration in 1987, became a Certified Rolfer in 1989, and a Certified Advanced Rolfer in 1992. Rebecca graduated from the Pennsylvania Gestalt Center and joined the Rolf Movement faculty of the Rolf Institute® in 1994. Rebecca's understanding of gravity and human movement potential has been enriched by her studies with Hubert Godard. Additionally, she draws from her interest in the work of Laban/ Bartineff, Sensory Awareness, qi gong, and yoga. Rebecca has a full-time Rolfer® Structural Integration and Rolf Movement practice in Chevy Chase, Maryland.

Sentient Foundations

By Mary Bond, Certified Advanced Rolfer™, Rolf Movement® Instructor Emeritus

Editor's Note: What follows are introductory passages from Chapter Eight of Mary Bond's new book, Your Body Mandala: Posture as a Path to Presence (Mill City Press). The book will be available in July on Amazon and through Bond's website, healyourposture.com. At the point in the book that this chapter appears, themes of fascial connectivity and intelligence, biotensegrity, and interoception have already been introduced. Online audio and video files link the reader to Mary's recorded presentations of the somatic meditations. The book is intended more for the general public than for professionals, yet the rich somatic exercises will benefit any of us as well as our clients.

*They paved paradise
And put up a parking lot.*

Joni Mitchell

What Is a Foot?

It's a common assumption that the foot is poorly designed – that it's too rigid and too delicate to form the human body's foundation. This seems to be born out by the statistic that 75% of people in the US have foot pain at some time in their lives (The New York Times Health Guide). But it's the mechanical view of body structure that relegates feet to the bottom of the block pile. The conception of the body as a biotensegrity requires that we also adjust our assumptions about our feet. This will also change our understanding of foot problems.

When you've been standing on them all day long, it can be all too evident that your feet are structural support elements. But they are not platforms propping up a stack of blocks. Inherent in, and crucial to your tensional integrity, they communicate with your entire structure as you walk and move. Underactive, toneless feet put a drag on the whole tensegrity structure; rigid feet keep it strung too tightly.

Poorly supportive feet aren't necessarily sore feet, however. Because your fascial network is adaptive, poor foot support can be expressed in other areas of the body. Tight shoulders, for example, can be a way of lifting the body up from feet that don't provide a good foundation. Imbalance and pain in the neck can result from an imbalanced or non-resilient foot. Conversely, mobility and resilience in the feet contribute to body-wide fascial balance, and to the ease and freedom of everything above them.

In addition to their supportive role, feet are complex *sense organs*. There are 200,000 nerve endings in the soles of your feet. That means that your body is equipped to receive a great deal of information through your

relationship to the ground. In your brain, the sensory representation of your feet is almost as great as that of your hands, lips, and genitals. Feet can gauge terrain for secure purchase, respond to thorns and pebbles with tiny adjustments to balance, and gather other sensory information that we wearers of shoes can hardly imagine. Eons ago a bare foot meeting the earth might read the morning news through touch, literally sensing the activities of other creatures in the neighborhood.

There are twenty-six bones in each foot (see Figure 1), each tiny bone suspended in a thin layer of gel-like fascia. Interstices between the bones make up thirty-three joints – in each foot. More than a hundred muscles, tendons, and ligaments give these joints potential to move. The sole of the foot is cushioned with a fat-infused fascial layer, the so-called 'fat pad' that helps dampen both vertical impact and lateral pressures on the sole of the foot. The complexity of the foot's design suggests that it should be able to conform to the contours and textures of varied terrains.

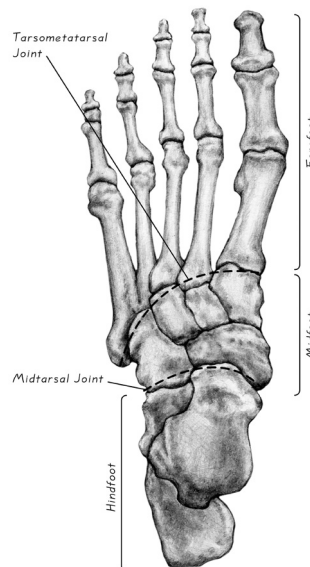


Figure 1: The bones of the foot.

With each step your foot's adaptation to the ground is transmitted upward through the fascia of the leg into the pelvis and lower back. This means there's a direct relationship between movements your feet make and the mobility of your body as a whole. Each foot is a complex tensegrity structure in and of itself, as well as being integral to the tensegrity of the body above. If the foot is too lax or too stiff, then tensegrity is cut off at the ankles.

Because biologic structure is dynamic – not a stacking of objects, but a constantly morphing interplay of tensional relationships – it's only logical that structural foundations must also be dynamic.

Ancestral Feet

For nearly six million years human feet walked through grassy meadows, across pine-needle forest floors, and over volcanic rock. But, for the last several millennia, our feet have been shod, encased in what my colleague, Dr. Phillip Beach (2010, 3), calls "sensory deprivation chambers." Further, thanks to the industrial revolution and the automobile, feet have been further desensitized by the convenience of walking on hard, flat, unvarying surfaces. Rarely do modern feet have opportunity to express their innate potential for mobility and sensory intelligence.

Sensitivity Training for Your Feet

The adaptability of your structure as a whole is married to the adaptability of your feet. Given the intercommunicative nature of your fascial system, heightening awareness in your feet will beneficially affect the tone and function of your entire body. Indeed, finding your footing – *embodying* your footing – is essential to maintaining healthy posture and movement.

Practices in this chapter help you sense the profound relationship between your feet and the rest of your body. You begin by using the sensitivity of your hands to remind your feet how much they, too, can feel.

Interoceptive Hands Meditation

Standing comfortably, bring your palms together at waist level, thumbs and fingers pointing away from your body (Figure 2). Without pressing hard, make complete contact between the entire skin surface of your fingers and palms. Your eyes may be closed, or open with a soft focus. As you become aware of the ebb and flow of your breathing throughout your body,



Figure 2: Position of hands for Interceptive Hands Meditation.

you can begin to imagine your bones gliding in their bed of fascia. They float inside your body, and yet they have weight. Sense the weight of your pelvic bones, your shins, and the weight of the knobs on both sides of each ankle. These are your malleoli – feel how heavy they are. Feel the broad footprints your feet are making on the floor.

Feel your rib cage as it widens and settles with your breathing. Feel the weight of your shoulder blades and let them slide down along your back. Become aware of the aliveness of your hands.

Now, appreciate the obvious – that your right hand is touching the left, and that your left hand is receiving sensation from the right. You feel this as a flow of sensation rather than as muscular activity. Consider whether the direction of that sensory flow from right to left feels familiar.

Now reverse the flow. Become aware that your left hand can give sensation to the right, and that your right hand can be receptive. There's no muscular effort in your arms or shoulders because the tactile exchange takes place in your brain. But there's an expanding sensation in your left arm as your hands connect. Your right hand is open and relaxed as it receives sensation. Observe whether the sensory flow from left to right feels familiar.

Focus on the communication of aliveness between your hands as they take turns giving and receiving sensation. Pause briefly each time you reverse the flow. As your hands trade roles, you may sense subtle changes elsewhere in your fascial body.

When you are ready, relax your hands at your sides, letting them remain present in the background of your awareness.

While offered as preparation for the foot practice that follows, you may want to take some time to integrate the *Interceptive Hands Meditation*. It's fine to postpone the foot meditation for another session. Take a walk. Appreciate the effect that sensory awakening of your hands has had on your posture, your coordination, and your point of view.

Interceptive Feet Meditation

Stand comfortably in bare feet. Remember your midline. Let your eyes have a soft focus.

With hands together, briefly refresh your sense of sensory communication between your hands.

Now, transfer the experience of your hands to the contact between your feet and the ground. Become aware of the way each foot touches the ground.

Let your feet feel generous—all toes present, arches present, heels present. As you inhale, your soles seem to spread into the ground as the rest of your body opens.

As you exhale, each foot senses the certainty of the ground, and simultaneously receives the weight of your body. Savor these impressions. Continue for several breathing cycles—touching and receiving with your feet.

From there, begin a gentle sideways sway. Let your midline drift an inch or two to the right. Your body's weight shifts into the outside edge of your right foot and the inside edge of your left foot. Feel the effects of this small movement in your legs, hips, pelvis, and spine. Go slowly to sense the details of the shifting fascial relationships.

Slowly reverse the motion, now settling your weight into the outer edge of your left foot, and inner edge of your right foot. Feel the response of your body as a whole. Perhaps you can feel the shifting tensions as far upward as your neck. Then bring yourself back to center.

When you walk around after this practice, you may notice that the ground seems to rise up to meet your feet. This can be the beginning of a new relationship between the presence of the ground and the capacity of your feet to receive that reality.

Restoring sensory awareness to your feet can be a challenging process. Modern feet are sensation-deprived because they walk entirely on flat surfaces, and because of the sensation-dulling effect of shoes.

When humans stopped walking on dirt, we stopped using our feet as sense organs. This seems to have changed the collective body image of our species—feet became less integral to the body as a whole.

The distinction between the perception that your feet are *on the floor* and the perception that your feet are *receiving the floor* may be elusive at first. If so, keep coming back to this meditation. If receiving support from the ground is to become felt experience rather than a concept, your brain has some changes to make. You may even be aware of a mild struggle in your brain, or moments of awkwardness when you move. Such moments indicate that your nervous system is trying to incorporate new sensations and movements. What your feet are learning challenges your brain's plasticity. Awkwardness can be a sign that your brain maps are being revised.

The new map takes time to develop. But you can practice at odd moments throughout the day – standing in a line, for example. And be sure to incorporate your newly receptive feet into your yoga practice or gym workout.

Minimal Shoes

I love wearing my “five finger” barefoot shoes (Figure 3) when I hike on local trails. The shoes' minimal foot beds let my feet respond to the varying surface of the path, and that invites the rest of my body to adapt and respond. My feet, legs, hips, and spine all feel in tune with one another. Of course, it helps that the tall pines urge my midline to join them in praise of the sky.

I love the feeling that each of my toes is independently awake. The shoes make my toe pads want to investigate the ground. When my toes press down onto the ground, activating the inner springs of my arches, I appreciate how delicious it feels to walk.

My friend, Harmony, wears her finger shoes every day and tells me how free it makes her feel. One morning I decide to wear the shoes on my neighborhood walk. Ouch! Going semi-barefoot on concrete feels nothing like walking on a trail. The concrete offers no ‘give’, and the impact of each step jars my lower spine. My feet are incredibly sore after only half an hour.

My experience differs from Harmony's because, being a millennial, she still has fat pads on her soles. Thanks to seventy years of living on concrete, mine have worn away. So, while there are benefits



Figure 3: "Five-finger" barefoot shoes.

to wearing minimal footgear, the benefits vary depending on the terrain in which they're worn, and on the adaptability of the feet wearing them. I wonder whether my 'Paleo' ancestors suffered from fat-pad atrophy. Since they lived only to about the age of thirty, probably not.

Aging Feet

Our ability to stand upright depends on a triune balancing system that involves our eyes, the vestibular system of the ears, and the sensory nerve endings in the soles of our feet and ankles.

Humans have become increasingly visually oriented since the development of printed language and reading, and most people unconsciously over-rely on vision to stay upright. At the same time our feet have lost both resilience and sensory capacity. The relationship between impressions coming from eyes and feet is skewed even in childhood. As we age, the triune balance system degrades further.

Poor balance is one of the reasons elderly people look and feel unstable. Their heads crane forward as they strain to hang onto the world with increasingly poor visual and auditory systems. Imagine walking around wearing blinders and a noise-cancelling headset: you'd need to rely more on your feet to find secure purchase on the ground. But what if your ankles are shaky and your feet are numb?

As we age – and you don't need to be old to be aging – we need to be as conscientious in our care of the feet as we are of our eyes and ears. We notice right away when our eyesight or hearing worsens. But because the feet are not understood to be sensory organs, their contribution to balance is ignored and their problems are addressed with mechanical solutions like orthotics and surgery.

The Digital Age is making many people increasingly reliant on vision, and urbanization has all but deafened our collective feet.

Your developing body consciousness is an investment in your future. How will you look and feel fifty years from now?

Seek Uneven Surfaces

The benefits of barefoot walking and running have been in the news since the 1990s when a study showed that barefoot athletes running on natural terrain had fewer running-related injuries than Western runners sporting high-tech footgear (Robbins and Hanna 1987). The sole of a bare foot responds protectively to small pebbles. This involves contraction of deep layers of foot muscles that feet in shoes don't have to make. Because layers of rubber in the shoes mask sensation and eliminate the protective behavior of the foot, the shod foot functions with less refinement. It was in the wake of these findings that shoe manufacturers began developing minimalist shoes to replicate the experience of bare feet. But even if your feet and whole body are well-toned, resilient, and adaptable, repeated impact of bare feet on pavement is likely to result in injury to feet, knees, hips, or spine.

How, then, can we re-mobilize our feet and restore their sensory intelligence? Because we've spread pavement over the world, there are no quick answers. Most of us can't relocate our busy lives to a rural setting. But we can seek as many opportunities as possible to walk on uneven ground. One study of people walking barefoot on cobblestones showed significant improvements to balance and mobility, as well as lower blood pressure (Oregon Research Institute 2005). Can it be that the perceptual experiences of your feet affect how you manage stress?

I try to give my feet as much variety of angles and textures as I can. During walks, I step on grass or pebbled surfaces in the strips between sidewalk and curb to offer my feet – and my body as a whole – the micromovements that help keep fascia healthy. I've put a pebble doormat at my kitchen sink and another at my standing desk. I fantasize about carpeting my kitchen with stones. Imagine toning your feet while you cook dinner.

Mary Bond trained with Dr. Ida P. Rolf in 1969. Formerly Chair of the Movement Faculty of the Rolf Institute® of Structural Integration, Mary teaches workshops tailored to the interests of Pilates, yoga, and fitness instructors, dancers, bodyworkers, and anyone afflicted with posture-related pain. She is the author of *Balancing Your Body*, *The New Rules of Posture*, and *Your Body Mandala*. She lives in California and blogs at healyourposture.com.

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In Memoriam

Structural Integration: The Journal of the Rolf Institute® notes the passing of the following member of our community:

Judith Roberts,
Certified Advanced Rolfer™,
Rolf Movement® Practitioner

Freewheelin' with Jan Sultan

The Feet and More

By Michael Boblett, Certified Advanced Rolfer™ and Jan Sultan, Advanced Rolfig® Instructor

Michael Boblett: Jan, I am interested in the human foot as a sense organ. Mary Bond writes about the foot as having almost as much sensory representation in the brain as the hand. The other day, I was talking to a naturopath at Northwest Foot and Ankle in Portland, Oregon. [Editor's note: see interview on page 29]. He talked about how you can literally train the sensory homunculus and make its map of the feet more defined. In my own stuff, I write about toes functioning more like antennae than biomechanical units. What are your thoughts about all of this?

Jan Sultan: Well, one of the things about that homunculus (the map of the distribution of motor and sensory areas in the brain) that I found fascinating was that the thumb has as much motor sensory dedicated hardware as the whole leg. That gave me a pause. Functionally, our perceptual thumb is huge relative to the foot. Having said that about proportion, it's safe to say that the brain also devotes a fair amount of perceptual function to "Where is my foot?" I'm very interested in the eye-foot, eye-hand connections, and the way that those flow together in coordination and gesture. A lot of what happens in the foot is actually unconscious or below the level of consciousness. It's in a motor part of the brain that doesn't normally come under direct control, unless there is an active learning process going on – like learning a new dance step. It can be trained but it doesn't 'think' while you're in motion. We don't control our feet once we are really dancing.

Imagine a soccer player running down the field and the ball is coming on a diagonal across his path. Watch the length of the stride. As the player gets closer to the ball, he starts shortening the stride and making small adjustment steps so that when he and ball are in the same space he can kick it into the goal, at a dead run. That whole calibration, at a dead run, and the ball moving at a diagonal trajectory, all happens in the motor cortex. It doesn't go up and figure itself out. When you say that the toes are antennae, I agree with you. But

there isn't necessarily 'someone reading the gauges.' It's all integrated. What I love is that while we can train motor activity until it's highly developed, once you put it in motion, you don't think about it. The skaters at the Olympics are a perfect example: what looks like perfect coordination is in fact an example of thousands of practice hours unfolding into fine performance.

MB: You talked about the thumb and the homunculus. What about the toe? What about the big toe?

JS: I know you have some ideas about the big toe, but I haven't thought about it discretely. The motor homunculus diagram I was looking at simply showed the thumb bigger than the leg, including the foot.

MB: Okay.

JS: Having said that, Dr. Rolf was more interested in the lateral arch than the medial. Dr. Rolf had an old anatomy book, *Plastische Anatomie*, from an anatomist named Mollier, illustrating the way that the two arches are structured. The medial arch is layered on the lateral arch, with the calcaneus being the common origin and the first and fifth metatarsals being the anterior projections of the arches. Moreover, there is a third arch that is the hollow sole of the foot, and it lays transverse to the two long arches. As I work with feet, I'm interested in getting that lateral arch into its correct relationship to the stuff around it. In one of Ron Murray's courses, he showed some excellent techniques for working with the relationship between the two longitudinal arches. Dr. Rolf would say that if you want to get around like the Greek messenger Mercury, with wings on your feet, get your lateral arches up.

MB: For a while my favorite muscle was the abductor digiti minimi because it falls asleep in a lot of people. How do you feel about that muscle and how do you work with that muscle to get the little toe to act like it's independent?

JS: Well, I don't think of it that way. I mean, truly, Michael, I'd have to open an anatomy book and make sure that I was

thinking the same thing that you're saying. I guess that means I don't give the little toe its anatomical credit. At one point, while thinking about the function of the little toe, I began to think of it as analogous to a cat's whiskers. When a cat is going to enter a space, the tension or the pressure of the whiskers tells the cat whether or not it can fit in the space. I think that the little toe tells us where our edge is. Where the little toe is, is the boundary of your space, in a way. If there were a drop off, your little toe would feel that there's nothing under it and that care is needed. I think the little toe guides the foot quite a bit.

MB: I like the idea of toes as whiskers, and the little toe is that outer whisker. What else can you say about perception and the foot?

JS: At one time in my life, I was involved in the shooting sports a lot. I took courses in pistol shooting for accuracy from an Olympic coach, and he pointed out that the handle of the gun has got to be long enough for the little finger to grip in order for you to shoot accurately. Stubby handled small guns like a Saturday Night Special are inherently inaccurate, because the shooter can't get his little finger around the handle. The little finger is the one that traps the barrel, in a sense, from the other end and really allows you to be accurate. That was the launch point for me to begin thinking about the little toe, and wondering . . . If the little finger is a guide for where you're pointing a gun, how does the little toe function in orienting the foot? – given that the link between the eye and hand, and foot and eye, are both profound in terms of how we occupy space.

MB: What you just said opened up for me the whole idea of the lateral line and how we orient in space. People in our culture orient primarily front and back (sagittal plane). I remember a guy who'd worked for American intelligence in the Middle East telling me that one of the dead ringers for figuring out that somebody is *not* from the Middle East – even though he dresses right, and talks right, and looks right – is if he walks without looking side to side. Americans tend to go from point A to point B, and we don't look from side to side. That's one of the reasons why Americans are so easy to pickpocket: we just don't have that 360° awareness. In contrast, he said, Middle Eastern people are always scanning, and for them to get from point A to point B may take quite a zigzag course.

JS: My very first thought is we spend a lot of time in automobiles, and our locomotion is very often moving fast: thirty-five miles an hour looking straight out through a windshield. Your peripheral vision may be operating but your head is not scanning. If you think about the Middle East, among many things, there aren't as many cars for the amount of people. If you're going anywhere, chances are you're either walking or riding a bus, rather than driving.

MB: I'm also thinking about the foot as a dome or a diaphragm. One of a series of domes or bowls up through the body – the pelvic bowl, the diaphragm, the roof of the mouth, and of course the 'eye of the foot'. I often feel like the 'eye' isn't dilating properly, or it's getting too narrow . . . Or it's opening up front and back, or side to side, but not in three dimensions. What do you think about that?

JS: First thought is that in Chinese medicine, that eye of the foot, the acupuncture point there, is called the 'bubbling well'. There's a recognition that that is the place where the body is actually taking earth energy from the ground up into the body. In that perspective, heaven and earth, above and below, form the energetic field that we are in, and as heaven descends and earth rises they mix in the body to form an alloy with your life force. Heaven and earth mix in the cauldron at the abdomen (the *dan tien*) and strengthen the ancestral energy called *jing*. Back to the bubbling well: each time you take a step you compress that point/region, and as you release it, it sucks up earth *qi*. It's very much an energy pump in the context of the Chinese medicine system.

MB: Wow. That's got my mind going a mile a minute, and you'll understand when you read my article on early primates. [Editor's note: see page 35.] I'm going back about 55 million years to when our little mammal primate ancestors were going out and saying, "Wow, it's safe to go out in the daytime. We don't need to be nocturnal anymore." The foot is something that grasps but also yields, that throws energy away, but also sucks it in. Can you say anything else about the foot from the Chinese medicine perspective?

JS: The leap I would make it that typically heaven descends through the ventral part of the body, into the legs and feet. You would rightfully assume that it would come down there, and then the earth energy comes up more dorsally, rising up the back of

the legs, entering at the pelvic floor, and flowing up both immediately in front of and immediately behind the spine. That rising earth energy coming up our dorsum, behind us, then goes extra-somatic into the space above us, meeting heaven. Heaven, meanwhile, is pouring down, coming down the front of our face and inside our skull, and the circuit closes where the tongue touches right behind the front teeth. If you want to bring heaven down, you put your tongue there and then that heaven *qi* comes down. Certain organs are nourished by the heaven side and others are nourished by the rising earth side. That's the 'microcosmic orbit' if you're just looking at the torso, or the 'macrocosmic orbit' if you're looking at the body inclusive of the legs in its immediate space or environment.

MB: Okay.

JS: Now, consider Western physiology, and we see that arterial blood is pumped out to the perimeter and the legs under the pressure of a flowing wave of a heartbeat. To return, it needs the squeezing of the leg muscles, and there are a set of one-way valves in the veins, so that as you walk, you squeeze blood up progressively and that pumps the blood back up across the pelvis. A certain amount of the return blood from the legs, which is oxygen-depleted, goes around the small intestine and becomes the portal circulation loop. Here is where the digested nutrients are picked up from the small intestine and taken to the liver. Hence, the great value of a walk after you eat as an aid to digestion.

MB: Something that fascinates me is that we primates and a few marsupials are the only mammals who have rediscovered how to see in color (something that was lost in the roughly 200-million year period when our mammal ancestors were nocturnal). The return of color vision coincided with mother nature putting out all this big fruit. You talked a little bit about the eye and the hand, and the eye and the foot. Say more about that.

JS: I had always assumed (without examining it) that color vision came with basic human hardware . . . Obviously certain fruits being brightly colored would be attractive to the eye, and a carnivore would not be looking for that as food, but perhaps as the location to find the prey that feeds on the fruit. If you extend the logic, birds can perceive color, or at least they have a version of it in the ability to perceive certain frequencies.

MB: Yeah, they never lost it. We got it back. Plus our stereoscopic focus is partly about jumping from tree to tree. The eyes moved to the front of the head and started backing each other up, kind of like a telescope or whatever, and we also rediscovered how to see in color. As I see it, the foot and the hand, as articulate structures, have a lot to do with living in a world in which we say, "Oh, that fruit is green. I'm not going to reach for that. That fruit is red, I'm going to grab a hold of that with my long fingers." But I'm also talking about the *foot* as grabbing and releasing objects and energy. I think of it biomechanically in terms of stored energy: I grab a hold of a piece of gravity with my foot when it comes down, and then I throw it away when my foot goes back. How much of this opening and closing is eccentric versus concentric motion of the muscles?

JS: It brings to mind Robert Schleip's development of Fascial Fitness, a gym program to develop the elasticity and density of the fascia, so that it is used as a spring. Imagine jumping, so that on landing the plantar fascia behaves like a spring. When the compression phase of the gait happens, that arch is lengthening earthward, and then just at the point where it passes under you, and the load comes off of it, it also catapults you as stored energy that is appropriated for locomotion. Schleip has really tuned in on this. His whole system is not about developing muscles, but developing fascial tone. Quite elegant.

MB: It's interesting, in terms of tonic versus phasic. Just how as a culture we're very sagittal, we're also very phasic. We see that in these sculpted bodies. It's all about concentric motion, like my gastrocs should be enormous, shaped like footballs, and oh that little weak soleus, I don't care about that!

JS: Let's look at Joe Pilates's work. Pilates came online right after World War I and was inspired partly by the ideal bodies that were coming to the first Olympics. If you look at the art from around that time (this is also close to where Dr. Rolf was getting her inspiration), there was this eccentric expression, moving forward into space with the arms extended, the eye focused on a far horizon . . .

MB: Step forward into the future.

JS: Precisely, but that's eccentric movement. Pilates developed this whole system that set the body up to be able

to lengthen under load. It's largely been eclipsed by the 'gym body', which is a contraction body like you're talking about. It's a concentric body. It packs muscle around the joints as a way to theoretically stabilize, but it also has an aesthetic hiding in it, which is that "I'm strong this way, I look strong." I'm lucky enough to be in this place in LA where there is a particular kind of athlete – the volleyball player. Knotted-up, veiny, contracted bodies don't do very well at volleyball. Volleyball is a jumping and extending sport. Surfing, same thing – if you're knotted up and chunky, you can't move gracefully on a wave. I get to see a lot of athletes who are eccentrically strong and they're actually cultivating eccentric strength in motion. I'm going to guess that this is culturally derived. Yoga has become really popular in the last fifteen, twenty years. Before that, it was around in pockets in the 60s. Yoga has exploded in my neighborhood. I mean there's yoga studio on every corner in West LA.

Interestingly enough, although I think that Rolf and Joe Pilates did not have an overlap, they both came up with geometry. Rolf's version was expressed by 'the Line' and the horizontals. Joe didn't say it out loud, but I've been doing his exercises for a couple of years, and it definitely organizes my spatial geometry toward the way Rolf was trying to make happen. It has been a revelation to feel the geometry emerge through Pilates. I'm going to call it eccentricity, but I don't mean behavioral eccentricity; it's moving in a way that is radial, from the center, and produces a graceful gesture. Typically you're less strong as you get further from center. If your arm is extended, you're not nearly as strong as when it's close to you. I think Pilates was trying to get strength at the limit of range of motion. A typically concentric body gets its strength close to the body, and not at the limit at all.

MB: That's interesting in terms of something I was thinking about. Take short, fast-twitch muscles, those that tend to have a larger percentage of fast-twitch fibers. In our society people tend to train those much more, to the exclusion of slow-twitch fibers that are still there, albeit in smaller percentages. Whether it's in a tonic or a phasic muscle, why do we prefer rapid movement? You know what I mean? A biceps isn't just meant to contract ten times while you are at the gym. In real life, at least in terms of our evolution, you'd be moving around, climbing trees, throwing

stuff, picking stuff up . . . it might be doing a bunch of different motions over a long period of time. That's the other difference I see between eccentric and concentric motion: very often even when we do eccentric motion, we do it very few times, as opposed to quite a few times in the course of regular activities. What are your thoughts on that?

JS: There's several layers of it. This is as I understand it, so I could be not quite accurate, but the fast-twitch fibers are largely part of the phasic muscular activity. The slow-twitch are more the tonic side. Fast-twitch fibers tend to consume more glucose, and the slow-twitch ones are more proportionally oxygen-burners. I think that certain kinds of yoga and Pilates train slow-twitch fibers, which are fundamentally postural muscles. Robert Schleip once gave us a presentation about tonic and phasic at a faculty meeting, which is written up in some obscure article, probably in Hans Flury's original *Notes on Structural Integration*. Schleip said that if you took ten different psoas muscles, you would find quite a wide range of how much red or white fiber was in any given psoas. In some people, the psoas is highly tonic, and in other people it's a lot more phasic. I began to think of it like this: tonic function had to do with the shape of the body, literal form; phasic is the activity of the form. The tonic becomes a kind of scaffolding, and the phasic is all the ladders and platforms that are built around this tonic scaffold. Gesture has its base in tonic function, and we push the tonic body around with phasic activity and our feet and legs, for example.

MB: Yeah.

JS: To circle back to legs and feet, because I know we're going a little far afield . . . Okay. We have this support principle embedded in Rolfing Structural Integration (SI): that if you're going to try to get, let's say, a better positional organization, you need to have support available for it on one end, and you need to have adaptability available on the other. The support side then takes me to the legs and the whole thing about the return of circulation by contraction, and the veins with their one-way valves and the whole bit. But I got up to the pelvis, and have had a long meditation on the nature of the ilium, and how in, let's say, 'normal' walking the ilium actually behaves like part of the leg. The acetabulum is not the end of the leg, but rather the sacroiliac joint is the end of the leg.

MB: Yes.

JS: There are anterior and posterior nodding movements of the ilia, so that when you're in your push phase, the ilium on that side has come to its full anterior nutation (which is Latin for 'nod'), and then as you un-weight the leg and swing, the ilium, in a sense, cocks back and is prepared then for the next heel strike when it begins its conversion back forward again. Let's say in a well-organized body the ilia contribute massively to the effectiveness of the gait. In people whose ilia are relatively fixed in the pelvic ring, so the sacroiliac joints are tight and bound up, you don't see movement flow through. You see the heel strike harder, they use more muscular effort to pull themselves along, rather than that beautiful part of walking that looks like falling and recovery, giving a sense of almost floating. I pin that down to the function of the pelvis, and the way that the ilium is both leg on one side and pelvis on the other. I like this idea. When I'm working on people, I study that. What happens to the ilium when you are pushing off from the foot? What happens to the ilium as you land on your heel strike?

MB: That reminds me of seeing Haile Gebrselassie winning gold in 2008. Like all of the top ten marathoners, he's sub-Saharan African. He looks like he's shuffling, like, "Whatever, I don't care." Several miles behind him are all these white people doing what we've been doing since the first 26.2 marathon in 1908 – we're goose-stepping really, really fast. It doesn't work.

JS: I'm with you. The book *Born to Run*, which is an absolutely revolutionary statement, talks about the Tarahumara people who come up to run the century marathons. They are indigenous runners who don't train really hard but they live in a terrain that has huge elevation changes. If they're going to the market, they might be carrying a load of produce on their back and climb 4,000 feet to get out of the canyon to set up in the market place in Creel, which is at the top of the Barrancas del Cobre. They go up and down those hills all the time. What the author of *Born to Run* points out is that they tend to run on their forefoot. In walking, they heel strike, but as they begin to pick up speed, they move until they are basically running on the forefoot, and that's the same gait that you see in the sub-Saharan guys. Up until this information was in the field, [runners in our culture] were pretty much heel strikers. That's the

goose-step look because you got to hear the hobnail boots on the pavement.

MB: Just this morning, I was talking to a client who is trying to figure out how to walk in Vibram® minimalist shoes, in shoes that don't tell her feet what to do, but she's a European-American upper-middle-class white lady, and she's got all these generations telling her, "No, no. Your feet are supposed to be little and narrow, and pretty." Let's talk about women and shoes.

JS: First off, you might remember that in the court of Louis XIV, men wore high heels – those stubby high heels with the big buckle on the front. High heels first appear for riding horses, as a way to hook your foot in the stirrup. In a sense, then, the nobility had horses, and so the style of the elegant gentlemen with the heel then started working its way into, let's say, fashion culture as supposed to functional culture. Then somewhere in there the men gave up the high heels and the women got them. I don't know how that happened.

MB: Actually, I read an article about this. It was almost like a cross-dressing thing where some women would go, "Hey, I'm wearing high heels like I'm riding a horse."

JS: The question remains, how do high heels affect feet? You only have to look at women who come into your practice. Many are in their fifties and say, "I was in corporate life for many years and I wore high heels forty hours a week because that was the protocol at the office." They will mostly say it's very rare to ever put on a high-heel shoe anymore. Their feet often have bunions, their toes are jammed up, you see a funny development of the forefoot, and the heel cords are short. I think wearing high heels as regular footwear is crazy. Maybe for fashion, maybe for dancing – certain kinds of dance, flamenco or tango because they became part of the style – but in terms of regular footwear, well it isn't good for people. No way. While I might appreciate the aesthetic of a woman in high heels, the legs look pretty, as a Rolfer I can only say, "Don't wear high heels unless you have to or unless it's a special occasion." I ask them, "Why do you accept that value? You're in corporate life, why aren't you wearing a flat? A nice looking shoe, but a flat?" "Oh, I couldn't do that."

MB: Yeah, yeah.

JS: That would be like a guy not wearing a tie.

MB: It's still enforced.

JS: Very much so.

MB: That's one of the things about the limits of the plasticity of the foot. There is a shape of foot that I would call high-heel foot – if I look at the foot from the top, there is this triangle that I want to open up. But if I look at the foot from the side, where the metatarsals and phalanges come together, that is often stuck at a right angle. I can't open up the toes until I can straighten that out.

JS: You're talking about a plantar-flexed foot that has a high fixed arch?

MB: Yes.

JS: Ida Rolf used to say that flat feet were actually flat shins: that they were a failure of tone of the muscles in the lower leg. In order to get a flat foot rehabilitated, you have to get better tonus and circulation in the peroneals, gastrocs, tibialis posterior, the whole bunch. But if you're trying to get a rigid foot mobilized, you've got to work on the little tendons between the individual foot bones. That's where you have to get the hydration. Truthfully, it hurts people to do it. You got to get in there enough to pick at it. I often actually end up using my fingernails in order to reach and grab that tough stuff. So high fixed arches as you described, you've got to work locally in the foot, make the bones wiggle again on each other. Flat feet, you take on the tonus of the whole lower leg and the peroneals, and even the neural stuff – tibial, sural nerves. It's a soft-tissue job. Well, both of them involve nerve work, but one is in the foot and the other is in the lower leg.

MB: This is very helpful, because the other thing that I see is the floppy foot where there's a big space between the big toe and the other toes because the person's been using their foot to hold flip flops on. The foot just keeps flopping down like a dead fish landing on a concrete counter. You see the arch, and it's nice and wide, but it's asleep because the toes are doing a job. There's no back strap on those sandals, so the toes are just doing that, and nothing else is going on.

JS: They're gripping the shoe. If you consider the return of fluids against gravity, that sloppy foot is also not working as the second heart to drive the blood back out of the legs. You would perhaps anticipate a boggy leg that goes with that foot, or edema, that sort of thing.

MB: Often people who have that kind of foot structure also have a metabolism that is very frugal, they kind of drag their feet a little bit when they walk. It's part of a whole posture than tends to trudge.

JS: If you were measuring physiologically – and we have no clinical data on this, so this is purely speculation – I would expect to see slow pulse, low blood pressure, and constipation.

MB: That makes a lot of sense. I think about the clients that I see with those feet and very often their spines are stuck in kind of a C-curve pattern.

Well, this has been an incredible pleasure. The journey that you have taken us on today dovetails with not only the theme of the feet, but I would say with the aesthetics of what we are doing in this particular issue of the Journal. Thank you.

JS: Thank you.

Jan Sultan currently lives in Manhattan Beach, California, and maintains a full-time practice there. He also travels to Santa Fe, New Mexico to work with his clients there. He teaches Advanced Rolting classes and offers continuing education for structural integrators on a regular basis. In addition to holding a direct lineage to Ida Rolf, he works to deepen Rolting SI as it is practiced today. Jan's studies include various aspects of the nature of structure, including craniosacral work, visceral manipulation with Jean-Pierre Barral, nerve mobilization in all its variations, and journeys to the sacred spaces.

Michael Boblett works in San Diego, California. He has been a Certified Rolfer since 2003 and a Certified Advanced Rolfer since 2008. Michael is a retired Unitarian minister. His advanced degrees (MA, MDiv, and DMin) are from Pacific School of Religion in Berkeley, California. At seminary, he focused on the anthropology of religion, with experiential training under Michael Harner, author of The Way of the Shaman. Michael runs marathons and hikes up mountains wearing Vibram Five Fingers. His website is www.rolfer.biz.

Maps of the Feet

A Window into Subjective Experience, a Tool for Therapeutic Evaluation

**By Beatriz Pacheco, Certified Advanced Rolfer™, Rolf Movement® Practitioner,
Speech Therapist, Psychomotrician**

Introducing Foot Maps

To evaluate the effects of the Rolfing® Structural Integration (SI) process, we normally use the client's sensation in relation to particular complaints; still photographs or videos of the client in motion; and the client's subjective reports. This article presents another instrument of evaluation – the foot map – that may be used throughout a series to track the client's relationship with gravity in standing and walking.

The foot map also demonstrates the importance of the oral functions to the gravity relationship. After having practiced SI for twenty years, I directed my attention to the science of speech therapy to gain a better understanding of the powerful connection between the mouth and the feet. This connection has a clear evolutionary basis, as the locomotor system developed to facilitate the pursuit and capture of food. I also undertook a program of postgraduate study in psychomotricity, which is the study of the relationship of physical movement to cognitive, affective, and psychosocial behaviors.

As a means of therapeutic evaluation, the foot map serves the following functions:

- Improving the client's proprioception.
- Demonstrating the quality of the client's proprioception.
- Informing the practitioner as to the distribution of the client's weight over the feet, and how the client perceives the same.
- Serving as a reference, for both the practitioner and the client, from which to evaluate the gains achieved in the process.

Making the map is simple, and begins with asking the client to notice in standing which parts of the feet support the weight, and in walking which parts receive weight and which push off. Next, the client stands on a piece of paper while the practitioner draws an outline around each foot. Then the client draws onto the outlines a representation

of his or her felt sense of which parts of the feet are active for support, receipt of weight, and propulsion. To facilitate use of the maps to track changes over time, it is helpful to have pencils or pens of various colors. (As this journal's images are in black and white, the foot maps show in this article will incorporate bold, crosshatching, and other means to show changes over time.)

For the client, the experience of sensing and drawing the areas of the feet that make contact with the ground, both at rest and in walking, generates a symbolization of the client's relationship with gravity. To observe from the outside the representation of what s/he is feeling from the inside can offer the client valuable insights as to how the s/he is organized in gravity; and how the client uses the map can be an additional reference point for recognizing changes. For the practitioner as well, the foot maps gather various data points about the client's organization:

- The distribution of weight over the feet, and the client's perception of the same.
- The intensity with which the weight lands on the feet (compare Figures 3 and 4).
- The way the foot receives and propels the body weight in walking, and which of these two phases is most apparent or comfortable for the client (compare Figures 4 and 10).
- Any incongruence between what the client perceives and what is indicated by other means of body reading.
- A basis from which to hypothesize which muscles are blocking the ideal path of weight transfer.
- A clue as to how the distribution of the client's weight over the feet might be related to the client's presenting complaints.

Interventions

The Second Hour of a Ten Series is an ideal time to introduce the foot map. I generally ask the client to map his/her feet before

and after the session to reveal which parts of the feet make contact with the ground in standing and walking, and what changes came about from the session.

In the Third Hour, when our concern is with the lateral line, I suggest to the client another experience – to bite down evenly and methodically on a length of rubber surgical tubing. 1) This ameliorates the distribution of weight over the feet because the muscles of mastication are intrinsically connected to stress-driven heightening of muscular tonus generally. The powerful flexors of the mandible effect an antigravity action throughout the entire body through the lateral line. 2) The action of chewing, as it passes through the phases of working side and balancing side, neutralizes excessive tonus in the muscles of mastication and brings better support to the cuboid and the entire lateral aspect of the foot – including the fourth and fifth toes, which, according to Tom Myers, stabilize the body weight. (The muscle chain of the lateral line is described in his *Anatomy Trains* materials.) In my own practice, I often notice that clients have lost the support of the lateral toes, which compromises the weight stabilization that must start in the feet and ankles. This compromise, in turn, transfers the task of supporting the body weight to other more proximal joints, which then become overloaded, and subject to strain, excess wear and tear, and lesions. See Figure 5 and commentary.

Often, the antigravity muscles exert more force on one side than on the other, which can produce various lateral asymmetries, e.g., differences in the height of the shoulders or iliac crests or between the malleoli, as well as inclinations of the head. Following manipulations to address these lateral asymmetries, we are likely to observe greater symmetry and balance in the distribution of weight over the feet. I also use specific chewing exercises to address lateral asymmetries: since the muscles of mastication are key to the antigravity response, balancing the tonus of these muscles tends to carry through to other antigravity muscles. See Figures 6 through 9 and commentary. [My earlier article (Pacheco 2010) discusses the oral reflex functions and the benefits of exercises to improve them.]

The Fourth-Hour work equilibrates the tonus of the entire muscular chain that begins with the hallux and runs through the medial line of the leg, iliopsoas, diaphragmatic crura, transverse musculature of the thorax,

and the infrahyoid muscles and hyoglossus (which originates in the tongue), which insert to the hyoid bone. Here, I often suggest to the client another oral exercise that acts on the entire medial line, with the goal of increasing the propulsive force of the feet through better use of the psoas. These are exercises to coordinate and strengthen the internal and external musculature of the tongue and lips. They are rhythmic and are executed with tonic musculature, which brings connection and good tone to the deep medial line. See Figures 7 and 10.

As a direct intervention with the feet, I also use exercises for differentiation and integration of various structures. For example, I ask the client to stand with one foot on a slender stick (about one-half inch in diameter), which I place lengthwise under either successive metatarsal interspaces or successive metatarsal bones (see Figure 1), starting at the lateral foot and working medial. The client is asked to raise the opposite foot; flex and extend the knee on the supported foot; and then return the opposite foot to the ground. The sequence is repeated three times for each placement of the stick. This helps to differentiate the rays of the toes, and also to create space between them.

Another exercise that helps the client to differentiate and activate the metatarsal interosseus muscles is to place a pen or pencil between the seated client's toes and ask the client to discard the object with movement of the toes only.

Along with these exercises — especially for clients with diminished arches — I

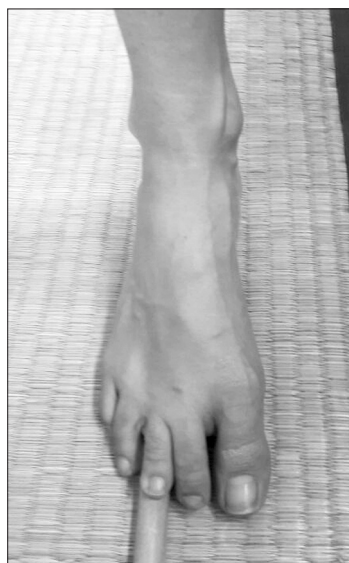


Figure 1: Stick placed under third metatarsal.

like to add another one to differentiate and strengthen the interossei. With legs extended, the seated client is given an elastic band to wrap around one toe at a time (see Figure 2). The client tugs on the band to apply tension to the toe, and then plantar-flexes the toe, against resistance from the band, at the *metatarso-phalangeal joint*.



Figure 2: Plantar flexion at the metatarsophalangeal joint, resisted with elastic band.

Case Study Discussions

Figures 3-10 will be used for brief case studies to show the maps in use. Each map includes various temporal elements, drawn with different lines, as discussed below.

In Figure 3, Valeria's complaint was pain in the left shoulder. On the initial map (the fine lines in the drawing), we can see how the lateral aspect of the left foot is suspended. This caused me to hypothesize that the painful shoulder was holding the weight of the body out of the left foot; and this hypothesis helped me to organize the Roling series. The area in bold was drawn after manipulation along with oral-function exercises. Even after our work was complete, the dotted lines on Valeria's maps suggest that she senses only weakly her body weight arriving to the ground.

Sandro (Figure 4) is a runner, and presented with complaints of body pain in many locations. On Sandro's map, the areas drawn lightly were the ones he identified initially, and from those it appeared that he was tilting over to the right side, with more weight in the right lateral foot and stronger push-off through the right foot than through the left. Foot exercises – to open the interosseus spaces of the foot, lengthen the lateral and posterior muscle chains, and mobilize the ankles – improved Sandro's

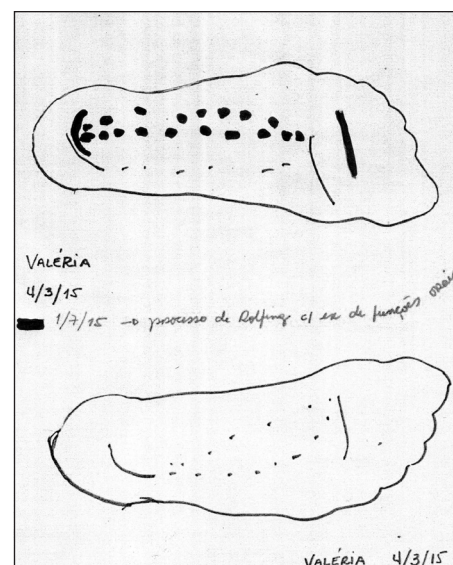


Figure 3

functional balance in both standing and walking; he drew the bold lines on the map after that process. Observe also that Sandro's map reflects a better sense of his own body weight than Valeria's (Figure 3).

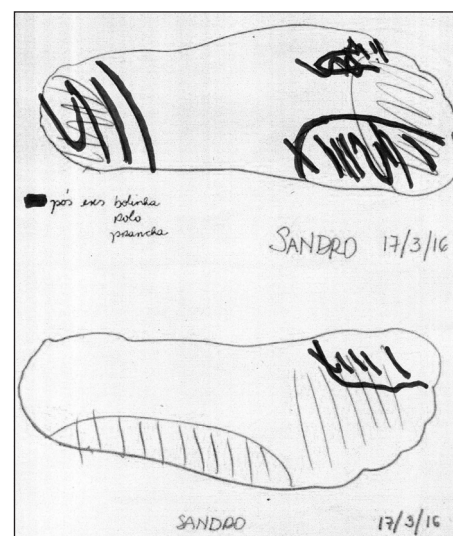


Figure 4

João's complaint was pain in the left temporomandibular joint (TMJ). The oral exercises released tension that had been suspending the left lateral line and throwing the arch of the foot medially in walking (Figure 5). In João's case, after the lateral line was released, he gained greater support from the lateral foot. This, in turn, amplified his push-off and brought the left transverse arch more lateral. At the same time, his sensation of pain in the left TMJ diminished. Observe also how a shift in the balance of

the autonomic nervous system was followed by greater symmetry in João's felt sense of his two feet. The bold area was drawn after mastication exercises; the crosshatched areas came into awareness following a parasympathetic surge that included vomiting and diarrhea.

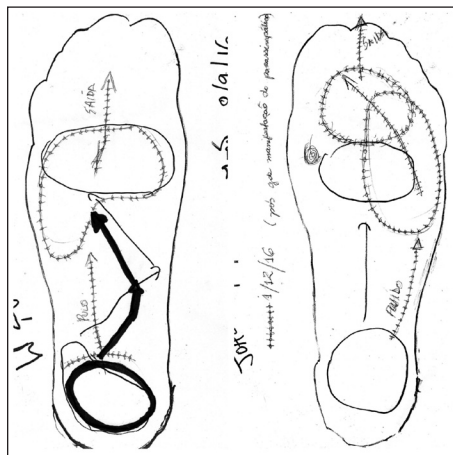


Figure 5

Rodrigo (Figure 6) complained of multiple pains in his back. Both iterations of drawings on Rodrigo's map were made on the same day – during the Third Hour, but before and after he performed mastication exercises. This technique helps the practitioner to evaluate the degree to which the muscles of mastication are involved in the client's postural pattern. The areas in fine lines were those identified at the outset, when we could see both that Rodrigo's axis was inclined to the right, and that his weight was distributed over his right foot. The bold lines drawn after the mastication exercises show that the lateral aspect of the left foot could then take support from the ground, which allowed Rodrigo's weight to be more evenly distributed over both feet.

Karol (Figure 7) complained of great pain in her neck, particularly on the right side. Observe from the light lines that before Karol performed the mastication exercises, there was no place on the right foot for her weight to arrive, nor was there any possibility of shock absorption on that side; moreover, it looked as if the right foot was suspended through the medial line. In this Fourth Hour, the left medial line was addressed only lightly. After manipulation of the right medial line followed by mastication exercises, the bold areas indicate that her foot found someplace to receive her weight, as well as greater medial

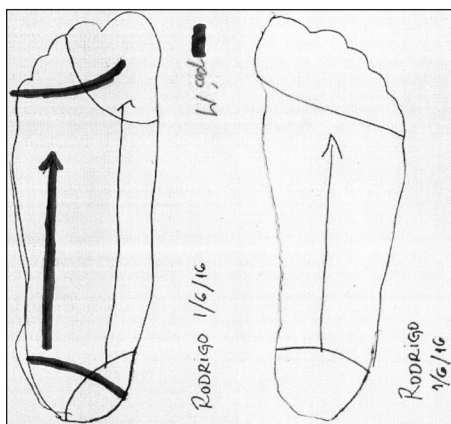


Figure 6

support (which indicates more functional arches). By the end of the session, she no longer felt pain in her neck and did not complain of neck pain thereafter.

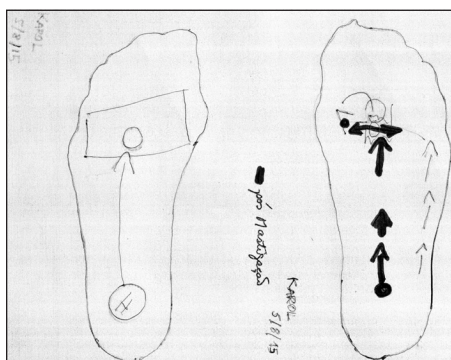


Figure 7

Breno complained of pain in his right hip and presented with his axis inclined to the right. In his initial drawing, indicated in the lighter lines in Figure 8, he sensed only weakly: the line on the left foot connecting the heel to the metatarsal heads and toes was drawn to suggest weak sensation, allowing his weight to fall more over the right foot, and making his weight shift over to the right side. There was a great deal of tension on the right in his rotators, psoas, and quadratus lumborum, while on the left side, his lateral line was suspended by the muscles of mastication. Breno benefitted from the mastication exercises, and shortly after he had practiced them, he drew the new points of contact that he perceived (bold lines) as he sensed more strongly. Throughout the process, his hip pain returned from time to time; at those times, he would show me on the foot map the places where he had lost support. The map was very important to Breno's process because it kept him hopeful that he would be

able to relieve his pain through organizing his understanding of the relationship of his center to the ground.

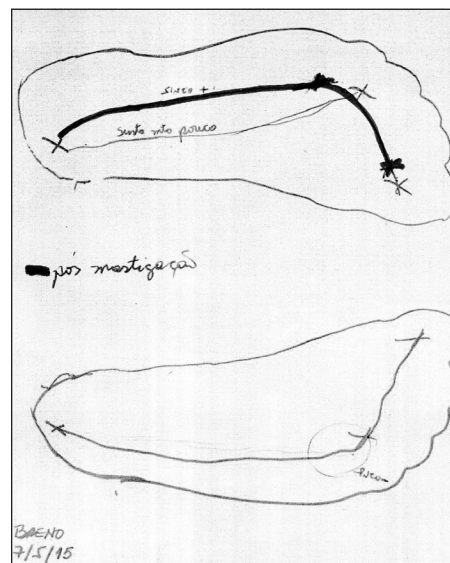


Figure 8

Mauricio (Figure 9) presented with low back pain. Based on his initial foot map (fine lines), it appeared that a pelvic rotation had thrown his weight to the lateral left foot. This rotation was barely visible when Mauricio was standing, though he presented with a straightened lumbar lordosis and his pelvis tilted anterior. There was a compensation: his right leg and foot were abducted out into an open diagonal, such that on the right he used only a small portion of the forefoot both to receive his body weight and to propel it forward. The mastication exercises brought him additional areas of support (bold lines), while the Fourth Hour (effect drawn in circles) was key in letting his midline access support over the feet. Because the map was a visible, external representation of Mauricio's subjective sensations, it allowed him to communicate those sensations. It also brought him the ability to perceive the support available to him, and also to visualize those areas of the foot he was not using. Finally, he was able to relate the improved support to the absence of low back pain. He found the process to be enormously valuable.

Maxime arrived on the advice of his psychotherapist, who was treating him for depression. For Maxime, the foot map (Figure 10) – which brought his attention to the use of his feet – was an important reference throughout his process. Following the mastication exercises, when he added

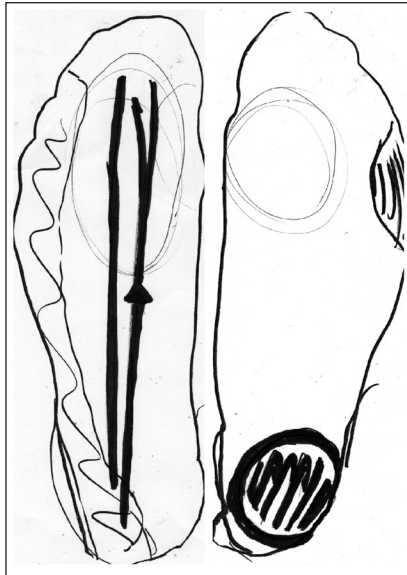


Figure 9

the bold lines to the map, he perceived that there was a large area of his feet that he had not been using, and he connected this to his lack of propulsion in life. The map helped direct his attention and action toward occupying previously unused areas of his feet, including the metatarsals and toes. He found the proprioception-based graphic representation of his situation to be an organizing mechanism for him to understand the process as a whole. During the time we were working together, he climbed a mountain and began bicycling,

and regularly performed exercises for the oral functions of both mastication and sucking. Gradually, he recovered the ability to move forward – both in walking and in his life.

Conclusion

Mapping the feet brings different improvements in sensation and perception to different clients. Sometimes the maps bring improved sensation at a particular point in the process, while for other clients the maps help to orient the process as a whole. But for me as a Rolfer, the maps reveal treasures for the Rolfing process every time.

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The Three-Dimensional Foot, Part 3

Opening the Generous Sole

By Michael Boblett, Certified Advanced Rolfer™

Elitism has become a dirty word, and it is a pity. Elitism is reprehensible only when it is snobbish and exclusive. The best sort of elitism tries to expand the elite by encouraging more and more people to join it."

Richard Dawkins (2015)

This article has three parts. I put them together in one article because they dovetail with each other.

The first section is a general reflection on pain in Rolfing® Structural Integration (SI). I don't think we can write about foot work without some honest communication about pain.

The second section is a reflection specifically on the foot cramping that can arise when the body – and specifically the feet – change, but now in the context of growing and ethically maintaining a consistent client base. Short version: my exercises aren't for everybody.

The third section is an addition to my previous lists of specific foot exercises (Boblett 2014, 2015b).

Pain

Recovery is not always a painless process, whether in the foot or elsewhere. I have

noticed that my best talk-therapists are often the ones who make me squirm. Why is this? We all know about the disconnect between various levels of the human brain. In my other article in this issue (see page 35), I used the brain as an example of how our cobbled-together system of old and new structures can produce conflicts. Our reptilian brains, our limbic systems, and our neocortices all argue with each other. These committee meetings can be contentious. They can break down. Some voices are banished to silence. The process of bringing the whole argument back into consciousness is often – painful.

Same with the foot. I always warn my clients: "What's the first thing a foot does when it wakes up? Often, it complains!" I confess – this warning is not always effective. Sometimes clients freak out anyway. But most of the time, my clients understand that the emergence of new symptoms isn't a cause for alarm, but rather that hitherto silent parts of the body are waking up.

Again, why is this? I have written before about a simple difference between the metatarsals of a dog and those of a human: cut in cross-section, the metatarsals of a dog look relatively squared-off; ours are round in cross-section (Boblett 2015a). In other words, our metatarsals are designed

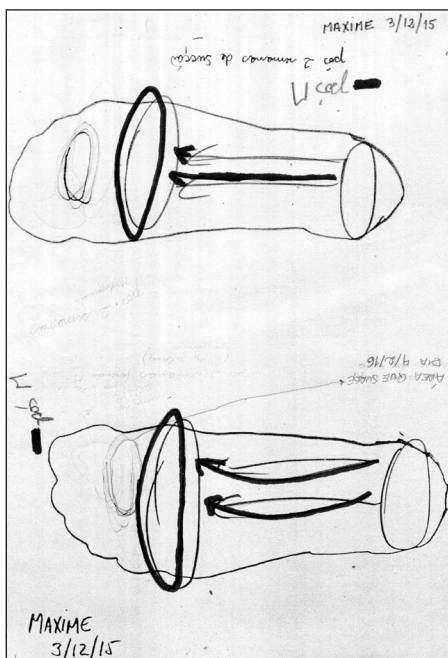


Figure 10

to rotate, whereas a dog's aren't. But the tissues between our rounded metatarsals are often so fixed and, more important, the nerves so deadened, that a return to healthy rotation can really hurt!

If the client is receptive, and addressing it verbally at the time seems appropriate, I might use the analogy of a frustrated bureaucrat sitting in a branch office somewhere. For decades, she has submitted reports about a serious problem in her area. Because of some glitch, the head office has ignored her. Finally, she gets a call: "We haven't heard from you for a long time! How are you?" The caller needn't be surprised if the worker launches into a tirade: "How am I? You want a @#\$%^&* list?!"

I take the time for this (depending on the client and the timing), not just to cover my own *derrière*, but to reinforce trust with honesty. Prospective clients often ask: "Does Roling SI hurt?" I have good success with an honest answer. I express my willingness to vary my touch depending on feedback. But I find that further prevaricating either 1) puts people off, or 2) gets me clients I don't really want. More important, I take this opportunity to explain pain *between* sessions as well. But above all, acknowledging pain is a way of screening out clients who wouldn't be a good fit.

The necessity of screening clients leads into my next section.

Foot Work and Developing a Client Base

I want to make a point about *all* my suggestions, previous and future: they aren't for everyone. I don't just mean that they aren't for all clients. They're not for every Rolfer. Let me explain: my clients' feet cramp a lot. They cramp during manual work. They cramp during movement exercises. They cramp in my office. They cramp between visits. I can minimize this. I can't stop it entirely. My own feet cramp as well. Sometimes they cramp when I'm demonstrating exercises. Not exactly good advertising.

Why is this? Like other parts of the body, but perhaps a bit more, our feet are full of nerves and muscles that don't know what to do. They are asleep, but they are powerful. Waking up these neural pathways sometimes brings a strong response. It hurts. Worse than the pain, there's a loss of control. It's scary.

How do I deal with this? I start with trust. Open communication is part of this. So is managing expectations. But underlying these things is a series of choices on my part, going back to the beginning of my practice fifteen years ago. Ultimately, dealing honestly with foot cramping is about consistency in my own choice of clients, consistency between what I do and the kinds of clients I serve. I urge you to consider this carefully in deciding whether to use many of my ideas in your own practice. Are you prepared to deal with cramping, among many other such issues?

My own clients fit a specific demographic. As my practice matures, my demographic is more restricted, not less. My clients are active, not sedentary. They are educated, very few lacking a baccalaureate. A large percentage of them have advanced degrees. Many are in biotech. Many are health professionals. I always have some nurses, chiropractors, medical doctors, hospital administrators, and biotech entrepreneurs in my pipeline. Some of my clients are professional or semiprofessional athletes. The rest are weekend warriors. Happily for me, there is no shortage of such people in San Diego.

So my focus tends to be on keeping active bodies active. I do not avoid clients in their 80s and 90s; I welcome them. As I enter my mid-sixties, conscious aging is a vested interest of mine. But in my advertising, my networking, even my choice of location, I focus on some kinds of issues to the conscious exclusion of others. This does not mean that I avoid clients with serious health issues, as long as Roling SI is not specifically contraindicated. But even here I must make honest choices based on my own areas of training, or lack thereof. I have worked successfully on mobility issues on clients with polio, Parkinson's, multiple sclerosis, cerebral palsy, and rheumatoid arthritis. I am less successful with achieving Roling SI goals with clients who are also dealing with anorexia, addiction, or sexual trauma.

So I ask you to reflect on this in the context of your own work. Every Rolfer is a specialist. I can't imagine the difficulty of being the only practitioner in an isolated area. For the rest of us, the option of referring to colleagues is an essential part of ethical practice. Just as there is no shortage of people in San Diego who can benefit from my approach, there is no shortage of Rolfers who can work with issues I know less about.

Specific Exercises

With the above caveats, it's time to get specific. In previous articles (Boblett 2014, 2015b), I assigned different exercises to different foot typologies. In contrast, the exercises in this article are useful for all foot types, at least in our shoe-wearing culture. But be warned: I would never assign *just* these exercises to any client. I combine them with other kinds of work.

The first exercise, Evoking Gravity in Foot Work, is more general than most of my exercises, and it has a story behind it. When Ed Maupin first freed my metatarsals in 2003, my first experience in walking was euphoric – but that was in Ed's carpeted office! Then I took those new feet outside in the real world, and walking around my neighborhood carrying a heavy load of groceries, I suddenly felt as if I'd stepped on a nail. I staggered home and sat down. But wriggling my toes and rotating my ankles only made things worse. Eventually I realized that taking my feet out of gravity would only prolong my suffering. Instead, I slipped off my shoes. They were kung-fu shoes, but they were still too protective for what I had in mind. In my stocking feet, I went back outside and walked all the way around the block on the pavement. Admittedly, I wasn't carrying groceries, but gravity quickly soothed my feet, as I somehow intuited it would. It was as if a learning process had to be completed for the cramping in my feet to let go.

Now I do a version of this in my office when clients on the table experience foot-cramping. Sometimes I have them stand up or do gait work, but much more commonly I have them press their soles into the palms of my hands. This doesn't always work, but often enough it serves as a first-response tool.

The next exercises all have illustrative photos, so for readers' ease in trying these exercises, I have put the detailed exercise descriptions in the image captions. Here I will give general comments.

Figure 1 shows **Namaste with Feet**. This exercise has two levels, Basic (steps A and B in the photos), while Advanced adds step C. I never show the Advanced form until the client has mastered the Basic, which I define as holding the pose in step B for a count of forty with at least the big toe and second toe touching. I find that the Basic form of the exercise gets the transverse arch to rotate in a way that I can't otherwise achieve, while

the Advanced is superlative for mobilizing the navicular.

Namaste with Feet is a good guide for future manual work, since it stresses the areas that need work. Get client feedback on where the stretch and/or tension is felt. In the Basic version, various clients have reported tension in gastrocnemius, peroneals, tibiali (both anterior and posterior), navicular, the triangle between the first and second metatarsals, and tissues around the lateral metatarsals.

As clients move into the Advanced version, again, client feedback on the location of tension is important. Stress will often move to the navicular, especially when the navicular is stuck up. Progress in the Advanced exercise is measured in two often contradictory ways. First and more obvious is the amount of movement in the arc of plantar-flexing and pointing. But second – and less easy to keep track of – is the number of toes that remain in contact. I am willing to see a client explore both kinds of progress, but I prefer not to see the arc of movement dominate the sensation of toes touching.



Figure 1: **Namaste with Feet.** Start with the Basic version, which is steps A and B only.

A – The client lies supine, heels hanging off the edge of the table. It is important that the feet do not hang off too far, as there's considerable extra work involved in keeping the legs straight when even part of the lower leg is left hanging.

B – The client puts his knees together, with the backs of the knees flat on the table (in clients with strong lateral femoral rotation, this will involve activation of the glute muscles), and no arching of the back. The client then rotates the outer edges of the feet down, and brings the big toes together, as well as the rest of the toes if possible. The goal is to have at least the first and second toes touching and to work up to holding the pose for a count of forty before adding step C, which takes the exercise to the Advanced version.

C (Advanced) – Point and plantar-flex the feet without losing the contact between the first and second toes. It's important to emphasize that a tiny micromovement with the toes touching is better than a larger movement that pulls the toes apart. Among other things, this will be a chance to wake up sensation in the toe pads, which is often a new idea for clients.

Next, I present two exercises for freeing big toes: **Big Toe Up, Other Toes Down** (shown in Figure 2) and **Big Toe Down, Other Toes Up** (shown in Figure 3). Breaking up a monolithic toe box means breaking up the habit of toes to flex or extend as a unit. I have referred to this elsewhere as 'the tyranny of the big toe'. I am indebted to Nikki Corona for her help in developing the following two exercises, which I find useful in freeing feet from the illusion that toes must always follow each other.

When I compare these two exercises, I am struck by how different my clients' feet are in expressing these two movements. Some clients will find the first exercise easy and the second difficult. Some will experience the opposite. Some show opposite patterns in the two feet. How can we use these



Figure 2: **Big Toe Up, Other Toes Down.** This exercise is done in gravity. It is best done on a surface that is not hard, and where there is something for the client to lean on for support. Ask the client to balance on one foot, then extend the big toe and flex the other toes of his other foot and gently presses it into the 'floor' surface as shown in the photo. Pain in the toenails is often a problem, which can sometimes be solved with a softer surface. Good measures of success are: 1) how many phalanges of the second and third toes touch the floor, and 2) how little space there is between the juncture of the first two toes and the floor.



Figure 3: **Big Toe Down, Other Toes Up.** The setup is as with the previous exercise – the client stands on one foot, usually leaning on something, and gently presses the other foot into a surface that is not hard. The difference from the previous exercise is that the toe pattern is reversed – the big toe is flexed while the other toes are extended. Progress is harder to measure according to the number of phalanges on floor, since a plantar-flexed big toe very rarely fully plants more than one of its phalanges on the 'floor'. Here, the second measure is better: the distance from the juncture of the first two toes to the floor.

observations in the assessment of foot patterns? I confess I haven't tried to figure this out. Try it and tell me.



Figure 4: **Sidelying Foot Pronation.**

A – The client lies on his side with the top leg bent up and the bottom leg straight.

B & C – Keeping the ankle of the extended leg at a 90° angle, the client rotates his toes into pronation, until the big toe touches the table, without plantar flexing the foot (shown in close-up in C). The temptation to point the foot will be strong, but will render the exercise useless.

The final exercise is **Sidelying Foot Pronation**, which can address stuck-up navicular, stuck-down cuboid, and fibular restrictions. Clients report tension at the navicular, the peroneal nerve, tibialis anterior and posterior, and the head of the fibula. As with the previous exercises, you can learn a lot about where to do manual work from what the client reports about tension.

Conclusion

As with my previous work, I welcome feedback. In this article, I have combined general ideas with specific suggestions in an unprecedented way. If you disagree with my ideas about pain or screening of clients, I hope that it won't put you off my exercises – provided they fit your client base.

Michael Boblett works in San Diego, California. He has been a Certified Rolfer since 2003 and a Certified Advanced Rolfer since 2008. Michael is a retired Unitarian minister. His advanced degrees (MA, MDiv, and DMin) are from Pacific School of Religion in Berkeley, California. At seminary, he focused on the anthropology of religion, with experiential training under Michael Harner, author of *The Way of the Shaman*. Michael runs marathons and hikes up mountains wearing Vibram® Five Fingers. His website is www.rolfer.biz.

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The Psychobiology of the Feet

With Particular Attention to Childhood Issues

By Anne Hoff, Certified Advanced Rolfer™, Teacher of the Diamond Approach®

Introduction

'Psychobiology' is a term used to connect issues of the mind and biological processes. This is right up my alley, so to speak, because I've been a Rolfer for twenty-one years now, and a student (and later teacher) of the Diamond Approach, a path of consciousness work, for an equivalent amount of time (Hoff and Knight 2017). keystones of psychology and consciousness – who we take ourselves to be (sense of self, self-image), how we interact with others (object relations), what meaning we attribute to different experiences – are intricately interrelated with our sense of the body because the mind and body develop in tandem in infancy. In Rolting® Structural Integration (SI) we often use the term 'embodiment'. To me the state of embodiment is mind/psyche/consciousness well-integrated with body in a way that expresses the maturity and presence of the individual at his/her current age and life stage. This will hopefully become clearer in the course of this article.

Framing the Territory

Psychobiological material can weave into a Rolting session for better or worse. Recognizing when it arises, and allowing it room to breathe – often just by acknowledging it, and occasionally by working it more explicitly – will support the goals of Rolting SI. The fact that the psychobiological is one of our taxonomies of Rolting SI (along with structural, geometric, energetic, and functional) speaks to its importance as a domain where change can happen – or be held back.

Although I will mostly be discussing the *childhood* histories of clients and friends with foot issues, and how that has shown up on the psychobiological level when doing Rolting sessions, I will start with a personal story from adulthood to give some context. In Unit 2 of the Basic Training, each student is taken through the Ten Series by another student. One day about mid-Series, the student who was my practitioner took issue with my feet. My memory is that she called the instructor over to say something to the effect of, "I've fixed Anne's feet twice already and they are flat again!" – asking

the instructor's assistance on how to proceed with these recalcitrant feet. Now there was no personal friction between us, and I understood that her frustration was with the learning process of how to become an effective Rolfer, yet my immediate *body* response to her statement was a felt sense of my feet responding with something like, "Well if that's how you feel, fuck you, I'm not cooperating any more." In my mind and intention I continued with the Series as if nothing had happened. But how did my feet feel? How did my *soma* feel? How well will Rolting sessions proceed when the body, or part of it, has gone on strike or won't/can't engage because of some historical impasse or impression?

This article will be more client stories than any particular advice on how to work with feet – particularly in terms of hands-on work. But I hope that these shared stories of feet, of bodies, of *beings* in this intimate *psychobiological* territory gives you some inspiration for an added dimension that can (and will) show up in your sessions.

The Developmental Framework in Childhood

The events of our lives impact us emotionally, psychologically, even spiritually. Psychobiological material can relate to any time in one's life, but I believe that the feet/legs often contain early history, for two interrelated (because co-emergent) reasons. The first reason is that the child is not a coherent 'self' at birth but rather develops a sense of self over time. There are many views about this, from Freud onward, but here I'll use the terms delineated by groundbreaking ego psychologist Margaret Mahler (Mahler, Pine, and Bergman 1975). As we will see with a more detailed discussion of the phases, the child's identity, such as it is, is initially fused with mother and only gradually becomes differentiated as the months progress as part of the overall process that Mahler termed 'separation-individuation'.

Second, this does not happen in a vacuum, but rather is concurrent with, and no doubt dependent upon, the development of body capacity and motor skills and the increasing capacity to manipulate objects. Between around six to twelve months, the infant starts to creep (crawl), then to stand, then to move towards taking steps, culminating in independent walking (see Figure 1).

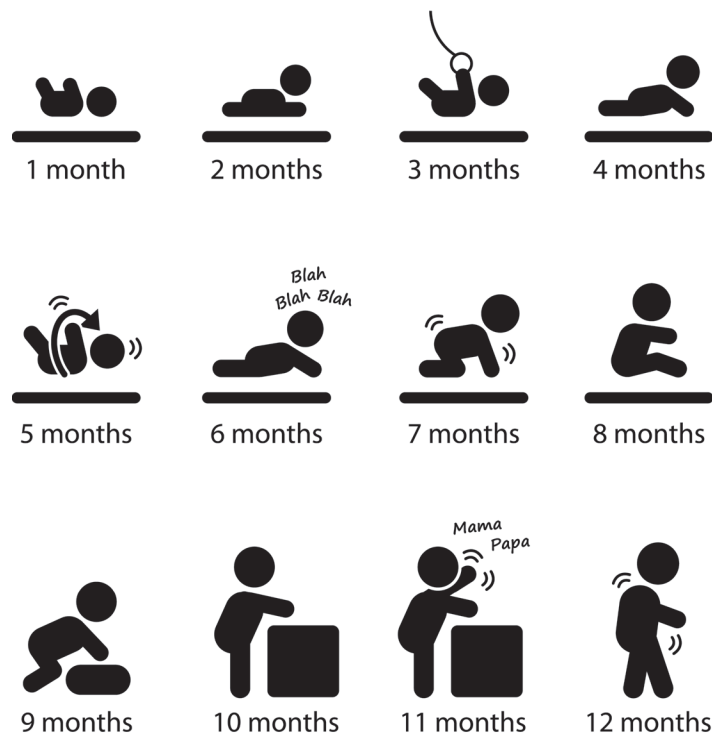


Figure 1: Schema of developmental movement milestones; ages are approximate and vary child to child.

Let's look at the stages of this progression. Note that when I refer to 'mother', I mean the 'mothering person' or 'primary caretaker' regardless of age or gender – it could be the father, a grandmother, one of the male parents in a gay couple, etc. I use 'mother' because that is the convention in the literature as well as the *archetype* for that role in art and imagery through the millennia.

Initially after birth, there's the **normal autistic phase** where "the infant spends most of his day in a half-sleeping half-waking state" responding to physiological stimuli such as hunger or other tensions (Mahler et al. 1975, 41). This moves toward the symbiotic stage with the arising "of dim awareness that need satisfaction cannot be provided by oneself, but comes from somewhere outside the self" (Mahler et al. 1975, 42-43), which initiates movements like turning toward the breast, visual following, rooting, sucking, and grasping.

Around two months of age is the start of the **symbiotic phase**, where the baby's consciousness seems to be very fused with mother in a sort of 'me-mommy' unit; according to Mahler et al. (1975, 44), "the infant behaves and functions as though he and his mother were an omnipotent system – a dual unity with one common boundary." In this state, "the 'I' is not yet differentiated from the 'not-I' ... and inside and outside are only gradually coming to be sensed as different." A vague "feeling of self" is beginning to coalesce based on inner sensation, and it is hypothesized that sensations of pleasure are vital constituents for the developing body image (Mahler et al. 1975, 49).

At about four to five months, the **differentiation phase** begins, touch begins to form a sense of boundary, which begins to coalesce the development of body image, and the infant's attention becomes more outwardly oriented. There is new "alertness, persistence, and goal directedness" (Mahler et al. 1975, 53-54), as well as the recognition of strangers (with curiosity and/or anxiety). Not surprisingly, this coincides with the child gaining more control over his orientation in space (see Figure 1), which is going to give a whole new perspective on the world.

Next comes the **practicing phase**, "ushered in by the infant's earliest ability to move away physically from mother by crawling, paddling, climbing, and righting himself" and gradually moving into "free, upright

locomotion" (Mahler et al. 1975, 65). The timing will vary, but perhaps will begin around seven months. Looking at the motor capacities that are developing (Figure 1), we can see why this ushers in a period of great exploration – the 'world' now extends past mother and the infant has the capacity to fully explore through all the senses as well as locomotion. This is exhilarating, giving the child a sense of omnipotence: the world is his oyster! Why wouldn't it be when you can begin to manipulate your body through space? Mahler et al. (1975, 72) write that, "the importance of walking for the emotional development of the child cannot be overestimated. Walking gives the toddler an enormous increase in reality discovery and testing of the world at his own control and magic mastery." In her observational studies of mother-child pairs, Mahler observed that, "mothers usually became very interested in, but sometimes also critical of, their children's functioning at this point" (Mahler et al. 1975, 73).

Although I am focusing on the development of the psychological self and motor skills, particularly locomotion, there are other developmental trajectories going on. In the practicing phase, at about ten months, the child will often speak his first word, and this developing capacity for language will continue through the next phase to about 250 words by twenty-four months (Columbia University, undated presentation). Then there's a whole other level of bodily control that represents a sort of mastery and independence from mother, particularly concerning bladder and bowel function. There is no control before twelve months, very little control between twelve and eighteen months, and actual control sometime between twenty-four and thirty months (Johns Hopkins Medicine, undated). These both overlap some of Mahler's phases, so I will leave it to the reader to interpolate.

Around fifteen months, the child enters the **rapprochement phase**. He can move freely and that combined with further cognitive development signifies "psychological birth ... the first level of identity – that of being a separate individual entity" (Mahler et al. 1975, 76). However, he also begins to realize that he is not omnipotent and impervious to harm, as he felt in the practicing phase. "The world is *not* his oyster ... he must cope with it more or less 'on his own', very often as a relatively helpless, small, and separate individual, unable to command

relief or assistance merely by feeling the need for it, or even by giving voice to that need" (an earlier paper by Mahler, quoted in Mahler et al. 1975, 78). Thus, while he is more and more capable of independent motion and action, he also is more aware of needing mother's love and support. The child's great developmental achievement of being a separate (locomoting) self brings with it a dilemma – "I need you / I don't need you" – and this gives rise to behavior characteristic of this period: 'shadowing (of mother) and darting-away (from mother)' (Mahler et al. 1975, 77). To the degree that mother is tolerant of both behaviors – responsive when the child needs to cling to her, and willing to let go when the child needs to be autonomous – the infant psyche will successfully navigate this phase, which ends around twenty-four months, and integrate capacities for both autonomy and connection with a personally preferred 'optimal distance' for relating.

The final phase of the separation-individuation process in Mahler's schema, **consolidation of individuality and the beginnings of emotional object constancy**, begins about two years of age. The developmental goals are "1) the achievement of a definite, in certain aspects lifelong, individuality, and 2) the attainment of a certain degree of object constancy" (Mahler et al. 1975, 109). What this means is that there is a sense of being an individual, separate from but in relation to others, and that the child knows that an 'object' (that is, a thing or a person – and this can be extended to the world) has permanency. Because a sense of mother is internalized, he can tolerate being apart from mother without a threat to his own identity.

Individual Considerations

We have so far looked at developmental trajectories common to all humans. Now let's get personal.

Ida Rolf has a chapter in *Rolfing: The Integration of Human Structures* called "Feet: The First Challenge" (Rolf 1977, 45). She is referring to the challenge of being upright, and the challenge the Rolfer faces in his work, but she may as well also be referring to the child's developmental challenge to stand up and move in the world, something we all went through, and which as the earlier psychological material shows is concurrent with the development of a sense of body image and, ultimately, individuality.

So, how was it for you? What can you remember of this time of your life, or what stories have been passed down? Were there issues with feet, legs, movement, and walking that affected your developing sense of self and capacity to individuate and operate in the world? Such history can be from many factors, some physical, some psychological. For example:

- In the practicing phase, when you felt omnipotent, did you get seriously hurt in a way that may have conditioned your view about your own capacities?
- When you tried to move away from mother in the rapprochement phase, was that allowed, or did she cling to you?
- And in the same phase, when you tried to return for love and support, did she welcome you, affirming that your autonomy was good, and that you didn't have to develop too fast? Or did she seem indifferent, forcing you to develop a sense of fending for yourself prematurely?
- Were there physical injuries or congenital issues that affected your developing mobility as an infant, like illnesses that kept you confined, leg braces that limited your free movement, castings for broken bones, or surgeries to correct problems?

I don't probe my clients for information they don't volunteer, but whenever they relate some issue around feet or legs, or some medical history from childhood that may have affected their development, my antennae go up and I pay attention for material from the psychobiological realm.

I got a taste of how significant this can be very early in my career as a Rolfer, when a young woman (who I will here call Louise, for privacy) came in for a Ten Series:

Louise was in her twenties and had a significant leg-length discrepancy, at least half an inch, which required her shoe on one side to have extra height added to the sole. She related that as a young child something was wrong from birth with one of her feet, and that necessitated it being broken and cast to heal in the right shape. (She had no more information than that, and who knows how correct that was.) That was the shorter leg, and as I worked on it I felt like I was trying to transform wood, not fascia. Working on this 'wooden' calf, I was sure I was hurting her, but each time I checked in on whether the sensations were okay, she said, "It

feels great!" As the work continued, it changed her physical form, letting that leg lengthen, and it also evoked emotion – particularly nonspecific anger at her father. She also derived intense joy and satisfaction when after each session she could whittle down more of the support on her shoe. We don't know, but I would speculate that this early medical intervention in some sense deprived her of a sense of agency and control vis-à-vis her parents. The work, which brought her into a new relationship to her shorter leg, and began to change it, returned some of that agency, both in free-flowing emotion toward the parent and in her sense of control over how own body.

Braces

I've also had a number of clients who wore some kind of foot or leg braces in childhood. Most of them couldn't give me a detailed history, but I imagine they were generally to treat conditions like clubfoot. Like Louise, what the clients 'knew' came from what they had later heard from family members, rather than from medical records or direct conversation with medical providers. In my experience, it seems that parents often do not give children (or the adults those children became) complete medical information about early events. This may be because the parents themselves did not understand the diagnosis or procedures. It may be because the situation was explained at a young age in unsophisticated, nonmedical terms (or even metaphors). It may be that the parent had forgotten the details by the time the older child or adult asked. Or it may be that the parent glossed over what happened – either in the way our society tends to undervalue childhood injury (e.g., "He'll get over it" or "She won't remember"), or because the parent in some way sensed how difficult the child's early experience may have been and was unable to hold that.

So let's consider the treatment of clubfoot. I'm not a doctor, and I don't know if there are variant treatments, but in preparing this article I came across a children's hospital website with an article on the treatment of clubfoot (Ponseti 2017). The author, a physician, indicates that treatment should ideally begin at two weeks of age, with a series of five to nine plaster casts worn each for a week, and the last one(s) for three weeks. As the casts are changed, the baby's affected limb(s) are "stretched

with weekly, gentle manipulations." After casting, the feet are braced in position using shoes that are connected by a bar (see Figure 2), full time for two to three months, then overnight until up to five years of age. By my rough math, these periods of full-time casting and bracing would finish by the time the child was beginning to stand and crawl, but they would have some impact on earlier motor capacity, as both casts and bracing would add weight so that the child would need greater muscular effort to move his/her legs, and any bracing would limit differentiated movement between the limbs.



Figure 2: The Denis Browne Bar used in treatment of clubfoot and used as part of the Ponseti method. By Dolmanrg (Own work), via Wikimedia Commons.

In corresponding with Liz Gaggini as I prepared this article, she related this story:

I [had] a client who had had casts from legs through hips from about three months old to about one year old for what was thought to be excessive turnout. What was remarkable was that she had very little refined kinesthetic perception in her legs. If she was not looking, she could not tell which foot or leg I was touching and was also unsure of where on the foot or leg I was touching.

Consider the developmental psychology of the time – the symbiotic phase, differentiation phase, into the early practicing phase. Consider that the casts are on just at the time a young baby spends a lot of time on its back waving those little arms and legs. Casting would either limit or prevent leg mobility, or add significant weight for the infant to overcome to be able to move, surely having some impact on the developing sense of self or body image. Likewise, there may well have been pain or discomfort. As Mahler and other psychologists theorize that touch and pleasurable sensation help form body image, and we can imagine how the casts were a hindering factor to pleasurable touch and pleasurable sensation, so it is little wonder the client had difficulty

with kinesthetic perception and a sense of embodiment through her legs.

On this note, let's go back to Ponseti, the doctor describing the casting and bracing protocol, who says: "The baby may feel uncomfortable at first when trying to alternatively kick the legs. However, the baby soon learns to kick both legs simultaneously and feels comfortable." He further notes, the "shoes attached to the bar may cause pressure blisters and sores," and that "difficulties with compliance of bracing" may occur. While the doctor is optimistic about (or glosses over?) the baby's felt sense, the tissue damage he notes, and the difficulties with compliance suggests that either some children fight it, or that some parents recognize distress in their children and are reluctant to follow the methodology.

Let's try a thought experiment to what the infant may feel. Imagine what that experience is when those little feet and legs are, at least one of them, encased in plaster that limits mobility except at the hip. Imagine the extra effort to move that additional weight, the limits on free and graceful exploratory movement. Now imagine the brief weekly respite as the plaster casts are removed for the "gentle manipulations." It must be exquisite relief and at the same time perhaps painful, the brief liberation and movement of those muscles and joints that have been under unrelenting stress. Now imagine the next stage, the feet in shoes fixed to a bar. Perhaps now the knees and ankles can move some, but the legs cannot move independently, and the baby may not be able to turn over without assistance. Feel those little feet encased in shoes, those shoes under pressure, fixating the legs into a position that carries tension – enough to cause pressure sores – either all day or all night . . . And all of this as the child is developing, not yet a formed sense of self, not yet in mastery of his or her world. Imagine the inner experience, and compare it to what somatic experience would be for a child innocent of these medical interventions.

Here is another story from one of my clients, a man in his thirties who I will call Bill:

Bill related that he experienced some type of foot braces as a child. He remembers being a child in the crib, unable to turn over because the brace connecting his feet prevented that movement (or he had not developed that motor control yet). So he would be terribly uncomfortable, which

would lead to crying and emotional distress. He remembers his father's anger at the crying, and that his dad would come in, pick him up by the brace, and roughly flip him over to make him stop crying. An articulate man with a developed sensing capacity and trained in somatic practices, Bill is aware of how the bracing is likely the cause of ongoing hip and sacral issues. His somatic sense is that there is limited 'flow' in his left hip and that his legs hang from his diaphragm.

Work with Bill initially is to unwind these old physical patterns, as well as to deal with later injuries. We focus on the pelvis and viscera, and that leads to work into the neck and midback and a sense of how stuck his neck feels. As the work progresses over some sessions, he feels he's getting into the deeper emotional side of the childhood trauma.

Another Rolfer – I can't remember who – once theorized that foot or leg braces to correct strong internal or external leg rotation are effectively trying to force change on the soft tissue, and may corkscrew tension up into the sacrum and lumbar. Bill describes a pelvic issue that could be from that or from his injury history, but I also remember another client who had experienced braces as a kid, and who as an adult presented with ongoing sacral difficulties. I'll call him George. Although George didn't offer any psychobiological material, I found it interesting that he presented in a childlike way (his house – where I saw him for outcall – was decorated with a lot of Mickey Mouse items, even though he was in his twenties or thirties). Work with George focused on both legs and pelvis to relieve his sacral issues.

Another client, who I will call Kathy, reported in her initial intake that she wore leg braces at night as a child for femur anteversion. Besides this there's injury history affecting her pelvis. She came in for a second Ten Series. Her earlier Series was a positive experience, but she was curious to repeat it with a female practitioner, thinking it would go further. Kathy was familiar with both therapy and meditation, making her quite open to the psychobiological level. We did not need to process it at all explicitly; it was a straight-up Ten Series, but her familiarity with her interiority and personal process allowed her to take the work into a place that began to undo that early history. In her own words:

I was born with a femoral anteversion which was treated by metal leg braces that I wore at night in an effort to correct the way my legs caused my toes to point inward. This summer I completed a Ten Series of Rolfing [SI] that completely changed my relationship with my legs and feet. Once the structural change occurred it took about a month for my brain to catch up, but now I'm able to stand in a new way. The healing I received through Rolfing [SI] has not only changed my body but helped me to feel more grounded in general. It's quite remarkable and noticeable to my partner too.

Later Childhood Considerations

Now let's look at foot issues in a nonmedical context, and related to periods after early childhood, but still during impressionable times. I'll start with what my Rolfing colleague Michael Boblett shared with me about his childhood experience with his feet. If you read the Editor's Letter that prefaces this issue, you'll know that I asked Michael to be the Guest Editor for this theme because I knew of what I can affectionately call his 'foot fetish'. Over the years, Michael has written for this Journal three times, and each time his topic has been the feet. Now, knowing his story, I see why he has this fascination. I am very grateful for his evocative writing, which shows us how even past the early developmental stages of infancy, there are still many ways that psychobiological material and the feet can become intertwined.

When I was seven years old, my parents took me to my mother's podiatrist. I never asked them why they did this. I was already an active boy, fond of long walks in our small town of Riverside, California. I also enjoyed our family hikes in the nearby deserts and mountains. My mother already saw a podiatrist as part of her ongoing treatment for childhood-onset rheumatoid arthritis, which had left one leg three inches shorter than the other. My mother worked very hard not to let this slow her down. Perhaps she just wanted to spare me a similar struggle. Her concern might have been my own bout with osteomyelitis when I was two, which left porosities in both acetabula and femoral heads.

In any case, my impression is that the podiatrist took one look at my anxious parents and saw dollar signs! In 1959, the standard fix for foot problems was not today's expensive customized insole. Instead, it was an even pricier custom shoe. He was already making good money with my mother's shoes, so this was gravy.

He declared that I had "fallen arches." He drew up a design for heavy black wing tips with stiff leather soles. The soles were reinforced with a high steel rod that dug up into my longitudinal arch, coming to a sharp peak at my transverse arch. The soles were also designed for dress wear, not for sports, so they were smooth and had no traction. I was expected to wear this shoe for all activities, including hiking and running.

For fourteen years, from age seven to twenty-one, these were my only shoes. As I grew, they were replaced every year. The design never varied. I remember falling down a lot. I remember developing a fear of heights, of being knocked over by accident, and of anything that involved climbing. I stopped climbing trees. I stopped dancing. I had foot cramps. The ones at night were the worst.

At twenty-one, I moved to Jerusalem as an exchange student, met my first Rolfer, and bought my first pair of tennis shoes. The feeling of freedom was astonishing. At twenty-two, back in the States, I began experimenting with sandals, kung fu shoes, and even bare feet. The old shoes gravitated to the back of my closet. Finally, I threw the shoes in the dumpster. I remember feeling afraid because they were so expensive. I also felt ungrateful to my parents. These were my only concerns. I wasn't worried about the effect on my feet. My feet were ready for freedom.

My recovery process has involved over four decades of excellent manual and movement work. In the process, I have developed a healthy respect for the ability of the human foot to recover from severe trauma. As well, I have become passionate about 'paying forward' the good work I have received, so that functional feet can once again be the rule rather than the exception.

Another client, who I'll call Renee, presents with strong medial rotation in both legs, that she corrects at the knees and feet. Initially she would come in once or twice a year, wanting some targeted work, then increased the frequency of her visits some. The predominant pattern was always stubborn.

One session, the ninth time we had worked together and about two and a half years after she initially came in, I was working on her in the Fourth-Hour position, and she relates for the first time an interesting childhood story. There was a time, around age seven or eight, when she persisted in wearing shoes that were too small – to the point that her feet turned purple. I ask her what was going on at the time, and she says it was a time of frustration, feeling stuck and confined, and that she remembers that she didn't want to tell her dad that her shoes were too small, even though he asked her if she needed new ones . . . Then there was a later period in her life, during junior high school, where she intentionally wore shoes that were too big, perhaps in reaction to the earlier confinement, she says. This material came up at a time when the client was actively envisioning her future, how she wanted to move forward. While I continued working with her body, I invited her to connect to her sense of herself as a child, and to her current self, and to the future self she is moving toward.

In this case I just described, I stayed focused on the Rolfing task of organizing fascia, but gave the client a pretty minimalist suggestion of a way she could invite in an inner process around the psychobiological material, if that called to her.

I do have other clients where the interweaving of fascial work with a dialogue about the psychobiological has been both more explicit and an ongoing thread in our work. Recently, I've been doing a Ten Series with a woman I'll call Jane.

Jane is in her early fifties and for a few years has been in the midst of both relationship and career transitions, and other significant emotionally impactful events. In her intake she says that she is "heading back into the light and feels different, like everything is new," and that she "needs structural support." From birth she is missing three toes on her right foot, which is much smaller and that leg is shorter. She compensates

heavily but well, although her left hip, the longer side, is starting to ache. In her Second Hour, I give her Valerie Berg's 'juicy paw' metaphor as a description of where we are headed, and do pretty standard work but suited to what each leg needs. When I work with the right foot, she reports that she feels like she has 'virtual' toes where the physical toes are missing, and that those toes want to spring out, like her car key from its fob, relating to the work I'm doing at the 'eye of the foot'. I encourage her to go with this sensation, to trust her virtual toes. She reports that as a child she would ask her parents when those toes would grow, as she was convinced that they would. Feeling virtual toes seems to connect her to this inner confidence that was stunted by conventional medical views. My sense as a practitioner is that just as amputees can have phantom limbs, and it can be beneficial to acknowledge them, it is useful to acknowledge the sense of virtual toes wanting to emerge.

She comes in for her Third Hour a week later and reports that the leg and foot work has been integrating well, that she notices her right foot more when walking, and takes more time with walking, loving her juicy paws. In this session, I add in some extra attention to the right foot in particular, and – related to what she had said in her intake about everything in her life feeling new – I give her the image of a butterfly emerging from the chrysalis. It had gone in a caterpillar, and transmuted into something completely new. She loves this, and tells me that in the chrysalis the caterpillar actually turns to goo before reconstituting as a butterfly. These images – the virtual toes, the butterfly – become important parts of her articulation of the new sensations she is feeling and the context of meaning for them in her life.

Further work: In session four, she realizes that while her right leg loves the work, her left leg feels self-pity and tired. (Note: I feel such mismatches are important to recognize, and to treat each side as the individuality that it expresses.) In session five, besides the traditional work, I budget time for lots of further work to her right foot. Jane 'realizes' that she "has five toes on her right foot, two physical and three invisible."

We have not yet completed her Ten Series, but it's been wonderful to witness her unfolding. She found her assigned role at work a bit boring, but was inspired to create a whole new role for herself with the company, and that has really opened up her career and brought her a lot of validation. It seems that the work of becoming more whole and connecting her inner sense of transformation with both the physical work and powerful metaphors has allowed her a new kind of ground in her life that is both physical and psychobiological.

I'd like to close with some words from a client I'll call Kim. We all have favorite clients, and Kim is one of mine. I've worked with her over more than seven years, initially a fix-it session then both basic and advanced series and other post-ten work. Kim is deeply in touch with her intuition and interiority, and highly creative. Her legs have been a theme throughout our work, and the dialectic between us has allowed both traditional work as well as a lot of experimental play with things like unwinding. An educator and writer, Kim's evocative description of her process with relating to her legs through this unwinding seems like a fitting closing story of the transformation that is possible when we include the psychobiological realm.

My legs have always been a feature of my own physical meta-awareness. Some of my earliest memories are of becoming aware of the strength of my legs as I learned to ride a bike, or climb one of the many trees in my backyard growing up. I also remember noticing how brown they turned in the summer sun after only an afternoon, and how they never let me down as I would run from neighborhood bullies. As I moved through my childhood, and my family life became more complex with younger siblings and a slowly unraveling relationship between my parents, my body lengthened and stretched to meet the energetic demands of being the oldest child, the one with the most capacity to help carry some of the domestic burdens. I have memories of my father, seated at his favorite perch in the house, a hand-rolled cigarette in one hand, and a cup of coffee in the other, his legs braided around each other. I have memories of my mother, walking in the door from a long day at work, her legs firm and rooted as she stood in the

doorway, holding her purse and maybe some groceries, as she greeted us.

But these memories are new retrievals in my personal archives. They came to me slowly, then in a rush, as I worked with Anne on addressing some foot pain and leg tension in my bodywork. Anne had asked me to allow my legs to tell me what they needed, and as she held my feet, gently, I felt something unwind, and kick free, and present itself. I shared these images with Anne, and as she held my feet steady, I shared the images of my childhood from the point of view of my legs. Since that session, I have been in a relationship of compassion with my feet and legs. They have carried me forward, steadfast and determined, to a place of safety and privilege, and their reward now is quiet gratitude and attention through continued bodywork and self-appreciation.

Conclusion

I believe the psychobiological dimension is critical to our lives and to a sense of interiority, meaning, and fruition. Equally, I believe that as Rolfers it is not up to us to force anyone to go there. Ida Rolf believed that our work had psychological benefit, but that the benefit was obtained by working with what we could touch. So when I work as a Rolfer (rather than as a Diamond Approach teacher), that is always my entry point: the fascia and the goals of Rolfing SI. However, I find that for some percentage of my clients, the psychobiological is explicit – in their histories, in their articulation of their experience, and in their experience of the work. With those clients, I step tentatively into that terrain, and see if there's uptake. Most process those offerings in their own time at home between sessions, and some dive right in during sessions to great effect. It is always in the client's hands, and always grounded in our primary work of organizing the fascial system in gravity.

Anne Hoff is a Certified Advanced Rolfer with more than twenty years in practice. She has a practice in Seattle, Washington and makes occasional forays over to Port Orchard, Washington. She was drawn to Rolfing SI as a client in a quest to sync up body, mind, emotions, and spirit, and the co-emergence of these realms has always been the guiding principle of her own process. Her understanding of the body is deeply informed by the Diamond Approach, a spiritual teaching she has been a student of since 1995. She became a teacher

of that work in 2015, following eight years of seminary training. She currently works with private students in that path, which offers another way to address psychobiological material and egoic versus authentic identity. She offers workshops in material related to the Diamond Approach logos. See www.wholebodyintegration.com for Anne's Rolfing practice and www.innerworkforourtimes.com for her Diamond Approach activities.

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Feet from Another Perspective

An Interview with Naturopathic Doctor and Regenerative Orthopedic Specialist Samuel Oltman

By Michael Boblett, Certified Advanced Rolfer™ and Samuel Oltman, ND

Michael Boblett: Dr. Samuel Oltman works at Northwest Foot and Ankle in Portland, Oregon, where he focuses on orthopedics and sports medicine. We wanted to speak to someone from this practice after Rolfer Karin Edwards Wagner told us about the good work done there by Ray McClanahan, a sports podiatrist, and his team. Sam, I'm going to start with general stuff. In Rolfing® Structural Integration, we refer to 'interoception', which is the client's awareness of his or her own body. Obviously an important part of foot rehabilitation is waking up sensory awareness that was previously lacking. What are your thoughts about this?

Samuel Oltman: So proprioception is a huge factor in the benefits of 'going barefoot' or minimalism in terms of minimalist footwear. There's actually a distinction in my mind at least between proprioception and interoception. Proprioception describes one's awareness of body position in space, and interoception means awareness of one's bodily sensations. [These] are obviously very closely related, but if you take a simple example of your hand, you have the sense that your hand is in a location, in space out in front of your face, a certain distance to your body. But there's also sensation, the temperature of it, the different actual sensations inside the hand; that's the interoception piece of it. Both are woken up when you are barefoot and when you are more habitually in minimalist shoes. The sole of the foot has more sensitive nerve endings per square centimeter than any other part of the body. So your contact with the ground is giving your body an immense amount of information. Being in footwear that allows your feet to receive that information is very important for balance as it relates to proprioception, and the ability to know what your foot is doing at any given time. Shoes that are overly supportive and overly cushioned sort of homogenize all those nerve endings so you don't really have a sense of where your foot is in space; there's no specificity of data coming from your feet when you're walking on a pillow essentially.

MB: I'm a big fan of minimalist footwear!

SO: Minimalist shoes have four basic properties: wide in the toe box (so they allow your toes to spread out); no external arch support; no raised heel; and no toe spring (toe spring is where, when the shoes is flat on the ground, the toes are pointed upward, sort of lifting the toes up off the ground). When you get in shoes that have a wide toe box, that don't have arch support, that have a flat heel (what's called zero drop), and don't have toe spring, biomechanically your feet are functioning in a way that evolution produced over millions of years. The foot is an incredible feat of anatomy and physiology; being in minimalist shoes allows all of those internal or intrinsic support mechanisms of the foot to work as they should and work naturally.

MB: So what happens with barefoot walking or minimalist shoes, in your view?

SO: [There's] the proprioception benefit of going barefoot. When you're in shoes or in minimal shoes, your foot is still from a biomechanical perspective behaving as if you didn't have shoes on. Now the next step of actually being barefoot adds another layer – you're getting all of the biomechanical benefits, but you're getting even more feedback from the soles of your feet in terms of the texture of the ground. I'm a big fan of earthing and bare feet – walking in the grass, walking on the beach, walking through the forest, anywhere where it's safe. You get massively greater input in terms of nerve endings and also in terms of proprioception, even [compared to] when you're in minimalist shoes. Actually being barefoot really teaches your feet to behave exactly as they should given our evolutionary background. So all those things add into proprioception because you're activating and sort of waking up the nerves in your feet.

A big part of proprioception is your brain's reconstruction of what's going on in the joint. The homunculus can be more or less detailed. Our brain, we know through neuroplasticity, is just like a muscle. We can make it stronger in some areas if we practice. This is where interoception really

ties in, in the ability to tap into present-moment awareness of a certain part of your body. That's essentially what mindfulness is. [Through practice you can] make the homunculus in your brain more detailed. If you are barefoot more, you're waking up your body's ability to pay attention to the foot, and it makes more and more detailed delineations.

As someone who practices Vipassana meditation, [where you] simply observe your moment-to-moment bodily sensations nonjudgmentally, that's literally the practice of interoception in a structured and disciplined manner. It really sharpens your homunculus in your brain. Because of a steady practice of developing one's interoceptive techniques, you can immediately place your awareness [anywhere in the body], given the requisite anatomy knowledge, and just feel whatever sensations happen to be going on in that area.

So the same thing goes with the feet and with barefoot activity; [you] wake up your foot and wake up your brain's awareness of your foot, and there's this constant feedback between those things. [This will help people who get] chronic ankle sprains or feel clumsy.

MB: You mentioned anatomical awareness, and this leads me to a question about demographics. I don't generally work with sedentary people. I prefer to work with people who are physically active. What is the demographic that you tend to serve and how does that affect foot work in your practice?

SO: [In my] orthopedic practice at Oregon Regenerative Medicine, it's [people in their] thirties, forties, who are very active – running marathons, doing Crossfit®, playing in different sports leagues, rock climbing, surfing . . . people who are of a proficiency level in a certain activity [and] are pushing their bodies. A group like that tends to be much more preventatively focused because they are active. They want to stay active, right? So it's not what can I do to avoid arthritis when I'm seventy; it's what can I do so that I can do my thing next week. So they tend to be more motivated, [and it] is always nice to work with people who are highly motivated. In that group, the types of things that we see are obviously much more acute injuries – different sprains and strains, actual toe fractures, Achilles and heel issues, and then your ankle injuries. And in a broader sense, knee injuries, meniscal stuff, MCL, shoulder injuries, back pain.

The best way to keep moving is to prevent injuries in the first place, so that's where counseling around healthy footwear and getting your feet in shape [comes in]. One of the big things about making a transition to more minimalist shoes is that you're asking your feet to do something very differently than what they've been doing in the past and you're activating muscles that have previously been lulled to sleep. It's like training any other part of your body, you have to give yourself time for your muscles to adapt for you to get stronger. It can take a long time, especially for runners, to fully transition to barefoot running to get to an equivalent level of distance – not because it's harder to run barefoot, but just because you are recruiting a whole different biomechanical pattern. There's a really great website through Harvard, an anthropologist who studied different cultures' running forms. It's essentially the difference between doing a heel strike [or doing] a forefoot or mid-foot strike. It changes your biomechanics and your ankles, knees, and hips pretty dramatically. So approaching all of that from [an injury-prevention] standpoint is really important, especially in that younger group.

And then the second demographic that I see a lot of is people with osteoarthritis who are sixty, seventy, sometimes eighty, [but] sometimes fifties. And there's a lot of ancillary or secondary conditions that come along with that. Essentially the person who's sixty-five and has osteoarthritis in the big toe along with a bunion and some knee osteoarthritis and some hip [issues]. That's a demographic that's not necessarily active.

Part of the connecting piece between those two demographics is that it's very, very clear through the evidence now that any acute injury increases your risk of osteoarthritis in that joint down the road. So a lot of times you have people who are in their sixties who are in phenomenal shape, very active, but have osteoarthritis because they have a history of injuries. So we know that osteoarthritis isn't just a case of a sedentary life and metabolic decline, it can also be post-traumatic. So there's a mix for that older demographic between people who have had traumatic injuries and develop osteoarthritis, and people who essentially have 'diabetes of the joint' – which is in large part what osteoarthritis is, a sort of insulin-dependent degradation of the joint surface having to do with inflammation related to high blood sugar and metabolic syndrome.

'Diabetes of the joint' doesn't quite capture it all, but it's sort of a good sort of synopsis of the connection between the degeneration in the joint and the metabolic processes that are happening throughout the whole body because generally in something like that there's rarely ever arthritis in only one joint.

In my practice at Northwest Foot and Ankle, that demographic is bunions, hammertoes, heel pain, and – across the board regardless of age – ankle instability. Chronic ankle sprains, in my opinion, a lot of times are through the use of improper footwear. If you think about how an ankle sprain happens, you have to have something to roll your foot off of. [Putting] yourself on a big heel increases the likelihood that your ankle can roll off of the heel of the shoe, which is basically acting like a fulcrum for the kind of sprain to happen. I've found that being barefoot and having the heel actually on the ground, having the whole foot on the ground, really decreases the amount rolled ankles that I've seen in my patients.

MB: This is really helpful. I am totally stealing that metaphor, if that's what it is, of diabetes of the joints. That is really good.

SO: It's not mine so go ahead and steal it.

MB: I have so many clients where one of the first things I say is, "I'm not going to see you if you don't also see a nutritionist because I can't keep putting out fires where you keep on setting off fireworks."

SO: It's a primary point of emphasis that I use with all my patients. A big modality that I use in both my practices is regenerative injection therapies – dextrose prolotherapy, platelet rich plasma (PRP). These are therapies that help to induce your body's healing response; you inject PRP into a joint that has osteoarthritis and your body is activated to rebuild cartilage, repair the connective tissue, the ligaments, the tendons in that area where the injection is done. But those injections don't have the same kind of durability if the person is continuing detrimental lifestyle factors – especially with PRP, because PRP is made from the patient's own blood, right? We take the patient's blood, spin it down, and extract and concentrate the growth factors that are in the blood. You're PRP is only as good as the blood your body is making. With PRP you really are making your own medicine. It makes a lot of intuitive sense to use your body's own growth factors, sort of in a concentrated form, to put back into the joint. But a lot of people have inflammatory

blood and it can diminish potentially the effect that PRP has for someone.

So getting people on an anti-inflammatory diet; low low-glycemic, plant-based, basically a Mediterranean diet. As a naturopathic physician, I have been exposed to diets that are really all over the map, and pretty extreme restrictive diets for a lot of different conditions. But I think, in general, just eating a common-sense plant-based diet – I really like what Michael Pollan summarizes, eat real food, mostly plants, not too much. That's essentially what the Mediterranean diet is; it's the most scientifically valid. There's some cases where eating paleo can be helpful, there's some cases where going vegan can be helpful, and everything in between. [For] the insulin resistance that is the basis of diabetes, just eating real food is a pretty big shift for a lot of people. And so I find that keeping it simpler is usually better for most people. In terms of joint health and doing different injection therapies and working with people's feet, diet always comes up.

And it's actually a special interest working in podiatry because of things like diabetic neuropathy. The foot is, in most cases, the first area of the body that tends to be symptomatic for diabetes. That comes up fairly regularly at my practice at Northwest Foot and Ankle. There's some supplements that can be helpful. Pharmaceuticals have their place, but pharmaceuticals – especially for lifestyle diseases – are really just kind of plugging holes in the boat as it springs a leak somewhere else. So the conversation about diet never ends and it's almost always relevant. Everything that your joint is doing and everything that your feet are doing, it all is made up of the stuff that you're eating. Every molecule of it. And it just so happens that insulin resistance is the most prevalent metabolic dysfunction in this country right now due to processed foods and sugars and artificial sweeteners and everything like that.

MB: Beautiful. And you totally had me, Michael Pollan happens to be the Bible writer of our particular family religion. Eating mindfully and eating with joy.

SO: A lot of times in medical nutrition it's really over-emphasized about calories and macronutrient distributions and eating a prescribed diet. There's places for those things for sure. But for most people, I've found that creates another neurosis around food. One of the things I really appreciate about Michael Pollan is he emphasizes the fact that food and eating are really essential

to the social fabric, not just an event, but a ritual, something to really enjoy and take pride in. So the eating alone in your car during rush hour is so antithetical to what healthy digestion is in terms of your nervous system and digestive activity, and is sort of the opposite end of the spectrum from eating a long relaxed dinner with loved ones in the comfort of your own home. And so those things are, even if you're eating the same substance, massively different in terms of the way you digest them and your response to those foods. There's actually been really interesting studies where they take two groups of people and they feed them the exact same milkshake, except they tell one group that the milkshake is like an indulgence dessert milkshake, and they tell the other group that the milkshake is a diet, sort of like a lean shake thing. And people's attitude toward what they're eating changes their hormonal response to that food and changes the insulin response. So the attitudes about your food and the state of consciousness and the state of mental activity that you're in while you eat also play another role.

MB: Let's talk about client expectations and managing expectations, managing how the client responds. And this I find happens in both the demographics that you talked about – the younger more athletic and the older, more sedentary. I find that when feet wake up, one of the first things they do is complaint. And this happens in session, it happens between sessions. All of a sudden a metatarsal that has never rotated starts to rotate. A toe that has never said anything suddenly has said, "I haven't said anything for sixteen years, so ergo, I've got some stuff I have to say." So with clients whose arches, for example, are starting to open up, or whose toes are beginning to develop some independence from each other, how do you handle this?

SO: That's a really good observation. I definitely tell patients [we are] asking your feet to do something very differently, and so within that, new things might come up along the way. There are going to be different sensations, and part of that may have to do with waking up the proprioception ability. Simply becoming more aware can open up some unpleasant sensations. We talk about increasing awareness, or increasing body awareness. When you increase your body awareness, you don't get to choose what to be aware of, right? You're just being more aware of

your body, whatever happens to be there. And a lot of times what happens to be there is discomfort. And so I think that can definitely be a part of it, from a more basic kind of physical or physiological level, when people use their feet more. When you wear more minimal shoes, when you're barefoot more often, your feet are working harder. They're going to feel like they got a good workout. I talk a lot with my patients about trying to distinguish the difference between good pain and bad pain.

One of the primary tools that I use at Northwest Foot and Ankle is called Correct Toes® (see Figure 1). They are a toe spacer product made to be used with activity. [Most shoes have] a tapered toe box; not just high heels and cowboy boots but pretty much 95% of shoes on the market. If you look at a baby's foot, the widest part is at the ends of the toes, but if you look at most American adult feet, the widest part is down at the metatarsal heads and MTP joints because all the toes have been squished together by wearing shoes that are forcing them to conform to fashion.

You would think that running shoes would be made purely for foot performance. Most companies are marketing foot performance but under the guise of current fashion standards [of] having slender, pointed toes. And that's a carryover [of the] cultural evolution of footwear and other related clothing or adornments. We had heels on our shoes so they would fit in the stirrup

[when we were riding] horses around. And those aspects of footwear have persisted to an incredible degree, to the point where now athletic shoes are made with pointed toes, for no reason other than people are used to it.

Reversing that takes a lot of the time. When you transition to bare feet, the Correct Toes spread out your toes and reverse what narrow-toed shoes have done in terms of compressing the toes together. So they re-spread your toes out so that the ends of your toes are again the widest part of your feet. And doing that's a pretty big change. Take that older demographic with bunions, for example, they've spent fifty or sixty years getting their toes compressed on a daily basis to the point where they now have pretty severe deformities in their feet. If you think about how long it took your feet to get to this point, it sort of gives you an idea of how long it will take to get complete reversal. The big delineation is a lot of people want their feet to look different. As a doctor I'm less concerned with aesthetics and more concerned with pain-free function. Aesthetically it's hard to reverse a lot of the soft-tissue changes over a short period of time. It does happen over the years – it happened with my feet, it happens with patients' feet all the time. But it takes years to really change the resting position of your big toe so that it's more in line with the first metatarsal. However, from a functional perspective, getting your feet to feel better and to function naturally and well is a much, much shorter rate of change. Wearing the Correct Toes is powerful because they kind artificially align them without having to wait for your feet to realign themselves over the next couple decades.

All of those changes can cause some either previously unknown [pains] or [cause] past pains to come back up. The fact that you maybe have a new sort of soreness in your foot that you've never felt before is a sign of your foot changing, and getting stronger. And that happens a lot with other joints too, like when we're doing regenerative injections for knee arthritis. When the knees feel better, you start to notice maybe other joints in your body that you didn't really notice before, that are hurting you now. I think that's a part of it as well, when you have one part of your body that's in severe pain, you don't notice the other parts, or at least you're more apathetic to them. So when you resolve the major pain, then you become aware of smaller pains. That's the continual journey of optimization, just continuing to address whatever happens to be at the top of the list in terms of pain and dysfunction.



Figure 1: Correct Toes®, toe spacers developed by Dr. Ray McClanahan, the founder of Northwest Foot and Ankle; see <https://www.correcttoes.com>.

MB: Do you work with pregnant clients and what happens with that?

SO: Women's health isn't something that I focus in. But I do see a lot of women who develop soft-tissue dysfunction post-pregnancy. The hormonal changes that happen in pregnancy are geared towards making soft tissue more pliable. To get the body prepared to deliver a child, the connective tissue has to be pliable so the baby can pass through the pelvis. Those changes happen not just in the pelvis, and not just locally where they really need to happen. They happen systemically. So women who have just delivered have more pliable and sort of loose connective tissue. That can cause different issues, especially in terms of foot and ankle issues. Chronic ankle sprains and ankle instability are pretty common in pregnant women, also knee or hip symptoms through valgus deformities and things like that. Having the connective tissue more pliable throughout the whole body sets them up for increased risk of injury through ligament laxity.

Even if it doesn't come down to a full ankle sprain, just the sensation of instability is something that I find to be fairly common post-pregnancy. A lot of times it's not a big enough issue to where people will need treatment per se. If someone's already living more of a barefoot kind of lifestyle, so to speak, then they're going to be in a better position when those changes do happen to not have them cause any injury. If there is chronic ankle instability and that's manifesting as ankle sprains, using dextrose prolotherapy is my go-to; that's a type of injection therapy that utilizes dextrose, just a simple sugar solution mixed with anesthetic at a certain concentration to make it a hyperosmotic solution. When you inject that into the ligament attachment points on the bones, it attracts white blood cells and fibroblast activity among other things in a controlled inflammatory response. It helps to build and strengthen collagen and can essentially shrinkwrap the joint and make it more stable through strengthening the ligaments.

Essentially what prolotherapy does is mimic tissue injury without injuring the tissue. So it mimics on a chemical level what would happen when you have an acute injury, except with the injections there's no actual tissue damage. So you're getting the healing response from your body in the absence of any actual injuries. You can help to strengthen up specific areas through these injections. I

find that I can get really pretty distinctly verifiable results in terms of orthopedic tests and symptoms within several treatments. So that's the main thing I use for ligament laxity. But in terms of pregnant women, ligament laxity is definitely the biggest thing from a musculoskeletal perspective that I see.

MB: Excellent. Well, you've been extremely helpful. I'm very grateful.

SO: I really appreciate you reaching out, Michael, it's been really nice chatting with you today. If you have any questions let me know.

MB: I do know that I will be selling Correct Toes now through my practice, and I'm grateful to learn about the various kinds of injections that you mentioned as well.

SO: Excellent.

Samuel Oltman graduated with a BS in exercise and sport science and then obtained his Naturopathic Doctorate (ND) from the National College of Natural Medicine. He completed a rigorous two-year primary care residency at Grain Integrative Health in southeast Portland and has advanced training in pain management, orthopedics, and regenerative

injection therapies. Dr. Oltman treats patients with the underlying presumption that the body contains the wisdom to heal itself – with the requisite inputs for enhanced healing and the removal of barriers that prevent healing. He views symptoms as nature pointing to where imbalance lies. A lifelong athlete, Dr. Oltman is interested in how to optimize performance and physical fitness. Restoring natural foot function to his own feet made him a true believer in the barefoot lifestyle. He is on the staff of Northwest Foot and Ankle in Portland, Oregon (<https://www.nwfootankle.com>) and has a second practice, Oregon Regenerative Medicine, in Lake Oswego, Oregon.

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Minimalism

Put Your Shoes to the Test

By Karin Edwards Wagner, Certified Advanced Rolfer™

Author's Note: This is an update to my article, "Barefoot Walking Inspires Healthier Shoe Choices," published in the June 2011 issue [39(1):31-32] of this Journal.

Have you ever finished a Second Hour of the Rolfing® Structural Integration (SI) Ten Series only to watch your client bind up her feet in heavy, restrictive shoes? Do clients ask you what shoes will support their SI experience, and you aren't sure? This article will explain the principles of healthy footwear and give you seven hands-on tests you can do for yourself and teach your clients, as well as a guide to shopping for minimalist shoes.

Note: An asterisk in the text indicates that there is a short video of the test available on my website (see Additional Resources at the end of the article).

Shoe Tests

This section will give you tests to see if your shoes meet the criteria for minimalism and good foot biomechanics. Start by

having a look at Figure 1, which shows examples of minimalist shoes compared to conventional shoes.

Test 1: Flexibility

Take off your shoe, turn it sole-side up, grab it at the heel and in the middle of the shoe, and twist. Avoid 'torsional rigidity', a trend in shoes that locks down the mobility of the tarsal bones. Make sure it can twist at least a small amount, specifically at the tarsal area.*

Our feet need stability for standing and mobility for movement. Most footwear errs on the side of stability, largely immobilizing the foot. The joints between each of the tarsal bones, metatarsals, and phalanges (toe bones) have slight movements that allow the foot to adapt to the ground and create a responsive base of support for the



Figure 1: A – examples of minimalist shoes; B – examples of stiff, over-supportive shoes. Photos by David Wagner.

rest of the body. Do your shoes have the flexibility to allow for natural foot motion?

Test 2: Ground-feel

While wearing your shoes, step on a rock the size of a marble. Can you clearly feel the rock through your shoe? If not, the sole of the shoe is either stiff or too pillowy.

Shock absorption: Shoes that are stiff or overly cushioned interfere with proprioceptive sensing of the ground. When walking barefoot or in lightweight shoes, your gait naturally adjusts to avoid discomfort from heavy landing. Research shows that conventional sneakers and stiff-soled clogs cause harder foot-strikes, increasing joint shock and the risk for knee osteoarthritis (Shakoor and Block 2006). When your feet can feel the ground through your shoes, you will tend to land more softly. If your feet feel too sensitive, it's okay to add a thin flexible insole to your minimalist shoe.

Muscle firing: Sensory feedback from the feet is essential for the correct firing of motor nerves. The nervous system demands quite a bit of sensory data, but if that data is lacking, the muscles may fire late or weakly. For example, the tibialis posterior muscle does the job of lifting the arch of the foot, but it will tend to be lazy if the ground-feel is muted by overly padded or stiff shoes.

Test 3: Neutral Heel

This test involves a bit of research. For athletic shoes, look online for the 'heel-to-toe drop'. Five millimeters or less is acceptable. 'Zero-drop' is perfectly flat but may feel too extreme initially.

Most footwear, even 'flat' dress shoes, has a half-inch heel. The heel prevents a full range of motion while walking or exercising, resulting in shortened calf muscles. Over time, this limits ankle freedom, contributes to tight hamstrings, and pulls into the lower back (and even up to the neck). The

connective tissue of the Achilles tendon weakens and can be at risk for injury.

When making footwear suggestions to clients, keep in mind that switching to a neutral heel abruptly has its challenges. One of my clients, an ultramarathoner, regularly wore conventional athletic shoes with no apparent ill effect. But spending a single day barefoot at a water park triggered lasting plantar fasciitis. His shortened calves became overstretched by trying to move naturally. My approach was to calm and free the tibial/plantar nerve and artery, to lengthen the calf muscles and fascia, and to have him *gradually* transition to footwear with a neutral heel.

Test 4: Wide at the End of the Toes

Remove the insole and stand on it, spacing out your toes a bit. Does your big toe or pinkie toe overlap the edge of the insole? If so, you need more space in your toe box.

The toe box should be foot-shaped, which means the toe box needs to be wide at the end of the toes instead of tapering from the ball of the foot to the toes (Figure 2). Narrow toe boxes cause bunions, neuromas, distorted toes, weak arches, and many other problems. Athletic shoes are often wide at the ball of the foot but narrow at the tips of the toes. Tapered toe boxes are a sneaky contributor to over-pronation. If the big toe is pushed toward the other toes, the foot is more likely to over-pronate.

As an experiment, while standing, use your hand to pull your big toe away from your other toes. Then try to collapse your medial arch. Feel that there is a natural resistance that tells the arch where to stop? Then contrast it to the toe position in a tapered toe box, by pushing your big toe in toward your other toes. This time, can you collapse your medial arch much farther? You might even feel a twinge in your medial knee. When the big toe is in its natural position,

it helps limit pronation. See my website for a short video of this demonstration, which I perform on clients to help them feel why their toes need so much toe-box space.*

Don't neglect the pinkie toe when selecting a toe box. If the pinkie toe is compressed inward, it disrupts the lateral arch. Dr. Rolf put a lot of value on the lateral arch: in a 1976 training she said, "In all pictures of Hermes, or Mercury, the wings are on the outside of the feet. And what they're saying was if you want transportation, you must walk as though you had wings on the outside of your feet." The lateral arch is the foundation for the medial arch, and toe spacing is intimately related to these arches.



Figure 2: A view inside the toe box. Photo by Lems Shoes (www.lemsshoes.com), used with permission.

Toes will expand to fill the space if allowed enough room, so try sizing up from the size you normally wear. If you have a wide-toed shoe but you need even more space, try removing the insole liner. Avoid sandal straps that cross the toes and compress either the big toe or the fifth toe.

Test 5: Avoid Loose Slip-ons

Grab your sandals and put them on. Shake your foot. Is the sandal secure, or does it feel like it could come off?

While it makes sense that tight shoes can deform toes, loose shoes can have a similar impact. If shoes are loose enough that the toes need to grip them in order to stay on, it can result in a habitual curling or lifting of the toes that contributes to hammertoe, claw toe, and generally squished-together toes. For shoes that tend to be loose, such as flip-flops, Crocs™, or Birkenstock® shoes, select a version with a heel strap or ankle strap.

Test 6: Avoid Toe Spring

Put the shoe on a flat surface and look at it from the side. Does the toe curve upward about 15°? That's 'toe spring' (see Figure 3).

Athletic shoe companies started engineering toe spring into their shoes two decades ago. Their idea was to aid the rocker motion of the foot in running and to look appealing in store display windows. However, this change was completely unnecessary, as our legs naturally perform this motion without a change to shoe shape. Toe spring holds the toes in a lifted position, which limits the ability of the flexors and extensors of the toes to work properly, and contributes to deformed toes. Dress shoes also sometimes have toe spring.

Stretching the top of the foot and toes after exercise can help restore correct alignment. If the shoe is flexible, a modest toe spring can be removed by bending the shoe in the other direction for a half hour.

Test 7: Minimal Arch Support

Stand in your shoes. Can you feel the shoe arch pressing up into your foot? That's too much arch support. Do a slow knee bend. Does your foot lengthen and your arch spread and lower slightly, or does your shoe prevent that motion?

The medial arch is meant to be supported by the bone structure, ligaments, and muscles. A stiff arch support, and especially an orthotic, undermine both the pronation and supination of the foot. In the weight-bearing phase of a stride, the peroneal muscles will attempt to pronate the foot. If there is an arch support interfering with this function, it can result in peroneal tendonitis and even strain in the lower IT band. The arch muscles (tibialis posterior, flexor hallucis, and flexor digitorum longus) are further weakened by wearing shoes with too much arch support.

Many clients are concerned that their 'flat feet' require arch support. Low arches and 'over-pronation' have been incorrectly pathologized. In fact, many people have arches that are low but 'functional', meaning that the arch is going through a range of motion that is performing some shock absorption. To build natural arch function and safely transition from using artificial

arch support, focus on toe-spreading (Test 4) and correct firing of the arch muscles by improving proprioception (Test 2).

Shopping Guide

If your shoes fail the tests, it may be time to go shopping. Keep these principles in mind as you shop, and you will find many minimalist shoes for \$80-\$140. Excellent brands include Lems, Vivo Barefoot, Softstar Shoes, and Altra (choose only the Altra models with the thinnest sole). Merrell® Barefoot and New Balance Minimus are specific lines that are minimalist, though I do not recommend other shoes by those manufacturers.

The most important characteristic is the wide toe box, so don't compromise on that. If you find yourself needing even more toe room, here are some quick strategies. Ideally, choose a larger size. If that isn't an option, remove the insole and try the shoe without it. Re-lace the shoe, skipping the first pair of eyelets, which will give you some more room at the toes. You can also do a web search for "alternative lacing patterns" for methods that change how your shoe fits. A technique I have used successfully is to stretch the leather in specific places by soaking it in rubbing alcohol and using a tool such as the blunt end of a pen.

If the toe box is spacious but your toes need more help learning to spread out, you can wake them up by wearing 'toe socks', which have a separate pocket for each toe, like a glove instead of a mitten. This stimulation will increase sensory information coming from your toes and help you learn to use them. Some brands such as Injini® offer wicking fibers appropriate for sports. Many options are available from online companies such as Sock Dreams. A more daring style option is toe shoes, such as Vibram® Five Fingers. I suggest the leather type because they are more comfortable and more adaptable in fit than the synthetic options.

If you want a more significant corrective device to space your toes, Correct Toes® (\$65/pair) are the safest and most effective option. They are the only toe spreader that is safe to use in shoes and during exercise, which is exactly when it is most beneficial – to retrain the foot to move correctly. There are inexpensive 'bunion toe spacers' that only correct the big toe position; for some people those are adequate. In either case, they should be worn with shoes that are very wide at the end of the toes, with no tapering, and preferably sized up a half or full size from what you normally wear.

Metatarsal pads are a helpful addition to a minimalist shoe. They support the metatarsal arch, also called the transverse arch. Why support the metatarsal arch and not the medial arch? The medial arch is meant to rise and lower during walking, while the metatarsal arch is meant to be always lifted. In clients who have chronically lifted toes (that is, when their foot is relaxed, their toes are bent upward), the metatarsal arch is frequently dropped. Gently push up on the bottom of their metatarsal area to see if that straightens the toe alignment. If so, show this to the client so s/he can understand why this product would be beneficial.* Metatarsal pads can help neuromas and many other foot ailments, especially when used with Correct Toes in a very-wide-toe shoe. I prefer Pedag® brand, \$10/pair, which have peel-off backings so they can adhere directly onto the liner or footbed of the shoe. Start with one pair of shoes to get used to them, then add them into the other shoes. Gradually transition into using them during sports. Many clients get ongoing benefit from using metatarsal pads. There is no need to wean off of them, and they will not make the foot dependent on them.

A couple of other considerations for helping clients improve their footwear:

- Look closely at shoes and socks. Perform 'fascial release' on the toe seam of tight socks, and teach clients to do it. Simply pinch and stretch.*
- Encourage clients to cut, stretch, and otherwise modify their shoes to fit their feet and optimize their foot function. If a client has foot pain, examine shoes for a seam or a fabric pill that might be rubbing.



Figure 3: Two examples of toe spring.

Natural Movement Using Minimalist Footwear

In minimalist footwear, experiment with your stride by allowing your back foot to stay on the ground longer, rolling through to the tips of the toes, then swing your leg forward only to the point where it is just a little in front of your body. Contrast this to reaching the foot far in front of the body, striking the heel, and pulling the rest of the body forward.

This new stride will be shorter but with a faster cadence. Each step will feel lighter, minimizing both impact and effort. Keep the feet fairly close to your midline, over your center of gravity. This prevents side-to-side rocking, for reduced impact and improved balance. Don't tuck your tailbone, as that puts pressure on the lumbar discs and also makes it difficult for the gluteus maximus to fire.

For those who run, the transition to running in reduced heels and then neutral heels should occur over the course of months. During this time, careful warm-up and stretching will help prevent injury. Ankle circles – twenty in each direction – are a safe and effective warm-up for the foot, ankle, Achilles, and calf. Then follow with light bouncing and then one-legged bouncing for a minute on each side.* Gradually, the Achilles tendon will respond and remodel to have more spring and resiliency.

Static (isometric) stretching should only be performed after exercise that fully warms the muscle tissue. I advocate for a more sensitive approach to stretching than is often taught. Stretch the calf by dropping the heel off the edge of a curb. Start slowly, feeling for the first place of resistance, pausing for ten to twenty seconds to let that resistance soften. Sink deeper and look for the next resistance. Once in the full stretch, hold the position for sixty seconds or more. This measured approach to stretching will prevent injury and support the calf in adjusting to shoes with a neutral sole.

Author's Note: This article is indebted to the work of Dr. Ray McClanahan, DPM, www.nwfootankle.com, the inventor of Correct Toes. Thanks to David Wagner for help with writing and editing this article.

Karin Edwards Wagner is a Certified Advanced Rolfer with fourteen years of experience and a blackbelt in Ki Aikido. As a teen she invented 'toe tricks' such as flipping a cassette tape to side B and hitting play.

Additional Resources

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*For short videos of these concepts, please visit my website www.portlandrolfer.com/Feet.

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The Three-Dimensional Animal, Part 2

Archicebus Achilles, Metatarsals, and the Generous Sole

By Michael Boblett, Certified Advanced Rolfer™

Things exist either because they have recently come into existence or because they have qualities that made them unlikely to be destroyed in the past.

Richard Dawkins¹

I like old things. Most of my furniture is inherited. So are many of my books and even a surprising number of my pieces of clothing. I also like old structures in the human body. I am increasingly convinced that the evolutionary age of a biological component is a sign of its reliability. Newer anatomical equipment is less tried and true – more apt to break down. Old stuff survives because it works.

But what has this to do with Rolting® Structural Integration (SI)?

Well, old structures often survive because they can be repurposed. Old things can serve new ends. Also, and more relevant to the diversity of movement patterns, old things can serve multiple ends. In few animals is this as true as in *Homo sapiens*. Biomechanically, we humans specialize in not specializing. Using the same structure in different ways is essential to our adaptability.

What is the best example of this? The reader may be skeptical when I claim that,

of all of the different structures, the foot is the best example of adaptive ingenuity. I will make this case, and support it with evidence, but who knows? This is not a rhetorical question: I honestly invite every reader to present a similar case for your favorite body part. (The diaphragm, anyone?) The modern human foot is a lot older than the modern human hand, the pelvis, the spine, or the rib cage, etc. The foot is certainly far older than that cranky and bug-ridden piece of new technology that we call our brain. Anyone who wishes to celebrate a structure other than the foot as the pinnacle of evolutionary intelligence would be hard-pressed to find one with such a perfect balance of ancient stability and timely adaptability.

The Pioneer Foot

In my earlier article, "The Three-Dimensional Animal: Changing Views of Bipedalism and Its Limitations" (Boblett 2015), I speculated (unwisely) about the age of *Homo naledi*. Like far more qualified people, I considered this animal a likely early member of our *genus*, an intermediate species in the transition from arboreal to terrestrial life. I presumed that *Homo naledi* was genetic to the entire *Homo* lineage. *Homo naledi* is now known, however, to be only 335,000 to 235,000 years old. The

youth of this species is, therefore, proof of how recently our seemingly monolithic *genus* maintained a remarkable diversity of movement patterns – but with strikingly similar feet.

Mind you, the *Homo naledi* foot probably differed from your foot in several important ways. For instance, the former was evidently more robust than that of modern *Homo sapiens*, and it would have furthermore borne slightly curved phalanges for climbing. But one writer on *Homo naledi*, Andrew Howley (2015) at *National Geographic*® Magazine, points out that *naledi*'s foot structure is well within the variation found in *Homo sapiens*, if you include Khoi-San people: "If you found just this foot, you'd think it belonged to a bushman." (As I have written before, anthropologists in Africa pray fiercely for a skull to go with other human fossils, since otherwise the anatomical details of this species remain uncertain.)

So, in this apparent outlier to human evolution, I am still struck by the juxtaposition of 'primitive' and 'advanced' traits. On the one hand, *Homo naledi* had remarkably modern feet. On the other hand (pun intended), its hands were beyond human range in their adaptation to climbing. *Naledi* also had a round, ape-like waistline incapable of our own rotational independence of rib cage and ilia. So I repeat my assertion that this odd combination of stable and derived traits points to the availability of the human foot to support a great variety of movement patterns.

In this new article, I go back even further. In my previous essay, I went back beyond *Homo naledi* to speculate a bit about the transition from monkey to ape. Now I go to the emergence of monkey-like traits – mostly in the foot. This occurs in *Archicebus achilles*, a tiny primate from 55 million years ago that lived in China during the early Eocene. This creature weighed twenty to thirty grams (i.e., about one ounce). It was smaller than most mouse lemurs, which are today's smallest primates. On the phylogenetic tree, *Archicebus achilles* lies near the juncture between nocturnal tarsiers and the diurnal anthropoids. The latter include monkeys, apes in general, and the particular bipedal ape who's writing this very article.

Archicebus is not the oldest primate fossil. But it is by far the oldest primate fossil with anything like its level of completeness. This

complete skeleton allows me to repeat my motto: "The foot often evolves first; other body parts catch up." Then the foot retains its initially modern form as the rest of the body (to employ a teleological perspective) 'catches up'.

As with *Homo naledi*, the foot of *Archicebus* emerges as a surprisingly modern structure in juxtaposition with less evolved traits:

Archicebus differs radically from any other primate, living or fossil, known to science. It looks like an odd hybrid with the feet of a small monkey, the arms, legs, and teeth of a very primitive primate, and a primitive skull bearing surprisingly small eyes (Ni et al. 2013).

I compare this with my previous article's description of *Homo naledi*, in which I quoted William Harcourt-Smith of the Paleontology Department of the American Museum of Natural History (2015) saying that "Quite obviously, having a very human-life foot was an advantage to this creature because it was the foot that lost its primitive, or ape-like, features first."

In these two cases, the relative modernity of the foot differs, because it supports two different breakthroughs in primate development. *Archicebus* displays the beginning of precisely the 'ape-like', or in fact monkey-like, grasping foot that then 'de-apes' by narrowing and stabilizing in *Homo naledi*. But in both transitions, the relevance for *Homo sapiens* is the survival through all three species of repurposed old structures: our long *calcanei* and long *metatarsals*.

Why Metatarsals?

Why then do I focus on the *metatarsals* instead of *calcanei*? After all, the species I use as an example of old-and-new in juxtaposition was named "achilles" after the character from *The Iliad* whose heel was famously vulnerable – a clear reference to *Archicebus*' strikingly modern calcaneus.

I choose *metatarsals* for two reasons.

First, our long primate *metatarsals* are even older than our elongated *calcanei*. Simply put, our primate habit of grasping is even older than our tarsier- or monkey-like habit of leaping. (I put the supporting argument for this in an endnote² because it slows down the flow of an already-dense argument.) Briefly, primates even older than *Archicebus* display long *metatarsals* without its specific *calcaneal* leaping adaptation. But

the remains of these older primate skeletons are so fragmentary that they do not fit into my narrative of feet retaining strikingly similar features over time to support radically changing bodies.

Second, I am more interested in grasping (and the movements that evolve out of grasping) than in leaping. Yes, leaping is deeply incorporated into our repertoire of available movements. This happens in several ways, mostly through the incorporation of leaping into bipedal gait, especially in running. But my focus here is on the possibility of evoking, in Rolf Movement™ work, what I will stipulatively call 'the generous foot' or 'the generous sole'. More 'handy' even than leaping for the evolutionary fitness of *Homo sapiens* is grasping. And as we shall see, the child of grasping is giving.

As I turn to the repurposing of the act of grasping, I must describe the ecological context of *Archicebus* and its descendants. I must now sound rather like a high school biology teacher, so I invite you to skip this next section if it repeats stuff you already know.

The Fruits of Perception

Terrence McKenna once remarked that "Animals are something invented by plants to move seeds around." On this planet, plants call the shots. That's not news to me. I try humbly to know my place as a mere vertebrate and act accordingly. But even I was surprised, when I first learned of it, just how deeply and directly the needs of plants manipulated our early primate evolution.

Fifty-five million years ago, the Earth that supported *Archicebus* was still coming to terms with one of its greatest extinction events, the KT Event a mere ten or eleven millions years earlier. The web of life was still vibrating. Seventy-five percent of all species had died out. But the Manhattan-sized asteroid that hit our planet, apparently preceded by some fierce volcanic activity, introduced new problems . . . and opportunities.

As usual, the plants were quick to respond, giving animals new opportunities. Call it a 'job-creation program'. The problem was an old one: how to deliver packages of DNA? For tens of millions of years, *angiosperms* had excelled at bribing various DNA-carrying critters with pollen and relatively small fruits. Flowering plants, which by definition are also fruiting plants whether

or not we humans eat the fruit, had done a good job of taking over a lot of land and a lot of light from their drab *gymnosperm* competitors. But most of the pollinators, which tend to be specific to the plants they serve, had gone extinct. Once again, land and light were up for grabs. First come, first served.

To address this, some plants made their fruits especially big and attractive. Highly specialized pollination was still useful for some flowering plants, but the free-for-all competition for these big new goodies was an advantage in a world where everything was changing rapidly. In the fierce scramble, birds predominated. (That's when they weren't trying to become the top predators in the new ecosystem, which they nearly succeeded in accomplishing.) After all, birds had one advantage denied to mammals: they could see color. They quickly developed the ability to discern when these new fruits were at their ripest. Mammals, by contrast, had lost color-vision. Even before dinosaurs took over, our remote ancestors had carved out a nocturnal niche. The long night took its toll. But *Archicebus*, with its small eyes, was already emerging into the light. We don't actually know whether *Archicebus* saw in color. We only know that most of its descendants can do this, almost uniquely for mammals. (Some marsupials see in color.)

With its large *canines* and the sharp crests on its *premolars*, *Archicebus* was still a bug-cruncher. Actual fruit-eating probably can be detected in the genus *Apidium* a mere 30 million years ago, with its more derived dentition, its narrower *phalanges*, and its replacement of claws with fingernails and toenails. But the increased flexibility permitted by the long *metatarsals* of *Archicebus* was certainly a useful preadaptation for the further specialization of its descendants (or great-times-millions nieces or nephews) in fruit-eating. Although not everybody accepts the fruit-color-vision theory of primate evolution, it remains a dominant explanation for the evidence from the fossil record.

Again, what has this to do with Rolfing SI? Well, it led to a newer shift anterior to the metatarsals, which leads to our own narrow and sensitive fingertips – and toe-tips. Now I'm going way out on a limb. Wanna join me?

The role of fruit in primate evolution is often traced in our large brains and our complex social networks. I consider the latter as more basic, since so much of our

cortical space as primates is taken up with social relations. But the brain is not the only organ that supports – and is shaped by – our increasingly large and complicated groups. I hope that I tickled you before with the idea that 'the child of grasping is giving'. I believe that grasping and giving are linked in the social organization at the root of pre-lithic specialization of hands. By this I mean that long before our ancestors used their hands to make an increasingly complex array of stone tools, they used them for the far more basic tasks of carrying food or babies, as well as picking ripe fruit without wrecking it so badly that we couldn't give it to others. In other words, we switched from catching things with our claws to an increased sensory awareness through our nailed digits. The two processes – sensing and serving – evolved in tandem. Likewise, hands and feet seem to diverge in *Homo sapiens*, but in fact their separate specializations support and, to put it in an open-ended way, 'enlighten' each other.

Palms and Soles: The Dance of Opposites

Down the road toward us, the specialization of the human hand goes in one direction, and the specialization of the human foot seems to go in the opposite direction. But, paradoxically, these two seemingly opposite developments at opposing ends of the appendicular complex contribute (or have the potential to contribute) to mutual learning. How many of us use hand or wrist exercises to foster *coronal* awareness down below? How many of us have noticed that increased freedom in toes, arches, and ankles can lead to unexpected changes in limitations on hands and wrists? All I have added here is a bit of time-depth, a bit of context.

Now I will go further. I want to add an aspect that is not only biomechanical or even perceptual, but what I might call 'interpersonal' – if among 'persons' we include things not always human but certainly in relationship with us. We exist within a web. To negotiate that web consciously is to negotiate our own proprioceptive web mindfully.

In another article in this issue (Boblett 2018; see page 19), "The Three-Dimensional Foot, Part 3: Opening the Generous Sole," I pursue specific ways of waking up a foot so that it senses, receives, and gives. You might call that other article the prose of waking up the foot, while this article is written in

something more like poetry. Here's the poetic version. In running or, indeed, in mindful walking – in negotiating the literal give-and-take of moving over tough terrain – the foot must learn not only to grasp, but also to give. This act of giving, of offering, may be hard to differentiate from the also-important act of pushing-off, which is really a throwing-back of collected gravity. But if we merely grasp-and-throw in our stride, we miss the relaxation aspect that must underlie intelligent, information-rich grasping, which can be a form of accepting. The shock of a log or a boulder meeting the sole of the foot is better met lightly than tightly. This collected-and-stored gravity (and knowledge) can thereby be gathered softly, gracefully, gratefully, the force radiating with equal gratitude up into the whole rest of the balancing system.

For one thing, this goes back to what I have written before: that the primary function of toes is not biomechanical, but sensory. They are our antennae, designed to prepare the 'eye of the foot' itself to be a perceiver more than an actor. But there is still a biomechanical component to all this: relaxation, which is simply eccentric rather than concentric movement of muscles. In a sense, the 'pupil' of the foot's 'eye' dilates to receive force and information at the same time . . . provided that force and perception are differentiated with sufficient nuance.

From catching to caressing, from merely grasping to what Ed Maupin has called "the curious touch," the foot and the hand both express two aspects or rather stages of one seamless act. Our hands and feet express something deeply rooted in how we relate to each other as social primates and to an ever-widening network of other partners in the world of movement.

Again, what has this to do with us? What has this to do with easing the path of the pregnant mother, the polio survivor, the running addict? Sometimes the larger context is more helpful than the specific symptom or its easing. I hope I have provided that here. If I've been too vague and you're hoping for something more specific, that's what my other article (page 19) is about. If I've simply lost you on this journey, I hope you've wandered somewhere useful and beautiful. I thank you for your time. I welcome your ideas.

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advanced degrees (MA, MDiv, and DMin) are from Pacific School of Religion in Berkeley, California. At seminary, he focused on the anthropology of religion, with experiential training under Michael Harner, author of *The Way of the Shaman*. Michael runs marathons and hikes up mountains wearing Vibram® Five Fingers. His website is www.rolfer.biz.

Endnotes

1. From *The Blind Watchmaker: Why the Evidence of Evolution Reveals a Universe Without Design*, by Richard Dawkins. New York: W.W. Norton and Company, 1986.

2. According to Moyà-Solà et al. (2012), "this analysis reveals that primates as a group display a relatively longer distal calcaneus, relative to both total calcaneal length and body mass, when compared with other mammals. Contrary to current expectations, morphofunctional analysis indicates that a moderate degree of calcaneal elongation is not an adaptation to leaping, but merely a compensatory mechanism to recover the lost load arm (metatarsal length) when the foot adopts a grasping function in order to maintain locomotor efficiency. Leaping can be inferred only when anterior calcaneal length departs from the scaling of non-specialized primate groups." In other words, the calcaneus of *Archicebus achilles* displays not only the distal but also anterior elongation consistent with leaping, thereby setting *Archicebus* apart from even more primitive Paleogene primates like *Anchomomys*, which even then showed a calcaneal adaptation to the grasping motion allowed by elongated metatarsals. The reason I don't use *Anchomomys* for this article is because that species only shows in fragmented remains, thereby not giving me the interesting pattern of juxtaposed 'primitive' and 'evolved' traits that I find useful in making my case about feet.

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An Abundance of Riches

Are We Forgetting Our Unique Contribution?

By Michael J. Salvesson, Advanced Rolting® Instructor

It is obvious that these days we can access tissue layers in the body that were not part of Dr. Rolf's 'Recipe'. Our ability to sense and use the mobility of the cranium, the inherent motility in the membranous system of the central nervous system, and the fluidic matrix have come to us via the American osteopaths. The French osteopaths have developed ways of mobilizing viscera and the sheaths around peripheral and cranial nerves that give us valuable tools for relieving pain and supporting our goal of structural integration (SI). For all this we are grateful.

However, this abundance brings with it serious challenges regarding the appropriate use of this knowledge. The theoretical and practical formulations pioneered by Dr. Rolf regarding the role of connective tissue in human structure, the systemic interconnectedness of structural elements of the body, and the importance of an economic and optimal relationship to gravity continue to be the touchstones of the practice of Rolting SI. Biodynamic, craniosacral work, visceral work, and nerve work, if they are to be incorporated into the practice of Rolting SI, will have to fit into our existing theoretical and technical framework.

It is important to remember that visceral and nerve release work are techniques. There is no theory of structure associated with their application. While it is acknowledged that releasing visceral restrictions and nerve compressions has structural implications, there is no thought yet as to the sequencing of this release to promote optimal structure. Bruce Schonfeld, Peter Schwind, and Liz

Gaggini may have taken some preliminary steps in this direction, as they point out how examining for visceral restrictions in the areas associated with certain stages or goals of the Recipe may support a useful outcome. However, in general the indication for their use is usually the presence of a perceived restriction to mobility, irrespective of structural considerations. While biodynamic work has no structural theory, it does propose a self-organizing model of the organism. The degree to which the outcome of this self-organizing activity accords with our view of SI is an open question.

What seems to be happening is that practitioners are learning biodynamic, craniosacral, visceral, and nerve-release techniques without a framework to assist them in making decisions about when to employ these techniques in the course of a Rolting session. This can unfortunately, result in a technique-based practice. Simply releasing all the visceral or nerve restrictions or contacting the inherent organizing capacity of the biodynamic system without considering whether the time is better spent organizing fascia or releasing joint restrictions does not produce the most profound outcomes Rolting SI is capable of producing. *It is always a question of how the time with our client is best utilized to produce an optimal result.* I have seen occasions when a practitioner chooses to release perceived nerve restrictions, while the client complains of not being able to take a deep breath. The obvious structural limitations to the free movement of the diaphragm were overlooked and not

addressed: the practitioner was focused on nerve release, ignoring obvious significant structural problems, which if dealt with would have benefitted the client much more than the effects of the nerve release.

We have a limited time with each client. The most important decision we make in a session is how to spend that time in a way that will create maximum benefit for the client. It was Dr. Rolf's assertion – and it is my experience – that our unique perspective and skills in managing the organization of the connective-tissue system should be the starting point of our inquiry. Doing what we can to improve continuity in this system is usually a good use of our time and is our unique contribution to the well-being of our client.

There are certainly times when conditions warrant releasing a visceral restriction around the liver to free the diaphragm, for instance, or releasing a tight nerve sheath around the medial malleolus to mobilize the talus. It is very common for me, particularly when dealing with a disorganized pelvis or lower lumbar vertebrae and the associated thickened connective tissue, to spend significant time at the end of the session using the inherent motion of the craniosacral system to make subtle and precise final adjustments in the segments that I have been working with and to promote integration within the spine and its membranes.

Rolfing SI is hard work. Practitioners are always free to find easier ways to spend their time. Whether they produce the most beneficial results for their clients is the question.

We are not able to monitor how practitioners practice once they have completed their training. They may choose to call themselves Rolfers and practice mainly from a technique-based system of nerve or visceral release, etc. We have no real input into this situation. We do have input into how we train them and how we articulate the practice of Rolfing SI. *We need to articulate a point of view that accounts for the benefits of using ancillary techniques within a myofascial, structural context.*

Our task will be to determine when to use these 'ancillary' techniques. We may be able to identify where in the Recipe we should look to see if visceral or nerve restrictions are significant issues and how to determine this. Likewise, we will need to demonstrate when contact with

the biodynamic, craniosacral system is necessary and useful. To what extent is the use of ancillary techniques directly supportive of the goal the practitioner defines for the session? To just apply the techniques without a structural framework is not Rolfing SI and will not produce the most profound outcome. These decisions would have to reflect the fact that choosing not to work in the myofascial network would produce a better result than one would get by working there. We have done a great deal of work to articulate the qualities of the result we expect from good Rolfing SI, so we should know what we are looking for. It is a question of how we best use our time to get the result.

Michael Salveson was educated in philosophy and religion, trained as a Rolfer by Dr. Rolf in 1969, trained as an Advanced Rolfer in the first Advanced Training Rolf taught, and trained by Rolf to be one of the five instructors of Rolfing SI she trained in her lifetime. Michael was president of the Rolf Institute® from 1978 to 1982. He has been a practitioner of Taoist chi gong for twenty-six years. He is currently working to develop a coherent Rolfing approach to the ligamentous bed that controls movement and position of the articular surfaces of the body.

Navigating Between Technical Refinement and the Vast Dimensions of the Soul

An Interview with Peter Schwind

By Allan Kaplan, Certified Advanced Rolfer™ and Peter Schwind, Advanced Rolfing® Instructor

Allan Kaplan: So, I'm glad to see you. Just to set a general context of things, how did you come to become interested in Rolfing Structural Integration (SI) and how long have you been practicing?

Peter Schwind: I've been practicing now for thirty-seven years. Before I was trained in Rolfing SI, I had been in contact with the work already over a period of let's say four or five years. I worked at a center for psychotherapy during the time of the so-called Human Potential Movement.

AK: You have a degree in psychology, don't you?

PS: No. I have a degree in philosophy. In those days, you were able to train as a psychotherapist if you had a PhD in philosophy. Or if you had a PhD in theology, you could also enter psychotherapy training. So I got into psychoanalysis first, and then all the emotional therapies, and started training with a psychoanalyst for three years in Munich. Got in contact with Gestalt therapy, Bioenergetic Analysis, Primal Therapy [aka Primal Scream],

Reichian therapies. It was the seventies . . . Lots of new ideas. Sometimes not that realistic but full of adventures.

I was on the way to become a psychotherapist when I had the chance to hear about Rolfing SI the first time. It happened through my Mexican colleague, Armando, who was also on the way to become a psychotherapist. He was a mathematician originally and quite a brilliant philosopher. He had traveled for three months' training, sort of continuous CE, to California, and he came back and told me about Rolfing SI. He was so fascinated. His reports stimulated me to make the suggestion to our psychotherapy center in Munich that we invite his Rolfer. He came. He stayed at our center. He lived there with his family for quite a long period, and he did the ten sessions with, I remember exactly, ninety-four of our clients.

AK: Oh, my gosh!

PS: He did a lot of Rolfing sessions. Most of the people, more than I think ninety or ninety-one people, were totally enthusiastic about his work. He was one of the very early



Allan Kaplan

Rolfers, he had studied in Ida's first class and in her two Advanced Trainings. His name was Lloyd Kaechele. In those days he lived in Topanga Canyon.

AK: Oh! I knew him in Japan.

PS: Yeah. Later on he lived in Guam. He was a great guy. Originally he worked as a scientist for NASA. He had met Ida by chance at a breakfast place. She was sitting next to his table and they started to talk together. After that talk he skipped his well-paying career at NASA and became a Rolfer. A brilliant man. I think the experience of the first ten hours with him had a tremendous impact on my physical and psychological well-being. I still remember how he performed the traditional pelvic lift. It was an almost transcendental experience to feel, how something inside the spinal channel and inside the cranium released. Later I understood that he was able to release the dura mater by doing an old-style pelvic lift. During those days I had no idea that there is something like an envelope of the spinal cord and the brain. Nevertheless – the experience was – for me – of a unique depth. Today it reminds me of William G. Sutherland's concept of the pelvic lift, that he had taught during his first course about craniosacral osteopathy. We had an exchange of letters all the way up to Lloyd's death.

AK: That's fascinating. I met him in Japan and I actually did a session on him there, many years ago. So, you were inspired to become a Rolfer, and then launched on a long career. Who were your influences along the way and what was your vision of Rolfing SI for yourself?

PS: When I look back, I remember one experience. In those days we had two Basic Training phases, the so-called auditing and the practicing. I did my auditing with



Peter Schwind ©Tachi

John Lodge as my teacher and Charles Siemers from LA was a brilliant assistant. John Lodge was a very, very serious and impressive, colorful personality who had done very important things in his life. He worked as an actor for a TV series but also in movies with great Hollywood people, like for example Greta Garbo. He was a pilot and he bombed the German city of Frankfurt into ash and fire as a bomber pilot. He was a great painter and painting instructor. He had prepared for the class that I audited for almost a year. He took it very seriously. He had shut down his practice for a year to collect all the notes from the early teachers, to collect all the notes from Ida's classes, and he did a great class.

At the end of the class, he took me aside and said, "Listen, Peter. You are different. You are from Europe. There is only one teacher who will be able to teach you." The class was full, but those were days of political and administrative incorrectness [chuckles]. So he asked the administration to remove one person from the class he was talking about – a class in Santa Fe with Jan Sultan. He said, "You need to study with Jan Sultan." He did me a great favor, because the atmosphere of studying with Jan in Santa Fe was completely different from the atmosphere in Boulder. It's not that I want to put down the Boulder experience: it was great, and I enjoyed it tremendously, but we were basically working on healthy teenagers as models. With Jan's work, I entered a different world. He took some of us aside, he showed us quite a few techniques that were not allowed in Boulder in a standard class [more chuckling].

He inspired me, with his incredible manual creativity, to really fall in love with Rolfing SI from another perspective. Not only from the perspective of human potential, but

from a perspective of good old American bone-setting. The community in New Mexico didn't have that much money and when people were in trouble they appreciated if you could help out them with their back pain, with their damaged knees. Jan's model for the class was a mercenary soldier. He had been a professional boxer before that, then he went to fight in Africa. This guy had been blowing up bridges every day, had been tortured, had really been to some of the dark edges of life. Jan, in his work with this guy, taught me many things that I still feel grateful for nowadays.

Jan was not the only one. When I left the class, I visited Michael Salvesson in Berkeley, and Michael connected me with Peter Levine. I had the chance to stay for two weeks with Peter at Esalen. We started a dialogue that was continued many years later, when Peter came to Europe to teach Somatic Experiencing®. As for Michael, he started with me, I would say, on an intellectual and conceptual level, an exchange of ideas that was like the other side of the practical door that Jan opened for me as an incredible craftsman and tinkerer.

Michael was and is always a lesson for me whenever I want to think and rethink our concepts. We started a friendship through the connection of his European wife, Georgette, that later led to the first European classes. I organized these classes when I was the European representative of the Rolf Institute®, only responsible to Richard Stenstadvold and the Board of Directors – a representative who could do whatever he liked to do, like a Bavarian king in a tiny little kingdom of Rolfing SI in Munich!

AK: Oh boy . . . Then after that initial period, you struck out and studied with a number of different people. You spent time with Dick Demmerle? [Editor's note: Dick Demmerle, one of Ida Rolf's sons, was a Rolfer who lived in Switzerland.]

PS: A considerable amount of time. I think that the instruction I got from Richard Demmerle was a meaningful continuation of the beginning times with Jan and the talks with Michael. Richard Demmerle's way of doing body reading was a milestone for me. I traveled over a period of two years to Zurich to spend time alone with him, and with incredible love and care he really helped me to develop a very significant capacity of seeing, to figure out that there are only maybe two very deep places of holding in the organism. This is still a keystone for me today. There are two,

maybe three, sometimes there is just one place. I started to understand that those significant places are a dynamic, three-dimensional reality. I realized that it is not so much 'lines', it is not layers, it is, to quote our colleague Jeff Maitland, the reality of the spacious body. It reminds me of the osteopathic concept of the primary lesion.

I think Richard Demmerle inherited this vision from his mother. She trained him when he was a twelve-year-old boy. He tried to give that vision to me; he'd say, "Peter, look, it's not that; it's not that; it's *that*. Now go and show me how to do it." It was not without stress to study with him, but it was a great, great privilege. Peter Melchior once was at a workshop that I organized for the two of them in Munich, and afterwards he took me aside and said, "You know, Peter Schwind, this man, the son of Ida Rolf, he truly loves you."

AK: That's great. Then, after Dick, you became acquainted with osteopathy and also discovered Jean-Pierre Barral and Didier Prat.

PS: That was ten years later, the story with Barral. I was asked very early, after one year of practice, that I should prepare myself to become an instructor, and I should come very early to the Advanced Training. I did an Advanced Training with Peter and Emmett Hutchins very early, after one year of practice, and then I assisted Peter in several Basic Trainings. I assisted Emmett, Tom Wing, Peter, Stacy Mills, Jan – all those people in several workshops and classes. At the same time I had a good friend, a German MD, who had started at Kirksville in osteopathy – there were osteopathy schools in England, but not in Germany or France yet. He started to teach me some basic knowledge about joint function tests and all this kind of thing. We worked together for many, many years. That was my first contact with osteopathy.

Then, I arranged the first European classes that Michael Salvesson taught in Europe, assisted by my friend Michel Ginoulhac (who some know as Vandan) from France. Michel and I started to explore cranial work. And when I heard that John Upledger left the cranial academy, I immediately wrote and asked if he would come to Munich and teach a small group. He wrote that he had no time because he had just started his institute, but he sent one of his assistants – Charlie Swenson, a Rolfer who used to teach anatomy for us. I organized, I think it was in

1982, the first cranial class for us in Europe, with only seven participants: a chiropractor, a dentist, myself, Robert Schleip, and another two or three people. I continued my basic cranial studies together with one of the first French osteopaths, who practiced in Munich. No school, no college, all unofficial and one-on-one.

Then, later, I got in contact with Lawrence Jones and studied two weeks with him about his Strain Counterstrain method, but I was still, I would say, a very classical Rolfer. Very, very faithful to that what Emmett had taught – to not do too many other things. The truth was, Emmett was incredibly supportive of any kind of innovation I was trying to do. I was really a bloody beginner who had no idea, but he supported me in the most outstanding way, and we had a fantastic dialogue.

So most of it I think I learned based on the great practical knowledge of Jan Sultan, and also much of what is important for me nowadays I learned during endless evenings with Peter Melchior in the Bavarian beer gardens. I assisted him in two Basic Trainings, then another with Stacy Mills. Then, later, I assisted Jan in two Advanced Trainings. Then I finally got to know my great friend and creative co-teacher, Jeff Maitland, who taught two other Advanced Trainings with me. Because of the philosophy background that we share, that's another very, very important piece. And all my studies happened in a dialogue with my Swiss friend Hans Flury. The clarity – and productive radicalism – of his thoughts about structural integration were another milestone. Some articles of his journal – *Notes on Structural Integration* – are essential for all my teachings nowadays.

So I would say that I had a lot of influences, from teachers, from colleagues like Bill Smythe, but to tell you the truth, it was just the concepts of Ida, again and again, that kept me busy . . . and I tried to keep it as pure as possible. Then there was my encounter with Jean-Pierre Barral that almost threw me out of the saddle – that was after ten years of practice. I have now been a friend and student of Barral over a period of twenty-eight years, and have assisted him almost every year on two or three courses. That has certainly influenced my work more than anything else. I believe that it is not so easy to connect his approach with classical Rolting SI.

I think that the concepts of Ida Rolf and Barral are almost opposite to each other – at least at first glance. Ida Rolf worked far away from the deepest problem, trying to resolve the problem from somewhere else, saying, "Go where it ain't." Barral goes where it is, there, where we find the deepest motion restriction – right away – and does not let go until the whole organism responds. What I try to do is to bring these two different perspectives, these two different approaches, together. That seemed to be impossible for me for a long time. For a long time I thought I would have to say goodbye to Rolting SI. The osteopaths always wanted to make a real osteopath out of me. They wanted to found a school with me, you know, but finally we decided I wouldn't do it.

Barral once told me, "You know, Peter, there is no doubt that Ida Rolf was very good, but nobody knows what she was doing. We only have interpretations of that." I got quite different interpretations from the teachers of the first generation, but somehow Barral's statement gave me, for the first time, the freedom to go for my own interpretation and to stimulate in the brains and in the hands of my students and colleagues their own interpretation of the work of Ida Rolf. For a long, long time, for twenty years, I only taught Rolfers. Jean-Pierre told me once, "You have an ethical obligation to teach your practical knowledge, which is not necessarily classic Rolting SI. You teach that to everybody who wants to study with you." That has given me a lot of freedom.

AK: That's fascinating. It really gives an interesting perspective on the work itself. I think what you've said is very valuable. These days, what do you feel is the most valuable dimension of the manual Rolting work? Where is your work, and where do you see it going?

PS: For me personally, it is important to underline all the time that the work has two dimensions. One dimension helps the person in a way that is very personal to his or her identity. For example, it may make a musician play better. It may make a person more at peace with himself. So it's things that are not true for all people but are true for some people, and it's very personal. I sometime hesitate to talk about this.

For example, I have a client who is a young musician, a conductor. I originally worked with him because he couldn't raise his arm anymore. That was not such a big problem to resolve, but then he asked me, "Could you help me so that I conduct differently?"

So that I conduct like so and so" – a famous conductor from Germany. I said, "You know, it takes a while but we can try and do that." So I studied how this famous conductor, the old one, conducts. But how do you do that with your hands as a Rolfer? How do you make another conductor out of a young American? That's a big, big challenge. He traveled to Europe a few times for that, and we are on the way. So that's a personal thing.

The other dimension, for me, is the potential of Rolting SI, like other manual disciplines also, to do what bone-setters were doing: you just offer solutions for simple – and sometimes severe – physical problems. We cannot make miracles happen all the time, but if you cannot raise your arm for half a year, if you cannot get into your most beautiful Italian jacket anymore, you will start to appreciate this second dimension of Rolting SI. This dimension, the so-called fixing things, was almost forbidden during the old days of our discipline. I always thought that fixing things is an honor and it is an obligation. I don't want somebody messing around with standard Rolting SI on my personality if he is not even able to fix my knee – do you know what I mean?

AK: Right.

PS: Some people are more talented in one dimension or the other, but for me both dimensions are very, very essential. It is simply important that we understand that the old Rolting SI was focused too much just on the fascia of the muscles. There was very little understanding from the membranous subdivisions inside the thorax, inside the cranium, even inside the extremities. If we wanted to work with the interosseous membrane in the lower leg, we would make the sessions longer or push harder, but we could push for another twenty years on the lower leg and never get the interosseous membrane to open, unless we interact in an indirect way with the inherent tension of forces of that very dense tissue.

So what is important for me in the manual part of our work (the movement part is still another dimension) is that we don't lose our identity. There are two ways to lose our identity. One way is fundamentalism and orthodoxy, what I like to call 'Recipe fetishism'. That's one way to destroy Rolting SI. The other way to lose our identity is to add different modalities of work that have nothing to do with the authentic concept and the typical quality of touch of our discipline. This is my understanding, and I feel absolutely comfortable that some of

my colleagues see it completely differently. It's just my view that these are the two ways to destroy Rolting SI, and I would rather not see it destroyed. I would rather see it refined within its own capacity.

AK: Yes. What do you see being a relationship between Rolting SI and psychotherapy?

PS: I treated a world-famous psychotherapist who had her Rolting sessions under Ida personally, way back, and we have been in dialogue twenty-six years or more. I think that there is no doubt that Rolting SI has an underlying psychotherapeutic dimension for some people, and that's why we have to apply our approach very, very carefully. Of course, when we do bodywork we get in touch with more than the body. And we make it easier for the soul, if we are able to treat the physical reality in a good way. Some of my colleagues are better trained in psychology than I am and they may do something that is close to body-psychotherapy, but I always see a danger – because the body has so much its own dynamics and it's so complex, when we go too much into the psychological direction, I lose some of the refinement on the physical level, which is part of what characterizes Rolting SI.

And it's the same for any other modality that we try to add on. I had to say goodbye to psychotherapy after five years of study, because I realized that Rolting SI is its own field and I really had to focus and had so much to learn. If I want to cross that bridge from the body all the way over to the soul, it's a very, very different field, it's a very huge field. I probably need to study that much more than I studied Rolting SI to be really comfortable with it.

AK: How about movement? How do you involve that in your practice? You were talking about working with the conductor. Was that more movement oriented? Or how do you approach that sort of thing?

PS: Well, first of all, I think if we do manual work intelligently on a person, we can use active micromovement or other motions of the client. We can actually use the person's awareness. I think a lot of movement work can be done without teaching movement. That's the first thing. Then the other thing I must say is that I was very, very impressed with the contribution that Hubert Godard made to the whole movement concept around Rolting SI. I went through a whole series of workshops with Hubert.

We co-taught the sessions four to seven of a Basic Training a few years ago. It was a privilege to study with such a fine, intelligent, and creative person as Hubert. I feel my understanding benefitted a lot from working with Hubert. And I do include some of Hans Flury's ideas about 'Normal Function' in my work. I am not very good at it, but I do not want to miss this valuable movement work in my everyday practice.

My own – very small – contribution to movement work is many times a sort of mini-session where I try to watch clients in their everyday activities and give them little cues. Or I send them to a movement teacher. I must say that my own history with movement is more rooted outside of our community because I have been studying with very different schools – first oriental martial arts, later different styles of Tai Chi. I've studied Tai Chi for more than forty years now with different people, and practice very regularly. For me, this adds to that what I do manually. I'm now going to teach for the first time a two-day workshop, not movement, let's say exercise, for the Munich Group in 2018. It's a two-day program of how to do movement work on yourself for your organs. It's based on certain oriental exercises. I realized not everybody in the West wants to study Tai Chi or yoga for forty years, several hours a day. I always asked myself what Westerners can benefit from, people who do not have much time. My workshop will be called "Fascial Training for the Organs."

AK: What are your interests these days? I know you have written a number of books and you've got a brand-new book out.

PS: This book is my favorite. It's a popular book – meaning it's for everybody. It's a little bit in the tradition of Oliver Sacks, the neurologist. I have always adored his writings and had been too shy to try to write something in that direction. Finally, I had the courage. The book is called *The Croissant Inside the Brain* and it will be published in the United States in 2018. It's about the work that Jean-Pierre Barral does on the human brain and that he taught me eight years ago. He hasn't yet taught a workshop about this, but he will start in two years to teach it. He told me that right now he doesn't have enough knowledge about the brain to talk about it, but he gave me individual instruction on how to do this work, and I've experimented with it now for almost eight years, to try to apply this work on people who are victims of severe strokes and have lost their capacity to talk, or who are half paralyzed. The book

is really dedicated to Barral's great creativity. It's a sort of biography of our friendship at the same time. It is a case study of a man who had lost the capacity of speech through a stroke, and in how he's able to talk again after the two of us together treated his brain. It's a very exciting story. I try to be very modest, with a lot of doubts about me, ourselves, our approach.

The book was published in Germany a year or so ago, and it has brought quite a few people to me who are in a desperate situation of life. So that's the challenge and that's my greatest joy at the moment, to work with people who have severe brain damage. Of course I studied quite a bit the thinking of Moshe Feldenkrais, and had great Feldenkrais® people work on my own body. That has influenced me a lot. Basically, I try to understand what Barral's work is on the brain. A part of what I do in practice may be a misunderstanding, but I hope it may be a productive misunderstanding.

AK: Well, let's hope so. I know scoliosis was a big interest of yours in the past. Are you still charging ahead with that?

PS: Oh yes. I've been invited a lot by scoliotic experts, clinics and so on, trying to liberate a new concept, a new typology of scoliosis. It is encouraging that my favorite idea – that most scoliosis has a very clear genetic disposition – was confirmed by some research in Japan last year, where they actually found a very specific gene that is responsible for the development.

AK: Oh, really!

PS: Yes. The truth is I was very disappointed about the results I had in the first ten years of my work with scoliotic people. Some of my first scoliotic clients I have now observed since they were teenagers many, many years ago. I have observed them over thirty-five years. I have tried to observe how the scoliosis develops in the membranous system of the newborn infant – when you cannot see anything on X-ray, where the spine is totally straight, but you still can see how the cavities inside the trunk or inside the cranium show the scoliotic pattern. I have tried to make clear distinctions of types of scoliosis that are, for example, related to a certain development, how the organs find their places inside the cavities of the embryo when the embryo is only like three inches tall.

I followed some of the babies from the age of four weeks up to the age of eighteen

before I was ready to make some interesting conclusions. Maybe somewhere down the road I will be able to do more detailed writing about it. So far I have been teaching people in three-day special workshops how to treat scoliosis manually, how to help with exercises. I have also started a very intense dialogue with surgeons, because there are some scoliosis where after a certain number of years they go into total collapse and the heart gets so much pressure that one lung cannot function any more and you have to do surgery. I've started to take care of those people after the surgery was done, and that has also improved my perspective of what scoliosis really means. Because now the surgery has improved incredibly, there's no rod anymore, they are just small units of titanium that you fit very well. It shows that the surgery can align the spine, but the surgery is not able to balance the pressure changes inside the cavities of the body. So it shows me again that scoliosis has very little to do with the spine and spinal curvature. Rather scoliosis is a genetically conditioned, individual solution to spatial, inner imbalances, which is not always productive. Sorry about these philosophical statements.

AK: No. It sounds to me exactly relevant.

PS: There are some other surgeons in Italy who do very interesting microsurgery at the end of the scoliosis, close to the filum terminale where the dura comes out towards the coccyx. It's micro-interventions, and you have a tremendous impact on the dura. Anyway, it's really an exciting adventure with scoliosis now, that started for me many, many years ago with my disappointment with the results of the standard Recipe for scoliotic people. Still, I tell you, the truth is I feel at the beginning. There is an international society for research with scoliosis. They've invited me all the time these past years, and I've never gone because I have the feeling it's premature – I am still not able to make my statements clear enough. But I have enough practical experience now to start to bring more order into my thinking about it.

AK: Do you have you anything else you want to add for the readers?

PS: The only thing I want to add is that I feel so privileged that I could study with so many teachers: Jim Asher, Jan Sultan, Michael Salveson, Tom Wing, Emmett Hutchins, Stacey Mills, Peter Melchior – all those people of the first generation, and

Michael Salveson especially. I hope I didn't forget too many. Also, Louis Schultz as an anatomist and a Rolfer was important.

I could have done a few other things in my life. I won several scholarships very young, already in high school, to study at the Mozart Conservatory as a violinist, and I did a few things that I enjoyed tremendously when I was a young man. I am still happy that I said goodbye to those different professional worlds that I was just getting involved with as a young man. Except to the world of music, that I did not totally say goodbye to. That's perhaps the last thing I want to say. I just had an email from my colleague and friend, Harvey Burns, who is also an ex-musician – or a musician, because you are never an 'ex-musician'. He shared with me a very beautiful statement that the singer Sting made. It has something to do with silence. I'm sure most of us know the Fifth Symphony of Beethoven, the *da-da-da-dum* at the beginning. What Sting said was that the pause after those first four tones is probably what's most important, what's revolutionary in what Beethoven did. Before him that sort of meaningful pause didn't exist in that way. What I want to share is that the silence during the session is what is most important. The moment after we did something with our hands, and the moment we withdraw our hands and wait in silence, may be the most important.

AK: Yes. Thank you very much.

PS: Thank you very much for the great questions.

Peter Schwind has worked in private practice in Munich, Germany since 1980. He teaches advanced Rolwing classes for the European Rolwing Association and Fascial and Membrane Technique at the Munich-Group (www.munich-group.com) and for postgraduate students in the field of osteopathy. He is also an instructor for visceral manipulation at the Barral Institute and the director of Munich-Group-Media (www.munich-group-media.com), dedicated to produce teaching DVDs about the work of Jean-Pierre Barral.

Allan Kaplan became a Certified Rolfer in 1988. Since then, he's done the Advanced Training twice, assisted both Basic Rolwing Trainings in Boulder and visceral manipulation classes with Didier Prat, DO, and studied osteopathy in Canada. He now continues his visceral manipulation studies with Jean-Pierre Barral, DO in Europe.

Working with *Ma*

Further Refinement of the Yielding Approach through Time, Space, and Intersubjectivity

By Hiroyoshi Tahata, Certified Advanced Rolfer™, Rolf Movement® Instructor

Introduction

The 'Art of Yield' demonstrates that effective structural change can be achieved through gentle and brief, but precisely timed, touch (Agneessens and Tahata 2012, McConnell and Tahata 2015). This approach can facilitate drastic structural change as shown in Figure 1.

'Yielding touch' effectively provides a 'scaffolding' underneath the body, which allows it to yield to gravity – whether into the table or the ground. When the body finds these places of scaffolding, it settles, yielding. I call this settling 'conditioning' and view it as the indicator that the body is ready to change. The concept of this art of yielding places emphasis on conditioning or setting the 'field' as the basis for transformation, rather than manipulation.

When we see conditioning, sometimes in a responsive client whatever process is currently needed will occur as an autonomic response, before the practitioner intentionally touches her/his body. In setting up this field, sessions are done with the sense of '*less is more*'. This is a sense I aspire to in all of my sessions.

The Art of Yield is a living practice that continues to develop in refinement. This article discusses a recent refinement – awareness of what we call *ma* in Japanese – that greatly enhances conditioning.

Further Refinement of the Art of Yield

The first glimmer of insight for this refinement came from noticing that some clients lying on the massage table were

very sensitive to where the practitioner stood. Particular arrangements between the practitioner and the client could result in the client, or both client and practitioner, feeling uncomfortable or unable to settle. Some clients would feel different qualities dependent upon where the practitioner stood, and they would give feedback such as, "too close," "I'm feeling pressure," "[some part] is starting to react," "I'm feeling settled down," "something is flowing," etc., according to the different arrangements. When the client and I could find the specific place that allowed settling into mutual comfort, the client could allow herself/himself to yield into the massage table with ease, even if I remained in my position without making physical contact. I came to realize that this phenomenon is related to *ma*.

Ma

As a practitioner, you may have experienced times when you get more change in a client's structure after you disengage or step back, as opposed to firm touch or further addressing of the same area. As a client in session with your own practitioner, you may have occasionally felt that the practitioner's touch was coercive, compressive, or just too much pressure, and that such conditions disallowed the sense of expansion or of making more space that is frequently a hallmark of our work. In all of these situations, *ma* is involved, as *ma* in the field of bodywork would include timing of interventions, the pacing of touch, titration of intervention, distance from the client, etc.

Ma is a traditional Japanese concept that relates to both space and time. Ninia Sverdrup (2006), an artist who went to Tokyo specifically to understand *ma*, gives this wonderful description based on her experiences and perception.

Ma; the empty space, the in between, the silence, the pause, the emptiness, the interval, the distance, the timing etc. is something that is present throughout the entire Japanese society, but it's predominantly in the traditional arts that you usually refer to the concept of ma.

Space and time exist in all phenomena in our world, including Rolfing sessions. Considering the concept of *ma*, attending to it, cultivating 'good *ma*' could lead to further refinement in our practice, whether we are working with yielding specifically or any other element of Rolfing SI or Rolf Movement. In fact, a skillful practitioner

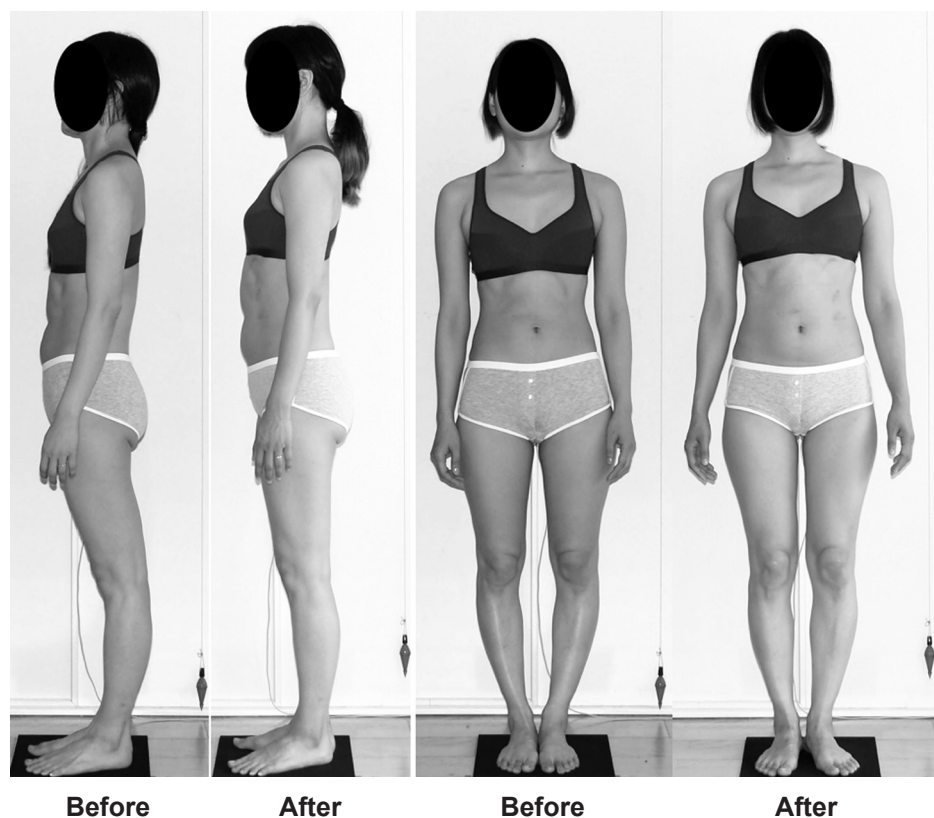


Figure 1: Case study 1 of a Rolfing® Structural Integration series with Yielding. The client had a tendency of hyper-extended knees and O-legs before the series. The body was integrated structurally after the ten sessions, which did not include any myofascial release.

may already have a good sense of *ma*, and therefore be pacing and arranging herself/himself with the client in the session room. This may be conscious or unconscious. (For some people, elements of this are conscious, such as the 'negotiation of space and contact' taught in biodynamic craniosacral work.) My proposition is that there's a greater possibility for enhancing the quality of the session by using *ma* consciously.

Affinity to Space

Rolfing SI is an education process of the body seeking to improve the body's relationship with gravity. The affinity of the body not only to the ground, but also to three-dimensional space, is important for human integration. Many kinds of trauma caused by accidents, injury, and medical treatment can create a deviation in spatial recognition, and such deviations can have an effect on human structure and function. [Hubert Godard notes this in relation to scoliosis in an interview with Caryn McHose (2006).]

A Somatic Experiencing® or EMDR™ session has the possibility of correcting these deviations by working with visual sensation, as vision can be coupled with spatial perception. However, other primitive sensory facilities linked to the perception of space might be available as other avenues for the work. After all, most Rolf Movement practitioners are able to find the boundary around the body called the 'kinesphere', and this capacity may operate independent of sight. No matter how the client regains the missing perception, whether visually or otherwise, we can assume that it would facilitate the body in improving one's affinity to space. Such changes could shift the quality of her/his relationship to the circumstances of past trauma.

For instance, if the client's birth involved delivery by forceps, s/he may sense a lack of safety at the top of the head, and that may affect development or the experience of the space above the head even into adulthood. Because of the trauma, we could say that the head has less affinity to that space. Even commonplace medical treatments, such as vaccinations, could have an impact on the body in relation to space. I observe that many of my clients have less affinity to the space around their deltoid muscles, a common injection site. Thus, for some the experience of vaccinations in this area may set up a sort of psychological boundary. Saleh et al. (2015) have gone so far as to implicate vaccination as a cause of frozen shoulder.

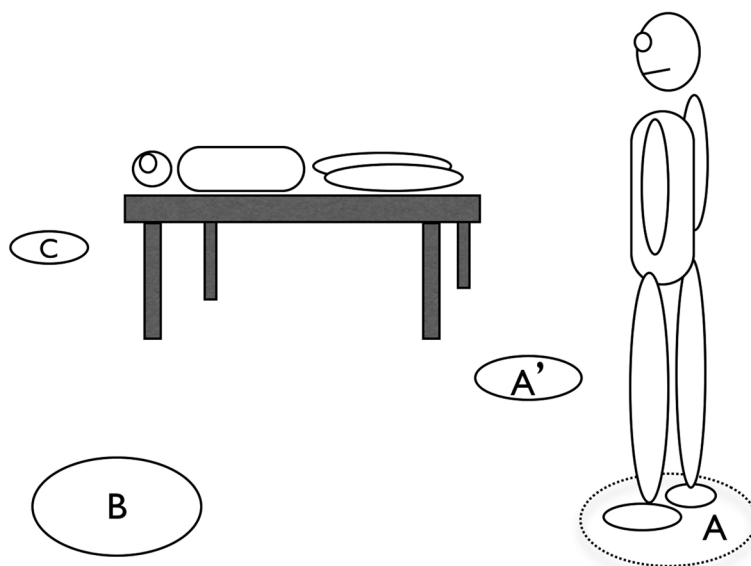


Figure 2. *Ma* is inherent in the relationship between the practitioner and the client in the space. There is a specific arrangement for each session that has 'good *ma*', which I define as both being able to settle, creating 'conditioning'. In the schema of this illustration, the practitioner finds good *ma* standing at location A. In contrast, the client experienced the practitioner standing at A' to be too close; with him in location B, the client felt slight tension in some area of the body; at location C, the practitioner felt reluctant and, similarly, the client felt uncomfortable.

Application of Ma in Somatic Practice

I have led a few workshops to see the effect of *ma* on structure, without touch. My conclusion is that there are often suitable arrangements of position between practitioner and client that create 'good *ma*', whereby both feel safe and comfortable. Think of it as being like 'good feng shui'. Other arrangements might cause tension or feelings of pressure for the client, and those positions would not be an appropriate place to start (Figure 2). These positionings will be unique to each client, each client-practitioner pairing, or even to each session.

Obviously, a practitioner is not going to be able to do hands-on work from a distance, but this exercise in determining good *ma* indicates that there is some quality related to a sense of space that should underlie the fundamental relationship between the practitioner and the client so that both feel safe and are able to settle. Interestingly, in dozens of workshops, the participants and I witnessed that the establishment of good *ma* could facilitate the client undergoing structural change from a distance, merely through the spatial arrangement of client and practitioner in good *ma*, as shown with the client in Figure 3. This was true even with nonprofessional beginners in the role of practitioner.

Finding good *ma* requires of the practitioner somatic resonance, interoception, and inclusion of the field surrounding both practitioner and client. As most beginners in my workshops could feel qualitative differences standing in various locations, it seems that the ability to sense changes in *ma* must be universal.

Sustainable Change with Ma

I said earlier that *ma* has both spatial and temporal dimensions, so a natural line of inquiry is whether the changes from working with *ma* continue through time (i.e., are sustainable).

As described elsewhere (Agneessens and Tahata 2012; Tahata 2014), yielding has a lasting effect. Here, I was curious whether the effects achieved through client-practitioner placement for good *ma* alone – without touch – would last. I was able to make one observation when a participant from a *ma* workshop visited my office four days later to receive a Rolf Movement session. The two photos on the left in Figure 4 show changes that came about in the workshop. The third photo, four days later, shows that the changes are holding. This client had earlier received the basic Ten Series from a Certified Rolfer, and an Advanced Rolfing Series from an Advanced Rolfing instructor, and no doubt

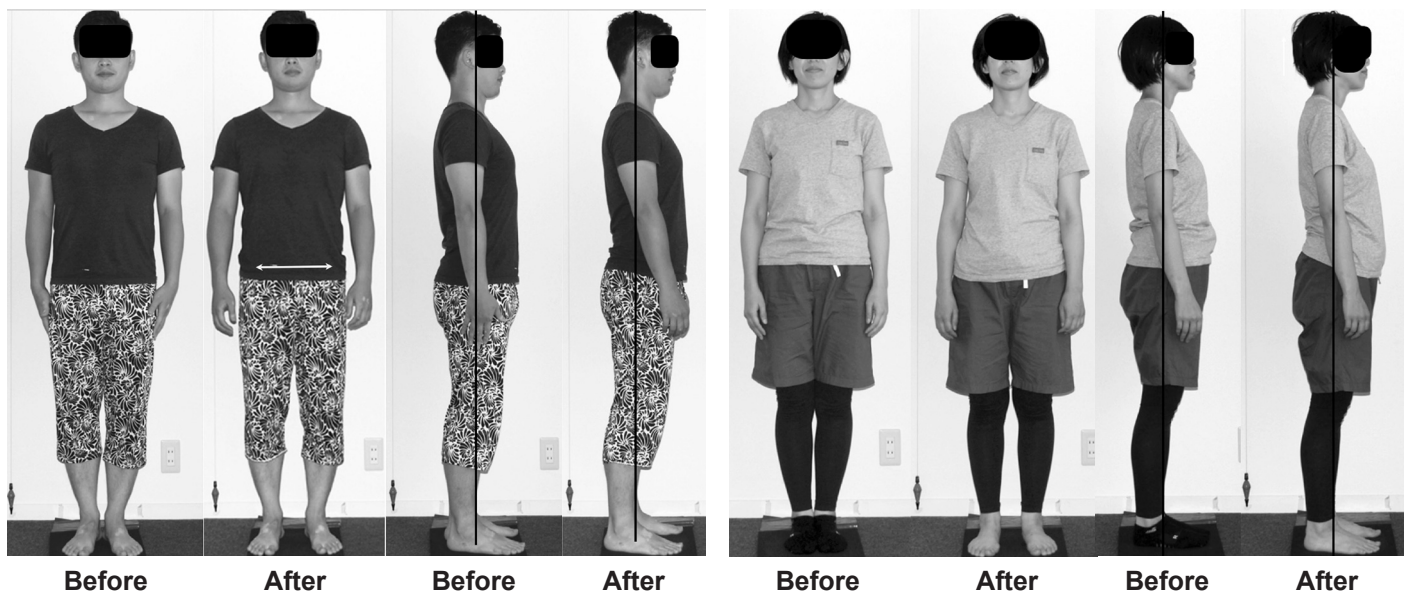


Figure 3: The effect of the work with ma on the body. The sessions were from beginner-level somatic practitioners, yet in both cases the use of the concept of ma had an effect, with the core space in the abdominal area looking more open after the session. The client on the left had no experience of Rolfing sessions. The client on the right had done a ten-session series within the past five years.

those sessions have supported his body responsiveness and resources. The photos suggest that the work with ma was able to build on that, allowing further change, particularly expanding his core space.

How to Work with Ma

This section will provide some guidelines for working with ma. Initially you will just be sensing ma – what feels good, what feels uncomfortable – and the impact of good ma on structure without any hands-on work. After that exploration, we will discuss incorporating the concept of ma into yielding touch.

Exploring Ma in Its Purity

For this first exercise, find a partner to explore with, with one of you taking the role of practitioner and one the role of client. Then change roles, so you each experience ma as both practitioner and client.

1. As the practitioner, explore the space and find an initial comfortable place to be in relation to the client. As a cue to comfort, find a location where it is easy to feel your hara (the movement center in the abdomen, a bit below the umbilicus) and where your hara expands easily into the field, requiring no effort.
2. Explore the space to find other comfortable places, and also note locations where you are uncomfortable and cannot settle. At each location, ask your client how he or she feels in response to the ma of that position. There may be physical sensations, comfort or discomfort

with the distance, safety or a lack of safety, settled or not settled, etc.

3. Choose the most comfortable (settled) place ('Location A'). Based on your own sensations and the client's feedback, we will infer it has the best ma. Take time to settle.
4. Staying in this location, with no hands-on contact or other cues, wait for a response in the client's body. Skillful clients can give feedback (e.g., discharge, elongation, breathing with

more ease). If they do not comment on what is happening, it is usually possible to see a shift in the breath, transmission of micromovements, a motile response in the tissue, joint repositioning, or some other phenomena.

5. After the client process from this setup of good ma has finished, move to places that you had tried earlier, and ask for feedback at each. The client may now feel differences in the

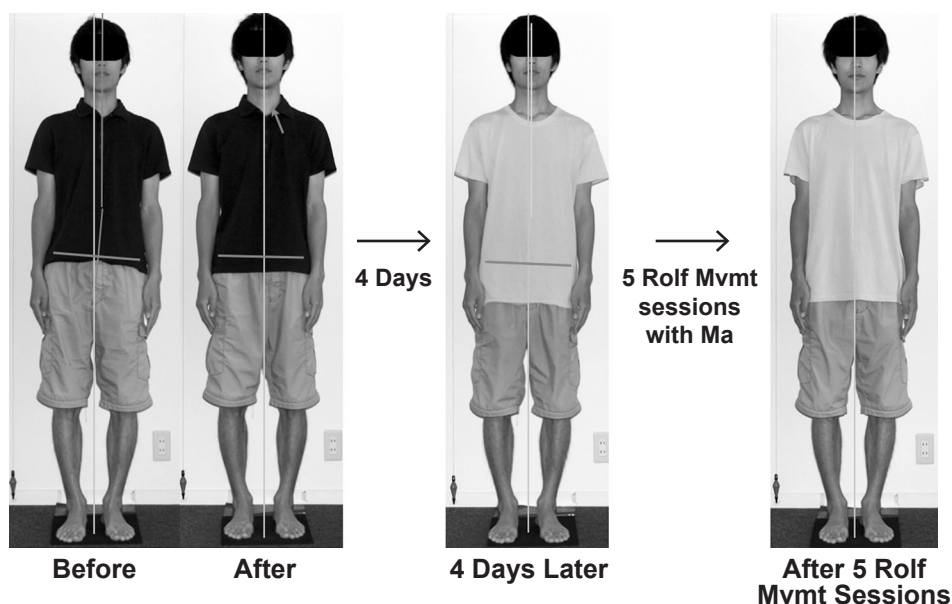


Figure 4: The effect from work with ma alone (no touch) is shown in the two photos at left. The client's abdominal area has opened and there is more side-to-side balance. Four days later, the work is holding, as seen in the third photo. The final photo shows the client after he also completed five sessions of Rolf Movement integration that included the concept of ma in the work.

ma of these relative positions, in most cases becoming more tolerant of them.

6. *Go back to Location A and settle again, allowing time for the process to feel complete.*

Exploring Ma with Yielding

The first article on yielding (Agneessens and Tahata 2012) gave guidelines for the approach. Please refer to that for the basics of yield touch, so you have a sense of that approach, to which I will now discuss the addition of the concept of ma.

In my initial work with yielding touch, I applied it to the whole of the client's body, working toward the settling we call a state of 'conditioning'. I did not give any particular attention to my feelings as a practitioner – things such as when I would feel a 'reluctance'. My sensing was more attuned to timing around waiting to address the next area, or staying in a place until I had a sense that the space around the client's body gave me permission to approach by coming into some sort of affinity with various vectors in the space.

With ma, the operational principle for the practitioner is to arrange himself or herself in specific positions in the room according to somatic resonance felt in the hara. This kinespheric sensation does not depend on visual orientation; you can perceive differences with eyes closed. This sensation of ma will guide and help you to understand the order of intervention. Keeping suitable ma means maintaining a comfortable sensation. When you feel reluctant to stay or touch, it might be a cue that you should not stay or you should not touch there. By yielding to these guiding sensations, the order of intervention is determined. Moreover, by keeping the sense of ma, the practitioner does not force change on the client, as good ma is always determined by their mutual sensation of agreed comfort.

From workshops, I found that each practitioner-client setup had its own unique position of good ma. We are all unique presences with different perceptions and kinespheres, so it is natural that the ma positional arrangement of the practitioner and the client should be uniquely arising in the moment and fluctuating.

When working with a client who exhibits good responsiveness, you do not have to pay such explicit attention to ma. You could say that you are already 'in the groove' or 'in the zone'. However, if you start to

feels something difficult with a particular client, looking to introduce (or restore) ma might open the way. Similarly, consider the element of time. When you feel difficulty in approaching an area that you recognize as a primary restriction, the ma of the situation might be telling you that the area is not ready to change. One way you may feel this in your interoception is as a kind of reluctance to approach the area.

Again, this is a living dialectic between the practitioner, the client, and the field. Another practitioner might find a different starting location, and his or her approach might be different. All these are closely related with the order of intervention and each practitioner's uniqueness. We do not have to do something the same way as someone else who has a different perceptual system and a different felt relationship in the field with the client.

A Case Study

Now, to see how ma is brought in, let's look at a case study. I worked on my fellow faculty member Lisa Fairman for a demonstration at the 2017 Rolf Institute® faculty meeting (see Figure 5). I did not expect any particular results from the demonstration. I was motivated to share the concept of ma with my faculty colleagues because, after exploring ma, I considered that perhaps it was a phenomenon inherent to our work, perhaps related to the therapeutic relationship and the nonformulistic approach. Working with ma is a nonlinear model; processes happen according to the body's needs. If ma is not needed, nothing would happen. So my stance in this session was simply to yield to the whole process. I put my body in a position with good ma and then waited with no strategy, no analysis, and no expectations.

Before sharing Lisa's comments about her experience, I'm going to start by giving you some background information – that I myself was unaware of at the time. I only learned this from Lisa in later communications. I will give it to you first, so that you will be able to identify the organic intelligence operating in the field of good ma.

Lisa had a spinal cord injury about eleven years ago: all of her lumbar discs herniated, and the L5-S1 disc shattered and migrated up to push on the spinal cord. From the injury she was not able to walk, sit, or stand for more than five minutes and until she had surgery, a month later, to removed the

impinging disc material, she was not able to use her right leg. The surgery removed approximately 3/4 inch of bone in the right sides of the L3 and L4 vertebral bodies, removed the associated facets on the right side, and parts of the discs. After surgery, neurological flow along the spinal cord returned and she regained partial use of her leg and began to learn to walk again. Because of the surgery, however, there was new instability and different, flatter spinal curves. In the subsequent three years, Lisa gained feeling and strength, but also broke her right leg three different times in three different places.

Now, here's how the session went from Lisa's perspective. From her description, you will see how many of the sensations that occurred seem to relate to her injury history and its sequelae. You will also see that her deep experience has opened some deeper understanding of other dimensions of ma, a word that is so multifaceted as to be untranslatable.

I am grateful that I stepped forward for the opportunity to be your demonstration client. This was a courageous act for me – sharing myself in this way in front of a group – as I am a rather private individual. My curiosity to understand and experience the work that Hiro brings forward was compelling. I wanted a felt-sense exploration. The session proved to be one of my more profound Rolfing® Structural Integration experiences.

As I stood in front of the group at the beginning of the session, I verbally shared that I felt a notable and long-lived discomfort deep in my right hip and that I felt more weight in my left side and through my left leg. When walking, I felt more ease, fluidity, and more anterior-posterior motion of my left ilia relative to my right. There was a 'hitch in my giddy-up' on my right side and my low back ached.

While lying supine on the table, eyes softly closed, I gradual became more peaceful and much more aware. The growing rich awareness included the physicality of my body, the spaciousness of my being, and a novel type of dialog. I remember a gentle curiosity as I felt into and within my cells. I noticed the space and texture between cells. There was [a] time of discomfort around the left side of my peritoneal bag – internally with organs and also with visceral



Figure 5: The effect of working with *ma* on structure. In the before and after photos, we see that from the work her body is more uplifted than before. Her face, after the session, expresses the “joy” she describes feeling. The photo at right shows the session in process.

connections inside and outside of the peritoneal bag. Some time passed and what I remember next were very intense connections and attentions at my right side in and around L3 to L5 and the associated areas of my spinal cord and dural tube. It felt like very specific and refined palpations that keenly invited my attention. The refined ‘palpations’, connections and attention had a quality of accuracy, clarity and refinement that I do not remember ever experiencing before when touched. I recall a feeling of building focus and sense of sorting that brought ease and relief. During this entire time lying supine I believe you physically, hands on, lightly and briefly touched me once on my leg.

The second time I remember you physically touching me was near the end of the session, when you asked me to bend my knees so my feet were on the table. You adjusted the placement of my feet and then touched the bottoms of my feet. What happened then, was an amazing feeling of a flow from my left visceral side, diagonally across connecting with a flow around L3 down the spine and through my pelvis and into my right leg, flowing down and through the entire leg. My lumbar curve shifted, increasing – returning to its more natural way, and with it a beautiful sense of relief, welcoming and ease. I felt more sinuous like a stream in its natural course. I felt very whole and integrated.

Standing, you asked me what I was noticing . . . I mentioned feeling more ease, more anterior-posterior movement of my right illia, more of a lumbar curve, clearer connection to earth, and more open . . . and what was most significant for me was the prominent sense of joy. I clearly remembering sharing that I wanted to dance – an expression of my joy. Right then! Dance! The sense of joy was deep, profound, and gentle. It was a sense of joy within me and around me. A feeling of connection and belonging – physically, spiritually, and emotionally.

Months after the session, I continue to play with, embody, and evolve the work. I re-visit that ‘lying supine with knees bent, Hiro touching my feet . . . flow of connection and shift of lumbar curve’. I feel even more the vitality it brought and still brings. I continue to welcome back my lumbar curve. I remind myself of the joy, the letting go, the allowing. Over these months, I notice that a constant systemic static is diminishing. I feel more peaceful. I feel more at ease being seen, being in front of people. I bring into my practice, and into my life in general, the concept of *ma*.

I’d also like to share of how the feelings I experienced during and after our session (those of connection and belonging – physically, spiritually, and emotionally; and the deep, profound sense of joy and peacefulness) were very similar to the

feelings I experienced in a near-death drowning episode years ago . . . when I realized that, no matter how much I struggled, I could not free myself of the ropes that held me under water, I became very clear. I let go. I felt free and fluid. I felt a sense of connectiveness within and around me. A profound sense of joy enveloped me. It was lovely. I do not know how [that] relates to our *ma* Rolfing session. I image it may be in the commonality of fundamentally experiencing profound joy and ease, albeit in different manners. Or perhaps, as I am just beginning to understand, it is *ma* – the pause, the space, the relationship – that is the commonality.

The session with Lisa showed me greater possibilities for working with *ma* – that it has more potential to facilitate transformation than I had thought. While I lacked information about her medical history before the session, nevertheless the area in question around L3 to L5 was ‘palpated’ during the session. Her profound experience of working with *ma* tells us a lot – yet remains mysterious.

Yielding with Ma Titrates Accelerated Work

Using ‘good *ma*’, it should be possible to design a more intensive series of sessions without risk of too much too fast, because work with *ma* does not force change from the outside. Rather, it can facilitate an

'autonomic orchestration' with coherency. In a sense, titration is a built-in feature.

I have already held several Rolf Movement workshops with yielding where the participants received daily sessions (Fourth, Fifth, Sixth, and Seventh Hours) over four days, and even some workshops where they received eight sessions over ten days. I witnessed that all participants had the necessary adaptability to receive those interventions without becoming overloaded. In contrast, when I used fascial release technique for the Roling series in the early days of my practice, I experienced that the tissues of the client's body seemed to resist my intervention the day after a session had been received. From this, I understand the reason behind the recommended Roling scheduling standard ranging from one session every two weeks up to two sessions per week: the client can only digest so much input and have time to integrate the work in her/his body and its process. On the other hand, long intervals may add extra stress for some clients. If they already have enough adaptability for an intensive series, there is the possibility to minimize the period of suffering or rehabilitation, e.g., for injured athletes. So an intensive schedule that relies on yielding with ma as its foundation might be an option for these clients.

The client you see in Figure 6 came for sessions with the request to improve her

condition as soon as possible in preparation for trying to become pregnant. Her own birth had been difficult, and she had a history of whiplash from a car accident, so she had chronic neck and upper and low back pain for twenty years. I decided to adopt a more intensive schedule for her series, as follows: session one, followed by five days off; sessions two through five over the course of four days, then two days off; sessions six through ten over four days. In this way, she completed ten sessions in roughly two weeks. The work was done entirely through yielding touch and ma, with no fascial release.

We see that her cervical spine is decompressed after the Ten Series. She reported that the series released most of her pain, especially in her neck, and that she did not find the schedule to be too intense or too much in any way. She visited my office one week after completing her series, and we see that her cranium has become even more aligned on the midline, suggesting that the changes are sustainable. Her reason for coming in again was that she was getting spontaneous movements in her shoulder during her daily meditation, suggesting that her body had become more responsive. I advised her to find resource by focusing on her hara rather than on any negative sensation. This helped her to not worry about residual discomfort in her shoulders

and neck, and it also ended the spontaneous movement of the shoulder.

This case study seems to confirm my view that it is possible to accelerate the series when the approach is yield in a context of ma. Similarly to Somatic Experiencing practitioners, who sometimes give sessions on successive days, it seems possible to do an intensive series where the intervention has sufficient built-in titration for there to be a safe matrix. If appropriate, this type of accelerated series could be particularly beneficial to an injured athlete wanting to get back in form as quickly as possible, or to a client who comes from out of town to receive work.

The one element that I would watch for in an intensive series is whether it might be necessary for the client to balance his or her perception of convergence and expansion. Working with ma seems to make clients more aware of space around the body (expansion preference), which then calls forth the need for more containment to maintain palantonic harmony of spacious perception. For the practitioner, it is important to utilize dynamic perception – perception that includes both interoception, exteroception, or what we could call perceptual palintonicity. This can be enhanced by orienting from one's surroundings to the hara convergence point, and from the hara into three-

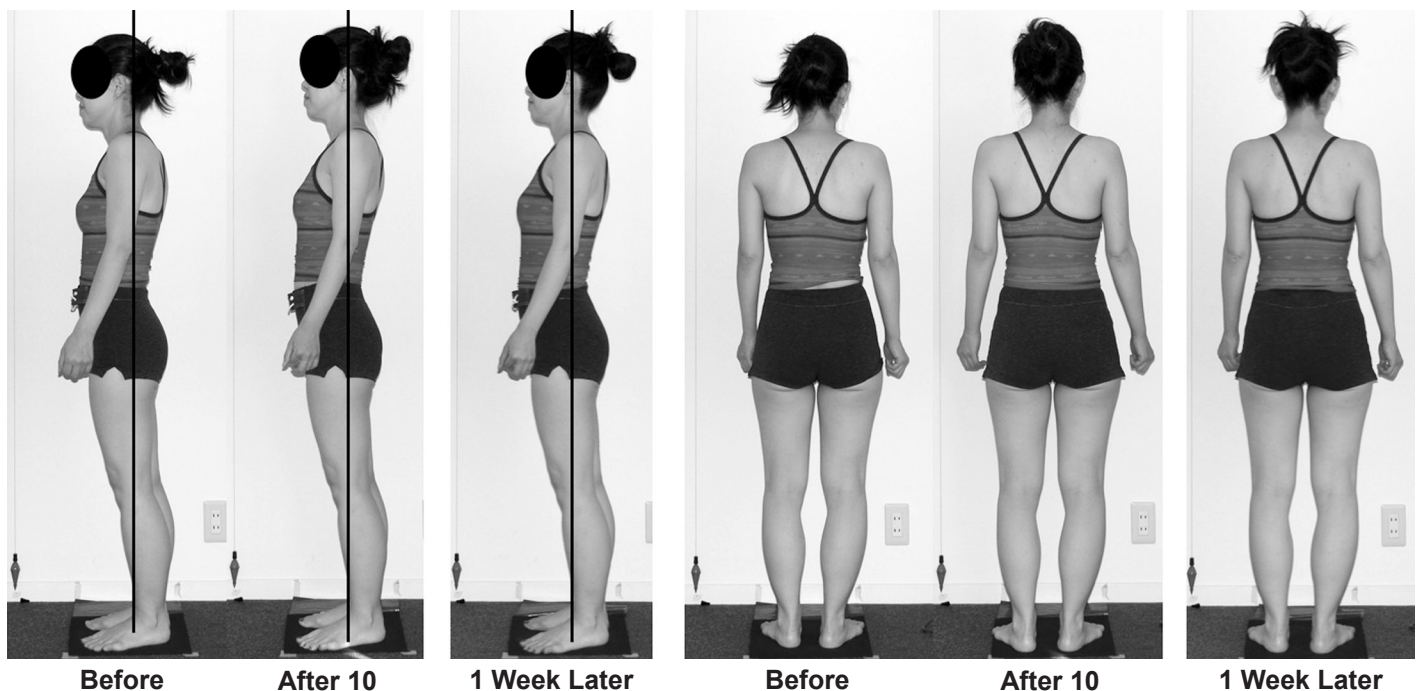


Figure 6: Sustained effects on structure of an intensive Ten Series over sixteen days, based entirely in yielding and ma.

dimensional space, thus both containment (convergence) and expansion (divergence).

Hypothesis for the Ma + Yield Process

These case studies suggest that good ma creates a condition of safety that enhances body responsiveness, thus facilitating structural change. My hypothesis for the mechanism of the process, where good ma is added to the components of yield, is shown in Figure 7. The downward arrows show the basic cascading flow of the process. The upward return arrows indicate the augmentation that happens at each stage. The movement is not just one way, it is always interrelated. A discussion of the elements of yield (scaffolding, motility, etc.) can be found in the original yield article by Agneessens and Tahata (2012).

Key Points for This Work

Looking back to the guidelines for working with ma (page 46), step three, choosing the single most comfortable place in which to settle – based on your own sense as well as the client's feedback if he is sensitive to his felt sense and kinesphere – is the most important element for this work. This may initially go against the grain as most Rolfing practitioners tend to be off and running once they find a strong response to work with, but I encourage starting with this step, and taking the time to settle in the good ma, even if it seems more elusive. This creates the state of conditioning, settling in both you and the client, that is one important piece of the jigsaw puzzle fitting together.

When you find just the right place for good ma with that client, in that moment, neither too close to the client nor too far away, both you and the client should be able to yield and settle into a state that is neither driven by excitement nor sunk in boredom. It is similar to the famous Zen rock garden at Ryoanji Temple in Kyoto, where the ma is such that each rock *fits in the space* in which it sits. This is a reminder that good ma is akin to feng shui, where the arrangement of elements in and around a house is critical for the flow of energy.

Another point is that the practitioner must relax as much as possible. If you cannot relax, you are not in the right location to be able to settle. There will be an appropriate interval of time for each location – remember that time is a component of ma, equal to space. In the practice exercise, you stayed in your best ma location, then tested to see if

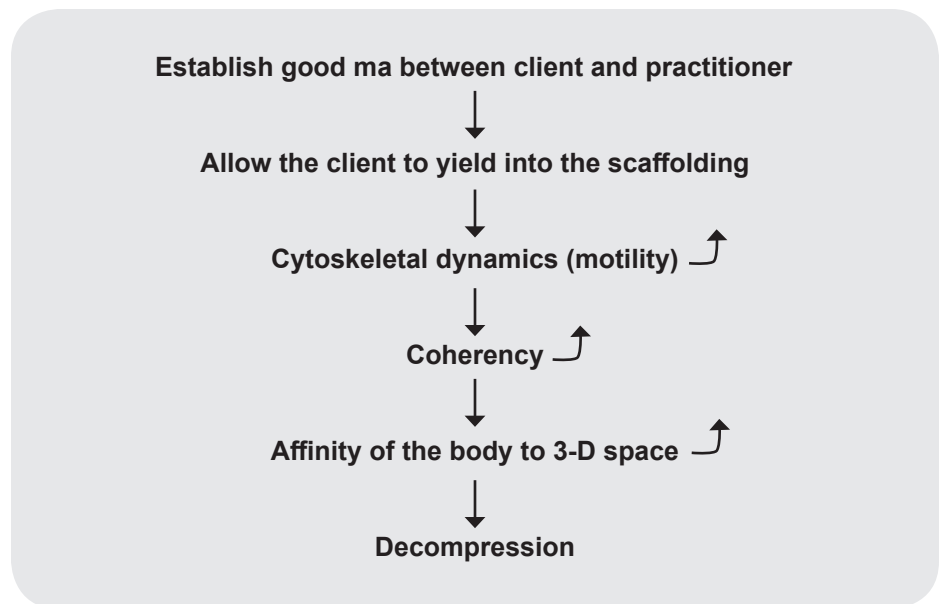


Figure 7: It is hypothesized that yielding in conjunction with good ma allows a sequential yielding response. Good ma creates the condition where there is safety to transform.

other locations had shifted in tone. Consider those other places, the ones that are not initially the best, to be 'reluctant'. When it is time to go to one of them – when it is able to accept the next intervention – then its ma will have changed and it will no longer seem reluctant. So you are waiting for the field to become more tolerant for the next intervention before you move into it.

Until you become familiar with the sense of ma, I recommend that you ask the client if she/he also feels an internal settling. The first positioning may determine the context and flow of the session. Besides the client's feedback, you may notice there are some places where your body feels reluctant to orient or move. Asking the client about his or her different perception of these places can give you feedback. Try to find matched places where you both feel good ma.

Conclusion

As I learned from my workshops with nonprofessionals, most people have an innate ability to perceive ma and recognize where it is optimal. Further, in my experience, most people receiving this work are responsive to it. This indicates that what happens under conditions of good ma is reproducible in most circumstances. Perhaps the sensing of ma is derived from primitive biological sensations related to the ability to locate predators, making it directly connected to survival. Where the organism puts down roots can make the difference between life

and death, or at the least have a substantial impact on the quality of life.

Ma is already in our lives in many ways, just look for it, where it is implicit or explicit. In Japanese culture, we see it in the practice of martial arts, or in flower arrangement. Our sense of movement in space, our sense of aesthetics, and many other domains of life, are governed and influenced by our perception, our kinesphere, and our interaction with others and our environment.

In the application of ma to bodywork, we are looking to our perception through the somatic resonance of the hara to guide us in our particular position in the room to set up conditioning, and in our sense of location and timing for the order of intervention. I believe each practitioner finds his or her own sense of good ma and can create good ma that is flexible to different clients. If you want to explore both your own interoception (subjectivity) and the intersubjective field, the concept of ma could be instrumental for your practice. Working with ma is the art of seeking coexistence with each other, finding harmony in time and space.

Acknowledgements: A number of individuals were inspirational in my developing the work with ma. My perception of space has been cultivated by studying with Rolf Movement instructor Carol Agneessens. My demonstration with Kosei Hayashi as the model in the class I taught, assisted by Carol, in 2016 inspired me to further exploration of ma. Yojiro Katayama,

founder of Migamama Seitai, a modality of Japanese bodywork, gave me clues to explore the dynamic perception of space in our collaborative workshops. Kathy McConnell shared with me Sverdrup's article on Ma, and her own article about "Intuition and Intention" invited me to start writing this article. Special thanks to Roling instructor Lisa Fairman for sharing her experience of our session in 2017.

Hiro Yoshi Tahata has worked as a Rolfer since 1998. He joined the Rolf Institute faculty in 2009. As a Rolf Movement Instructor he brings to this work a depth of creativity and understanding that integrates the principles of structure and function through a gentle and non-invasive approach to transformation. His background in biochemistry clearly bridges the inquiry between science and art. Hiro's work is grounded through experience and enriched by a thriving practice. His unique approach promotes profound experience and physical geometric balance. He was certified as a Master Healer by Dr. Ken Kobayashi, a master healing minister living in New York.

Hiro offers workshops on yielding and ma in Japan, which provide credits toward Rolf Movement certification. Details are at <https://yielding.work/workshop.html>. He and Yasushi Fujimoto will also be assisting Carol Agneessens in an upcoming class in Kyoto, Japan November 2-4, 2018, which will be a great opportunity to cultivate spacious perception and embryological understanding in relation to ma.

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Fascia Without Gravity

An Interview with David Lesondak, Author of *Fascia: What It Is and Why It Matters*

By Szaja Charles Gottlieb, Certified Advanced Rolfer™ and David Lesondak, BCSI

*Author's note: This interview took place on February 11th, 2018. My review of David Lesondak's book *Fascia: What It Is and Why It Matters* was completed and the author given the courtesy of reading it. I suggest you read the review first (see page 54), then the discussion dominated by the role of gravity in structural integration (SI) is more comprehensible.*

Szaja Gottlieb: So David, I have done a number of book reviews for *Structural Integration: The Journal of the Rolf Institute*®, and I try very hard to get the author's view from inside out. Like Guimbertau's book, he writes as a surgeon, and the chapters I've read by Robert Schleip, he writes as a fascia researcher. Your book kind of threw me because I expected a book about fascia written by a structural integration (SI) practitioner, since you are an SI practitioner.

David Lesondak: Yeah, I could sense that you were expecting something . . . I was thinking about people who were disappointed in *The Last Jedi*. They went in expecting one thing and got something very different.

SG: I thought to myself as I was reading your book, maybe I'm coming at things from what you might call a classical SI point of view, and you have been exposed to this huge amount of research, in terms of fascia, and perhaps things have changed in a way, in the process for you, or your point of view has changed. How has your experience of this research has affected your practice?

DL: That's an excellent place to start. When I set up to write this book, I felt I had to be Switzerland as much as possible.

SG: Neutrality – I get that.

DL: Yes, because you are going to have your viewpoint from the Rolf Institute, the Barnes people are going to have their point of view, and so on and so forth. I felt like it was the

old Sufi story about the elephant inside the dark tent and they all have their hands on one part of the elephant but no one knows that it is an elephant. Sometimes, I think, collectively, we don't realize we are in the same tent. So, I felt I really had to take that part of my brain and push it to the side so that I could write from a global perspective.

To the question of how it affected me and my practice, I came to this work looking for a more effective way to treat people who were in pain. I discovered this work through a Hellerworker, and it was an immediate firework in my brain and body, saying this is exactly what my body needs. This is what I need to learn next. I thought sometimes that I'm doing this without really knowing what I am doing, because the feeling just seemed to be, "Yeah, I felt this before when I was working on people as a clinical massage therapist."

SG: So David, you said global perspective. I understand that. But don't you think – and obviously this is my opinion, a Rolfer's opinion – the subject of gravity has to be broached in a book about fascia?

DL: I've been thinking about this subject a lot since [reading] your review. I do mention gravity on page 135. The truth is that if we look at gravity according to Einstein, space is curved, and therefore gravity pushes us down. And while writing this book, they finally discovered a way to measure gravitational waves. So, the body in gravity could have been a whole separate chapter,

and one that I was not prepared to write to meet the deadline for the book.

SG: David, I can't let you off that easily.

DL: That's ok.

SG: Because you are a structural integrator.

DL: Right.

SG: I know you are going to say the book is not about gravity, it's about fascia, but you discuss mechanotransduction and your book is all about the tensional network. The elephant in the room is not acknowledged.

DL: So you are saying the elephant is gravity?

SG: Yes, gravity is the elephant in the room and it should have been discussed at some level or some place.

DL: And I am saying the bigger issue for me – I always go back to the Clinton years, "It's the economy stupid"... In this case, it's the fascia. I am not saying you are wrong, I am saying, this is my point of view. If you go to PubMed and type in fascia in gravity, you will get only two hits that are relevant. Even in the big textbooks or *Fascia: The Tensional Network of the Human Body*, gravity is only mentioned in association with SI.

SG: I would say then that your approach is a clinical one whose main focus is to get rid of pain, which from an SI perspective is sometimes referred to as fix-it work.

DL: You can use the F word.

SG: Well, we all do fix it work. I guess my question is whether the fix-it work is done in the larger frame of SI, relating the gravitational field? Or ... ?

DL: It depends on the circumstance. I've got Anatomy Trains SI training, I've got some training with Chris and Ann Frederick's [Stretch to Win®] Fascia Stretch Therapy. I've done visceral training, both with German teachers and the Barral Institute. The question I ask myself, especially if there are financial considerations, is what do I need to most do to make it last?

SG: But when you do a series, ten, twelve sessions – I am just asking out of curiosity, because that is what I was asking myself reading your book – how much of a role does gravity play in that situation?

DL: Are you talking about my verbally discussing gravity with the [client]?

SG: I usually think of SI as split between bodywork and education, so how does that work with you?

DL: That's a lot to unpack. I see the work as a relationship of the person to their body, first and foremost, a relationship within their fascia whether it's in the ligaments, 'dynaments', bones, and the way they move. [Interviewer's note: 'dyanments' is Jaap Van Der Wal's word to express 'dynamic ligaments' because the ligaments move and adjust like tendons.] I rarely talk about gravity. I know this is heresy to some but I don't find it useful.

SG: Well, that explains a lot in terms of the difference in our points of view.

DL: The time that I spent immersing myself in the science of it, I was very fortunate. I just happened to be in the right place, in the right time, and usually with a camera, whether it was with Tom Myers in the dissection lab or Robert Schleip at the Fascia Summer School in Germany. So I had the opportunity to not just take in these scientific presentations, but videotape them, edit them for clarity, put the slides in the right place, and just sit with this material until I thought the videos were watchable.

My quest to understand what's really going on, what happens during mechanotransduction? If I can tell the [client], "Well, ok, so you can move your arm a little further now, right?", and they say, "Yeah I can feel that, that's great," now those cells have the message to eat away a little more collagen every time [he moves] that arm a little further. So all I am doing is putting into motion a process that's going to continue... And maybe I will give him one or two things to help accelerate that process. So that's one of the models that I find I can use to good impact in explaining what it is that we are actually doing.

SG: David, I can really appreciate where you are coming from, getting someone out of pain is not a small thing. But still to my way of thinking, it is half the job because situating an individual in the gravitational field merits an understanding, for example, of balance. So, if we haven't educated about gravity in terms of, "This is you as a physical body in space," we, client and practitioner, have lost out on an opportunity to create a new level of consciousness as to how in particular the client relates to the earth in a physical way. If the client is educated into that consciousness, then he can self-correct and maintain, then he takes that lesson of

gravity with him wherever he goes and whatever he does.

DL: I would say probably 50% of the people that I treat get some version of what I call 'sitting 101', where I start with their ischial tuberosities and build it up from there. To me gravity is like air in that it's so obvious. It's like air. I don't need to explain to you what air is to breathe more. You understand gravity affects every single thing on this planet. I don't need to explain that to you other than to show, okay, here's a better way to sit, here's a better way to move.

SG: From my experience, most people who walk in my office cannot find themselves in true balance in gravity without being taught. I'm talking about just standing in space, not even sitting or moving. If I ask them to feel balance, they have no idea what I am talking about.

DL: I never ask that question. If you 'put it where it belongs and ask for movement' – which I think is one of the most brilliant ideas ever – I can engage the person in a proprioceptive event between what I am doing with my hands and what they are doing with their movement, the experience winds up being a profound moment, either when they get up or later after they have gone home. In this case, I'm thinking of people who have no relationship with their quadratus lumborum or that whole area, and what that can do for them in terms of movement, stabilization, sitting, standing, getting out of their car. In between sessions I give people awareness pieces so that when they come back with what they have felt and observed, we can keep working and build from there. That's how I go about building resilience.

SG: I guess my issue is I believe SI is about gravity. If we are not teaching gravity, how are we, SI, different than all the other therapies you have in Chapter 8 of your book?

DL: That's a good question. And I'm thinking, well, either we're all doing it or none of us are doing it because it's inherent in the material itself. So, in my mind, it's about teaching people about fascia in their bodies. It's not teaching them about gravity.

SG: That worries me.

DL: I think sometimes people obsess too much about gravity, it's not something people relate to. It's not something that they go, "Oh, that, I get it, it makes me feel better

and move better," which then becomes a door to a much deeper education.

SG: Not if you show them the right way. What does balance mean? Simply alignment in the gravitational field so that you use the least amount of energy to stabilize your body to do a dynamic movement.

DL: OK. That's a good definition.

SG: Balance is basic, primordial . . . We exist on the physical planet and you can't talk about balance if you don't talk about gravity.

DL: I do yoga, lots of it. For the many years I have been doing it, when I do it, I am not thinking about gravity.

SG: But when you do a pose like Tadasana, you are expressing the 'Line', from earth to sky, and that is gravity.

DL: Here's the difference in your education and my education. I got educated with twelve different lines. I don't spend a lot of time thinking about the Line, and I understand that from your point of view that is a tremendous loss.

SG: David, I read an article recently that would blow your mind. It is an article written by two pediatricians in 2016 entitled "Mechanotransduction as an Adaptation to Gravity" (www.ncbi.nlm.nih.gov/pmc/articles/PMC5183626/).

DL: That sounds amazing!

SG: The authors said that when life forms first lived in the ocean, buoyancy was the primary response to gravity, but when life forms moved to land, there was a whole new problem of how to deal with the gravitational force. Plants, according to them, were the first to solve this problem by sinking roots into the ground as they grew upwards. There's your Line. There's Ida Rolf.

DL: I can see that, I really can, very clearly. But I really think we do the same thing but we use very different semantics about how we do it.

SG: I don't think so, but I think I will leave the reader to make up his or her own mind about it. I think we have beaten this dead horse long enough.

DL: But you know what, we are enjoying beating it to hell!

SG: David, I consider you the point man in the fascia field right now, for the rest of us who don't know or are not up to date with fascia research. Don't get me wrong,

Despite my criticisms, I think your book is incredibly valuable, a big contribution to the SI and manual therapy community.

DL: You have been very clear about that from the beginning and I thank you.

SG: Where do you see the research going now? The Fascia Research Congress in Berlin is coming up in a few months. Is it going to be pretty much the same or is there something different going to be happening?

DL: I hope it's going to be different in Berlin. I'm excited. The first three were so rich with material, and I felt like the last one kind of lost some of the more clinical aspects. A lot of it was presented in terms of pure research and didn't seem to have clinical relevance. I am also submitting something that I hope may be accepted.

But the frontier that I would like to see mined, and I kind of lay that out in chapter five, is the mind-body frontier. Because there are seventy integrative medicine centers that are affiliated with university hospitals or research hospitals around North America. That's where you find things like chiropractic, massage therapy, acupuncture, EMDR™, SI, and other fascial modalities, all that stuff. I think the missing piece in the mind-body relationship is fascia – it is what connects and what communicates. There are portable EEG devices that are now affordable, so we could do the same session on ten people and see what lights up in their brains. I am talking about pure research. Look at the results and see where do we go from here. Recently, we redid a study on mindfulness meditation and perception of low-back pain with a much larger sampling, that will probably be in the next edition.

SG: Sounds interesting.

DL: These are the areas that I would like to see explored, but where it is going in the future I have no idea.

SG: Another point I was wondering about was how your work was affected by being exposed to the new information from researchers. I asked Robert Schleip the same question when I interviewed him a couple of years ago.

DL: Well, one thing I certainly learned is that the direction of the tissue and the underlying matrix does matter. Also, movement. So if fibroblasts respond to the direction of the underlying matrix, collagen will grow like weeds without any stimulation. I write about this in the first chapter, "Fascia, the

living tissue and system." This is supported by Moseley's excellent study showing that tactile discrimination gets better results than just tactile stimulation alone. It seems to me an easy association to make that slow, active, mindful movement should enhance neuroplasticity, via the mechanoreceptors, and rewire the parietal lobe. Certainly I notice overall quicker responses and overall better results when the person on the table is active.

SG: David, I just want to say that despite our different view, I have great respect for what you have done. You have made a substantial contribution to our field. If I were going to teach a course on SI, I would use both of Dr. Rolf's books, Tom Myer's *Anatomy Trains*, and your book on fascia.

DL: Well, thank you. I really appreciate that. I really do. If I could say one thing.

SG: Sure.

DL: You called me the 'point man' in the fascia world for us folks, so I think that the good thing about being the point man is to always know that you are a student and to know that you are trying to accrue more and refine.

SG: Understood. I am really looking forward to your next edition, particularly the changes.

DL: I have already been thinking about it.

SG: Thank you, again.

David Lesondak, BCSI (Anatomy Trains SI), has for the past ten years practiced SI at the University of Pittsburgh Medical Center (UPMC). He has produced and directed a number of important media productions involving fascia research such as Fascia Academy 3 (a five-DVD set) and Fascia & Sports Medicine Volume 1 (Nov 2013) and Fascia & Sports Medicine Volume 2 (May 2017). He was a presenter at the fifth International Fascia Research Congress in September 2015 and has lectured on fascia- and myofascial-related issues including Fascia and Low Back Pain at the Academic Consortium for Integrative Medicine and Health in Las Vegas in May 2016. For more extensive information about David, please go to <http://www.davidlesondak.com>.

Szaja Gottlieb is a Certified Advanced Rolfer living and working in San Luis Obispo, California. He is the Research/Science editor for this Journal.

Remembering Hadidjah Lamas

By Mary Bond, Certified Advanced Rolfer™, Rolf Movement® Practitioner

One of Ida Rolf's first protégés, Hadidjah Lamas, passed away on December 4, 2016 at the age of eighty-four. She was one of the early practitioners trained by Dr. Rolf.

Hadidjah was practicing in Los Angeles when I met her in 1968. I received the Ten Series lying on a mat on her living room floor. The experience was mysterious, the more so because Hadidjah didn't seem to want to speak about what she was doing. I didn't even know what the process was called, only that it was a method my college roommate enthused about. Because Hadidjah's touch was steady and her presence assured, I was able to trust in the beneficence of what was happening, even during painful moments. The results included absence of chronic neck pain, better balance in ballet class, and some striking before-and-after photos. Once I myself had been trained by Dr. Rolf, Hadidjah mentored me through a client's series, helping me gain my footing by sharing the fruits of her experience.

Hadidjah's daughter, Halimah Fielding, was not able to tell me how Hadidjah met Dr. Rolf, but she did share many interesting facets of her mother's career as a healer. Throughout her life, Hadidjah's interest in the body led her to study human dissection. In time, she branched off from doing the Rolfing Ten-Series to work directly with the nerves. She called her work "Body Harmonics." An inspiration to work with the body at the cellular level arose when she was treating a young child whose growth had stopped for a year. Hadidjah's work restored the child to health so that she continued to develop normally. In the 1970s, Hadidjah was pioneering the subtle aspects of Rolf's legacy that many practitioners today are discovering.

After recovering from a serious illness through Radionics treatment, Hadidjah incorporated work with energetic frequencies in her healing approach. She had been a mathematician on the space



program when she was a young adult and the work with frequencies resonated with her mental brilliance.

An exceedingly beautiful and compassionate woman, Hadidjah Lamas was responsible for introducing both myself and Emmett Hutchins to Rolfing® Structural Integration. She was a beloved mentor.

A Very Fine Book About Fascia – That Forgets to Thank Dr. Rolf

A Review of *Fascia: What It Is and Why It Matters* by David Lesondak

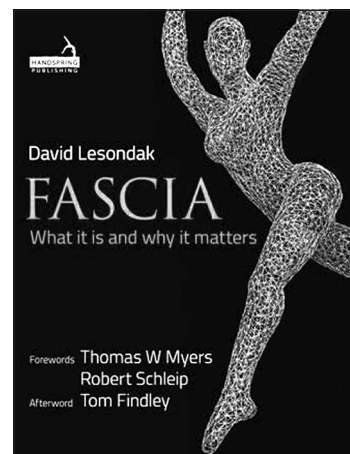
Reviewed by Szaja Charles Gottlieb, Certified Advanced Rolfer™

Reviewer's Note: I want to acknowledge the author, David Lesondak, for encouraging the completion of this review, despite my criticisms.

David Lesondak, the author of *Fascia: What It Is and Why It Matters* (Handspring Press 2017), has written a very fine book about fascia, but ironically, since he is a structural integration (SI) practitioner [an Anatomy Trains SI (formerly KMI) graduate], and because it is a book written for structural integrators as well as prospective students of SI, it is not so fine from an SI point of view.

Perhaps I am 'old school' or old-fashioned, but as an SI practitioner and a graduate of the Rolf Institute® I like the word 'gravity'

somewhere nearby when I hear a discussion on the subject of fascia. I sometimes worry that fascia research, some of it inspired by Dr. Rolf, will unwittingly result in a disconnect or decoupling between the concepts of *gravity* and *fascia*. To my way of thinking, the uniqueness of SI is in the relationship between the two, and that is what makes us structural integrators rather than, for example, osteopaths or practitioners of myofascial release. Rolf (1978/1990, 167) felt as much when she said:



"I think if they [Dr. Still and the osteopaths] had had one more idea back in the eighties we would be out of business: the idea which we have and they didn't. This is the idea of gravity. They did not study the body as it is influenced by gravity. They studied the body to see if the joints worked and which joints didn't work, and how to make them move."

The second chapter in *Fascia: What It Is and Why It Matters*, discussing fascia, tensegrity, and the cell, would have been the correct place for a discussion of gravity. This chapter includes *biotensegrity* as proposed by Stephen Levin and mechanotransduction and tensegrity as discussed by cellular biologist Donald Ingber. The author emphasizes the close connections between these discoveries, but to me he misses the essential point. Whether the discussion is about biotensegrity or mechanotransduction or even Guimberteau's multimicrovacuolar collagenic absorbing system (MCAS), we are, it turns out, really talking about only one critical issue: how life maintains its structure in the gravitational field under the stresses of mechanical force. This is why Rolf called fascia 'the organ of support' and why Tom Myers referred to it as the 'organ of form'. A discussion of gravity is thus unavoidable if the reader is to get the full picture of the fascial system at work. And, if one then discusses fascia and gravity, it is impossible to avoid acknowledging the singular contribution made by Rolf – even though she never wrote a single academic paper about fascia! This lack of discussion of gravity as related to fascia in the second chapter, as well as the disappointing treatment of Rolf's contribution in the third chapter, and factual errors in describing the development of Rolting® SI in the last chapter, chapter eight (which I will discuss later in this review) prevent me from giving *Fascia: What It Is and Why It Matters* a wholehearted endorsement in its present form.

Fascia: What It Is and Why It Matters is a significant contribution to the literature of what might be called the Fascial Revolution, the stream of articles and books in the past twenty years, much of it as a result of the Fascia Research Congresses (FRCs), which were, in fact, partially inspired by Rolf's work. The book locates itself between highly academic books – such as *Fascia: The Tensional Network of the Human Body*; *Biotensegrity*; and *The Architecture of Human Living Fascia* – and books using new information from fascia research to create new modalities, such as *Stretch to Win* or *MELT*. I should mention that I have been fortunate enough to read and review all these books for this Journal. *Fascia: What It Is and Why It Matters* holds a unique position among these published works. Neither strictly academic nor written for the average layman, Lesondak's book functions as a clearing house, distilling the

critical aspects of the voluminous amount of research that has been published (and much of which has been presented at the FRCs). For practitioners who have complained that they lack the time to keep up with current research and to catch up to the new ideas concerning fascia, this book will obviate all excuses. Purchase of this book will end the need to purchase any other, unless more specialized knowledge is desired. It also comes at a perfect time since the next FRC is in November in Berlin; the book will thus bring practitioners up to date before new and hopefully important information about fascia is presented in the fall.

The book serves as a primer on fascia to the immediate community of manual therapists but will certainly appeal to other communities such as acupuncturists, chiropractors, physical therapists, and especially to teachers/students in anatomy classes, even at universities. To my knowledge, there has not been a book published solely dedicated to fascia whose purpose was to simply give the state of present knowledge and to reach a wider audience of nonspecialists. *Fascia: What It Is and Why It Matters* admirably fills that void. Ultimately, the chief beneficiaries, perhaps, are our clients. Having read this book, a practitioner can, during manual therapy sessions, better explain what is happening to their bodies under our hands. Undoubtedly there will be many future editions to keep those interested in new findings and discoveries up to date, and thus the book will continue to be a significant contribution in the somatic field as research continues.

Organizationally, *Fascia: What It Is and Why It Matters* can be divided into three sections. The first two chapters discuss some of the controversy surrounding fascia, whether it is tissue or system, and its architecture as it pertains to tensegrity or biotensegrity structures. Chapters three to six cover fascia in terms of systems in the body, thus fascia and anatomy (the fasciomusculoskeletal system), fascia and the nervous system, fascia and the brain, and fascia and the organs. Chapter seven discusses fascial conditions and problems associated with diminished fascial function, and lastly chapter eight indexes fascial therapies available, including SI.

There is a great deal to laud in this book. Lesondak is blessed with an engaging writing style, which is rare for someone writing about science. He has a gift for storytelling

and the reader is continually intrigued by details that hold interest – like his reference to and pictures of artificial limbs from the 1700s to begin his discussion of Giovanni Alfonso Borelli, the father of biomechanics; or, the revelation, in his discussion of tensegrity, that sculptor Kenneth Snelson, often cited as its progenitor, did not like the name 'tensegrity' because he likened it to "the name of a bad breakfast cereal." Andreas Vesalius, the sixteenth-century 'father of anatomy' is introduced as "A man from Padua" in chapter three "Fascia and Anatomy," while thirty pages later in the same chapter fascia researcher Carla Stecco (present chair of the Department of Anatomy at the University of Padua) is introduced as "the woman from Padua." And then there are the wonderful details about Einstein's brain in chapter five ("Fascia and the Brain") and the role of glia in intelligence. These asides, solid science, and instructive, stimulating diagrams throughout the book, with a mix of humor, personal experience, wry comments, and vignettes, humanize what could otherwise be considered dry boring science: they make the book a compelling and entertaining read. The high point for me were the experiments done in 2010 by Melzer, demonstrating how repetitive motion causes apoptosis (cell death) and the efficacy of manual therapy, specifically myofascial release, to quickly reverse apoptosis, something to certainly crow about to our clientele.

While not breaking any new ground itself in the field of fascia research, the book reports many of the provocative discoveries that have recently been made by researchers. The role of integrin for example; these receptors are sensitive to changes in mechanical force, which then create electrochemical changes at the cellular level. A discussion of this in the first chapter helps the reader comprehend the critically important process of mechanotransduction. Or, the news that the myodural bridge between the posterior aspects of the atlas and axis, connecting dura to the myofascial system, possibly regulates not only dural tension but also the flow of cerebrospinal fluid. This is certainly exciting and relevant for those who practice craniosacral work. Or, the fact that the thickened fascia of the retinacula of the ankle should be considered proprioceptive, rather than stabilizing: it serves to better sense movement of foot and ankle joint and potentially transmits that sensory information to the knee, hip, and brain. There are many other similar nuggets throughout the book.

Chapter three is the largest chapter and gives a lesson in fascia's anatomical history starting with Galen, and continuing with Vesalius, Dr. A.T. Still, Frederick Wood Jones, Dr. Kurt Tittel, Tom Myers, and Carla Stecco. Sadly, Rolf is included under the heading of "Tom Myers," and there is a one-paragraph description of her contribution on page 58 – which is, in my opinion, insufficient:

Thomas Myers was a practitioner of Rolwing® Structural Integration, a type of fascial bodywork. As developed by Ida P. Rolf (see Chapter 8), Rolwing® revolved around the recipe of a fixed number of treatments that, while individually tailored, were nonetheless delivered in a very specific order. Myers was impressed with how well the system worked for most people. He was equally obsessed with finding out the underlying anatomical reasons as to why this should be so.

As I was writing this review, I also was taking notes for a scheduled interview with Lesondak. [Editor's Note: The interview appears on page 51 of this issue.] I felt compelled to email him and stated my objections as follows: "Your treatment of her [Rolf] as a stepping stone to Anatomy Trains rather than pivot point and pioneer in viewing fascia as a tensional system responding to mechanical forces in the gravitational field is incomprehensible to me." I think most, if not all, Rolfers would agree with me on this. While not taking away anything from Myer's achievement of Anatomy Trains, Rolf deserves to be noted in her own right for her contribution in the conceptual development of fascia and the present interest in fascia – and for the fact that her work of Rolwing SI can pretty much claim to be the mother of all modern fascial bodywork therapies. I would list her contributions as threefold.

First, her coupling of fascia and the concept of gravity anticipated the later concepts of biotensegrity (Levin) and even mechanotransduction (Ingber), though ironically (since she was a biochemist) she did not consider biochemical responses to gravity. She was thus the first to correctly present fascia as an anatomical system responding to changes in mechanical force.

Second, the ten-session series, known as the 'Recipe' in SI, which I consider a masterwork, codified the relationships of how bodies

move in the gravity field, implying fascial functional lines of force – what Myers added to and made explicit with Anatomy Trains. Critically, SI was an expression of Rolf's holistic vision which placed emphasis on anatomical relationships rather than searching for the traditional cause and effect of allopathic medicine.

Third, she inspired a whole generation of fascial researchers who were structural integrators and who had major roles in initiating the FRCs. Note that three of those researchers – Myers, Robert Schleip, and Thomas Findley – wrote the foreword and afterword for this book.

In the last chapter, entitled "Fascia Oriented Therapies," the author once again discusses Rolf and the history of SI. Despite taking most of the information from the monograph on Rolf written by Rolfer Eric Jacobson (2011), Lesondak manages to make egregious mistakes as this sentence indicates: "She studied homeopathy in Europe and was strong influenced by somatic pioneers Alfred Korzybski and Hubert Godard as well as a number of osteopaths, including William Sutherland." Clearly, there are factual errors. Alfred Korzybski was not a somatic pioneer but a groundbreaking linguist who developed the field of general semantics. His ideas influenced Rolf's thinking about the nature of language ("the map is not the territory") in relation to physical reality (Agneessens 2015). Second, Lesondak somehow joins Hubert Godard at the hip with Korzybski even though they were not contemporaries, and he erroneously states that Godard was an influence on Rolf. Godard became a Rolfer in 1986. I checked with Jacobson and Aline Newton, who interviewed him many times, and no one has any knowledge of Rolf and Godard ever having met. Moreover, it was Godard, a dancer, who was influenced by Rolf's work, not the other way around. Godard became a Rolfer because he was impressed that Rolwing SI as a bodywork system included gravity as its fundamental conceptualization. (I should add that Godard's ideas about tonic function are relevant to discussions of gravity; one could give credit to Godard for integrating the structural and movement wings of the Rolf Institute® so they both were aligned around the same concept, gravity).

I must say that these types of mistakes made me question the author's familiarity with Rolf's work and the history of SI. It did not help that Rolf's major work concerning Rolwing SI, *Rolwing: Reestablishing the Natural*

Alignment and Structural Integration of the Human Body for Vitality and Well Being, was listed at the end of the chapter not under "Reading" but later as "Further Reading." Dr. Rolf's other book, *Rolwing and Physical Reality*, is not listed at all.

Thus, no matter how praiseworthy is this book, for me, the experience of reading it was marred by these omissions, slights, and mistakes. Informed of these factual shortcomings, the author assured me that they would be corrected in forthcoming editions, and I am sure they will. But this episode brings up the larger problem of Rolf's legacy after almost fifty years, as it becomes smaller and smaller in the rear-view mirror of history. As fascial research continues, as SI schools increase in number, and as practitioners proliferate, I fear a loss of ground and a loss of moorings if Rolf and her work, particularly the primacy of the gravitational field in SI, are neglected or short-shrifted. I am of the opinion that her work is of a high order, visionary, and holds the potential for a richness that brings new insights and new understandings with each reading and rereading, particularly for future structural integrators.

This problem of Rolf's legacy has been on my mind lately. Recently, I decided to make a new sign for my office. It bothered me that after every session the client would thank me and walk out the door. Something felt missing. So I ordered a sign, a small one, to be put on the wall where clients will see it as they as depart – just to remind them and myself as well. The sign reads, "Don't thank me, thank Dr. Ida Rolf." I think I am going to order one for David Lesondak as well.

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Robert Toporek Shares His Life Legacy

A Review of *Hands-on Parenting: A Practical Guide to Massage for Happier, Healthier, Smarter Kids*
by Robert Toporek

Reviewed by Lina Hack, B.Sc., B.A., Certified Advanced Rolfer™, Somatic Experiencing® Practitioner

"Never underestimate the intelligence of your baby!"

Robert Toporek (pg. 10)

Robert Toporek is on a mission to teach parents, caregivers, and fellow Rolfers who are parents manual therapy for infants and children. His book, *Hands-on Parenting: A Practical Guide to Massage for Happier, Healthier, Smarter Kids* (TeamChildren 2018) holds the legacy and the passion that Dr. Rolf had for touch interventions to help children grow into balanced bodies. Toporek worked with Rolf in the last four years of her life, together they started a Rolfing® Structural Integration (SI) with children program, and she intended this work to be part of what the SI profession is about as a whole. Toporek takes the reader step by step through an SI-informed massage, with informational essays to support the process. I recommend this book for all parents, caregivers, and Rolfers; informed touch is our birthright, and Toporek has offered us the needed instructions to support children to have healthy growth and resilient bonds for a lifetime relating to gravity with a balanced body.

The reader really gets to meet Toporek in this book, his friendly voice is clear on the page and his life story bookends the instructional material. We learn that Toporek has had an incredible life journey, from his tours of duty in Vietnam to his studies with Rolf, his over forty years of SI work with families and children, and his personal story as a father. What the reader finds on the page is a down-to-earth narrative in a conversational style and a wealth of information. Toporek states right away he does not have child psychology degrees or a background in medicine, yet what he does have is an informed mind, a humble tone, and a heart that wants to help. This book is intended to help parents deepen their relationships with their children and also to stimulate the global

conversation about the benefits of parental massage in early childhood development. While written with parents in mind, no doubt the material will be valuable to Rolfers working with children in their practices.

Toporek takes his time to help the reader get started: whether the person has never given a massage or perhaps has only received a massage, the book gets the reader thinking about how to begin. Tips include keeping the touch age-appropriate and simple, and common sense ideas about how to have fun with our children while including massage as a part of our communication time. Toporek keeps his advice practical, inviting parents to first feel their own tension patterns and emotional experience. The guide to massaging children starts with the parent supporting his or her own body to be at ease, with strategies to let go of built-up tensions before working with the child.

The massage instruction follows Rolf's Ten Series adapted for the parental touch to be general, age-appropriate, warm, and comforting for the child. The book educates the reader about themes of the body that we know well as Rolfers: breath as the essence of life, feet as expressions of personal strength,

and the sides of the body inviting flexibility into our lives and so on. Each of Toporek's ten massage instructions have a specific guide for how to work with a baby and how to work with a child, with clear steps and accompanying images that make this book a clear guide for parents to reference often.

The images accompanying this book are excellent, my favorite being those of Toporek and Rolf working with children (see Figure 1) and the families that have benefitted already from the information in this guide. The illustrations accompanying the instructions are very clear and accomplish the goal of guiding the reader through each step. And the reader also can see photos of children benefitting from SI work with Toporek. The before and after pictures of children are the best I have ever seen, and this photographic evidence makes the point that structural interventions during childhood and adolescence allow the person's form to self-actualize into a balanced upright adult.

In the literature review of parental touch, Toporek talks about the major researchers who have made the most significant contributions to studying massage in childhood, yet there was more that could have been mentioned regarding animal studies and attachment theory benchmarks. This is easy to forgive when the author is so clear about who this book is for and what it is about: it is for every parent everywhere and it is about supporting all parent-child pairs to have positive massage experiences that will enhance natural growth for the whole span of infancy, childhood, adolescence, and beyond. Toporek anchors his guide with stories from his own life as a parent and SI practitioner; he has lived this advice and work, and he offers his best knowledge to us in this book.



Figure 1: Dr. Ida P. Rolf and Robert Toporek (image provided by author).

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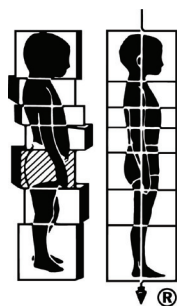
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