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Connecting with the Earth

Human beings and our hominid ancestors have walked upright for over three million years – mostly barefoot on natural terrain, in a continuing and intimate relationship with the Earth beneath their feet. That relationship fostered the balance and physical agility – rare in contemporary urban society – that allowed them to walk easily across a log over a stream with things balanced on their heads. It also fostered a deep enduring sense of self, and an accompanying deep sense of psychological and even spiritual security.

Comparatively recently, that relationship began to change. We smoothed out the surfaces we walked on – the floors, courtyards and streets. We began to encase our feet, probably in soft animal skins at first, then in increasingly rigid and confining footwear. We moved from the countryside into towns and cities, further reducing our contact with the natural surface. People now live their entire lives without ever stepping on a natural surface, or doing so only in stiff rigid-soled shoes.

Today, the close intimate contact with the Earth that our ancestors took for granted has largely disappeared, and with it, much of our natural grace and agility. Few people can comfortably cross a stream on a log; fewer still can do so with something on their head. More importantly, perhaps, the deeper sense of self and the emotional and spiritual security that contact provided are also gone. Anxiety is rampant and expresses itself in many forms – from the macho aggressiveness with which some men mask their insecurity, through the chronic low-level angst that many people feel, to the barely-repressed terror with which some share their lives.

I'm not arguing that these losses are *caused* by walking on flat floors and paved surfaces; the *cause-and-effect* links at work here are not that simple. Flat floors and paved surfaces are but one of the many ways in which contemporary life styles violate our inbuilt biological expectations, restricting development of our full potential and diminishing our human experience.

The function of *support*, of maintaining ourselves upright in gravity, is a fundamental ongoing base on which most of our other activities depend. Yet we take little notice of gravity or of how we respond to it, so all-pervasive is its presence. This is as it should be. Basic activities like support (and breathing, digestion and circulating the blood) should not require conscious attention, and we have evolved low-level reflexes to maintain these activities automatically. Yet our civilized life style somehow disorganizes and disrupts these natural reflexes, leading to stiff chests which restrict natural breathing, ulcers and other digestive problems, and hypertension in the walls of our blood vessels, as well as the problems with support that concern us here.

Three systems in the body contribute to the function of support – the skeleton, the musculature, and the nervous system. The *skeleton* is a system of rigid bones, hinged together at articulating joints, that gives the body its basic shape and structure. *Muscles* attach to the bones; their contractions (in various combinations) provide movement, stabilize joints and produce action. The *nervous system* senses the state of the world (both within and without the body) and controls the musculature in order to (sometimes) accomplish what we want.

The skeleton and the musculature share the mechanical task of supporting the body in gravity. Ideally, the weight of the body should be balanced through the skeleton. The musculature should configure the skeleton to bear that weight, but should bear very little weight directly. Supported in this way you feel light and fluid, so that “a fly alighting on your body would set it in motion”, as Chinese T'ai Chi masters put it. You experience the pressure of the ground through your skeleton as a secure connection with the Earth.

Few of us, though, experience this sort of ease and fluidity. Instead, we carry our bodies slightly out of balance, then use muscular effort to support our off-balance weight. Thus chronically contracted for weight-bearing, our muscles cannot deliver easy fluid movement. We feel heavy and stiff; movement requires power and effort. The upward pressure from the ground cannot pass cleanly through the skeleton, but gets dissipated in the efforting musculature. Our second connection with the Earth is lost. We feel a sense of insecurity, which we project onto our work, relationships and other aspects of our lives.

The difference between the two modes of support lies in the way we use the nervous system. Light balanced support requires an ongoing awareness of the body's position in space and forces acting on it, and continual slight readjustment to maintain effortless balance. Off-balance support uses less awareness, depending instead on rigidity produced by chronic effort.

Evolution leads to organisms which fit the environment in which they evolve, and our nervous systems are well suited for balanced support. Proprioceptive nerve endings throughout the body provide the necessary information, and a network of reflexes exists in the brainstem and spinal cord to transform that information into balanced support.

Why then, are such support and the intimate connection with the Earth which accompanies it so rare in our everyday lives? What happened, to put us so out of touch with our natural birthright? Part of the answer lies in with the systematic training we receive as children to suppress the self-awareness that balanced support requires, and to chronically use effort in everything we do. This training may be unintentional, but it is nonetheless methodical and highly effective.

Remember what it was like to be six years old. Something you knew at six, though you couldn't

articulate it intellectually, was that *sitting still was an unnatural act*. So they put you and another bunch of six-year-olds in a room with an adult authority figure, you told you “Sit still, don’t squirm, don’t look out of the window, and raise your hand if you want to go to the bathroom!” That urge to squirm was your internal awareness telling you that sitting still was an unnatural act, trying to get your attention. But the cards were stacked against that, so you learned to respond instead to external authority. That wasn’t your first such lesson, and it certainly wasn’t your last. And in learning those lessons you gave up the self-awareness that balanced support and a deep connection with the Earth require.

Moving lightly across natural terrain is an ongoing dialog with the surface beneath your feet. The proper organization of your weight-bearing system depends on the characteristics of that surface – its pitch, evenness, hardness or softness, etc. – which may change from step to step. To move with fluidity and balance, you must perceive and respond to those changes almost instantly. The *soles of your feet* evolved as sense organs to provide the information necessary to do that.

Your feet are richly endowed with sensory nerve endings, whose function is to inform you about the surface on which you walk. Reflexes in your spinal cord respond, organizing your feet, legs, pelvis and spine to conform to that surface. The subconscious information-processing and response take place between the time your foot first makes contact with the ground and the time your full weight comes down on it.

Walking across a hill sloping up to your right, for example, the outside of your right foot will touch the ground slightly before the inside. Your nervous system will respond by bowing your right leg slightly inward as you transfer weight onto it. As you step forward onto your left foot, its inside edge makes contact first, and your nervous system bows your left leg slightly outward. These minor readjustments conform you to the slope of the hill, minimizing the effort that walking requires.

This is the way it should happen, at least – the way that nature intended it! But a lifetime of wearing shoes and walking on flat, informationless surfaces deadens both the sense organs and the responses. The information flow from your feet shuts down, so there’s nothing there to respond to. The subtle responses get buried beneath layers of tension that you come to accept as “normal”. (Imagine what sensitivity you would have in your fingers, if you had been made to wear stiff mittens all your life and only allowed to handle large smooth objects).

So you just clump along without regard to the surface under you, experiencing variation as an obstacle to be resisted rather than opportunity to interact with the richness of your environment. The pervasiveness of this hit me one day in Yosemite Valley, as I watched people unconsciously choose to walk on a paved road rather than a natural trail only yards away. The paved surface felt “normal” to them, while the natural surface did not.

Your walking isn't all that suffers. A continuing flow of information from sensitive aware feet imparts an intimate connection with the Earth beneath you. Using minimal muscular effort, you experience a clean uncluttered sense of support through your skeleton. This gives you a feeling of competence and security, of trust in your ability to deal with whatever challenges the world has to offer. You know that you can move with ease and fluidity, and that your body will respond when you need it. You feel a deep sense of security in all aspects of your being – emotional, psychological and spiritual as well as physical.

Without the information from your feet, your sense of connection with the Earth diminishes. No longer experiencing support from the surface beneath you, you stiffen and use effort to support yourself. Life seems harder and more demanding. You feel less competent to deal with the challenges of your job, relationship and other aspects of your life, so your sense of security in those areas decreases as well.

If you don't feel this in your own life, notice the people around you. The least secure are likely to be the ones who use the most effort just walking around, and who have the weakest sense of connection with the Earth.

Giving up our ongoing contact with the natural world and "becoming civilized" brings us many benefits – at least that's what we tell ourselves. But it also has its costs, including some we hardly notice. One such cost is a deadening of our proprioceptive sensory experience (i.e., the internal experience which comes through our bodies) and of a deep and fundamental sense of ourselves and our connection with the Earth which depends on that experience.

Even living as we do, though, we can regain some of what we've lost. It doesn't take a lot of work, in the sense of expenditure of muscular effort. In fact, the opposite is true. As you regain your sense of connection with the Earth, life takes less effort. But it does take attention, and a commitment to becoming aware of how you support yourself in gravity and to reducing the effort you expend in doing so.

A disciplined practice connecting movement and self-awareness, such as T'ai chi, yoga or the *Feldenkrais-method*, can certainly help. So can spending time in nature, being sensitive to how you contact the Earth and what it says to you. ("Power hiking", covering ground as fast as possible, doesn't help, but only serves to reinforce learned patterns of disconnection and effort).

But the important thing is not separate practices, or the time apart devoted to such practices. The important thing is bringing what you learn in such practices back into your life, on a day-to-day and minute-to-minute basis – choosing to be aware of how you draw support from the Earth as you get

dressed in the morning, eat, work, make love, and go through life. As you learn to do this (and like any skill, the more you practice the better you get), you can begin to reclaim some of the richness of experience and deep sense of security and connection with the Earth that “civilization” has taken away.