"Bone is the hardest and driest of all parts of the human body, the most earthy, and cold, and, with the sole exception of the teeth, most lacking in sensation. God, the supreme maker of things, rightly made its substance of this temperament so as to supply the entire body with a kind of foundation. For what walls and beams provide in houses, poles in tents, and keels and ribs in ships, the substance of bones provides in the fabric of man..."


The poetic description above came from the famous work, De corporis humani fabrica libri septem (Seven books on the fabric of the human body) published in the year 1543. It was written by the Belgian physician Andreas Vesalius who studied and worked at the two foremost medical schools of his day, in Montpellier and in Paris. In his own time Vesalius’s medical breakthroughs were refuted by his contemporaries because he dared to challenge claims made by the great Greek physician, Galen, whose ideas had dominated medicine since 200 C.E. Today Vesalius is still often introduced to students in Western medical schools as the father of modern medicine, although, I am sure, few modern doctors have ever read a single sentence of his writings.

The words and drawings in this powerful medical text managed to combine medical science, art and religious philosophy in a seamless way. In the world of Vesalius, feelings and subjective interpretations were never severed from the science of medicine.

Now, five hundred years later, no one in the medical world will describe bone with the same passion. Bone is seldom part of personal feeling. It is merely the white shadow on an X-ray, a microscopic substance made of minerals, collagen and bone cells. When a bone breaks, we put it into place with stainless steel. We join a piece of hipbone to a face bone; change a toe bone into a finger bone. At last, we have conquered "...the fabric of man..." and reduced the "foundation of the entire body" to mechanical irreverence.
However, did modern highly qualified body technicians with their super-specialisation really defeat this hardest, coldest and most uncompromising part of our body? Did we truly fossilise this most resilient part of our body with sterile hospitals and indifferent machines?

*Shouldn’t we rather, like Vesalius, also remember that health and wellness rest upon a unified dynamic organisation that demands a sound foundation?*

solidity of substance...

"This plane is beyond even the Sleepless Sleep...
This place is the root level of existence...
The hidden essence will appear explicit and complete... "
(SHAKING THE TREE: Kundalini Yoga, Spiritual Alchemy, & the Mysteries of the Breathing Bhogar’s 7000.)

In fact, more people than ever suffer from chronic back pain, walk with slanted shoulders and use and abuse anti-arthritic medication in modern times than ever before - this at a time when we seldom do serious damage to our bones and joints through hard labour or physical challenges. From a bio-analytic viewpoint, this confirms how little value we give to the fact that our bone core is close to the raw material of the earth itself. We no longer amplify bone's resolute "temperament“ to supply our system with a "kind of foundation..." that includes all aspects of human life.

We, for example, all know a few super fit gym worshippers who regularly succumb to allergies, depression, alcohol and eventually even to some unexpected posture discrepancies. Why? The most healthy body needs a core identity that is connected to matter, to the most basic aspect of its existence – a symbolic amplification of its most solid substance. In other words, a healthy body after all needs a healthy mind, a mind that never loses its grounding in its own body.

It is a costly illusion to assume that our scientific knowledge about the mechanical qualities of bone overrides inherent symbolic forces that are linked to our inner experience of our bone structure. Our bones **thrive on interaction with gravity**, the weight of the earth, so to speak. Not for one moment are they unaware of the pull of gravity. Every bone is designed for this continual communication with the earth. More and more research indicates that our relationship with gravity is crucial to our general health. There are ongoing research articles in medical journals on the value of walking barefoot, the
Our relationship with gravity is part of our depiction of the cycle of life and death since ever [has been part of our depiction...death for hundreds of years]. Ritual art about the trials and comforts of afterlife always depicts some form of altered interaction with gravity. Think about the portrayal of angels or other positive afterlife beings that can fly or float on clouds. Depictions of hell usually intensify despair by showing bodies falling around with no resistance against a chaotic attraction towards gravity. (Paintings of Renaissance painters Rogier van der Weyden and El Greco.)

significance of power exercises that primarily use the body’s resistance against gravity and the fact that weightless conditions in space shorten lifespan.

Furthermore, a healthy mind needs a healthy identity, an identity that can never be severed from being human, including all of humanity's symbolic associations. In the days of hunting and gathering, no aspect of our bodies was more crucial than healthy bones. If a bone broke, it could mean, to humans just as to other large animals, isolation from a fast moving group, and a lonely, painful death. To an ancient hunter-gatherer, body awareness was the essential form of consciousness and immediate bodily reaction was the difference between life and death. Wasting time on ideas and imagined possibilities would interfere with survival. Even probing an emotion could diminish timely decision making.

Bones were also all that people found whenever they returned to any place they had been before. Spirits from the dead singing though the dry white frames guaranteed transcendence beyond individual lives. Bones therefore also link us to the archetypal cycle of life and death and in most cultures it is the fleshless frame of a skeleton that directs our journey to the world beyond an earthly existence.

This bond between an acute awareness of physical substance and an intuitive trust in ongoing existence still shapes metaphorical associations with our body's framework and defines its role in our lives. To be conscious of our physical qualities and to link this to a visceral reliance in nature is typical of the symbolic experience of the functional dimension that we associate with matter and our dynamic matrix, the dimension symbolically portrayed in most cultures by our skeletal system.
In modern times, we however have a weakened awareness of the natural world as well as of death and dying. Absentmindedly we also destroy the earth itself. We often avoid soil, natural dirt and outdoor work with fearful obsession. We prefer not to face death directly and let it happen in hospitals and old age homes in rooms hidden from everyday life and amongst unknown people. As to be expected, our bone system suffers most - low mineral intake, insufficient natural sunshine, endless hours spent in static abnormal postures, ‘invisible’ cremations - and eventually we cripple our foundation permanently.

Attention to our bone system therefore not only conveys confidence in our physical environment, but also relates to an archetypal connection to life and death on earth.

many mirrors for the same image...

“In ancient Chinese paintings, rocks represent energy centres that contain life force, chi, that vital force that connects everything. Rocks, then, are the very skeleton of the Earth. Bone is my rock through which the Earth’s vital energies flowed into new life what I learned in the difference between destiny and fate.” Marion Woodman.

All cultures portray this link between our bone system and our will to live in their healing systems. It corresponds symbolically to the root chakra in Indian traditional medicine, the kidney system in Chinese medicine, and many other cultural images created to portray the security and support that lies in our material foundation.

In traditional European alchemy and Tarot systems, the element of earth is closely equated to primal matter and its dryness and solidity. It is also the embodiment of the form principle in the kabbalah. These symbolic systems see our bone foundation as an inherently supportive substance, which root us to reality and see to it that our solutions are practical.

In Indian and Buddhist imaging, the root chakra or muladhara is located at the base of the spine, the ground position of our system’s natural energies. Its element is once again the earth and it represents an attachment to form and the survival of the physical body.

Chinese medicine relates bone to the kidney organ system, which refers to the ‘Root of Life’, the ‘foundation’ of all Yin and Yang energies. Emotionally, this system houses the will to live. The kidney

Copyright – www.momohealth.co.za
system carries the essence, the organic base for 'marrow'. 'Marrow' in Chinese medicine is more than bone marrow. It is the matrix or grounding substance of bones, the spinal cord and the brain. If kidney essence is strong, we are resolute, with focussed concentration and strong bones. It stabilises the 'Gate of Vitality' through which chi can either be retained or lost, linking us to the earth via the back, legs and feet.

Many Western translations call this associated emotional content will power, but it is closer to a tenacious will to live and survive.

Symbolic interaction with our skeletal self links us to subjective associations with earth, stability and longevity.

**the earth inside...**

"... and in her starry shade
Of dim and solitary loveliness,
I learn'd the language of another world." Lord Byron

Inside our body, bones link the outer ‘earthly world’ directly with our essential substance of being. Again we observe the symbolic connection between our basic bone matrix and a secure sense of living.

In **medical physiology** bones are made of cells, a versatile organic matrix filled with inorganic minerals. Half of living bone's volume is mineral, mainly crystals of hydroxyapatite (Ca10(PO4)6(OH)2). They form rods or plates in a hexagonal symmetry. The composition of these crystals is never absolute. Bone can use other crystals with carbonate, fluoride, or citrate whenever our body fluids change. At the same time bone is continually formed and absorbed (resorbed), constantly exchanging its minerals with body fluids. All is held together with a **bone matrix**, which consists of flexible collagen fibres and which guarantees consistency and shape and allow for minerals to be deposited to create the hard bone that becomes our skeletal framework.

**Homeopathy** uses the symbolic representation that lime and calcium is the foundation of bone itself, that it protects the egg and the seed and enhances the differentiation of form and structure. In other words, these base substances of bone shape a half-liquid medium into a definite entity. They supply germination and distinction, which form the essence of a new individual existence.
Even in **psycho-analysis** bones or a skeleton in dreams and fantasy is connected to persistence and the will to live. In terms of psycho-dynamic interpretation, attentiveness to the base matter of existence, the ash of creation, improve our ability to withstand change and destruction.

*Relating to our bones and their connection to the earth, is relating to reality as it is, not as we imagine it or like it to be.*

**my bones and I...**

*"We cannot change anything unless we accept it."* Carl Gustav Jung

It is our framework that stays resilient and healthy when we walk upright and barefoot over long distances and when we take in enough of the 'white' calcium from the outer world, that which we find in 'stones', bones and a mother's milk. It is thus that part of our identity that is created out of nature’s substance to become the most enduring part of us. It is our solidified shape.

We need a healthy awareness of this foundational identity to give us confidence to explore the movement and rhythm of the next dimension. We need 'backbone', an upright position, and inner strength to take control of our comprehensive inner organisation. Most of all, we need a consistent shape to consolidate our integral identity. At the same time we need equilibrium and stability in movement. It is no wonder that the bone at our centre of gravity is called 'holy'. The sacrum is a fulcrum, a point of rest from where upper and lower, above and below, can move freely without losing its balance.

Our bone system is not something that we can easily change through wilful activity. We can change our muscles with exercise, our skin with special treatments, our personality with our beliefs, but we cannot easily change our bone framework with the whims of our conscious mind. However, one irresponsible act or mishap could break our bones and change our lives forever, demanding deep-seated adjustments to our whole world. It is quite ironic that bone is that part of our system that we are often least aware of and seldom see as part of our personal ego identity. We look at our skin and our muscles and see ourselves. We think about our eyes and our voice and talk about our heart and brain when we want the world to understand us. But, we seldom notice our bone structure and think, "... this is me..."
And yet ...it is so easy to adapt and change when we have a clear sense of our foundation identity.

warped for action...

If we look around us for a moment, we will find people everywhere with back problems; we live a one-sided life when we neglect the body and the spine.” Judith Harris.

The best way to conciously experience the symbolic identity of our foundation is to become aware of how our immediate physical environment supports us. In other words, when we become aware of our inner framework and its stablility, we will allow our body to settle comfortably into the downward pull of our own weight. In other words we will allow a concious experience of gravity.

Framework and gravity awareness is a valuable habit to repeat for a minute or two in different situations throughout the day. While standing, anytime, anywhere, feel how both feet connect to the ground, toes gripping the earth. Feel how the pull of gravity tugs at your head, arms, fingers and even eye lids. Become aware how your bone framework resists this pull, each lower part receiving the weight from what is above. It is best if you place your feet apart at shoulder width, toes directly forward. Bend your knees slightly to stabilise the bone surfaces of the knees. Tilt the floor of the pelvis upwards into a position that creates a supporting bowl to the abdominal organs. In other words till it feels the same as when you squat upright with a straight back. Let the shoulders fall backwards while your neck and head reach upwards according to their natural inclination, your arms relaxed against your sides and your fingers slightly curved. When sitting use the same vertical pull of gravity through your straightened back, while your seat acts as the supporting environment and your thighs support your slightly bent arms. Becoming conscious of breathing now reminds you how this life-sustaining movement is linked to your spine and ribcage which are the central bones of your body. The same imaging works well for lying down to sleep at night. Consciously release your weight and surrender your shape to nothing more than the solid bones that sustain it. The specific language we apply during these exercises for our inner conversation is vital. Words such as solid, shape, surrender and release are significant in our thoughts when we experience gravity consciously, even when we seldom use these words during normal everyday conversation. It is equally important to find personal images and words to create your own suitable symbolism in order to reach a body state that corresponds to a secure and safe foundation.
Years ago, as ancient hunters, humans were sensitive to the fact that every time they lay down to sleep, they willingly surrendered to gravity. We, like them, actually practice the art of dying and returning our body to the earth each time we go to sleep. To us as modern people this may sound scary. It is because we have lost our positive relationship with earth and nature and would rather not acknowledge any sense of dying. Lying down often becomes something we prefer to do in a state of distorted reality and ego-pacifying slumber such as during a drug induced sleep, or while watching sense-numbing television programs.

Such a warped response to gravity even happens when we are upright. A perfect posture will stretch our bone framework optimally with our head reaching upwards, neck straight, shoulders back and our hips free and central. This shape of composed expansion comes naturally to our body when under the influence of gravity alone. However, modern living seldom promotes such freedom of interaction with the physical world. When we stand around, drive our car, work at a desk, slump on a chair in a coffee shop or slouch on a couch in our living room, opening out into space is the last thing on our mind.

Currently we spend most our days with our fundamental shape twisted into all kinds of deceitful expressions; staying tensely upright when our whole being needs to rest, or catching up on sleep in the uncomfortable seat of some fast-moving public transport system.

*posture and pilgrimage ...*

The less we understand of what our [forebears] sought, the less we understand ourselves, and thus we help with all our might to rob the individual of his roots and his guiding instincts, so that he becomes a particle in the mass, ruled only by what Nietzsche called the spirit of gravity. C.G. Jung (Memories, Dreams, Reflections)

In bio-analysis, we actually use lying down and walking as forms of self-experience whereby we develop a trustworthy interaction between gravity and our system.

By simply contemplating an image of the pull of the earth’s gravity through our body, our body will naturally align its core into a balanced and neutral position. While lying down this brings enough safety for our brain to allow for the normal feedback cycles of sleep. When we are upright, such a neutral position places our joints in a comfortable mid-position where our head, spine and pelvis are in balance to gravity’s downward pull. Think about all those minutes we stand while waiting in the
supermarket queue, for the bus, in the kitchen, even while we shower, which are available to us to mediate and retrain unhealthy and unconscious posture short cuts. The same is true for the many hours we sit passively while we drive, take the bus or train, or fly to far away cities.

Walking within the atmosphere of gravity is an ancient and universal form of meditation. Few bodily feelings are as safe as when you experience the downward pull of gravity, balanced by the upward flow of movement through your body. Gravity centres us: our body, our view and our purpose. Walking across a continent for world peace, climbing the highest mountain within our reach, or circling a religious holy place, all connect our identity with our will to live. During guided daydreaming or free association under hypnosis, most patients choose a footpath as a metaphorical image against which to design their aim or purpose. Walking is the most basic action, which could conjure up a symbolic image of our journey through life. It is a prototype of goal-oriented movement and purposeful activity. Not only our body, but our soul feels every step we take, irrespective of whether we are consciously aware of it.

Hiking in nature creates an opportunity to roll our feet across a giving and uneven terrain, instead of stomping along on the hard artificial surfaces of an urban landscape. Here in Africa hundreds of people walk effortlessly for long distances through the vast countryside. Women carry heavy loads on their heads with seemingly little damage to their necks and backs. The use of trekking poles (Nordic walking) is one way for modern city dwellers to experience some form of the upbeat walk, which Africans do so spontaneously. Trekking poles secure a fluent stability for our vulnerable upper body and protect us from the ‘self-clutching’ habits of modern body postures. The alternating rhythm between poles and legs also inhibits the ‘standing strong’ forward pounding that is so typical of the driven stride, full of apprehension and suspicion that we daily see our on city sidewalks during rush hour.

Yoga is another way of realising this interplay between the limits of our bone framework and the demands of gravity. It can easily be amplified to design a more multidimensional and circular experience of total being, a coherent self-identity based on a feeling experience of our skeletal framework. The same can be said of Tai chi.

Like so many good things, the fashionable Pilates exercises are in danger of being diverted from a healing practice to a money making industry by ruthless fitness brokers. However, if we take time to relate to the essence of gravity and allow all movement to set out from a personal image of our stable core, Pilates exercises are very effective in mediating the wider symbolic processes of our fundamental existence.

_Essentially, whatever technique we use, it is the ability to truly link our sense of gravity with a personal body-self and soulful inner identity._
“The moment man feels inspired to do his own will, he turns into a vertebrate, a creature with a skeleton inside. Suddenly he has a backbone.” Colin Wilson

In a dictionary, we find the following synonyms for backbone: courage, force, spunk and spirit. Posture depends on the way energy is controlled throughout our body. This is probably why in traditional healing systems the back corresponds to images of the body’s central energy channels. Imbalanced energy expenditure in the muscles causes joints and other parts of the skeletal system to deform. Our whole system interacts with a single point of overextension, whether it is a stiff neck or sore ankle. In other words, our whole system suffers from the disturbed energy and movement, which caused the pain in the first place. Any pain that is associated with posture and movement will eventually unsettle and alter our essential being.

However, also remember how Vesalius called bone the cold and insensitive part of our foundation. Bone, unlike muscle, cannot express emotions in an immediate and passionate way. Our muscles respond immediately to sadness and tilt our head sideways or cause instantaneous trembling with excitement. It is the muscles that simply give up when we feel powerless and allow us to slump into a chair, 'broken' through the middle. However, eventually it is the bones that lock in emotions forever when feelings which are repeated over and over freeze our posture into the shapes created by habitual ways of coping. Think about the permanent hump or abnormal curvature in our upper spine after years of sadness and forwards slumping.

We start to use certain postures even as a child, and from then on these postures are linked to specific extended feedback cycles that include all the historical associations in our life. When our mother regularly washed our face with a cold cloth when she needed us to be presentable to the outer world, projecting a sense of hurried irritation, we may have come to lock our backwards movement into a stiff back associated with the feeling of not being good enough. Veering backwards could then become a habit in any situation in which we feel 'less respectable' and could literally change our back's normal curve permanently. To correct the back problem we would need more than mechanical restructuring by a trainer, physiotherapist or orthopaedic surgeon's knife. Bio-analytic observation and re-circling of the associative symbolism would be crucial to ensure that we do not unconsciously re-enforce the old posture after treatment.
When we are low in energy and our system needs to initiate rest it first and foremost entices the body to succumb to gravity, become our bony shape, our bone identity. To place ourselves in the hands of gravity is an embodied symbolic motif that is as potent for initiating rest as taking sleeping tablets or alcohol. (In mythological terms alcohol releases the 'spirits' and is best saved for festivity). It's always better to use our own inner chemicals released by the deep relaxation that we bring on with little else than an image of succumbing to gravity. This allows for the muscles to let go of their anxious control and for our bone structure to become our essential symbolic identity based on a sense of fundamental security.

Psycho-dynamically we can say that we always try our best to bring on a stable inertia when we become so vulnerable that everything inside and outside start to crumble. Our whole system desires to be absorbed back into the unconscious ‘womb’ (Freud’s death wish). This is why depression and backache always go hand in hand. A Hindu or Bhuddist interpretation would be that we have a first chakra blockage which creates a sense of paralysis and isolation and then, being unable to cope with reality, we become frozen in fear. For this reason, before any impending surgery, we always have to make absolutely sure that our back pain is not the outcome of a deeply disowned sadness. We simply cannot ‘turn our back’ on ourselves for a long time and not pay for this self-betrayal through excruciating lower back pain.

Of course, too much instability in this core dimension also has symbolic outcomes. Eventually, we may discharge movement in such an uncontrolled and explosive way that our solid foundation is overcome by emotional volatility. People with mania (bipolar depression) seem to have no grounding and an immense amount of free flowing energy. They cannot sleep or lie down and are constantly on the move, as if they have broken loose from the security of gravity. They take tremendous physical risks and are no longer ‘humbled’ by the limitations of their own structure or bony skeleton.

Modern lifestyle tends to push us in both these directions at the same time. It demands back-breaking determination as well as free flowing social compatibility, causes manic assertiveness as well as depressive guilt, idealises beauty as well as athletic strength in the same body. It is no wonder that
our back curves left here and right there and many of us walk around with shoulders and hips that are never on the same level or vertical plane.

It is also interesting that an abnormal side to side curve in our spine (scoliosis) causes one vertebra to rotate on another as if wrung by an invisible set of hands. Women especially suffer from this kind of left to right curving. Could this be from too much indecisive adaptation?

*The essence is, most cultures find a connection between will power and a strong back, between the dimension of solid matter, to 'stand fast' and to move without breaking.*

*bending or breaking…*

“…cure what need not be endured and endure what cannot be cured.” B.K.S. Iyengar.

It is obvious therefore that, like everything in nature, our bone structure incorporates an inherent opposite in its essential quality and that it is also our back and bones that supply the flexibility to do intricate movements without folding double or losing our balance. Having a good relationship with our bone system can thus protect us from the grand paradox of modern life where we all want to have the willpower to drive for change, while at the same time are desperate to feel more relaxed and safe.

Put differently, in a typical modern life style we crave transformation while on the other hand we resist anything that goes against our hard earned position (posture) in life, fearing that ‘letting go’ could only bring discomfort and confusion. Most of the time we opt for a controlling rigidity that blocks all inner spontaneity. We experience life as if the downward pull is much stronger than upward stability and while we allow our minds to soar through idealistic heights, our exhausted bodies only want to surrender to gravity and stay on the ground. Movement becomes a tedious effort. Eventually, our tendency to force ourselves to stand firm at times when we actually want to collapse with an overall need to huddle, distorts our image of 'being upright' and independant.

This may seem like esoteric hocus pocus but nowhere is the bio-analytic principle of mediating rigid and habitual patterns towards more dynamic inclusive feedback cycles more apt than in adjusting to our bone framework. If we are unconscious of the underlying reasons for the way in which we carry ourselves, we are bound to fail when we try to correct our posture with techniques that focus on one-
sided and forceful muscle adjustments. Releasing energy through the natural channels of shape and posture is a crucial part of pain treatment in most health cultures. Unnatural postures always intensify physical pain because bone resists change more than any other body tissue. In fact, forceful change is impossible in most cases.

If, for example, we tend to either concentrate on the exercises that slip easily into existing tendencies, or we work endlessly on those areas that compensate for unconscious needs, we only amplify the original problem. How often do we not spend hours on the treadmill in the gym, satisfying our constant drive towards getting more done in the shortest time? Or, during yoga, we love poses to arch our back in a comfortable and pleasant way, not noticing that we already have an over-accommodating lower back? Even if we have a trainer who helps us to straighten our back in the right places, without inclusive understanding of all the metaphorical associations that influence our posture, we will unconsciously find an alternative way to represent our original symbolic bone constellation and its relation to our inner script.

**In the end, it is our ability to bend and move that will safeguard the strength and stability in our fundamental identity.**

losing our backbone...

“Well, forgive me for not leaping for joy...bad back, you know...” The Lion King.

Backache is one of the most common complaints we see in general practice. The joints connecting our vertebra to each other have to soften and balance the constant **conflict between stability and flexibility.** They can only do this when the pull of gravity (weight) runs through their elastic centres. If anything we do shifts this delicate balance, we damage interaction between bone and cartilage, between bone and bone. The discs between the bones either burst and collapse or disintegrate and shrivel away. Lack of exercise and weak core muscles have a huge impact on our modern skeletal health. At the same time, many jobs and hobbies include lifting heavy weights or constant vibration stress. In other words, whether we are a grandmother, computer scientist, builder or sportsman, our central body support tends to get taxed and damaged as we go along.
In women, pregnancy and breastfeeding use, but also support the bone system actively. It is as if bone enthusiastically takes part in the earthly functions of growth and nurturing, but also needs these activities to keep the structure of bone strong and flexible. Both the female hormones and high physical activity of child rearing maintain the continuous and healthy absorption and replacing of minerals in bone. Modern lifestyle, however, reduces both hormones and physical work and our bones lose strength and substance from an early age, because they are no longer being challenged by carrying many children inside the womb or outside on the back. This results in osteoporosis or 'decalcification' which is especially prominent in European or Western women living affluent life styles.

In conventional medicine, we seldom question the larger patterns we repeatedly see in our practice. There is, for example, the frail older lady, well dressed and well spoken, who struggles to hear and seems paler than normal apart from the red flush on her cheeks. Emotionally she portrays a level of concern, which borders on worry and veils an underlying stubborn desire to live well. Her back curves forward from the middle and she moves as if the fragility of her frame imitates a delicate inner balance. Her main complaints are dizziness, ringing in her ears, a sore back and cold legs. Medical tests only confirm osteoporosis. For the rest she seems quite healthy; normal blood pressure, normal blood glucose, normal liver functions. There is thus no reason to bother with the other observations and complaints. Most traditional medicine systems, however, would recognise this cluster of symptoms immediately as the associative arrangement we usually find when the body feedback cycles that are involved in maintaining a strong supportive foundation are struggling. Her life lost its secure matrix, became porous, opened to the outer world and vulnerable to direct attack. In other words, it became similar to the osteoporotic bone pictured here to the right of normal bone.

It really seems as if a high level of self-absorption and poor restructuring typical of bones in osteoporosis is a valid bodily symbol of our present life style with its equivalent egoistic self-absorption and scant self-transformation. Through time, our bones have always written a fundamental biological journal about the trials of humankind. The skeletons of previous generations and ancient times tell stories of shortages of food, injury and severe infections but in modern times our bones confirm that for the first time we are living long enough and unwisely enough to deplete our essential matrix and destroy our inner core from the inside out.

Images used are from personal presentation slides, the public domain facilities of the National Library of Medicine (NLM) and Gray's Anatomy (Gray, Henry. Anatomy of the Human Body. Fig 301. Philadelphia: Lea & Febiger, 1918;Philadelphia: Lea & Febiger.)