A CONJECTURE ON THE RELATION BETWEEN BODHICITTA AND CALCIUM: CULTURAL INTERLOCUTORS OF HEALTH AND "RIGHT ACTION"

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TOWARD A SCIENCE OF CONSCIOUSNESS: CONSCIOUSNESS AND ITS PLACE IN NATURE

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gilah@linkline.com www.gilah.com Over a period of 30 years, I have developed a series of hypotheses showing consonance between the forms of paradigmatic physiological systems and perceptual patterns affecting physical and emotional health, behavior and culture. These investigations have led me to believe that consciousness may be hard-wired in our physiological bodies, and that the focus of consciousness clearly points toward behavior benefiting the greater good, or as the Tibetans say "Right Action".

During the late 1970's and early 80's I linked alphabetic morphology to the oscillating process of perception and cognition. This discovery was initially catalyzed by images that spontaneously appeared in my paintings, and was later confirmed by years of observation and photodocumentation while leading a solitary life in nature.

My understanding of the relation between calcium and the Tibetan Buddhist concept of Bodhicitta was also first ignited in my painting and then corroborated in personal experience from 1997-2001. Since both the conjectures on the origin of alphabet, and on the relation of bodhicitta and calcium, were precipitated by natural processes leading to instinctive synergistic leaps, I have learned to trust intuition, particularly as it is found and expressed in body related imagery.



In 1980 I developed a paralysis on the left side of my body. I received nothing but dire diagnoses from doctors at the time. I had two canvases built to my height – five and a half feet tall – and had myself penciled on to the canvas so that I could work visually within my

body, mirroring my body, standing directly in front of it. In "Through: Generation" I worked into the physical aspects of my body, trying to locate and separate areas that were distressed. At times the image appeared so demonic, so dreadful that I could barely look at the canvas. Yet, I knew that I must keep working. Eventually, the image grew green and verdant, and twelve *spheres* appeared at the top of the canvas, around the "head". I interpreted them as seeds of new growth and regeneration.



In "Surge", painted over a full-length self-portrait, I worked toward reintegration of the spiritual and psychic field.

I relentlessly and purposefully delved visually/surgically into the tangles of my body and psyche. I knew that I was effecting deep psychophysiological change, and after a year I emerged well. During the early 1980s, I spent more and more time alone in nature, developing my theory on the origin of alphabet, COSMOGRAPHY: THE WRITING OF THE UNI-VERSE. I became convinced that the processes of perception and cognition are in perpetual oscillation, and that what we perceive is recognized because it reflects our physiological hardwiring.

DO WE SEE BECAUSE OF WHAT WE THINK OR DO WE THINK BECAUSE OF WHAT WE SEE?

By the mid 80s I had established a consistent and predictable hypothesis: all alphabets, ancient and modern, originated in five natural patterns (line, angle, arc, meander, and the random crossing of sticks yielding an X) which mirrored the shapes of neurons and neural processes involved in perception and cognition. At the time, I presented my ideas at various scientific and philosophic venues (such as the Council Grove Conference of the Voluntary Controls Department, Menninger Foundation, Kansas; Center for a Post-Modern World, Santa Barbara, California; Center for Process Studies, School of Theology, Claremont Graduate School, California; Center for Semitic Studies, Princeton, New Jersey, etc), to unanimous excitement and affirmation. I believed that what we think and what we see are not only inextricably linked, but that the process of reflection/mirroring/perception catalyzes an explosion of neurotransmitters and hormones that change all aspects of the psychophysiology.

From May 1989-September 1990 I lived alone in Tonto National Forest in North



Eastern Arizona. I lived with flora and fauna – bear, elk, deer, coyote, tarantula, etc. With no heat, and no water, I learned to sur-

vive, particularly in the winter when the snows were high and the temperatures fell to ten below. I melted snow for water, had to be ever vigilant against freez-

ing, and was constantly working toward survival. My only buddy was a baby bobcat who adopted me as his mother and slept in my hair. He grew enormous, but always considered himself tiny, even as he slithered off the narrow bed and grabbed my head with his huge paw.



I grew more and more entranced with nature. I lost all sense of identity as it had been formed by attachments and position in the city. I was exiled from the human embrace and comforted by the universal embrace. There was no difference between interior and exterior – everything was fluid. I had become tabula rasa.



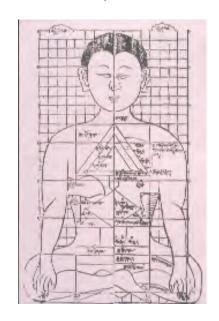
In April of 1990 I was invited to McCleod Ganj, Dharamsala, India, home-in-exile of the Dalai Lama, to attend the first tantric practice (secret teachings) ever taught by a Dalai Lama. I left my snow covered mountain and sat in blizzards for six weeks on that other snow covered Himalayan mountain top, filled with ancient

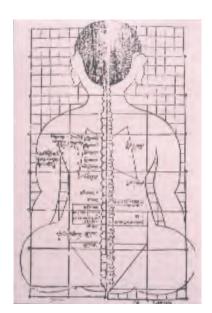
teachings and very clear and precise visualizations about how to live and how to die. The method of instruction was direct transmission of exceptionally detailed visualizations that were accompanied by mudras (hand gestures) and mantras (sounds).



One of the essential components of these teachings had to do with Bodhicitta: "...the thought of enlightenment is said to be the one great thought that always bears positive fruit. As inspiration, motivation, it is awakened by the practice of the "four boundless meditations": boundless

love, boundless compassion, boundless sympathetic joy and boundless equanimity. The open, endless nature of these positive qualities, generated from the heart, leads to a state of complete meditative adsorption (samadhi)." (<u>Tibetan Buddhist Medicine and Psychiatry</u>: The Diamond Healing, Terry Clifford, forward by HHDL, Introduction by Lokesh Chandra, Motilal Banarsidass Publishers Private Limited, Delhi, chapter on The Medicine of Dharma.)





The process of attainment of Bodhicitta (Buddha-mind) included the visualization of Bodhicitta as a *white sphere* which traveled from the top of the head through very specific channels and routes down throughout the body, essentially lubricating every organ, and eventually expelled out the top of the crown chakra back into the universe to spread compassion.

This fully interactive approach to changing mind, body, speech affected me profoundly.

In the last twenty years, western medical research has begun to encounter and delineate a picture identical to the esoteric practice conceived cumulatively over "5 millenia of man's way to the threshold of a wholesome life of harmonized existence." (Dr. Lokesh Chandra in his "Introduction" to <u>Tibetan Buddhist Medicine and Psychiatry</u> in 1994.) In 1981, the Dalai Lama writes, "Health and happiness are the rights of every individual," in his "Foreword" to the first edition (1984, Samuel Weiser, Inc) of <u>Tibetan Buddhist Medicine and Psychiatry</u>. "That is why it is important to encourage the promotion of different medical systems."

In 1997, Deepak Chopra MD, writes in his "Forward" to Candace Pert's (Ph.D.) Molecules of Emotion, [Scribner] "...the mind is nonlocal...She shows us that our biochemical messengers act with intelligence by communicating information, orchestrating a vast complex of conscious and unconscious activities at any one moment. This information transfer takes place over a network linking all of our systems and organs, engaging all of our molecules of emotion, as the means of communication. What we see is an image of a "mobile brain" – one that moves throughout our entire body, located in all places at once and not just in the head...ever changing and dynamic, infinitely flexible...one gigantic loop, directing and admitting information simultaneously, intelligently guiding what we call life."

After the teachings in Dharamsala I once again returned to my snowy mountain top in Tonto National Forest and remained there through spring and summer, returning in September to the civilization of Los Angeles, my home, my life, my identity as artist, writer, professor.

By this time I was presenting my theory, COSMOGRAPHY: THE WRITING OF THE UNIVERSE in multidisciplinary venues ranging through the arenas of science, philosophy, art, psychiatry, architecture, etc, in various parts of the world. Meanwhile I

was thinking deeply into the implications and connections between neurology, perception, proprioception and psychoneuroimmunology (mind/body healing).

As an artist I knew that certain forms would catalyze direct psychophysiological affect in the viewer (as well as in the creator). Our bodies



are delicately entangled with our perceptions. Every emotion precipitates biochemical reactions that change the physical state of each cell of our bodies.

In western culture, the only area where this sort of direct affect is popularly acknowledged is in the realm of pornography. Most adults know that if a man is shown a certain kind of image, he will be visibly psychophysiologically changed.

FORM EVOKES FEELING FEELING CONJURES METAPHOR METAPHOR DEMANDS EXPRESSION

"If the form conjures a positive feeling, at best "the thought of enlightenment consisting of boundless love, boundless compassion, boundless sympathetic joy and boundless equanimity" (Gyu-Zhi) — or even a moderate sense of physical and emotional comfort, anxiety and tension will be reduced. When this happens, there is naturally an easier communication and attention between people, as well as between people and their environment. It is this form that is universally construed as "beauty."

Form considered beauty, then, has to do with positive affect, as it prompts evolutionary behavior, such as contact, communication, care, compassion, attunement to the interdependent nature of all things, thus promoting health and well-being.

"Beauty is a compact, or contract between the beautiful being (a person or a thing) and the perceiver. As the beautiful being confers on the perceiver the gift of life, so the perceiver confers on the beautiful being the gift of life...This reciprocal pact should assist us in turning to problems of justice..." writes Elaine Scarry, On Beauty and Being Just (Princeton 1999).

Long solitary sojourns in nature had precipitated thoughts and writing about the nature of exile, specifically the continuum of independence to exile, from psychological, social, and spiritual perspectives. While living alone in the forest, with no other human referent, I had understood that I had become an ungrounded, floating soul. It became clear that we, humans, are herding animals, as were the animals I lived with, since it is only within the herd that we can be heard. I knew that as an individual becomes more and more isolated, s/he may produce multiple personalities, hear voices, to augment his/her own private family. I wondered, then, at what point does the independent thinker, explorer, astronaut, lose valence with the community, prevailing belief systems, continent, galaxy and drift into exile?

From an anthropological point of view, years of solo global travel, had taught me that belief systems are random, contextual and convenient. I had learned that joy is culturally determined: one culture values sons, another daughters; one prescribes one husband or one wife, another many husbands and still another many wives; one encourages homosexuality while in another it is deplored; and every fifty miles the gods change. But grief is universally experienced in the same way — separation, loss of contact and abandonment.

WHILE BELIEF SYSTEMS VARY WIDELY, WE ARE FUNDAMENTALLY MORE ALIKE THAN WE ARE DIFFERENT.

If contact and communication is the glue between both animals and people, and valence attracts and stabilizes chemical combinations, and gravity tethers planets and galaxies, I believed that there must be a profoundly embedded paradigmatic reflexive model that allows us to perceive these positively affective forms.



dala; ritual dance in almost

vidual move through a series of

will realign the body, mind, soul.

I already knew that various spiritual traditions prescribe certain body postures that prove effective in physical, emotional and intellectual well-being. Hatha Yoga advises sequential poses and postures; Tibetans suggest consecutive mudras and

mantras sacred Navaho a s s u m e

upon a sand painting, very much

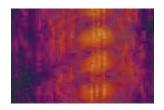
while meditating paintings (tankas) or deities; Indians direct the patient to certain positions as s/he lies resembling a Tibetan manevery culture has the indigestures and sounds which These

forms, as well as those of sacred architecture in most cultures, are universally affective. They echo the five patterns I had isolated in nature that are intrinsic in all alphabets, reflecting innate paradigmatic physiological systems. (It is of interest that the current Chinese government is intent on eradicating Falun Gong, viewing this as politically dangerous, since the Chinese traditionally recognize the power of practicing certain forms.)



I had long been aware of the ancient hermeneutic study of Cabala, in which meditation on the form of every letter of the Hebrew alphabet, alone or in combination, would change not only the psychophysiology of the practitioner, but is also believed to change the nature of cosmology in the moment. Since I had already shown the relationship between these letters and the shapes of neurons and neural processes, I could well understand the power of this meditation. (Modernists may see this as a holographic example of Chaos or Morphogenetic Field theories.) Hesychasm, an isolated form of Russian/ Greek Orthodoxy, practiced in the forests of Northern Russia, also combines prayer with specifically shifting body forms, echoing the letters and tenets of Cabala. (As this sect is so isolated, I have conjectured that the name may have come from Hassidism, a sect of Orthodox Judaism that practices Cabala.)

Reification of forms that I had found to be innate to human physiology characterized these and other ancient healing practices. If recognition is proprioceptive, hard-wired into the physiological system, the meta-model of contact and communication must lie submerged in our deeper recesses. I began to study cellular behavior as it seemed to be a discernable unit of life that still tends to live in groups, as do animals and humans.







I learned that adjacent cells "whisper" together through their cell membranes that vibrate in the electromagnetic field created by the valence of various facilitating hormones, minerals and neurotransmitters. The presence of calcium (crucial as the first form of human and animal nourishment, associated with mother/comfort/contact) is essential for all of these processes to take place. If a cell ceases to be in contact with another, it becomes diseased. The synapse or "gap junction," grows wider and unbridgeable. In trying to arrange other neighbors of communion, the cell begins to proliferate, cloning itself, becoming cancer. As recent follow-up reports disclose, animals who are cloned die very young. This validates the fact that there is an evolutionary direction and determinism

toward congruency, rather than to replication. Difference must be present in order to stimulate growth. Recent experiments conducted by Dr. Ross Adey at Loma Linda, California, VA Medical Center, show that the introduction of enough healthy cells into a cancerous environment may reestablish sufficient communication to propel the organism back to health, much as in-depth psychiatric treatment may reestablish sufficient externalized contact to eliminate the necessity of multiple personalities.

In 1995 I began a series of paintings that I called the "Architecture of the Temple of Mind." There were four in the series, all within the same format, having lead frames – the alchemists' material.





As I worked in each image sequentially, white spheres appeared. I suspected that they had to with "worlds within worlds" of Chinese ivory sculpture, but the thought of calcium crept into my mind. The spheres persisted in their presence.





The series progressed through 1996 and 1997. At the same time, I began to realize that my own body was in need of more calcium. I noticed two more parallel physiological/psychological congruencies: aging reduces calcium and simultaneously may increase emotional isolation and depression among some individuals as the body declines, making them less mobile and communicative.



I moved into the new studio building adjacent to my house. The first painting "Alembic" signaled new birth. White spheres appeared, dancing in the field. There was something alive, almost scary, about this work. I was beginning to connect the spheres with calcium and initiated serious study about the mineral:

"Small Ion with Cachet. The Calcium Signal: Calcium is in a different league from the sodium and potassium ions; though still quite small, it holds enough information to carry a hormone message. Crystallographers have known for some time calcium is a cut above the rest of the small inorganic ion crowd: it has a flexible crystal field – bond distances and angles are adjustable, with coordination numbers that can vary from six to ten – and it has higher ionization energies. The adaptable coordination sphere permits a wide variety of cooperative packings, giving the ion an advantage

in the cross-linking of crystal structures, both inorganic and organic ones. Proteins - domains with, say, six carbohydrate residues — can accept the ion rapidly and sequentially and twist around it, and all this specifically and reversibly.

"Thus, we may rightly say, this ion is within the proteins' grasp. Indeed, a number of proteins are found inside cells that make a profession of fingering the ion. These proteins have six to eight oxygen atoms (carrying a negative charge) so positioned as to form a cavity that first the calcium crystal radius (0.99 A); or more precisely, they bring these atoms into position for this fit (they are allosteric proteins of the inducible sort). And this is every bit as discriminating a fit as those in the organic world we have seen; no other inorganic ion comes close to this radius (the nearest, magnesium, 0.65A). All this makes these proteins capable of Maxwellian entities.

"But all those fine qualities of the calcium ion and its allosteric partners would be beating the air if the ion's background level were not low inside the cells. In fact, it is very low: at rest and with everything in balance, the cytoplasmic calcium-ion level is generally under 10 to the seventh M. That level goes up (transiently) some ten—to hundred fold when a bunch of calcium channels open up in a cell, constituting a loud and clear signal. It is this large differential that makes calcium such a good signal; the high signal-to-noise ratio enables the system to use the individual calcium molecule straight as it comes. None of the other common inorganic ions in cells could hold a candle to calcium in this regard... There is hardly a function in your body that doesn't involve calcium: heartbeat, muscle contraction, gland secretion, signal transmission in the nervous system, signal transmission between nerve and muscle, cell division, cell motility, bioluminescence, cell adhesion, etc..." Otto Loewi—discoverer of chemical signal transmission in the nervous system. (The Touchstone of Life: Molecular Information, Cell Communication, and the Foundations of Life, Werner R. Loewenstein, Oxford University Press, 1999)



In 1997 I began to paint in a diamond-shaped format, concurrently with other paintings. I found the diamond to be very much a mirror of the body, my body, and the white spheres persisted.

In "Equipoise" (1997) I was searching for the balance between mind and body, heaven and earth, firmament and water.

I wondered if it were possible that these white spheres could also possibly be emblems of Bodhicitta, compassion, similarly envisioned in the tantric visualizations.

In "Delicately Tangled in the Sway" (1998)
I looked deeper into the heart of hearts,
where the experience of loving is felt.

In the summer of 1998 I was in Dharamsala again, a guest in the Dali Lama's monastery, reading everything I could find about Tibetan medicine and psychiatry, hoping to find a link. It was then that I came across the rare Gyu-Zhi, as quoted in Tibetan Medicine and Psychiatry, to my astonishment also called "The Diamond Healing."

"...The three kayas, the "three bodies of the Buddha," the Dharmakaya, the Sambhogakaya and Nirmanakaya, represent the Buddhist sacred trinity of the three levels of expression of the reality of Buddha-nature. They represent the unmanifest, subtle and manifest levels of Buddha-essence. They represent the Buddha mind, the Buddha speech, and the Buddha body.

"In Vajrayana, the practice is to transform ourselves and the world around us into the body, speech and mind of the Buddha. These practices are described in a series of texts known as tantras (Tibetan rgyud). Through tantric esoteric rituals the practitioner creates and simultaneously identifies with a particular form of deity. This is accomplished through visualization, mantras (special formulas of syllables that use the spiritual power of sound vibration), mudras (symbolic gestures that awaken spiritual receptivity and awareness), and through formless meditation.

"In these tantric sadhanas or, in fact in any meditation or religious practice, there are three things the tradition holds of main importance; first, to have the intention of doing the practice for the sake of the liberation of all beings; second, to be unattached to the experiences that may arise in meditation; and third, to share the merit of the practice, to emulate none other than the

Medicine Buddha himself. While the physician is practicing medicine normally he is spiritually identified with the Medicine Buddha..."

I learn about "thigles," visualized as spheres or the vital essences which are of two types: absolute and relative. "The relative thigles are of many kinds and pervade the body as vital essence- drops...All the thigles in the body are generated from the main thigle in the central channel at the heart center. This central thigle is composed of the pure quintessence of the five elements (represented by five-colored light); it also contains the essence of the life-force. The red mother essence-drop and the white father essence-drops are generated from it and move downwards and upwards respectively, in the central column...when the thigles are maintained in the body as gross essences rather than wisdom essences, the world outside is perceived negatively. When maintained as wisdom essences, good karma is created in the practice for the universal womb of illumination...

"In the higher Mahaya and Vajrayana, the Medicine Buddha is not simply worshipped for his healing powers. The Medicine Buddha is the form of Buddha-nature that the practitioner aspires to realizing himself. Through practice of meditation of the Medicine Buddha, one can generate enormous healing power for self-healing and for healing others. Thus, the exalted model that the Tibetan Buddhist physician aspires. Transmuting the thigles into their refined wisdom nature, the world is perceived in a positive way, and one's awareness blossoms as bliss and peace. Thus the <u>purpose of tantric yoga is to untangle the knots in the channels, purify the karmic wind - energies, and reveal the thigles as the nature of wisdom."</u>

I remembered and reviewed the two healing paintings of 1980, "Through: Generation" and "Surge". At the time I had worked to untangle the physical and emotional knots present in my body.

The thigles are, through yogic practice, drawn into the hollows of the central column along with the airs. By controlling all the airs and essences and sending them into the central column, and further activating those essences within the central column with the force of the "mystic heat," one opens the mandalas of the chakras, the inner psychic centers along the central column, and sets a straight course to full enlightenment.

"The absolute thigle is pervasive. It represents the Buddha-nature and exists within all the subtle pathways, airs, and essences. It is the "Great Thigle" which is the same as the absolute bodhi-mind...Realization of the great thigle is tantamount to enlight-

enment. This is the transformation that occurs when the subtle airs and essences are in the central column and become respectively the inherent wisdom-air (Tib. Ye-she-kyi rlung) and bodhi-mind.

"Therefore the central channel is the most important space within the subtle body; in its realized state it is called the "Wisdom Channel." When it is controlled and purified, it completely transforms the basic ignorance (which it represents) that is the cause of all delusion. It is the "Middle Vein" like the "Middle Way," and in this sense it indicates that its nature is shunyata and that it avoids the two extremes of nihilism and eternalism (the polarities of energies of the two veins). This vein is not produced by visualization. It is discovered by visualization and meditation. It is always there. It is the main link between the purely spiritual and purely physical worlds. Realization of the karmic airs as the wisdom-air and the thigles as the bodhimind within this central channel at the heart center is equivalent to realization of the Dharmakaya, (the primordial inherent level of truth, Thatness, Buddha-essence.)"

In "Exaltation" (1999) I was perceiving harmony in the many aspects of the universe, the white spheres ever present. However, I began to notice a pattern in the placement of the spheres.

I became convinced that there was a correlation between Bodhicitta and calcium. And I believed the locations of the white spheres or thigles were related to acupuncture trigger points.

"Tantric mystic physiology of the subtle body is directly related to the somatic physiology of regular medicine, and the tantric practices of manipulating it bear directly on tantric healing. For example, the system of subtle veins and pathways are the channels used and manipulated in Tibetan acupuncture and moxibustion," I read in the book of Tibetan Medicine and Psychiatry.

On the 29th of June, 1999 I was in a near fatal accident on Queen Charlotte Island, British Columbia. The rented car seized up, took off to the right, rolled three times

and landed upside down invisible from the road. I was left hanging upside down, unconscious, my thorax twisted and crushed between the two front seats.

Miraculously I survived at all, and became neither quadriplegic nor brain dead. I did break two vertebrae, many ribs, the scapula, sternum, tibia, had three millimeters of bone fragments floating in my spinal channel, and my heart was so crushed that I had flat, then inverted T waves on my EKG for the next two years.

Visualization was paramount in the process back to health. I was on my back in a back brace for three months, and did a great deal of visualization of back, chest and heart. The visualizations were medically articulated. I saw the damage to my body on x-rays, MRIs, CATSCANs, nuclear tests, echocardiograms, EKGs, etc. I worked very specifically, visualizing each cell of bone, tissue, organ, reconstituting the norm. This was my only work during the recovery period. When I could begin to walk at all, and could pick up a brush for a minute or two, I began to paint again, in a large diamond format, at the beginning one stroke per day if at all. Every bit of that active intentional change was geared toward the direction of wellness.

Again, as 20 years earlier, I was active in my own healing from the inside out.

I focused on the ribs and spinal column in "Who Will Live and Who Will Die? The Jaws of Life and Death" (1999, "Mi Yichyeh Vami Yamut? Who Will Live and Who Will Die?" These Hebrew words are from the High Holiday prayers.)

I was painting layers and layers of imagery as the body changed, from the trauma of the breaks to the light and wholeness of the

image.

In "Refuge" (2000, Hebrew: "Chassiah") I painted protection for the heart and spinal chord, in a bed of healthy cells. I "wrapped" the word "Chassiah" around the spinal cord.

And in the months of painting "Grace" (2000, Hebrew: "Chessed"), I came to a profound understanding of the seeming internal chaos, yet all held together by a strong force at the heart. All is simultaneously substantive, dimensional and transparent, all illuminated by the entire spectrum, interpenetrating layers of life.

"The whole of conditioned existence consists of radiations of energy vibrations emitted as rays or as fields of force and at varying rates of speed and thus solidity, intersecting and interacting in accordance with the harmonics of karmic balance," I read later in the Gyu-Zhi.

I considered the irony of the accident: it occurred on the last day of the last month's research trip of four world journeys, all to gather information and experience for a book on exile and independence. I had been a loner most of my life: traveled far afield for years at a time geographically and intellectually; had lived alone in wilderness for periods as long as a year and a half; had lived alone in the city for many years. Yet, during my time of total incapacity, I was deluged with visitors, bringing food, love, compassion. It was during that period that I understood my role in my community, my "herd." I learned that *interdependence is a necessary component of relation*, from the microcosm of cells to the macrocosm of planets.

"Gratitude" (2001, Hebrew: "Hodaya") followed. As I healed, my focus could move outward again, to the world of mature. I felt and continue to feel enormous gratitude for the gift of life, and hope that the tasks for which I have been granted.

The place of the gift of life, and hope that the tasks for which I plished with grace equal to that which I have been granted.

The Jewish philosopher Spinoza said, "to preserve oneself is the first and unique foundation of virtue." This is coincident with the Tibetan Buddhist concept of being "wisely selfish". Both these caveats lead to self-preservation to be better able to serve others, to engender a better world at all levels, to practice "right action."

"Wind • Spirit" (2001, Hebrew: "Ruach" meaning both 'wind' and 'spirit') depicts the rush of interdependent life forces as ribbons interweaving around the white spheres of calcium/bodhicitta, feeding energy throughout all systems. (Science, May 4, 2001, "Crystal Structure of the Ribosome at 5.5 A Resolution," M. Yusupov, G. Yusupova, A. Baucom, K. Lieberman, T. Earnest. J.H. Cate, H. Noller, "Ribosomes are large ribonucleoprotein complexes that are responsible for protein synthesis in all cells. ...Classical electron miscroscopy (EM) has given way to cryo-EM reconstruction methods, which have provided increasingly higher resolution views of the ribosome and its subunits

and functional complexes." These are shown as interweaving ribbons of different colors, much like those in my paintings.)

And finally, "Light as Space as Skin" (2001, Hebrew: "Or Challal" – the Hebrew word 'or' is a homonym: with the vowel 'aleph', it means 'light'; with the vowel 'ayin' it means 'skin'. I see light as the skin of space, separating space from space.) In this painting I was inside one of those mysterious, revelatory spheres, more deeply understanding the nature of interconnectedness at the smallest and most intimate of levels.



I was determined to uncover what I could to corroborate my idea about calcium and Bodhicitta. From my experience, the Tibetan mind is one of the most acute in the world. The rigorous climate, and the all protein diet, contribute to honing a "flabfree" mind and body. I had a powerful hunch that the tantric visualization practice contained calcium in its metaphor. I reexamined what I knew about Tibetan history and diet. The Himalayas are the

youngest mountains in the world, called the "baby mountains" in Tibetan. That means that they were most recently covered in crustacean rich soil. The Tibetan diet on the Tibetan plateau is almost 100% yak, which eats the tiny plants nourished by the crustacean soil. Yak meat, butter, cheese is a high protein, high calcium diet. I conjectured that when the tantric healing visualizations were conceived, calcium had been combined with bodhicitta, at either the conscious or unconscious level.

I e-mailed my friend, Ngawangdhondup Narkyid, Kuno, Official Biographer of the Dalai Lama in the Private Office of the Dalai Lama, sending him my idea and requesting published imagery and direct translation of the tantric practice I had been taught in Dharamsala by the Dalai Lama. He suggested I send my request to Geshe Tsultrim Gyeltsen, an authority on tantric practice, founding director and spiritual head of the Tibetan Temple and Center in Long Beach, California.

Geshe-la responded with a telephone call and the following letter, that he has permitted me to excerpt and quote:

"First, there are two types of Bodhicitta: 1. The mind which perceives the great enlightenment of Buddhahood: it is a consciousness and is the real bodhicitta. The Bodhicitta which you are referring to, coming from the crown chakra down through the wind channels etc, is the second bodhicitta, the physical, white bodhicitta which is merely named bodhicitta.

The first bodhicitta that I mentioned is not directly related to or with calcium. The physical, white bodhicitta and calcium are connected because both are related with elements of the body. If calcium helps to support the health or well being of an individual, then it does indirectly relate to the first bodhicitta in that it sustains a practitioner's ability to remain healthy and continue to meditate on the first bodhicitta. The great compassion though, is the true cause of the real bodhicitta, which is the mind aspiring to great enlightenment in order to benefit all sentient beings.

As I mentioned, the functions of the physical white bodhicitta are contained in the secret teachings (tantra) and it would not be suitable to talk about this at (any) conference, to those who have no background in Buddhist teachings and have not received proper initiation into the secret teachings."

Each breath inspires grace in life. It is up to each of us to wisely shape the metaphors that we use, as well as the metaphors by which we are known. Whether couched in Eastern or Western paradigms, we, surviving creatures of nature, already have the blueprint for compassionate high efficiency, hardwired and available, literally at hand. If we use our awareness to model and remodel our relationships, environments, architecture, social and political institutions based on the lineaments of natural, paradigmatic form, we will more deftly accomplish our goals. As creators and reflectors of divinity, our capacities are only beginning to be known. Divinity in humanity implies spirituality in behavior. With this course of action directing mind and heart, we have an optimal opportunity to consciously link the eternal with the temporal, and the spiritual with the physical, providing an arena in which the human and the universal can embrace.

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