

Working with the intangible: Radiation, a twenty first century interpretation.

Abstract:

The intangible is a concept which is firmly integrated into Michael Chekhov's technique. As explained by Cynthia Ashperger 'students are asked to accept the idea of working with intangibles' to imaginatively engage with the Higher Self, the Life Body and energetic forces. (Ashperger.2008:82) Specific work on energy is explored through Radiation. This term initially emerged from the experiments at the Moscow Arts Studio under the direction of Konstantin Stanislavsky. In 1918, when Chekhov began to refine his pedagogic practice, he was particularly inspired by what he later called the 'intangible means of expression'. (ibid) Influenced by the theories of Rudolf Steiner, his work engaged with a spiritual science which was met with considerable suspicion in post revolutionary Russia. Forced into exile in 1927, Chekhov continued to refine his methods which drew on eastern philosophies regarding the unity of mind, body and spirit. Significantly at this period in the world of science, pioneers including Harold Saxton Burr and Albert Szent-Györgyi were interrogating the body as a conductor of energy. Their work posed questions which were relevant to Chekhov's approach regarding how the actor communicates with internal and external stimulus. This article begins with an analysis of Michael Chekhov's theories on Radiation, it identifies the various interpretations and explores the challenges it presents to contemporary actor training. It moves on to offer insights into the developments in science and energy work with particular reference to the research of cell biologist James Oschman and his concept of 'the living matrix' and Mae Wan Ho's critique on quantum cohesion. In conclusion examples of praxis demonstrate that such developments in science and body work can offer a greater

understanding of how Radiation and the transmission of energy can enhance performance.

Key words: Chi. Michael Chekhov. Energy. Radiation. Anatomy. Physiology. Coherence. Piezoelectric. The Living Matrix

Michael Chekhov's work evolved at a time of significant social and political upheaval, as new schools of thought challenged the old order. This climate inspired a surge of artistic expression, and up to 1917 Russian art, music, theatre and dance were celebrated in Europe. The Symbolist and avant-garde movements, such as futurism and constructivism emerged, and the innovators of actor training, Stanislavsky, Meyerhold, Vakhtangov and Michael Chekhov began to develop their models of practice. Influenced by philosophers such as Goethe and Schopenhauer, Chekhov's methods pioneered a holistic approach to acting. The debate on the Cartesian principles of mind and body dualism had progressed during the nineteenth century as a result of various scientific studies of the nervous system. In Russia, Ivan Sechenov believed that expression and emotion is not possible without muscle activity and that all behaviour stems from an external stimulus. Ivan Pavlov's work demonstrated the interdependence of physical action and psychological reaction. There was also continued development of studies into the unconscious, notably Freud and Tikhon Faddeev's work on the connection between feelings and images. Rose Whyman contextualises the effect these scientific developments had on Chekhov but it is Rudolf Steiner's spiritual science that is firmly integrated into his technique along with the principles of eastern religious belief systems such as Buddhism and Hinduism (Whyman.2008:10).

.The integration of what became known as the intangible or invisible elements of Chekhov's practice has been recognised as challenging.(Ashperger. 2008: 82). Unseen and therefore considered undetectable, it is an area of Chekhov's work that has been difficult to interpret especially in relation to Radiation (Chamberlain.2004:67). (1) Comprising of exercises including Atmospheres, Imaginary Centres, Psychological Gesture and the Imaginary Body it is the concept of Radiation that clearly articulates Chekhov's interest in energetic forces and the cultivation of strong inner motive action.

As an actor trainer and teacher influenced by Michael Chekhov I have a specific interest in the exploration of energy and body work and how it might extend our understanding of embodiment. In recent years this has led to research into other disciplines, such as biology, anatomy, physiology and the practice of Chi Kung. As a consequence several questions have been prompted, which all relate to what we know about the functioning of the body and the impact scientific research can have on training actors. The field of energy work is currently seen largely as the domain of complementary medicine and alternative health practices, which are slowly becoming more widely recognised.(Juhan.2003:409). (3) I believe these approaches can encourage a greater trust and understanding of the physiological processes, and offer new insights into psycho physical actor training.

The complex communication systems within the body have a sophistication that contemporary scientists continue to interrogate. The potential levels of human receptivity are far greater than those of which we are conscious of (Juhan. 2003:xxiii). Between 1916 – 1935 the work of scientist Harold Saxton Burr on the nervous system and the connection between electricity and disease brought controversy to the scientific world. In 1941 Albert Szent-Györgyi announced that there are semi conductors or

electrical charges in living systems (Oschman. 2000: 60). This discovery had profound implications for the later work of Robert O Becker who recognized a 'dual nervous system' called the perineural system, which sets up low voltage charges that are sent in waves to repair injury (Becker.1990:81). Medical research has significant bearings on somatic practice in all disciplines and provides the chance to re-examine our relationship with our bodies. This article will begin with an analysis of Michael Chekhov's work on Radiation and examine various interpretations of the concept. It will move on to provide an insight into the development of energy work and contemporary science with particular reference to biologists James Oschman and Mae Wan Ho. The concluding section will present practical examples of how the advancement in science can enhance performance techniques.

Throughout his life time Chekhov refined the guiding principles of his practice, which combined psychological, spiritual and physical categories. Radiation is placed into the second the 'intangible means to tangible expression' (Ashperger:2008: 81). This element of the work is concerned with the exploration of feeling, thoughts, sensation and the imagination. Chekhov asks the actor 'to accept the existence of the invisible, super sensible dimension and to accept the validity of the intuitive knowledge' (Ashperger:2008:73). Drawing on the powers of the imagination and a heightened level of concentration, the intangibles require the actor to tune into inner sensation.

According to Benedetti the first time the term Radiation was recorded as being used in actor training was in 1907 when Stanislavsky asked his actors to 'radiate their mental states' (Benedetti.1988:181). Robert White explains that this term was borrowed from the French Positivist psychologist Theodule Ribot, who identified the correlation

between radiated energy from within the body and ability to concentrate on a particular stimulus. In addition, interest in thought transmission and telepathy was popular in Russia and Europe during this period which soon filtered through into artistic circles. In 1904 Walter Atkinson, also known as Yogi Ramacharaka, published, *Hatha Yoga*, and several years later in 1910 the writings of Sri Aurobindo on *Yoga, Hypnotism and the Syntheses of Yoga* appeared. Stanislavsky and Leopold Sulerzhitsky began to incorporate Yoga into their work at the first Moscow Arts Studio in 1911 and showed particular interest in the idea of ‘prana’ (Tcherkasski.2012:5). (4) Ramacharaka asserted that ‘prana is the energy source that allows for the transmission of thought and emotion’ (White.2009:29). In eastern philosophies it is considered to be the life force that moves the body. It is seen as a universal energy which enters the body through the breath. Tcherkasski describes it as the ‘mysterious inner soul substance that serves to make connection between life and the human soul and space’ (Tcherkasski.2012:6). Chekhov, was likely to have participated in experiments at the first studio, and became especially drawn to Sulerzhitsky’s interest in awakening spiritual growth in his students using eastern practices as means to achieve it (White:2009 :3.) At a point of personal crisis in 1918 Chekhov began working on his own pedagogic system and it was at this time that he first embraced the ideas of Rudolf Steiner. (5) The idea that we have the ability to communicate without language significantly informed his work.

Chekhov implies that Radiation is the expression of the actor’s feelings, thoughts and intentions. ‘Radiating is the ability to send out the invisible essence of whatever quality, emotion, or thought you wish.’ (Chekhov.1991:preface x11). Similarly Stanislavsky uses the same term_which he explained as ‘energy sources that make possible the transmission of thought and emotion from one person to another’ (White:2009: 7). Chekhov considered that prana, which he also referred to as a river of energy, was

inextricably linked to the will (Whyman. 2008:84). He believed that it required the actor to fully surrender to the imaginative circumstances. 'Radiation means that I am giving myself whether you want to accept it or not' (Chekhov.1984: 147).

To explain the process of Radiation Chekhov uses the image of 'rays', 'If you sincerely and convincingly imagine that you are sending out rays, the imagination will gradually and faithfully lead you to the real and actual process of radiating' (Chekhov.1991:67). There are no detailed definitions of what Chekhov meant by 'rays' in his writings. However, he explains how his exercises on the Ideal Centre, Concentration and Feeling of Ease can contribute to the ability to radiate through the release of physical tension and rigidity in the muscle tone. Ashperger indicates that Radiating implies the transmission of 'formless energy' (Ashperger. 2008:82). She says that this is the expression of the characters objectives and the actor's experiences of the 'subtle body'. The 'subtle body' or 'subtle energy' dates back to Ancient china and is considered by complimentary therapists to be prana or Qi (Low. Energy Medicine: 136). (7)

Radiation forms part of a series of movement exercises which are based on the elements, Floating, Flying, Radiating and Ease. Searching for a way to enrich inner sensation, Chekhov developed this aspect of his work to cultivate 'will' impulses, stimulate feeling and imaginative images. 'Those indescribable, unspeakable things that the actor has accumulated in his soul while working creatively on his part will be conveyed only through Radiation' (Chekhov.1991:116}. Chekhov emphasised that radiating requires the right kind of activity which can result in a strong and vibrant means of expression (Chekhov. 1091:115). Radiating provides the unspoken elements which lie underneath the text, it will 'make the words and business highly significant and impressive' (Chekhov.1991:116). Mary Anne Kindelan noted that 'radiation is the

'primary, but primitive, step in the development of creating the play's subtext' (Kindelan. 1977: 135). Franc Chamberlain suggests Chekhov assumed 'all living things possess an energy body or a radiant energy field which is interwoven with the physical body' (Chamberlain.2004:67).

The relationship between giving and receiving is integral to Radiation, 'True acting is a constant exchange of the two. The more you radiate, the more you receive, not only from the ensemble but from the audience' (Chekhov.1991:106). The cycle of exchange between actors and their environment is stimulated by atmosphere. 'If we usually speak of personal feelings as coming from within the individual and radiating themselves into his surroundings, so in speaking of an atmosphere we have to imagine this process reversed: the objective feelings of an atmosphere are coming from outside and are radiating themselves into the individual realm of feelings' (Chekhov. 1991:32).

David Zinder emphasises the importance of space, 'radiation relates to the actor extending their presence in the room' (Zinder.2009:3). He says it is Chekhov's term 'for the actor's performative expression over a distance' (Zinder.2009:3). Chekhov believed that an atmosphere is never static but is experienced as a dynamic shifting process: 'It lives and moves constantly, although this movement is a purely inward invisible, psychological one' (Chekhov.1991:34). If this inner dynamic has potency and strength it is released by the body. Chekhov explained his 'primary aim is to penetrate all of the parts of the body with fine psychological vibrations. This process makes the physical body more and more sensitive in its ability to receive our inner impulses and to convey them expressively to the audience from the stage' (Chekhov.1991:43).

Radiation remains an important element in the teaching of the Chekhov technique, and as the work has been interpreted and passed on new exercises have been developed. Lenard Petit interprets Radiation as energy and believes that 'energy is the key that opens up the doors' (Petit. 2009:4). He goes on to say that 'radiating is an activity that will accompany an actor who is inspired' (Petit:2009:21). The term energy is now commonly used in the vocabulary of contemporary actor training and it is acknowledged by practitioners such as Phillip Zarrilli that a specific kind of training is required to heighten energetic awareness 'Through repetition and practice the actor optimally begins to develop a new relationship to one's body and mind' (Zarrilli.2009:31). Zarrilli recognises that activating and channelling energy is interrupted by habitual patterns, muscular and nervous tension which prevents energetic flow. Therefore rigorous training, such as various styles of martial arts, is beneficial in order to cultivate a receptive body.

The interrogation of the 'bodymind' practice in actor training has cultivated an increase in cross disciplinary research. Jerri Daboo draws on the principles of neurophysiology and sports psychology in her 2007 article on the Chekhov and the embodied imagination. She cites various scientific experiments which evidence the connection between mental visualisation and physiological activity (Daboo. 2007:264). Cognitive researchers Tony and Helga Noice have identified a relationship between active experiencing and the retention of memory. Their studies observe how actors memorise text and embody meaning.(Noice and Noice. 2000). I have gained valuable insight into what is often referred to as the 'inner life' in actor training through the work of several contemporary scientists. Recent research on the subject of energy across the sciences such as biology, physics and energy medicine, has led to significant

advancement in what is known about the body and the electromagnetic field. These insights offer a potential new reading of Chekhov's work on the intangibles. James Oschman for example uses the term the 'living matrix' to describe physiological organisation, which he explains is a body wide communication system that links every organ. (9) As a 'crystalline piezoelectric semiconductor' the living matrix has several physiological functions. Piezoelectric is the phrase used to explain the multi electric pulsations which occur when connective tissue is stretched. (10) Information is contained in these pulsations which are electronically conducted and converted into different kinds of energy. The living matrix is highly sensitive to the environment and a range of properties such as heat, sound, light, and touch, which creates vibrations and changes in the composition of the connective tissues. This high level of receptivity, suggests that fine tuning can refine and enhance the bodies ability to energetically connect to the self and the immediate surroundings. This was an ultimate objective of Chekhov's work on Radiation (Chekhov. 1991:114).

Through the living matrix Oschman offers an explanation for both the electrical nature of the body and how electrical charge is created through what Mae Wan Ho called 'living crystal' (Ho. 2008:187). All components of the living matrix are semi conductors of negative or positively charged electrons, protons and other particles. The chemical process behind the charge is dependent on the movement of ions such as sodium, potassium, chloride, calcium and magnesium across the cell membrane which, depolarize then polarize. This process continually sets up vibrations so that 'each cell, molecule, tissue and organ has an ideal resonant frequency that co-coordinates its action'(Oshman.2008:23). Within this intricate structure, cells interpenetrate with one another to create cascades of subtle effects in response to the particular job of the cell or signals which occur as a reaction to events or the environment. Oshman describes

the process as a 'veritable symphony of oscillating electrical fields that travel a certain distance in the living matrix' (Oschman:2008:93). These electrical fields can be stored, delayed, filtered through, amplified or pass in different directions and are often experienced as pulsations, waves, heat, or vibrations. Candice Pert explains that this activity becomes what we recognise as thoughts. She emphasises that 'thoughts and emotions are forms of energy that have characteristic vibratory patterns and frequencies' (Pert.1997:137). Like Oschman she believes that the body functions as an integrated, energetic, electronic and informational network (Pert. 1997;188).

The living matrix can offer an explanation for how, posture, physical restrictions, habits and patterns limit the capacity of an actor to fully inhabit, give or receive from a playing partner. 'The properties of the whole net depend upon the integrated activities of all the components. Effects on one part of the system can and do spread to others' (Oshman.2000: 48). These effects could originate from a physical or psychological activity such as a tightness of a muscle an injury, bruise or tear in the connective tissue, poor concentration or negative thought. John Basmajian (1998) has researched the impact of thoughts on the functioning of the body in particular the nerve cells motor units. His work has revealed that each motor unit has its own rhythm and this unit can be altered as a result of thought. His evidence indicates that motor units can be motivated or inhibited at will. These findings confirm the validity of a key element of the practice of Alexander Technique which is believed to create an altered condition of the connective tissue through specific postural sequences (Gelb.1994:44).The redistribution of energy brings balance and ultimately physical ease. (11)

A key element of the living matrix is that there are no specific centres in the body which is more primary than another. The term 'centre' is commonly used in actor training;

this concept derives from eastern physical practices where chakras and danteins are believed to be energy stations or reservoirs (Sumner. 2009:41) (Eden. 2010:147). Chekhov created several exercises that are based on the belief in the existence of a dominant 'centre'. However, Oschman would suggest that this is an incorrect assumption. There are organs where the electrical charge is more powerful, such as the heart and brain, and where the construction of the connective tissue formulates network junctions, known as plexus points (Ho. 2008: 173). Oschman's analogy suggests that to appreciate and sense the oneness it is necessary to understand that 'physiological and anatomical systems in the body and the energy systems interdigitate' (Oschman.2000:2). He implies that physical unity is always present: it is physiological organisation which determines the efficiency of the body.

The composition of the matrix, being made up of crystals, means it is stimulated by the slightest movement, including breath. Crystals within the body are soft and pliable and are mainly piezoelectric, 'each tension, each compression, each movement causes the crystalline lattice of the connective tissue to generate bioelectrical signals that are precisely characteristic of those tensions, compressions and movements' (Oschman.2000:55). There is therefore a constant firing of vibration in response to movement. The piezoelectric quality signals that specific types of movement will heighten the production of electric activity. How we use our bodies is therefore vital not only for our felt sense but to how far we are able to radiate and respond to the energetic field of others, 'our moment to moment experience is the totality of the energy and information flow within and around us' (Oschman.2000:55). The matrix is dynamic and not fixed; the connections between the cells break, collide, separate, form, die, and repair depending on their function.

Biologist Mae Wan Ho's work on liquid crystal and the concept of quantum coherence is also particularly relevant when discussing radiation and the energy field (Mayor and Micozza. 2011:255). Ho's work explains the organisation of all the features of what she refers to as the connective tissue matrix, which is comparable to Oshman's theory. She believes that it is the liquid crystals, which are native to our connective tissue, that contribute to the circulatory and organisation of energy and ultimately an organised flow of information in the body. Ho uses the term quantum coherence, which is defined as 'energy that is aligned and synchronised, able to be focused on a specific task or operation and not randomly dissipated into the environment '(Juhan. 2003:394). Crystals, especially fluid crystals, are coherent, sustainable and flexible structures that are highly responsive to excitation and energetic inputs inside or out of the body. The matrix can absorb, store, remobilise and produce energy but is at its highest level of efficiency when all its elements are functioning together. Ho suggests that systems that have a high degree of energetic coherence can resonate in properties. 'Coherent energy is vital energy as it arises because the organism is especially capturing, storing and mobilising in a coherent form' (Juhan.2003:395). This energy can be directed anywhere. When there is coherence we have the capacity to feel subtle affects and maximise our ability to resonate with our own system and with others.

The receptivity of the matrix, as Ho and Oshman suggest, is highly sensitive often beyond conscious awareness. It is not only interpersonal relationships which alter the functioning of our inner state, changes in the electro magnetic field, such as the use of electronic devices, environmental events and the quality of air will have significant effects on internal coherence (Oshman. 2000:175). Ho places emphasis on the biological rhythm of the body and identifies that the matrix ideally functions as a

democratic system where there is no lead player. However, in her book *The Rainbow and the Worm*, she states that the heart is the major conductor of energy and uses the analogy of the body's rhythm as a jazz band with the heart as the lead player. 'It is the complex rhythm of the organism dancing life into being, in which every single player is freely improvising and yet keeping in tune and in step with the whole' (Ho, 2008:170). Ho believes that the heart is at the centre of physiology. The electrical voltage of the heart is about sixty times greater than the electrical activity produced in the brain and penetrates every cell in our bodies. Ho writes 'the magnetic compartment of the heart's field is approximately 5,000 times stronger than the magnetic field produced by the brain and it can be measured several feet away from the body' (Ho, 2008:177). A means of obtaining a coherent state requires a rhythmic tuning, which Ho believes is led by the respiratory system. Her research evidences that quantum coherence not only increases the production of and organisation of energy but heightens our ability to be receptive to the self and others and the environment around us.

Chekhov stressed the importance of the development of sensitivity to inner impulses, and being able to 'penetrate the body with fine psychophysical vibrations' (Chekhov, 1991:43). He uses the term 'Ease' as a directive to be as free as possible of tension and rigidity and explained that when the body is in a state of ease, sensations and visceral images are more likely to emerge (Chekhov, 1991:xxxix). Ease can be likened to coherence, which also requires that the cells are pliable and in a sol rather than gel state for the flow of energy to occur. (12) According to Ho, a tight or held body will hinder the conduction of energy and alter the organisation of the connective tissue, and so restrict the capacity for releasing energy. Chinese Traditional Medicine, and various body therapies, place this principle at the centre of the practice. Body therapist Ida Rolf

focused on deep tissue release as a means of altering the structure of the body. Her process involves intense physical manipulation which releases the tight and thickened areas, where the tissue has become bound, short or lengthened. This creates a profound affect on the energy of the body and the distribution of chemicals from the endocrine system.(Juhan.2003:88).

Chekhov recognised that in order to radiate action from within the body a heightened level of concentration is required, which he related to the will (Chekhov.1991:114). The ability to concentrate implies focus and a direction of attention. This point is further emphasised by Petit ‘a willed form of concentration is possible when we send ourselves to whatever we choose, in order to be come one with it, and know, in an inner sense, what this image or object is’ (Petit. 2010:20). A reinterpretation of concentration, through the lens of the matrix analogy, offers the possibility that it implies coherence. The organisation of the inner forces at a cellular level is directed by mental activity, a thought, which then summons the order of the various electrical impulses. Ho would suggest that concentration is when the properties of coherent energy are functioning together, responding to and all moving towards the same stimulus. Through the lens of Ho’s research coherence will contribute to the achievement of an optimal working state for the actor. It will mobilise a range of energies produced within the body and enhance the potential for communication through internal networks and Radiation.

There are numerous reasons why the body may not be coherent, the health of the connective tissue being a crucial factor, which is dependant of many elements such as oxygen supply, nutrition and hydration. Over stimulation is also significant, as Ho notes, that in each cell the ‘electrical potentials and mechanical properties, are subject to cyclic

and non-cyclic changes as it responds to, and counteracts environmental fluctuations’ (Ho. 2009: 25). The consequences of energy flow to the body is significant for health, vibrancy and sensory stimulation. Juhan says that the ‘flow of qi in meridian theory corresponds to the mobilisation of coherent energy. Coherent energy is vital energy’ (Juhan,2003:395). The subtle quality of which is capable of extreme sensitivity to signals with in and outside the organism. Juhan elaborates ‘an interactive connectivity extends in all directions from the organism to the surrounding environment and back again, both entities restructuring and evolving one another in myriad ways’ (Juhan. 2003:398). This describes the radiating process which, as Chekhov acknowledged, is like an active cycle of response between the actor and the stimulus (Chekhov. 1991:115). Whilst working as a trainer of actors I have integrated the principles of energy techniques associated with the science of Chi Kung and traditional Chinese medicine. Chi Kung, translated as ‘energy work’, originated in China, between 2690 – 2590 BC, and is a system of health which promotes internal awareness and the movement of vital energy or chi(Chuen.2005:18). Many different styles and approaches have emerged over the centuries. I refer to Elemental Chi Kung, which incorporates traditional methods and philosophies of Taoism and Buddhism with modern body – mind and energy concepts.

Similar to the concept of coherence, Chi Kung promotes the smooth organisation and flow of chi which, according to Traditional Chinese Medicine (TCM), circulates through the body (Chen.2004:38). ‘Chi or vital energy is the fundamental essence that sustains life and is present in the vibrating biological processes of every single one of the millions and millions of cells’ (Chuen. 2005:18). It is our natural form of electricity that travels though meridian channels, which are known as energy pathways, invisible

to the eye, they connect up all the points on the acupuncture system. They journey deep into all the organs, and end or begin in the fingers or toes with pathways creating something comparable to a road map throughout the body. Working with subtle chi energy, the practice consists of sequences of movement, standing postures and meditation which have the capacity to promote a flow of chi, remove toxins and produce a coherent state. Through intention it is possible to achieve 'the optimal state of both body and mind' (Lin. 1997:5). Yin-Yang theory is also crucial to Chi Kung, this is based on the philosophical perspective of oppositions, such as light and shade, hot and cold, up and down. Although seen as opposites Yin and Yang characteristics exist within each other, they work together to support the dynamic of the body. Yin is associated with water, darkness, interiority and a downward, inward direction; its qualities can include tranquillity and passivity. Yang is considered to be fire, its direction is upward and out and it is linked to arousal, excitement, light and heat. A harmonious system implies relative balance, and disharmony suggests that the proportions of chi are out of sync. Chi Kung exercises have the capacity to manipulate chi and to influence both the quality of movement and quantity of chi within the body.

It is well documented that Chi Kung practitioners have unusually strong electro magnetic fields (Chen. 2004:42) (Sancier. 2003:238) .Niu et al (1999) researched the relationship between the meridian channels and the conduction of electricity, and found that the stimulation of one meridian point may affect the transference of electrical properties along the other channels. Chi Kung is recognised for its healing powers and the ability to cultivate smooth energy. As observed by Oshman, (2000) like connective tissue, chi can adopt different rhythmic patterns that reflect the condition of the body. It can be vibrant, chaotic, stagnant, and smooth or move in different directions

(Kaptchuk.2000:51). The subtlety of its movement can often be experienced as shimmers, waves, heat, surges or flutters. A significant factor of this practice is its capacity to promote inner change, heighten sensation, shift and focus physiological and mental states.

A long term aim of my actor training process is to explore the subtleties of inner movement as a response to the given stimulus on a moment to moment basis. In so doing, I focus the work on tuning into the changes which occur in the living matrix, and how this is affected by the imaginative situation. At the heart of the practice is the development of energetic activity which is generated by the given circumstances. I am particularly interested in screen performance and how energetic activity can be radiated through the camera. I have been developing a technique at the Royal Central School of Speech and Drama whilst leading the MA in Acting for Screen, and have observed that there is direct correlation between the presence created on screen and internal coherence.

I have drawn on the work of Oschman and Ho particularly in relation to how I train actors to be physically prepared to work creatively and enter into a state of readiness. A primary concern of the training is alignment, which is crucial to enhancing the functioning of the central nervous systems, the flow of nerve impulses and cultivation of chi. The majority of practitioners in the performing arts understand the importance of alignment, there is however, often a gap in understanding of what it is being aligned. 'Alignment influences two kinds of communication: nerve impulses and semi conduction through the tensegrous network' (Oschman.2000: 167). (13) Considering Ho's and Oschman's research, alignment can be seen to be much more than correcting

the position of the skeleton to support muscles, ligaments and organs. ‘Alignment of the collagenous networks has consequences for the overall energy field of the body’ (Oschman. 2000:167).

The first position of several Chi Kung styles, including Elemental Chi Kung, all Zhan Zhuang practice and many forms of Tai Chi is Wu Chi.(END Note) This position establishes a physical structure to connect up the meridian channels, enhance the flow of chi and works towards a balance of Yin and Yang. Wu Chi means ‘empty energy’ and is the fundamental position that maximises the potential for the systems in the body to function efficiently. It allows for the breath to move freely, the circulation of fluids to flow and the connective tissue to retain the necessary structure to support the body. This position requires practice and dedication, but with time it will begin to allow the body to soften and open up to enhance both internal communication and chi flow. Wu Chi has an important place in my teaching and is adopted at the start of the practice as means of tuning and bringing harmony into the body. The posture may appear to be still but within the body the cells are dancing and awakened by the stimulation of nerve impulses. As the participants adapt to the posture, mental and physical states alter and a state of coherence is possible. At the early stages of this training, it is necessary to shift through often uncomfortable sensations to allow the physiological system to reorganise. Resistance to this is common as sensations can overwhelm, they may include shaking of the calves, heat, sweating, dramatic changes in breath and nausea. The movement of chi at a deep level is very powerful, it is vital that care is taken to ground and clear the energy pathways after practice. (14) As with any physical practice training is crucial and with this comes significant changes in relation to accessibility to the body and the ability to awaken stored or trapped energy. Chi Kung generates a flow

of vital energy that regulates circulation, which potentially brings heat and a release of what is known as 'activation energy', that is energy that is available for work. The rise in temperature creates a fluctuation in molecules that 'increases the likelihood of collisions on which reaction depends' (Ho.2008.67). The available energy not only increases with this practice, but it is efficiently organised. This organisation enhances both internal communication and the release of energy, the process can be likened to what Chekhov termed Radiation. Szent-Györgyi and Ho have confirmed that inner organisation and energy are bound up with each other (Ho,2008:63).

In 2010 I coached actress Fiona Graham on the preparation of her role as Lady Macbeth in the film *Shakespeare Must Die*, directed by Ing K. As a part of the process we specifically explored the impact of Yin and Yang in relation to the social and more private and hidden aspects of the character. We particularly focused on the back as a means of exploring this relationship. Ken Dychtwald explains that 'feelings of sexuality, self control, self support, and self-stability are among the emotional forces that travel upward through the bodymind' (Dychtwald.1986:138). He identifies that the back can offer stability, but it can also act as a 'mediator between psychosomatic aspects of the top and bottom halves of the bodymind' (Dychtwald.1986:138). We felt that this was appropriate for Lady Macbeth, as in several scenes there is a rapid fluctuation in her temperament and self stability. An initial focus for our work was the plexus points in the body, the cervical, brachial, lumbar and sacral plexuses are positioned close to the spine. (15) The composition of the connective tissue in these areas is crucial to sensation and embodiment. Tightness will inhibit the flow of currents and reduce feeling. Initially with an aim of creating openness, we worked through sequences of movement to open up the deep pockets, where chi was potentially stuck

or moving in the wrong direction through a lack of coherence. We associated the lower lumber region of the back with private moments, where Lady Macbeth placed her desires, and the front upper area of her chest with her public interface, which was often shallow and insincere. These choices provided Fiona with a precise physical place to direct her attention. This also prevented the temptation to work solely from the upper section of the body, which is very common in screen acting. On screen this created a vibrant and intense affect which revealed the burning desires of the character. (16) Our process confirmed that very specific movement and the manipulation of relevant anatomical structures can stimulate a strong sensational connection to the imaginative moment and the increase of energetic potency.

The discoveries of electro magnetic fields in and around the body affirm, in the scientific tradition of knowledge, what eastern cultures have known for thousands of years (Mayor and Micozzi. 2011:154). It is often said that Michael Chekhov was ahead of his time (Petit.2009:3). His technique enables us to become aware of the importance of really knowing the body and learning how to activate the inner forces. In the twenty first century the intangible is credible; research confirms, (Szent-Györgi:88) that all living organisms have bio magnetic fields, and the movement of any part of the body is 'broadcast' into the surrounding space as a precise bio magnetic signature of that action. Oshman asserts that 'every event in the body, either normal or pathological, produce electrical changes, it also produces alterations of the magnetic fields in the spaces around the body' (Oshman. 2008:18). Frequency alters every time a cell moves or changes shape, an organ shifts its functional state, a muscle contracts, a gland releases chemicals, a nerve conducts an impulse. The cultivation of chi through energy work, which facilitates the opening of communication channels, is a means of achieving

a coherent and creative state. This can not only heighten our ability to radiate but connect us to the rhythms of the universe. My praxis is at its early stages, however, it offers the knowledge that we have the power to alter mood, sensation and energetic presence and tap into the bodies' natural patterns of movement.

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End Notes.

1. See Ashperger (2008) on the Second Guiding Principle page 81 and Petit page.5.
2. Practice such as Reiki, Shiatsu and Acupuncture work closely with the energy systems of the body.
3. In the Essentials of Human Anatomy and Physiology Elaine Marieb explains the relationship between the various systems in the body and how they are synchronised to achieve homeostasis. The functions of the eleven systems function largely at on an automatic level with highly sophisticated mechanisms of communication.
4. Leopold Sulerzhitsky was the assistant Stanislavsky at Moscow Arts Theatre and responsible for the First Studio in 1912. At this time Chekhov was a member and performed in several plays.
5. Between 1916 – 1918 Chekhov was experiencing personal difficulties including excess drinking and depression. His marriage ended in divorce and contact with his daughter was limited.
6. In contemporary science the subtle body refers to the energies circulating within the body and the energy field. Described by Oshman as ‘magnetic signatures’ which are stored in neural networks and semiconductor circuits. See Oshman Energy Medicine page 114 – 117. Also Energy Medicine East and West chapter 8.
7. For a full explanation of the Extra Daily exercises see Barba. E
8. (1995) The Paper Canoe, London and New York: Routledge.
9. See Oshman (2000) for a detailed description of the Living Matrix Chapter 4.

10. Piezoelectric effects are fully explained in Oshman (2000) pages 52 – 55
Energy Medicine
11. The Alexander technique examines the relationship between physical use and efficient functioning of the body. This involved a re adjustment of the balanced distribution of energy. The intention is to alter posture and patterns of movement which create stress and inhibit sensation.
12. Mae Wan Ho explains that connective tissue alters in composition and can have a sol or gel state. Sol is softer and pliable and has a tighter form. Heat and touch can change the texture of connective tissue; this explains the positive results of hands on therapies.
13. Tensegrity is an architectural principle by R Buckminster in 1948. The term has been used as a metaphor in energy medicine to explain the stability created in the body when there is a balance of tension in the tendons, ligaments, muscles, bones and connective tissue. The tensional elements enable to body to change shape, move and lift objects. See Oshman p145 – 156.
14. For a series of Chi Kung sequences see Sumner, Jed (2009) You are How you Move. London: Singing Dragon
15. See Marieb (2009) p262 on a detailed explanation of Plexus points.
16. Shakespeare Must Die was due for release in Thailand in April 2012 but is currently banned by government censorship. (October 2012).

End for Elemental Chi Kung to be incerted.

Elemtantal Chi Kung is a system of Chi Kung which incorporates

End note for Wu chi

Zhan Zhaung style can be traced by 27 centuries and it the foundation of most methods of chi kung. It is characterised by the standing postures including ‘ standing like a tree’.

Amanda Brennan. 2012.

