



The Human Heart

A Supersensible Organ of Perception

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The World Changes When Our Hearts Do

“Go to your bosom; knock there, and ask your heart what it doth know...”

William Shakespeare

Any undertaking to describe the human heart in all its glory is bound to be limited in its scope because the heart has been evolving along with humanity and will continue to do so into the future as its nature, over time, is unlimited. Any comprehensive expose on the human heart would have to go back in time to witness the embryological development of the heart and project into the future an attempt to describe what the heart will become. Even with a comprehensive historical perspective on what great thinkers have “discovered” about the heart, we cannot wrap our arms around this central core of the human being. The ideas of what the heart will become has been speculated upon by doctors and philosophers with mysterious stories of the future fifth, sixth, and seventh chambers of the human heart yet to be discovered.

These speculations shed light on a few parts of the unfolding heart mystery. Indeed, the ancients focused on the **heart as the seat of human consciousness** and speculated that the involuntary muscle of the heart will become a voluntary muscle that will someday be completely controlled by human will power that is charged with moral forces. Many philosophers say the voice of the heart is the moral conscience of the individual, a type of super-organ that can perceive everything, both inner and outer.

There is no limit to the power and majesty of the cardiovascular system working together with respiration. As Christopher Fry tells us in his play, *A Sleep of Prisoners*: “The human heart can go to the lengths of God.” In fact, spiritual scientists, old and new, agree that the heart is a sense organ that can listen to and understand the language of the divine. Some would go so far as to claim that the human heart is the holy grail that is the treasure found by the worthy knight who suffers the quest for the grail for the sake of others. Or as Walter J. Stein tells us in his book, *The Nineth Century*: “The Holy Grail is the consummation of the heart’s desire, its root and blossoming . . . paradisaical, transcending all earthly perfection.”

Throughout our presentation we will be seeking answers to many questions about the heart from the ancient Hindu Vedas to cutting edge modern research on heart rate variability. Many misconceptions will be outlined in a timeline that reflects the evolution of heart knowledge over the course of history. One of those gross errors in understanding the heart and its function is the myth that the heart is a pump. But the true view of blood circulation is much more complicated and has only become accepted by cardiologists in recent times. Dr. Rudolf Steiner's teachings contend that: "*The heart is not a pump; the heart is an organ of perception.*" As a matter of fact, he believes that the heart is the most important organ of perception that can be trained to become a supersensible organ of perception of both the outside world and the inside world of the human being. The heart is the organ that can commune with the divine through a language of the spirit that is unique to the heart.

The mechanisms that develop this supersensible organ will be the major theme of this essay. We intend to show that a thorough examination of the heart will unveil numerous "heart mysteries" that have been known since time immemorial, but little understood by modern science. Even though, the most current heart research demonstrates that the ancients, and spiritual scientists like Rudolf Steiner, had the story correct all along.

Some of the mysteries that have come to light concerning the heart are leading doctors and scientists to rethink and reimagine the profound centrality of the heart and its effects on all aspects of human physiology and health. Some ideas from the past will sound somewhat unfounded or magical, but over time they have come to be the new view that is being adopted by main-stream science. A few of those heart mysteries are:

- The nature of the seven chambers of the heart
- The connection between heart and brain coherence
- The etherization of the blood through the "front spinal column" (vagus nerve)
- The importance of the axis of the heart in utero and as an adult
- The predictive capacities of heart rate variability to determine longevity and illness
- The electrical nature of the heart and its torus field of energy
- The nature of the human "I am" found in the heart
- The central focus of the human mind in the heart – not the head

- The capacity to develop heart-thinking through warmed up thoughts
- The secret “box” in the heart that records karma from one life to another
- The role of the heart “chakra”, its nature and function
- The etherization of the blood and its ability to nourish the pineal and pituitary gland
- The development of morality through the supersensible organ of the heart
- The true shape of the heart in current times and its shape in the future
- Heart perception as an alchemical process involving salt/mercury/sulfur
- The mystery of the “jewel in the heart of the lotus” – the cintamani stone
- The mystery of the wish fulfilling tree – the world tree planted in Eden
- The awakening of the heart as the tool to define and control all perception
- The heart is created by two interpenetration vortices
- Perception is written into the blood
- There is a cognitive path of heart-perception

This list of heart mysteries is not exhaustive and many other hidden truths will come forth as we look at the literature concerning the heart. We find many of these insights and inspiration in every type of writing, from sacred texts to modern poetry. Everywhere we look, we will find aspects of the heart being described as the most profound center of human consciousness, evolution, and love. The ancients often lumped the heart together with other key components of human self-development by linguistics and association. The heart is clustered together with ideas about the hearth (seat of fire), the ear (hearing), the home, heaven, and mother. When you think about the heart, the most important human thoughts also come to light. The seat of life and consciousness find their home in the heart as the **throne of love** that reflects the love of heaven on earth. The heart is the mystical source and crucible of love, the ‘august master binding of all.’ As the *Chaldean Oracles* state: “Having mingled the spark of soul with two, with breath and mind divine, he added to them a third, pure love, the august master binding of all.”

It is now time in human evolution to start thinking with the mind of the heart. Or as Van Morrison puts it in one of his lyrics: “If my heart could do my thinking, and my head begin to feel, I would look upon the world anew, and know what’s truly real.” This poetic injunction is the key mission of humanity as it develops moral (warmed-up) thinking instead of brain-bound, cold, dead thinking that leads to the void of materialism. The

head is the past. The heart is the past, present and future where we learn to speak with the divine and receive cosmic nourishment from the exchange of love between humans and the divine. Or as Meister Eckhart has told us: “God is born in the heart and the heart is born in God.”

When hearts begin to feel, thinking can develop into living imaginative thinking that is based in reality – not cold-hearted scientific materialism that leads to nihilistic despair. Living thoughts are born in warm-hearted thoughts that have a life of their own that is fired through and through by hierarchical beings who share those inspirations with humans. Learning the language of the spirit is basically learning the language of the moral heart. Often this language of the heart is spoken in poetic language that can stretch the human imagination to “the lengths of God.” The great poet and writer, Fredrick von Hardenberg (Novalis) gives us the insight that: “The human heart is the universal field of beings. It is the field where all faculties of the mind - understanding, reasoning, imagination, and feelings, are integrated. Human beings can feel with their heart using a language indicative of love.”

Novalis also tells us that it is only the human heart that can satisfy this unquenchable desire to commune with our higher nature that is found in the divine. He tells us: “Building worlds is not enough for the deeper urging mind; but a loving heart sates the striving spirit.”

Khalil Gibran agrees with Novalis that the heart is where the secrets of love are found: “All these things shall love do unto you that you may know the secrets of your heart, and in that knowledge become a fragment of life’s heart.” Or as Johann Wolfgang von Goethe put it: “What is uttered from the heart alone will win the heart of others to your own.” Goethe predicated the perception of the world upon the capacity of the individual’s heart content: “A man sees in the world what he carries in his heart.” Thus, the heart is the key to perceiving the world either as heaven or hell, depending on what each person carries in their heart. We see the world through the lens of the heart. It seems that to change our view of the world, we simply need to change the content of our hearts. The great Sufi poet Kabir insinuates the same wisdom when he said: “Lift the veil that obscures the heart, and there you will find what you are looking for.”

We must learn to seek the answers about the world and our self inside the heart as the poet Rainer Maria Rilke tells us: “The work of the eyes is done. Go now and do the heart-work on the images imprisoned within you. All the soarings of the mind begin in the blood.” This shows us that our conscious mind needs to realize that the depth of heart-wisdom never ends. Rilke tells us in another passage: “Our heart always transcends us. Have patience with everything that remains unsolved in your heart... live in the question.”

Poets have given us the ability to transcend brain-bound thinking with a few simple words that open the heart to its truly divine nature. Whatever you consider the divine to be, we find its source and end in the human heart. As the Sufi poet Rumi tells us: “Only from the heart can you touch the sky. Your heart knows the way. Run in that direction. If light is in your heart, you will find your way home.” So we begin and end in the heart, which sometimes is unfamiliar to the secular humanist who “believes” in modern materialistic science. Human consciousness transcends the five senses that modern science is based upon. There are higher senses that reveal our divine nature found in the quiet beating of the heart.

Rumi points to the source and finds it to be never ending. He gives us the injunction: “Why are you knocking at every door? Go, knock at the door of your own heart. Whoever has heart’s doors wide open, could see the sun itself in every atom. Surely there is a window from heart to heart: they are not separate and far from each other. And now the time has come to turn your heart into a temple of fire.” This temple of fire is the source of fiery wisdom that connects us directly to our higher self and the divine self of the universe. Rumi gives us the formula in the following lines: “When you seek love with all your heart you shall find its echo in the universe. When love for God has been doubled in your heart, there is no doubt that God has love for you.”

But modern poetry takes its lead from the wisdom of the ancients found in every sacred book or text of the past. In ancient India, a profound understanding of the heart was known as a central principle of spiritual teachings that go back to the first writings of humanity. The heart was always given the highest praise and was placed on a throne that was unequal to anything but the divine beings themselves. In the *Chandogya Upanishad* we are told: “As great as the infinite space beyond is the space within the lotus of the

heart. Both heaven and earth are contained in that inner space, fire and air, sun and moon, lightning and stars. Whether we know it in this world or know it not, everything is contained in that inner space. The heart is the center of the perception process of the soul and the sensory environment of the human being. In the heart, these sense impressions are perceived, detected, bound together, and thus first truly felt and understood. The heart is the starting point for all sensory impression.”

This view of the heart is far beyond the scientific nonsense that the heart is simply a muscle that is a “pump” that forces blood through the cardiovascular system. To underestimate the heart is a grave mistake that veils the true nature of what a human being will become in the future through the evolution of the heart. Even Aristotle, in his *On the Generation of Animals*, has a more profound view of the heart than our top heart doctors: “We are justified in seeing the heart as the source of the being’s life, shape, and organization. Blood and its blood vessels are the original source of life. All other parts of the body depend on the heart and have their source, or origin, in the heart.”

We need to listen to the ancients and glean the wisdom they developed thousands of years ago concerning the importance of the heart as a highly developed sense organ. The primary place of the heart is beautifully described by Aristotle and only now is coming to be understood as the king or queen of all organs.

The capacity for the human heart to be an organ of knowledge that produces our concepts that are connected to our perceptions is often ignored by science, medicine, and philosophy. Over eight hundred years ago Thomas Aquinas informed his students that a concept is a “word of the heart” that forms after perceptions are digested by the heart. Concepts in the modern world have been relegated to the brain where they are stored in nerve cells. Some new research on heart/brain coherence has demonstrated that Aquinas was correct when he wrote in *Summa Theologica* that: “The heart is related to the higher cognitive activities, which take place after sensory perception and the development of imaginative images. Something takes place in people whenever they perform an act of perception. This is the act of receiving and conceiving the perceived object. This concept designates the sound, and the concept itself is called a word of the heart. This thought process takes place in the individual penetration and unification of the act of perceiving with what is being perceived. Sense perception is the

tool for the spiritual and intellectual activity of thought. The human heart is an organ of knowledge and love, mediating between heaven and earth, thinking and willing, human being and environment.”

Theosophists, who study the wisdom of god, also give the highest praise to the heart as the home of god in the human being. The heart is the center of the universe and is a perfect reflection of the cosmos. Helena P. Blavatsky wrote in *The Secret Doctrine*: “In the heart is the only manifest God. The first born are life, the heart, and pulse. Shiva is the being in the heart, the lowest aspect of Brahma – force or mind. Shiva is the Lord of the Pulse, the only direct manifestation of spirit in matter. It is the heavenly breath and the rhythm of the Infinite. The pulse point is also termed the ‘drum of Shiva.’ The heart is also the great mountain of the divine rising above the four elements into the ether concealing a spirit so vast that the universe can scarcely contain it.”

Another great spiritual science, Rudolf Steiner, points out that the human being has evolved to the point where hearts must begin to have conscious thoughts – warm, imaginative, living thoughts. He is also one of the strongest proponents of the idea that the human heart is a sensing organ, a type of eye for the divine beings to work through. Steiner tells us in *The Michael Letters*: “Hearts begin to have thoughts, that is the new way of thinking with the heart. The newly developed heart-organ slowly transforms into an eye or a sensing-heart-eye-organ.”

A follower of Dr. Steiner’s, Ehrenfried Pfeiffer, was one of the closest students of Steiner who was directly taught the secrets of the heart by his master. Pfeiffer has written a great deal about the etheric heart, its fifth chamber and the necessity to develop the heart as a supersensible sense organ that can perceive the working of the etheric Christ. These mysteries were guarded by Pfeiffer and others due to their sensitive nature which describes evolutionary aspects of the heart that were well-guarded secrets of the ancient mystery schools. The mystery of the fifth chamber of the heart was central to why Steiner’s life was somewhat “cut-short”, according to Pfeiffer. But even though Pfeiffer indicated these secrets were to be still hidden in the present time, he revealed as much as he could about the fifth chamber to help change the current view of materialism that believes the heart is a pump. Pfeiffer clarified his point of view in December 1950, by writing:

“The radiation from this etheric organ of the heart is actually developing into a spiritual sense organ. A new sense organ is developing in this etheric heart, and this is the only organ by which man is able to sense and to recognize the Etheric Christ.”

Another Anthroposophist, named Karl König, agreed with Pfeiffer and described the etheric heart and the etherization of the blood in his book, *Earth and Man*. König reaffirms Pfeiffer’s ideas and adds to them the future condition of the etheric heart that loosens itself from the physical heart. König tells us: “The heart is concerned with warmth and light within the blood. Rudolf Steiner describes how into the heart – on account of its being a sensory organ – stream all the activities of our metabolic system, all the activities of our limbs, arms and legs, where we go, what we do, and how we do it. All this is stored up in the heart, as in a casket. This now, going through life between death and rebirth, becomes the whole of our karma in our next incarnation. Since the year 1720, the heart has altered its condition and loosened its connection from the physical structure of the heart and very great changes in the whole life and existence of man have come about.”

Even though Rudolf Steiner’s lecture, *The Human Heart* (May 26, 1922) is not usually combined with his pedagogical lectures, it is a key for Waldorf teachers to unlock the secrets of the etheric bodies of elementary aged students. My teachers in Waldorf education asked that I make sure to include this lecture in our materials necessary for Waldorf teacher training. It is imperative that Waldorf teachers understand the evolution of the physical, etheric, and astral components of the human heart as it develops from birth through age fourteen. Only when the teacher can work with the incarnating etheric heart and help birth the incarnating astral heart, can the teacher understand the true task of education. Teachers are the mid-wives of numerous births in the growing child and a complete cosmology, pedagogy, and psychology can paint the full picture of what a child is and what they are becoming. In Steiner’s *The Human Heart*, we find a guide to these delicate processes and are given the insight that allow the teacher to offer each child what they need in a developmentally appropriate fashion. Many mysteries of the heart are revealed in Steiner’s, *The Human Heart*. Here are relevant selections from his book:

“All that happens in the moral life, and all that happens physically in the world, the moral and the physical, are found in their real union when we learn to understand all the configurations of the human heart.

“When puberty occurs, man’s own etheric heart is so far formed that it can receive these forces that develop out of our activity in the outer world. Thus, from puberty onwards man’s whole activity becomes inserted, via the astral body, in his etheric heart - out of the pictures of the stars, out of the images of the cosmos - this is a phenomenon of untold importance. At the same place where our own etheric heart - has formed itself, we now have an astral structure too, which gathers together all our actions. And so from puberty a central organ is created wherein all our doing is centered. The etheric-astral structure wherein the heart is floating, so to speak, contains all that man takes with him into his further life of soul and spirit; wherein, he can hand over his entire karma to the cosmos.

“In the heart, as far as the etheric universe is concerned, you have a cosmos gathered up into a center; and a gathering together of all that man does in the world. This is the point where the cosmos - the cosmic process - is joined to the karma of man - This intimate correspondence of the astral body with the etheric body is to be found nowhere in the human organism except in the region of the heart.

“In our time there are certain changes taking place in the heart, by which gradually a fifth chamber will develop. In this fifth chamber man will have a new organ which will allow him to control life forces in a different way than is possible at the moment.”

The lucid insight of Dr. Steiner about the human heart is unparalleled in any time of history. He gives the reader the ability to understand human development so that the teacher can become a knowledgeable person assisting the cosmological aspects of human evolution. When the teacher first knows what to look for, then the sense organs can be developed to perceive the subtle and invisible forces at work in the physiological and psychological development of the child that recapitulates the development of humanity. Each child relives the development of its ancestors and must be given the proper

building blocks to create the modern human being anew. Each stage of development has a curricula that feeds the needs of the growing human heart. The many secrets of karma are found, and placed, into the etheric heart through the integration of the astral desires of the individual. The “casket” or “little box” in the heart-of-hearts holds the treasures each child brings with them from the past. The point of education is to nurture this “jewel in the heart of the lotus” that carries with it the eternal “I am” of the child that wishes to be born again with new opportunities to gain wisdom and ascend the path of human evolution.



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<https://neoanthroposophy.com/2020/12/27/the-world-changes-when-our-hearts-do/>

Physiological Aspects of the Human Heart

“The heart of a fool is in his mouth, but the mouth of a wise man is in his heart.”

Benjamin Franklin

Heart Intelligence

It is only recently that the intelligence system of the heart was discovered. The heart is not a pumping machine. It is an intelligence system. It is the most intelligent system of all our brains, with its own receptors, its own electromagnetic force, from 45 to 70 times more powerful than the brains of the neocortex, and the only force capable of changing our own DNA. It can turn the mortal into immortal, glial cells into heart cells, mortal center into immortal walls in any cell. It is, in fact, the heart that turns each one of us from dying cells into living cells. No one of us is human until the heart beats. And vice-versa, that first beat of the heart is what makes us human.

The heart contains its own nervous system and nerve ganglia that process information and send it to the neocortex. The heart is a hormonal gland producing its own neurotransmitters, dopamine, epinephrin, norepinephrin, the catecholamines, which affect the kidneys, the adrenal gland, the circulatory system and the neocortex. The heart generates from 45 to 70 times more amplitude electrically than what we call the brain, plus all emotions alter the heart's electrical field. Electricity emanating from the heart of a person can be detected and measured in the brain waves of others near or touching the person. Cellular memory resides in the heart cells, as can be seen from transplant cases. DNA can be altered in the hands of a person practicing head/heart “entrainment,” or that which was taught in ancient yoga techniques.

The amygdala, in the midbrain, starts forming immediately after the heart's first beat. It stores all the memories of our life in the womb, with the placenta, the water, the fluids of life, and the terror of losing them, and also the joy of being fed, of bouncing, of moving. But the amygdala also stores the life of the mother, her depressions, her fears, her joy. This accumulation of memories goes on in us until the age of three. Which means that all

this time we have lived, our life has been recorded for us in the amygdala. After the age of three, the hippocampus matures in us. In it, conscious memories are stored and we have access to them. However, the hippocampus has no access to the memories and the life we lived in the amygdala of the previous three years, even if from this point on amygdala and hippocampus converse with each other. What happens to the memories of the amygdala? They become our individual nightmare, the invisible conditioning of all our actions, the blind spot of our lives, the origin of all our terrors, the unknown reason why we do what we have done even when we do not know why we do it.

The conditioning of the amygdala can only be removed by the intelligence system that was developed prior to it, which is the heart with its electromagnetic force and its power of transformation. Otherwise, the amygdala can act on its own by passing the intelligence centers of the neocortex.

Heart/Brain Coherence

Modern science has discovered that when the heart and brain work together, magical things happen. Heart/brain coherence seems to make the human being highly aware of everything happening in the person's environment – inside and outside. HeartMath technology is an innovative approach to improving emotional well-being and triggering capacities that were thought not to be available to waking human consciousness. It can teach one to change your heart rhythm pattern to create physiological coherence, a scientifically measurable state characterized by increased order and harmony in our mind, emotions and body.

In other words, the heart overrules the amygdala. HeartMath research has demonstrated that different patterns of heart activity (which accompany different emotional states) have distinct effects on cognitive and emotional function. During stress and negative emotions, when the heart rhythm pattern is erratic and disordered, the corresponding pattern of neural signals traveling from the heart to the brain inhibits higher cognitive functions. This limits our ability to think clearly, remember, learn, reason, and make effective decisions. This helps explain why we may often act impulsively and unwisely when we're under stress. The heart's input to the brain during

stressful or negative emotions also has a profound effect on the brain's emotional processes, serving to reinforce the emotional experience of stress.

In contrast, the more ordered and stable pattern of the heart's input to the brain during positive emotional states has the opposite effect – it facilitates cognitive function and reinforces positive feelings and emotional stability. This means that learning to generate increased heart rhythm coherence, by sustaining positive emotions, not only benefits the entire body, but also profoundly affects how we perceive, think, feel, and perform.

Secrets of the Heart

One secret of the heart that science is researching is the nature of vortices in the heart and their relationship to the axis of the heart. This new field of study is revealing aspects of blood flow through the heart that the ancients never imagined. The heart is not only two interpenetrating vortices, but it also has numerous vortices in the heart itself. Heart vortex rings are created by the flow of blood in the different chambers of the heart. Cardiologists have found numerous vortex rings and found that each one has a specific frequency that it attunes to, creating harmonious blood flow. When heart vortices are misshapen or do not form fully, heart problems begin. Likewise, this is the case with the axis of the heart both in utero and throughout life. **The angle of the axis and the health of the vortices can predict the health of the body.** The optimal degree of inclination mimics the earth's axis. The heart is based on the curve of the diaphragm, but the axis is inclined at an angle of 23 degrees, like the axis of the earth against the path of the sun.

Dr. Rudolf Steiner pointed out that there were two major vortices that work together to create the angle of the axis of the heart using forces from above and below the human body. In *Man: Hieroglyph of the Universe (GA 201)*, Rudolf Steiner describes these whirlwinds in the following fashion: "Imagine, if you will, a wind whirling from above downwards with a certain velocity, and another from below upwards so that they whirl into one another. Assuming that the difference in velocity of the downward streaming force is such that we can say: the relation of the velocity of the up-flowing stream to that of the downflowing stream gives us the same ratio as the ratio of the velocity of the

motion of the stars to that of the Sun, then, if they are whirling into each other, a condensation will be produced by their whirling and will assume a particular form, the silhouette of the human heart. If we take the difference of velocity between the downward and the upward current, relating the latter to the former in such a way that a difference in velocity results bearing the same relationship as the difference in velocity between the stellar time and the solar time, then through the rotation a condensation arises which receives its own distinct form. One whirls downwards, and because the other whirls upwards driving with a greater velocity, the lesser velocity would be that driving downwards, which gives here through the collision, a condensation, a certain figure. This figure, disregarding imperfections, is a silhouette of the human heart.”

Some years before Steiner told us about these vortices, C. G. Harrison, in *The Transcendental Universe*, describes the same forces and adds a further description: “Man is the axial coincidence of the macrocosm and the microcosm. Man, as he is at present constituted, is the resultant of two vortices manifesting dynamically on the plane of illusion, and proceeding originally from two separate streams of tendency, the one representing Divine Love, and the other, the Divine Wisdom, which, meeting on the plane of human consciousness, coalesce into an objective personality. The forces on different planes of consciousness which go to make up man ultimately resolve themselves into two vortices which represent his higher and lower nature. The double vortex is a manifestation in time, or the plane of illusion, and is the result of cyclic aberration on the plane of spirit.”

Harrison continues: “Let us consider what is called the ‘torsion of impact,’ or the effect produced when two vortices meet whose axes impinge at an angle. If their velocity be not equal, they form two conical spheroids revolving in opposite directions, corresponding to the “figure of 8.” The ascending hierarchy of the former period complete their evolution, in this cosmic manvantara, under the law of acceleration, whereas the hierarchy who manifest as the Powers of Light are on the ascending arc of their cycle, and are subject to the law of retardation. Accordingly, the vortices which respectively represent their activities are of unequal velocity. One day, the spheroidal vortices will coalesce and become one, first as an elliptical spheroid and afterward as a true sphere capable of indefinite expansion.”

Modern scientific research focuses on heart vortices and have discovered that health and illness are directly connected to the proper interaction of heart vortices and axial deviation. Makato Amaki tells us in *Vortex Formation in Decompensated Heart Failure*, all about these mysterious rings of frequencies:

“What are vortices and why do they form? The cardiovascular system’s dynamic contours create time-varying and spatially-complex patterns of blood flow. Flow coming in from different directions is melded into a compact, nonturbulent mass of fluid and channeled towards preferential flow lines, often in the form of vortices, ring-shaped regions of rotating blood flow. Mitral leaflets and the trabeculated endocardium further modulate the flow, facilitating continuous asymmetric redirection of blood flow to the outflow tract.”

“Vortices have different formation time, size, shape, strength, depth, and direction depending on the time of the cardiac cycle, as well as valve and chamber geometry. Which characteristic of the vortex is most important is not clear, but a tightly compact, persistent ring seems to provide the best flow propagation. Interestingly, vortex properties depend on chamber function, but vortices also modulate diastolic LV wall lengthening and recoil. Vortex characteristics may thus be a signature of myocardial health and disease.”

“A distinguishing feature of cardiac blood flow is the presence of vortices, which are ring-shaped regions of rotating flow motion. Vortices are well-known entities in fluid dynamics, characterized by instability that can markedly influence mechanical function. More than 500 years ago, Leonardo da Vinci introduced the concept of circular flow formation in the sinus of Valsalva. Such a fluid structure that possesses circular or swirling motion is defined as a vortex. Vortices are considered as reservoirs of kinetic energy. In vitro experiments have demonstrated that fluid transport can be laminar, vortical or turbulent. Within these patterns, vortex ring formation is the most efficient for periodic changes in the direction of the flow.”

“Vortices, whether in tubes, aquatic motion, or nature, seem to transport fluid more efficiently than in a straight jet by providing a compact hydrodynamic channel. Vortices help multidirectional streams of blood merge without collision and energy loss. Their

ability to add volume to the LV without a significant increase in pressure benefits chamber compliance.”

“Vortices have been exhaustively studied in the field of fluid dynamics, and they possess many remarkable qualities. An extremely energy-efficient platform for transport of fluids, they allow the seamless merging of multiple streams without energy loss. Changes in direction of flow are achieved with similar conservation of power while creating compact zones of flow with uniform directionality and tremendous velocity. The characteristics of vortices have powerful application in the context of cardiac structure and function.”

“The most intriguing advantages of vortex formation may be to couple flow, stretch, and cellular response. Fluid forces and vortices are epigenetic modulators in the development of cardiac chambers and valve geometry, and vortices may help distribute flow-related stress loads.”

“Blood motion in the heart features vortices that accompany the redirection of jet flows towards the outlet tracks. Vortices have a crucial role in fluid dynamics. The stability of cardiac vorticity is vital to the dynamic balance between rotating blood and myocardial tissue and to the development of cardiac dysfunction. Vortex dynamics immediately reflect physiological changes to the surrounding system, and can provide early indications of long-term outcome. The evaluation of blood flow presents a new paradigm in cardiac function analysis, with the potential for sensitive risk identification of cardiac abnormalities.”

“The pattern of flow in the human heart changes dramatically during one cardiac cycle. However, flow is redirected within the cardiac chambers through vortex formation, which avoids excessive dissipation of energy and facilitates the efficient passage of blood. Visualizing multi-directional flow using echocardiographic techniques may open up new possibilities in assessing cardiac blood transport efficiency in health and disease.”

The Electrical Axis of the Heart

New research has discovered the importance of the heart axis for optimal health. The axis of the human heart changes over time and eventually mimics of axis of the Earth in relation to the Sun. The electrical axis of the human heart is the net direction in which the wave of depolarization travels. It is measured using an electrocardiogram (ECG). Normally, this begins at the atrioventricular node (AV node); from here the wave of depolarization travels down to the apex of the heart.

In Electrical Axis (Normal, Right Axis Deviation, and Left Axis Deviation),

Anthony H. Kashou tells us:

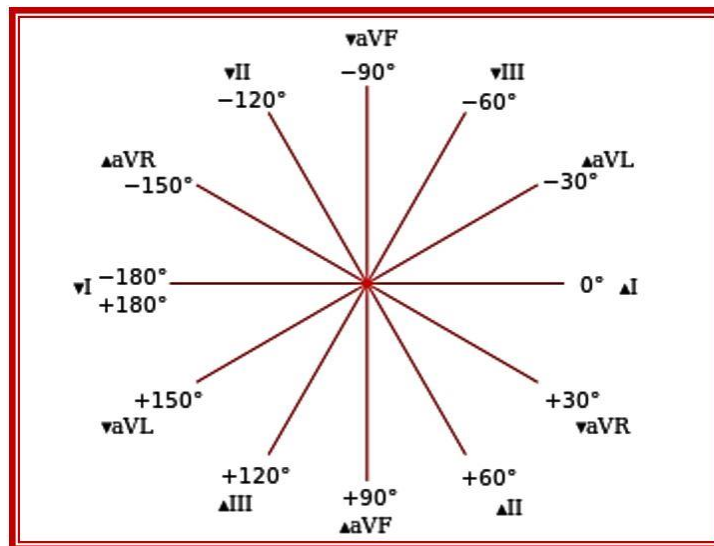
“One of the key steps in interpreting an electrocardiogram (EKG) is determining the electrical axis of the heart. Being able to determine the electrical axis can give insight into underlying disease states and help steer the differential diagnosis towards or away from certain diagnoses.”

“The axis of the ECG is the major direction of the overall electrical activity of the heart. It can be normal, leftward (left axis deviation, or LAD), rightward (right axis deviation, or RAD) or indeterminate (northwest axis). The sum of all the individual vectors generated by the depolarization waves makes up the electrical axis. Because each myocyte can produce an action potential, an axis for each wave and interval of the cardiac cycle can be determined. Knowing the axis of each and how they interact can reflect certain pathology.”

“When the electrical axis is discussed and taught, the ventricular axis is typically used in common clinical practice, although the atrial axis can be quite useful in clinical situations. Since the left ventricle makes up most of the heart muscle under normal circumstances; thus, it generates the most electrical force visible on the EKG. The normal ventricular axis is thus directed downward and slightly towards the left.”

“There is some disagreement on the exact degrees that define each type of an electrical axis, but there are some general cutoffs that can be used for the Ventricular (QRS) Axis. The QRS axis moves leftward throughout childhood and adolescence and into adulthood. At birth, the normal QRS axis lies between +30 degrees and +190 degrees. Between the ages of 8 to 16 years, the axis moves leftward with normal lying between 0° degrees to +120 degrees. The normal adult QRS axis is between -30 degrees and +90 degrees, which is directed downward and to the left. This adult range is sometimes extended from -30 degrees to +100 degrees.”

“Determining the electrical axis on an electrocardiogram can help narrow the differential diagnosis and lead to an efficient diagnostic approach for the patient. This will help decrease the time needed to arrive at the right diagnosis and improve patient outcomes. An interprofessional team of clinicians, nurses, and technicians trained in the interpretation of an EKG is needed to achieve this goal. Documenting the approximate degree itself of the axis is the bottom line to study the association with the levels of various possible risk factors.”



Hexaxial reference system

Axis Deviation:

If the electrical axis falls between the values of -30° to +90° this is considered normal.

If the electrical axis is between -30° to -90° this is considered left axis deviation (LAD).

If the electrical axis is between $+90^\circ$ to $+180^\circ$ this is considered right axis deviation (RAD).

RAD is associated with:

- Fascicular block
- Lateral myocardial infarction
- Right ventricular hypertrophy
- Pre-excitation syndromes
- Ventricular tachycardia
- Ventricular ectopy

LAD is associated with:

- Wolff–Parkinson–White syndrome
- ostium primum atrial septal defect
- glucose intolerance
- atherosclerosis
- fibrodegeneration
- diabetes
- Chagas disease

The Ideal Heart Axis

The axis of the heart is critical in heart health and it begins in the womb. In one study, cardiac position and axis were evaluated by ultrasound in 183 normal fetuses; both position and axis were found to be constant throughout gestational life. In the four-chamber view of the fetal heart, the normal axis lies at a 45 degree angle (range 22-75 degrees) to the left of an anteroposterior line drawn from the spine to the anterior chest wall. The normal position of the posterior portion of the heart can also be defined. The

axis or position of the heart deviated from the established normal range in 15 cases. Abnormal axis was associated with 50% mortality; abnormal position with 81% mortality. Deviation from the normal position of the fetal heart should initiate a search for an intrathoracic mass, whereas an abnormal axis is an indication for fetal echocardiography. Axis and position of the fetal heart are easily evaluated during a standard obstetric scan and can be a useful tool to determine heart health. Thus, the axis of the heart is a key determining factor for heart health, as well as overall health.

The Heart Sac – Fifth Chamber of the Heart

“Go to your bosom; knock there, and ask your heart what it doth know...”

William Shakespeare

In Anthroposophy, much is made of the nature of the “fifth chamber” of the heart. This secret has been kept since ancient times but now is the focus of the next step in understanding the true nature of the human heart in its future development. It is our belief that the pericardium, the “sac” around the heart is indeed this fifth chamber that holds the secrets of proper heart evolution.

University of Calgary researchers were the first to discover a previously unidentified cell population in the pericardial fluid found inside the sac around the heart. The discovery could lead to new treatments for patients with injured hearts. Researchers found that a specific cell, a Gata6+ pericardial cavity macrophage, helps heal an injured heart. The cell was discovered in the pericardial fluid within the human pericardium of people with injured hearts, confirming that the repair cells offer the promise of a new therapy for patients with heart disease.

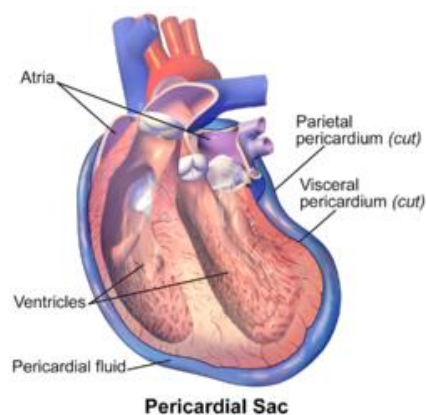
Heart doctors had never before explored the possibility that cells just outside the heart could participate in healing and repair of hearts after injury. Unlike other organs, the heart generally has a limited capacity to repair itself which is why heart disease is the number one cause of death in North America.

This discovery will open the door to new therapies and hope for the millions of people who suffer from heart disease. Doctors now know that pericardial fluid is rich with healing cells. These cells may hold the secret to repair and regeneration of new heart muscle.

The pericardium (pericardial sac) is a double-walled sac containing the heart and the roots of the great vessels. The pericardial sac has two layers, a serous layer and a fibrous layer. It encloses the pericardial cavity which contains pericardial fluid. The pericardium fixes the heart to the mediastinum, gives protection against infection and provides the lubrication for the heart.

The pericardium has a tough double layered fibroelastic sac which covers the heart. The space between the two layers of serous pericardium, the pericardial cavity, is filled with serous fluid which protects the heart from any kind of external jerk or shock. There are two layers to the pericardial sac: the outermost fibrous pericardium and the inner serous pericardium. The fibrous pericardium is the most superficial layer of the pericardium. It is made up of dense and loose connective tissue which acts to protect the heart, anchoring it to the surrounding walls and preventing it from overfilling with blood.

The serous pericardium, in turn, is divided into two layers, the parietal pericardium, which is fused to and inseparable from the fibrous pericardium, and the visceral pericardium, which is part of, or in some textbooks synonymous with, the epicardium. Both of these layers function in lubricating the heart to prevent friction during heart activity.



When the visceral layer of serous pericardium comes into contact with the heart it is known as the epicardium. The epicardium is the layer immediately outside of the heart muscle proper. The epicardium is largely made of connective tissue and functions as a protective layer. During ventricular contraction, the wave of depolarization moves from the endocardial to the epicardial surface. The pericardial sac also:

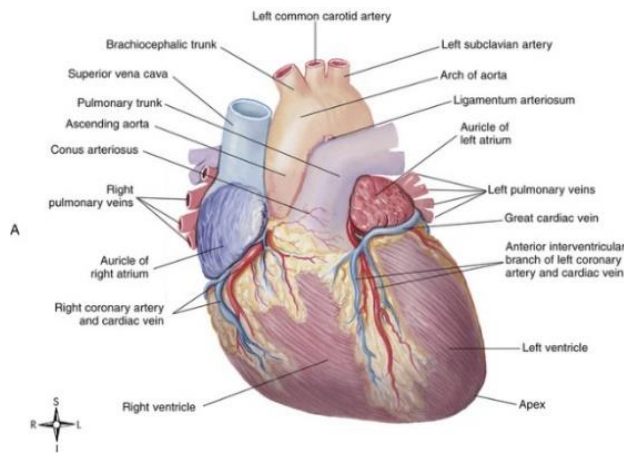
- Sets the heart in the mediastinum and limits its motion
- Protects it from infections coming from other organs
- Prevents excessive dilation of the heart in cases of acute volume overload
- Lubricates the heart

The Auricles of the Atria – the Sixth & Seventh Chambers of the Heart

“God is born in the heart and the heart is born in God.”

Meister Eckhart

In the future, the sixth and seventh chambers of the heart (auricles) will develop to take on a more central role in heart function. At this point, the auricles insinuate that the “capacity” of the heart can be expanded when necessary. The auricles have been generally ignored by science and their place in heart function is little understood. We believe that the auricles are another part of the sensory mechanism of the heart that listens to (senses) venous and arterial blood and then can respond appropriately. The auricles are like wings on the heart, which is an image of the heart used by the ancients for millennia.

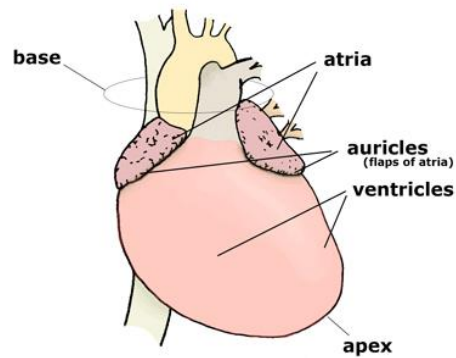


Auricles of Right and Left Atria

They are sometimes referred to as the “ears” of the heart – as their name implies. Is it possible that moral development can expand the heart’s capacity to become a better listener that can react to blood flow in an extraordinary fashion? This is a part of heart evolution yet to be developed.

The first speculation concerning cardiac auricles were findings from Ancient Egyptian archaeological studies. It is believed that Diocles of Carystus (4th century BC) considered the role of the heart as a leader of the body and discovered two cardiac ears or auricles. **He described the ability of the heart to listen and understand by these ears or auricles.** He also attributed a sensory role to these appendages.

Herophilus of Alexandria (300 BC) and later Rufus of Ephesus (1st century AD) were the first persons who described auricles and distinguished them from ventricles. This clarification was continued by Persian physicians in the Golden Age of Islam (9th–12th century AD.) During the Renaissance, William Harvey (1578–1657 AD), a British physician, noticed auricles and emphasized their function of contracting before the ventricles.



The Auricles of the Atria

In Egyptian sculptures, paintings, and writings the heart was the symbol of faith and courage. Ancient Egyptians used hieroglyphs for the heart with ear-shaped auricles in the symbols and paintings. They saw these ear-like parts of the heart, the auricles, but we do not know if they were aware of their role and function because we cannot find any mention of them in their texts or other written documents.

Today, in anatomy, auricles are known as part of the human heart which is roughly cube-shaped except for these ear-shaped projections. Auricles are pectinate tubular muscle walls that are positioned at the root of the pulmonary vein on the left and externally overlap the ascending aorta, on the right. But the true role of the auricles is still little understood today and their role in future is not understood.

The Vagus Nerve

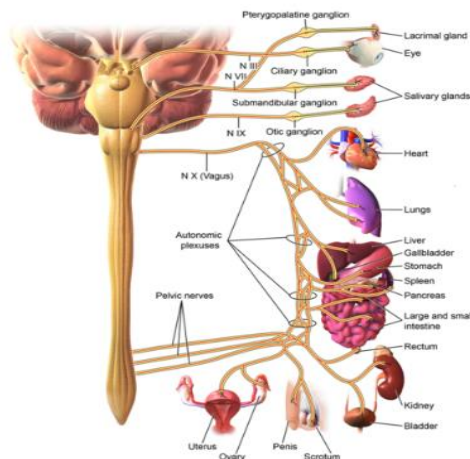
“Beauty is not in the face; Beauty is a light in the heart.”

Kahlil Gibran

Rudolf Steiner spoke many times about what he called, “the frontal spinal column” in contradistinction to the regular spinal column which is associated with the standard chakras of the Hindu/Buddhist system of spiritual development. This frontal spinal column has often been misunderstood by spiritual scientist. The simple reality is that, the vagus nerve accomplishes the exact tasks that Steiner attributes to the frontal spinal column. The front column is obviously the vagus nerve that gathers information from all

the organs below the heart and gathers them together into the vagus nerve running through the human heart. Then, from the heart, through the throat and brow, the vagus nerve reaches up to the crown of the head and there interacts with the energy arising from the normal spinal column which bathes the pineal gland. The front and back spinal columns merge in the fourth ventricle of the midbrain and unite the ascending and descending columns into the cyclic flow of regenerating energy. Descriptions of these two columns are found throughout spiritual literature concerning ascension practices.

We will describe this phenomena in the later parts of this article as the wish-fulfilling stone or cintamani tree or the “jewel in the heart of the lotus.” The front column is well-known as a ruyi stone, which is generally pictured as a scepter-like device with multiple stones that represent the heart, throat, brow, and crown chakras. The ruyi stone (scepter) is a common tool used by Tibetan Buddhist monks in their daily practice. Speculation runs wild when Westerners try to define or understand this vajra tool. Much more is known about the regular spinal column which is connected to the major chakras. But it is clear to the initiated that the ruyi is a spiritual tree that is part of “bringing down the heavenly dew” that nourishes the nerves and circulatory systems of the human body.



Parasympathetic Innervation

Let’s examine what science tells us about this ruyi stone – or the vagus nerve. The vagus nerve, also called the tenth cranial nerve, starts in the brain and runs down the trunk of the body, with branches innervating the major organs. A major component of the autonomic nervous system, it interfaces with the parasympathetic nervous system and helps to regulate the heart, lungs, and the digestive system. It is a bi-directional nerve,

meaning it both sends signals from the brain to the organs and the organs send messages back to the brain. The vagus nerve runs from gut to brain directly through the atrio-sinus node, the pacemaker of the heart.

The vagus nerve is an important sensor and regulator of basic functions including breathing, heart rate, the relaxation response, the gut-brain connection, and the formation of memories. The motor vagus nerve normally holds inhibitory influence over both systemic inflammation and some autonomic functions such as heart rate. It exerts stimulatory effects on gastric motility, detrusor contraction, pupillary activity, salivatory secretion, and tear secretion and it is also involved in pancreatic exocrine function.

The vagus nerve is a bi-directional nerve, so both the afferent (sensory) and efferent (motor) branches have important functions: afferent pathways mediate anti-inflammatory responses and the release of corticosteroids from the adrenal glands, whereas efferent pathways mediate anti-inflammatory processes via direct effects on immune cells or through the splenic sympathetic nerve. The vagus nerve is important for maintaining homeostasis and preventing an overreactive immune response. It can send a signal into the brainstem that triggers both glial cell activation within the central nervous system as well as the general innate immune response, sometimes called the sickness response.

Vagal tone is a measure of the constitutive output of the motor branch of the vagus nerve. The vagus nerve is responsible for the autonomic changes that allow us to go from lying down to standing up without fainting. With a loss of vagal tone, both the anti-inflammatory pathway and parasympathetic inhibition over autonomic systems are diminished.

The vagus nerve is so named because it “wanders” like a vagabond, sending out sensory fibers from your brainstem to your visceral organs. It is the longest of the cranial nerves and it controls your inner nerve center - the parasympathetic nervous system. It oversees a vast range of crucial functions, communicating motor and sensory impulses to every organ in your body.

The neurotransmitter acetylcholine, elicited by the vagus nerve, tells your lungs to breathe. You can stimulate your vagus nerve by doing abdominal breathing or other breath exercises. The vagus nerve is responsible for controlling the heart rate via electrical impulses to specialized muscle tissue - the heart's natural pacemaker - in the atrial sino-node, where acetylcholine release slows the pulse.

Your gut uses the vagus nerve to tell your brain how you're feeling via electric impulses called "action potentials." Your gut feelings are carried to the heart and then to the brain. Vagal syncope is when your body, responding to stress, overstimulates the vagus nerve causing your blood pressure and heart rate to drop. During extreme syncope, blood flow is restricted to your brain, and you lose consciousness and faint. Thus, the importance of the vagus nerve cannot be overemphasized and it does all that the ancients said the frontal spinal column accomplishes.

Heart Rate Variability

*"Your vision will become clear only when you look into your heart.
Who looks outside, dreams; who looks inside, awakens."*

Carl Jung

The importance of heart rate variability cannot be overestimated because it is a clear indicator of heart health and longevity. One can even buy a device that measures heart rate variability that will fairly accurately assess the entire health of the body and make predictions about the length of life and the likely organ or systems that will break down first and lead to death. This amazing discovery is accurate and is the first of its kind to "predict" the health outcomes of the person being assessed.

Heart rate variability is a measure of the variation in the time between each heartbeat controlled by the autonomic nervous system. It works regardless of our desire and regulates, among other things, our heart rate, blood pressure, breathing, and digestion. Heart rate variability is a noninvasive way to identify autonomic nervous system imbalances. If a person's system is in more of a fight-or-flight mode, the variation between subsequent heartbeats is low. If one is in a more relaxed state, the variation

between beats is high. In other words, the healthier the autonomic nervous system, the faster you are able to switch gears, showing more resilience and flexibility. Research has shown a relationship between low heart rate variability and depression or anxiety. A low heart rate variability is associated with an increased risk of death and cardiovascular disease.

People who have a high heart rate variability tend to have greater cardiovascular fitness and be more resilient to stress. Heart rate variability can provide personal feedback about your lifestyle and help motivate steps toward a healthier life. Heart rate variability changes as you incorporate more mindfulness, meditation, sleep, and especially physical activity into your life. It can track how your nervous system is reacting not only to the environment, but also to your emotions, thoughts, and feelings.

To determine your heart rate variability you analyze an electrocardiogram, or use apps and heart rate monitors that do something similar and download a free app to analyze the data. Other methods used to detect heart rate variability include: blood pressure, ballistocardiograms, and the pulse wave signal derived from a photoplethysmograph.

Reduced heart rate variability has been shown to be a predictor of mortality after myocardial infarction. A range of other outcomes and conditions may also be associated with modified (usually lower) heart rate variability, including congestive heart failure, diabetic neuropathy, post cardiac-transplant depression, susceptibility to Sudden Infant Death Syndrome and poor survival in premature babies.

Heart rate variability is the measure of the inconsistent gaps between each heartbeat and is used as an index for different aspects of psychology. It is reported to be an index of the influence of both the parasympathetic nervous system and the sympathetic nervous systems. Different aspects of psychology represent the balance of these two influences. For example, high heart rate variability is shown by proper emotion regulation, decision-making, and attention, and low heart rate variability reflects the opposite. The parasympathetic nervous system works quickly to decrease heart rate, while the sympathetic nervous system works slowly to increase heart rate. Heart rate variability has provided a window to the physiological components associated with our emotional regulation.

It has been suggested that increased attention has been linked to high heart rate variability and increased vagus nerve activity. The vagus nerve activity reflects the physiological modulation of the parasympathetic and sympathetic nervous system.

A reduction of heart rate variability has been reported in several cardiovascular and non-cardiovascular diseases, such as:

- Myocardial infarction
- Diabetic neuropathy
- Cardiac transplantation
- Myocardial dysfunction
- Liver cirrhosis
- Sepsis
- Sudden cardiac death
- Cancer

Frequency Rate of the Human Heart

Much is made of the measure of heart vibrations and frequencies. The ancients believed that the heart had a standard frequency that could be stimulated for enhancing health and longevity. There is much debate about which frequency is the ideal and what techniques and mechanism can “tune” the heart to the cosmic frequency of the Schumann Wave, the cosmic frequency of the revolving Earth. Tibetan bowls are tuned to the individual chakras and claim to create the proper resonance and coherence for the development of human consciousness.

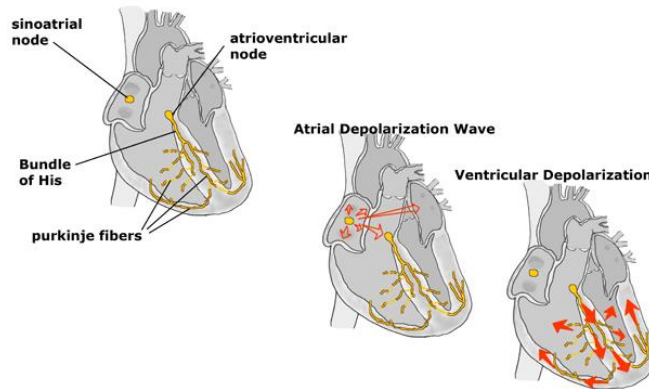
The resting heart rate of a normal adult is between 60-100 beats per minute, depending on age and fitness level. This is calculated upon the heartbeat frequency ($\text{heartRatePerMinute}/60$). That translates to 1-1.67 beat per second, or 1–1.67 Hz, based solely upon the frequency of the human beat.

If you are talking about the electrical signals that cause the human heart to beat, the P and T wave frequency generally ranges between 0.5 and 10 Hz and QRS complex frequency between 4 and 20 Hz. If you are talking about the heart sound frequency, it is generally between 20 to 500 Hz. During sleep, the ideal breath to heartbeat rate is 1:4.

The Heart's "Pacemaker" - Atriosino Node

Ancient Hindu philosophy believes there is a "thumb of fire" in the heart that is the spiritual flame of the individual. This flame is created in the interaction of the lungs bringing oxygen (fire) to the heart. It is this flame that constitutes the seat of consciousness, or the mind of the individual. It is said that this flame is the cause of the heartbeat and is a replication of the cosmic fire found throughout the cosmos. Modern science has theories about the atriosino node causing this flame through the interaction of sodium and potassium interacting on the surface of this node. A full examination of the atriosino node will not satisfy the questions about where and how the warmth (fire) of the heart is created. A more through and comprehensive theory is needed to truly understand the warmth in the blood and the heart and lung's participation in creating this warmth.

The human heart beats more than 3.5 billion times in an average lifetime. The heartbeat of a human embryo begins at approximately 21 days after conception, or five weeks after the last normal menstrual period, which is the date normally used to date pregnancy in the medical community. The electrical depolarizations that trigger cardiac myocytes to contract arise spontaneously within the myocyte itself. The heartbeat is initiated in the pacemaker regions and spreads to the rest of the heart through a conduction pathway. Pacemaker cells develop in the primitive atrium and the sinus venosus to form the sinoatrial node and the atrioventricular node respectively. Conductive cells develop the bundle of His and carry the depolarization into the lower heart.



The Electric System of the Heart

The human heart begins beating at a rate near the mother's, about 75–80 beats per minute (bpm). The embryonic heart rate then accelerates linearly for the first month of beating, peaking at 165–185 bpm during the early 7th week. After peaking at about 9.2 weeks, it decelerates to about 150 bpm (+/- 25 bpm) during the 15th week. After the 15th week the deceleration slows reaching an average rate of about 145 (+/- 25 bpm) bpm at term.

The vagus nerve, historically cited as the pneumogastric nerve, is the tenth cranial nerve, and interfaces with the parasympathetic control of the heart, lungs, and digestive tract. The vagus nerves are normally referred to in the singular. It is the longest nerve of the autonomic nervous system in the human body.

Parasympathetic innervation of the heart is partially controlled by the vagus nerve and is shared by the thoracic ganglia. Vagal and spinal ganglionic nerves mediate the lowering of the heart rate. The right vagus branch innervates the sinoatrial node. In healthy people, parasympathetic tone from these sources are well-matched to sympathetic tone. Hyperstimulation of parasympathetic influence promotes arrhythmias. When hyperstimulated, the left vagal branch predisposes the heart to conduction block at the atrioventricular node.

The sinoatrial node is a group of cells located in the wall of the right atrium of the heart. These cells have the ability to spontaneously produce an electrical impulse (action potential), that travels through the heart via the electrical conduction system causing it

to contract. In a healthy heart, the sinoatrial node continuously produces action potential, setting the rhythm of the heart and so is known as the heart's natural pacemaker. The rate of action potential production (and therefore the heart rate) is influenced by nerves that supply it.

The electrical conduction system of the heart transmits signals generated usually by the sinoatrial node to cause contraction of the heart muscle. The pace-making signal generated in the sinoatrial node travels through the right atrium to the atrioventricular node, along the Bundle of His and through bundle branches to cause contraction of the heart muscle. This signal stimulates contraction first of the right and left atrium, and then the right and left ventricles. This process allows blood to be moved throughout the body.

In order to maximize efficiency of contractions and cardiac output, the conduction system of the heart has:

- Substantial atrial to ventricular delay. This will allow the atria to completely empty their contents into the ventricles; simultaneous contraction would cause inefficient filling and backflow. The atria are electrically isolated from the ventricles, connected only via the AV node which briefly delays the signal.
- Coordinated contraction of ventricular cells. The ventricles must maximize systolic pressure to force blood through the circulation, so all the ventricular cells must work together.

Ventricular contraction begins at the apex of the heart, progressing upwards to eject blood into the great arteries. Contraction that squeezes blood towards the exit is more efficient than a simple squeeze from all directions. Although the ventricular stimulus originates from the sinoatrial node in the wall separating the atria and ventricles, the Bundle of His conducts the signal to the apex.

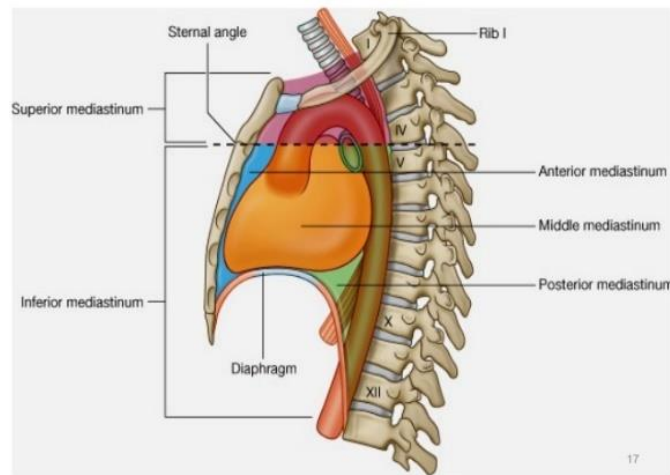
Depolarization propagates through cardiac muscle very rapidly. Cells of the ventricles contract nearly simultaneously.

The action potentials of cardiac muscle are unusually sustained. This prevents premature relaxation, maintaining initial contraction until the entire myocardium has had time to depolarize and contract. After contracting, the heart must relax to fill up again. Sustained contraction of the heart without relaxation would be fatal, and this is prevented by a temporary inactivation of certain ion channels.

The paired cardiac centers located in the medulla oblongata of the brain innervate the heart via sympathetic cardiac nerves that increase cardiac activity and vagus nerves that slow cardiac activity. Calcium ion levels have a great impact on heart rate and contractility: increased calcium levels cause an increase in both. High levels of calcium ions result in hypercalcemia and excessive levels can induce cardiac arrest. Drugs known as calcium channel blockers slow heart rate by binding to these channels and blocking or slowing the inward movement of calcium ions.

The Anatomical “Box Around the Heart”

The most ancient stories of the Tibetans tell of a fiery box that fell from heaven to Earth bringing down the first treasures of their religion. Four objects were contained in this box that became the foundation of their beliefs. This box contained the begging bowl of Buddha, the cintamani stone (the jewel in the heart of the lotus), a book of wisdom, and the original design of the first stupa (temple). Until recently, few understood that this box is a reference to human anatomy that is often overlooked. Around the heart is a series of organs that enclose it like a box and indicate that the ancients were unto a profound secret of the human heart that we now call the mediastinum.



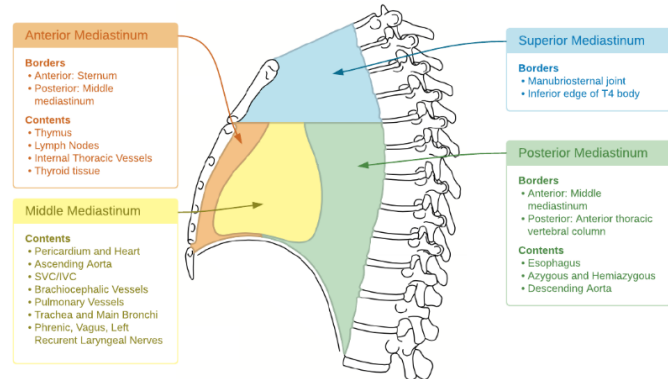
The “Box” Around the Heart

This “cube” around the heart is the current “shape” of the heart container with its six sides defined by the directions of up/down, right/left, and forward/backward. In the future, this cube will evolve into a dodecahedron which has twelve sides that align with the twelve divisions of the Zodiac. From the current shape of the cube, to the future shape of the dodecahedron we find the morphological path that the heart will follow in its development. This sacred shape, inscribed by the cube, is the inviolable home of the human mind that is referred to as the “jewel in the heart of the lotus”, or the cintamani stone. It is the “rock” that human consciousness is built upon, the cornerstone of the holy of holies in the heart-of-hearts.

The mediastinum lies within the thorax and is surrounded by the chest wall in front, the lungs to the sides and the spine at the back, essentially creating a “box” around the heart. It extends from the sternum in front to the vertebral column behind and contains all the organs of the thorax except the lungs.

The four directions of the heart are: above/below (up-down), front/back (forward-behind), and the chambers of the heart representing left/right working with the lungs. Thus, the heart is surrounded by a virtual “cube” that is indicated in the “box” of the mediastinum’s component parts listed below:

- superior mediastinum - above the pericardium,
- inferior/middle mediastinum – holds the pericardium from below,
- anterior mediastinum – in front of the pericardium,
- posterior mediastinum – behind the pericardium.



The Four Parts of the Mediastinum

In GA 205 (July 2, 1921) Rudolf Steiner says: “You can imagine what a tremendous difference there is, between that which lives in our heart during this incarnation and the condition in which we find ourselves in a new life after having gone through a long development in the time between death and a new birth. And yet when you look into your innermost heart you can assess quite well, of course in a hidden way only, not in a fully developed imagination, what you will do in your next life. One can, you see, not only say in an abstract way, my next life is being prepared today in all karmic detail, but one can point to the ‘little box’ in which the karma rests, awaiting the future.”

Blood Types

While everyone’s blood is made up of the same basic parts, there is a lot of variety in the kinds of blood that exist. There are eight different blood types, and the type you have is

determined by genes you inherit from your parents. What makes your blood different from someone else's is your unique combination of protein molecules, called antigens and antibodies.

Antigens live on the surface of your red blood cells. Antibodies are in your plasma. The combination of antigens and antibodies in your blood is the basis of your blood type.

Blood typing is particularly important for blood transfusions, because certain antigens on blood cells can trigger a person's immune system to attack the donated blood. People who are Rh-negative can only receive Rh-negative blood, but people who are Rh- positive can receive either Rh-positive or Rh-negative blood.

What's more, type A blood can be used for transfusions for patients with type A or type AB blood; type B blood can be used for patients with type B or type AB blood; and type AB blood can be used for patients with type AB blood. People with type O blood are called "universal donors" because this type can be used for patients with any blood type.

Type O blood is often in short supply in hospitals, due to demand for this universal donor type. In particular, type O-negative blood is in high demand because it's the one most often used for emergencies, when there may not be time to determine a patient's blood type.

Here are some general heart facts:

- Most people have about 4-6 liters of blood.
- Your blood is made up of different kinds of cells that float in a fluid called plasma.
- Your red blood cells deliver oxygen to the various tissues in your body and remove carbon dioxide.
- Your white blood cells destroy invaders and fight infection.
- Your platelets help your blood to clot.
- Your plasma is a fluid made up of proteins and salts.

There are four major blood groups and eight different blood types called the ABO Blood Group System. The groups are based on whether or not you have two specific antigens -- A and B:

- Group A has the A antigen and B antibody.
- Group B has the B antigen and the A antibody.
- Group AB has A and B antigens but neither A nor B antibodies.
- Group O doesn't have A or B antigens but has both A and B antibodies.

In general, the rarest blood type is AB-negative and the most common is O-positive. There's also a third kind of antigen called the Rh factor. You either have this antigen (meaning your blood type is "Rh+" or "positive"), or you don't (meaning your blood type is "Rh-" or "negative"). So, from the four blood groups, there are eight blood types:

- A positive or A negative
- B positive or B negative
- AB positive or AB negative
- O positive or O negative

Blood Types and Nutrition

Peter J. D'Adamo, N.D. does a marvelous job of aligning blood type with nutritional needs and lifestyle in his book, *Eat Right 4 Your Type*. We have extracted a summary of his insight in the selection below.

"Blood type, with its digestive and immune specificity, is a window on a person's probable susceptibility to or power over disease. For example, Type O's are the most likely to suffer from asthma, hay fever, and other allergies, while Type B's have a high allergy threshold, and will react allergically only if they eat the wrong foods. Type B's are also especially susceptible to autoimmune disorders, such as chronic fatigue, lupus, and

multiple sclerosis. Type AB's tend to have the fewest problems with allergies, while heart disease, cancer, and anemia are medical risks for them.

With arthritis, Type O's, again, are the predominant sufferers because their immune systems are "environmentally intolerant," especially to foods such as grains and potatoes which can produce inflammatory reactions in their joints. Types A and B are the most susceptible to diabetes, while types A and AB have an overall higher rate of cancer and poorer survival odds than the other types.

Type O - People with type O blood fare best on intense physical exercise and animal proteins and less well on dairy products and grains. The leading reason for weight gain among Type O's is the gluten found in wheat products and, to a lesser extent, lentils, corn, kidney beans, and cabbage. Ideal exercises for Type O's include aerobics, martial arts, contact sports, and running.

Type A - Those with blood type A, however, are more naturally suited to a vegetarian diet and foods that are fresh, pure, and organic. As Type A's are predisposed to heart disease, cancer, and diabetes. Type A's can derive significant benefit from calming, centering exercise, such as yoga and tai chi.

Type B - Type B's have a robust immune system and a tolerant digestive system and tend to resist many of the severe chronic degenerative illnesses, or at least survive them better than the other blood types. Type B's do best with moderate physical exercise requiring mental balance, such as hiking, cycling, tennis, and swimming.

Type AB - Blood type AB, the most recent, in terms of evolution, of the four groups and an amalgam of types A and B, is the most biologically complex. For this group, a combination of the exercises for types A and B works best."



To view this chapter in a multi-media format:

<https://neoanthroposophy.com/2020/12/29/secrets-of-the-human-heart/>

<https://neoanthroposophy.com/2021/01/02/chambers-of-the-heart/>

<https://neoanthroposophy.com/2021/01/16/a-thumb-of-fire/>

Three Fields of Force

“The heart is an energy dynamo producing plasma-generated magneto-hydrodynamic force. Gratitude and love strengthen the field of force around the heart, while the opposite emotions deplete it.”

Tyla Gabriel

To study the heart, one must also study the heart chakra and its nature. Modern science has yet to fully embrace these teachings of the ancients, though research continually affirms the axioms of ancient spiritual wisdom. Tyla Gabriel N.D. has done an excellent job of merging modern science and ancient wisdom in her trilogy entitled: *The Gospel of Sophia, Volume 2, A Modern Path of Initiation*. We can find few better renditions of the path of ascension that involves the chakras and their moral development than *The Gospel of Sophia*. We quote at length from volume 2 below.

“The ancients have always taught that the human body has different foci of energy that need to be harmonized. They believed that the unfortunate person who cannot successfully link his three morphic fields of thinking (brain), feeling (heart), and willing (lower three chakras) is doomed to mental instability, unfulfilled feelings, and incoherent behaviors. Only through alignment of these three fields of force can the aspirant find the full potential of energy and nourishment that the human body can provide. A person in harmony with his environment can go even further, expanding his personal field of energy to encompass the entire universe.

The fields of energy can be discussed in many ways, as:

- Energy centers of bio-electromagnetic force
- Morally-driven spiritual chakras
- Clusters of nerve ganglia
- Stages of initiation
- Stages of philosophical and intellectual development
- Religious symbols

- Bio-electromagnetic toroidal fields

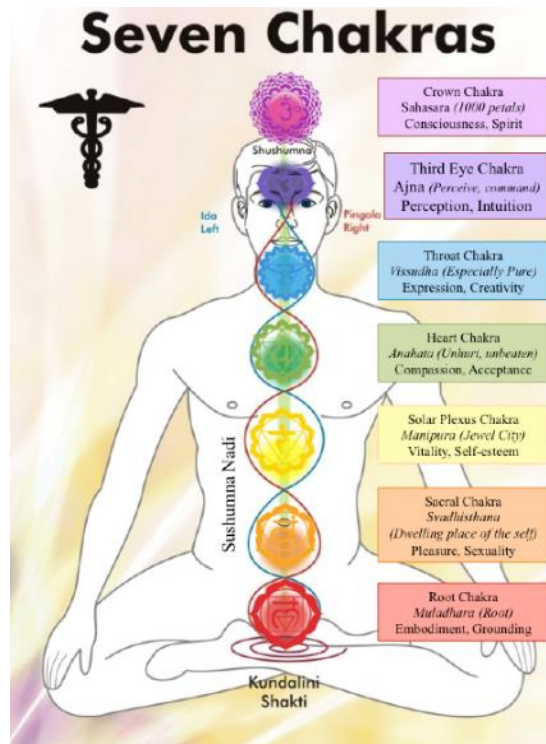
The System of Chakras

Whatever terminology one uses to describe them, the head, heart, and lower chakras create three separate worlds that must be integrated and coherent for spiritual development. All of the images, symbols, and technical explanations agree that for health, longevity, and evolution in physical, psychological and spiritual terms, the energy centers of the body should work together in harmony. Then, the earthly and cosmic nutrition streams can feed both the gods' and the aspirant's spiritual needs.

Heart Chakra

The heart is the organ that produces the most energy, as measured by an EKG. Its bio-electrical current is fifty times stronger than that of the brain, and it can be detected extending far from the body. The heart also demonstrates capacities that science calls the "little brain of the heart." Amazingly, it gathers information, communicates, and possesses its own intelligence. We now know that the heart has the power to modulate brain activity and optimize its functioning.

When the heart and brain are working together, this is called cardiac coherence. The brain and heart are synchronized, creating benefits in health, energy levels, and personal relationships. Emotions of the heart can trigger the release of hormones in the blood stream that produce powerful effects in the soul.

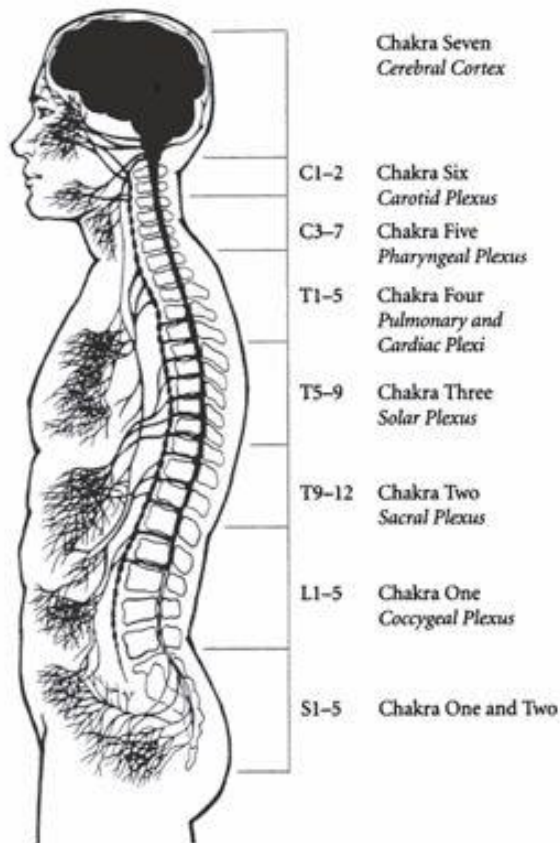


Oriental View of the Chakras

The Ancients have spoken of the Ananda Kanda or the sacred chamber of the heart. It was believed that once you connected to the flame burning in this sacred altar of your heart, you would have access to the Kalpa Vriksh or “wish fulfilling tree.”

This flame of the heart is the threefold flame or Trinity Flame. It starts from a white Mother flame and then burns as three flames. The flame in the middle is golden and represents wisdom. Once the wisdom flame has expanded, the human being knows that all the knowledge he ever needs is inside him and that the heart is his inner guru. The flame on the right side is blue and represents the masculine aspect of Divinity - God the Father or Shiva. The flame on the left is pink and represents the feminine aspect of God as Divine Mother. These three flames should be balanced and expanded for a personality to be centered. A person who is very powerful but not loving is thus unbalanced. So also a very loving person whose pink flame is dominant but whose blue flame of power is weak, will turn out to be weak.

The ideal is to have the wisdom to express love in a powerful way. That is, the golden flame gives you the wisdom as to when to allow the nurturing feminine part of you to connect to others and also when you need to allow the powerful masculine part of you to look out for the self's needs in solitude. Life is about balancing the threefold flame, thus balancing the masculine and feminine aspects (yin and yang) in ourselves. Once the flame is balanced, it spins and shines as a white flame helping our evolution and creating a forcefield that will help in attaining enlightenment, nirvana or ascension.



Western View of the Chakras as Nerves Centers

Once you connect to your heart flame and then visualize something you want to achieve, with great intent at your third eye, your desire will manifest soon. That is why they say

that if you wish for something from the bottom of your heart, it will manifest soon. The spiritual heart is just below the heart chakra. This is the nature of the wish-fulfilling stone (tree).

Babaji says, “the heart center where God resides is everywhere but is manifest in different parts of the heart area in different individuals and you have to locate it intuitively or with the help of a guru. Once you locate this center and connect to it, you know that your inner guru or God has been there all along inside your heart. You only did not see him there because you were so caught up in Maya. The guru is the inner one who shows us that we have the universe in us and all answers in us and the outer guru is but a reflection of the inner God in all our hearts.”

Head Chakra

The torus field created by the head is well known. For a long time, it was thought to be the only generator of bioelectrical energy. The cluster of nerves in the brain was assumed to be the battery, computer, and wires for the human electrical system. These older views then evolved into theories of bio-energetics, where adenosine triphosphate transfer was considered the electrical function of most every cell. Together, the body as a whole produced bio-energy.

This type of bio-energetics is now known to cause far too little energy to drive the bio-electrical functions of the brain. The ancients have always known that in the human head great forces of earthly and spiritual energy are produced and a powerful bio-electromagnetic field emanates. The head also creates a plasma generator capable of producing a tremendous amount of electrostatic and bio-electromagnetic energy that extends a far distance from the body. Still, the human heart is more powerful than the brain, for it can override and entrain the brain to its own rhythms.

Lower Chakras - Metabolic System

The bio-electromagnetic fields generated in heart and head also connect with the foundational energies arising in the lower abdomen from the lower chakras:

- Hara chakra (just below the naval)
- Sex chakra (gonads or ovaries)
- Foundation chakra (sacrum/tail bone)

In Kundalini yoga, it is believed that at the tip of the spine a fiery pit gives rise to the serpent power (kundalini). This energy travels up the spine through the six other chakras to the brow chakra, where a hooded serpent is located in the central spot -- the “third eye” on the forehead.

Often misunderstood, this lowest center of energy generation is attributed to either the sex drive or the center where chi energy is created, or at the bottom tip of the spine where it is said Kundalini as a fiery serpent lies coiled and ready to rise. In Tibetan Buddhism, the three lowest chakras are grouped together as one chakra with sixty-four petals. From this combined chakra, energy arises.

Just as a type of calcium can form in the pineal gland that causes a lack of energy or even death, so too in the lowest chakras the energy can be turned in the wrong direction to cause harm and destruction to the spiritual aspirant who uses it for personal gain. Misdirected foundational energy can lead to selfish expressions of the human ego. Sexual energy can turn the greatest human power into the grossest, and chi energy can digress into many forms of violence. If an aspirant has not learned to curb lower desires, then this center will not produce enough energy to fire the heart into “cooking” sense impressions into spiritual insight, wisdom, and nourishment for the gods.

A Cup of Golden Light

In terms of how these three chakras work together, modern paths of initiation begin in the heart. The fiery moral forces of the lower chakras feed the fire in the heart so that it may begin to “rarify” sense perception and the environmental elements that humans consume as nourishment. Once the heart has aligned its moral force with those of the throat, brow, and crown chakras, the spiritual world lights up the plasma generator in the brain and creates endless energy for all of the nerves, or chakras.

Here is how it works.

- Particle stream. A continuous stream of heated etherized particles rises from the heart, through the throat chakra, the brow chakra, and then to the crown chakra. These particles feed the plasma generator in the head.
- Refinement. Etherized particles of carbon, oxygen, nitrogen, hydrogen, calcium, and silica become ionized and rarified in a specialized breathing process that tempers them into more refined elements.
- Brain sand. The elements feed the pineal gland the material needed to transform calcium into calcium carbonate crystals, which are then deposited in the pineal gland as brain sand.
- Piezoelectrical potential. Once the calcium carbonate crystals of brain sand are available in the pineal gland, it may become highly charged with piezoelectrical potential.
- Torus field. In the region from the fourth ventricle of the brain, where the pineal is located, to the third ventricle, exists a space the ancients call the “grail,” or “cup of golden light.” Filled with fluid, the third ventricle sits in the middle of the brain, surrounded by the lateral ventricles (first and second) above and around the limbic system. Bio-electromagnetic fields of energy from the brain stem surround it, creating a magnetic field required for a plasma generator.
- Electrification. As the bio-electrical and magnetic potential of the pineal gland discharges through the middle of the third ventricle and then onto the pituitary gland, a direct current electrifies the torus field in the head. The bio-electrical potential for this low-temperature plasma generator is sparked from the pineal

gland's silica-based positive potential to the pituitary's calcium-based negative potential. The calcium carbonate crystals inside of the pineal "reach out" to connect with the calcium potential of the pituitary and a circuit is closed, creating the stream of electrostatic and bio-electromagnetic energy needed to drive this toroidal field of energy.

- Golden light. The ancients described this phenomenon as a spark of lightning jumping across the cup of golden light, thereby creating the nourishment of warmth, light, sound, and life – a type of holy grail.
- Nerve honey. Golden light feeds the nervous system via the posterior half of the pituitary through excretions called nerve honey, or heavenly dew (pituitrin). This heavenly dew also was called the waters of life, nerve fluid, manna, and the comforter. This super-charged golden light also feeds the front half of the pituitary, which then sends the heavenly dew into the blood stream, causing a harmonizing effect.

The ancients believed that the human head was the most perfect and finished aspect of the body and that great mysteries and secrets lie hidden in the brain. Nourishment from the brain is one aspect of the mechanism, while nourishment from the heart is another aspect. For the full potential of the human to shine forth, the two torus fields of heart and head must be harmonious. This type of heart-mind matrix can bring the feeling of the heart into the brain, which then nourishes the blood and nerves through the processes described above. The lower chakras work as the foundational elements for the higher and are instrumental to the process.

The challenge with the threefold system of energy created by the human is that it is easy to produce, but not as easy to synchronize and cohere. The correct alignment and use of these three fields of forces constitutes a key factor in human spiritual evolution. The more consciousness we bring to the process, the more energy we can produce.

Plasma Generators in the Human Body

Modern technologies of energy production called magneto-hydrodynamic generators can provide a functional example of how the earthly and cosmic nutrition streams and the etherization of the blood occurs in the human body, and, consequently in one's own spiritual development. Plasma generators are some of the most powerful direct current generators in use today. To produce direct current, the generators stream a heavy-metal impregnated gas/plasma (a conductor) across an open magnetic gap. In a closed system these generators will keep going once started and continue as long as the magnetic field holds and the gas/plasma keeps passing over the gap in the magnetic field.

Magneto-hydrodynamic generators are capable of transforming thermal energy and kinetic energy directly into electricity. Likewise, the magnetic energy of larger systems such as the earth and sun are generated in a similar fashion.

The circulation of the blood throughout the body by the beating heart produces enough kinetic energy to establish a field of magnetic force in and around the heart and torso. As the blood stream passes through the heat of the lung/blood exchange, the presence of iron and other metals establishes the metallic fluid necessary to create this MHD dynamo. Blood also acts like a gas.

Near the heart is a flame about the size of a human thumb. A small furnace driven by the breathing process. The little flame arises from the interaction of the lung passing the warmth of oxygen to the heart. When the heat from the lungs creates this flame between the lung and heart, the metal-laden gas of the blood flows through this gap. Here, direct electrical current is established. Both electrostatic and electromagnetic forces create a torus of energy in a coherent field of bio-electromagnetic energy.

The energy created by this human MHD generator is far beyond the previous attempts to explain bioenergetics as a simple transfer of cellular energy. The human heart creates a field of magnetism that extends up to fifteen feet. This energy field is basically the center of three fields of force: one in the heart, one in the brain, and one that extends from the combined three lower chakras.

These centers of energy production in the brain, heart, and lower abdomen relate to soul capacities that also find their centers of activity in these three areas. Thinking finds its home in the brain, feeling in the heart, and willing in the three lowest chakras.

It only takes modern science to examine the three centers of vital forces (thinking, feeling, and willing) to reveal a wealth of information about the resonant fields of morphic energy that are created by these plasma generators. Still little understood by science, the three centers generate a tremendous amount of energy. Although scientists may use instruments to determine accurate measurements of this energy, they still have not yet discovered its source and nature.

Interestingly, these fields of force have been found to resemble the Van Allen belts of the earth that create and maintain the magnetic fields of the globe. These donut-shaped fields of force are called toroidal fields, which are the key mechanisms for thinking, feeling, and willing. When activated by consciousness through practices such as yoga, meditation, prayer, or contemplation, these forces evolve to become the spiritual forces of Imagination, Inspiration, and Intuition.

Here is the key: the processes whereby these toroidal fields of force come into being and are sustained are directly connected to the earthly and cosmic nutrition streams. They constitute the manifested energy that arises from the expansion of consciousness. When nourished properly, both physically and spiritually, these force fields are potentially unlimited, giving the aspirant the ability to attain unlimited spiritual power.



To view this chapter in a multi-media format:
<https://neoanthroposophy.com/2021/01/16/three-fields-of-force/>

Great Thoughts About the Heart

“A good heart is better than all the heads in the world.”

Edward Bulwer-Lytton

In researching the human heart, we encountered many great minds who have concerned themselves with the mysteries of the heart and brought forward their best perspective on the central importance of the cardiovascular system for health and spiritual development. One could extract a summary of these ideas to share the content, but we felt it was important to present these diverse opinions in the original words of the author so as to not lose the poetic quality of their insight. Each author shares their own penultimate expression of wisdom concerning the heart in words that cannot easily be abbreviated or condensed. Therefore, we have chosen to present these concepts in somewhat long quotations that give the flavor and emphasis of the original. Much of the content is also found in the quotations of Dr. Rudolf Steiner found later in the article in Chapter 5 in a different form. Each of these authors build their view of the human heart upon Steiner's indications and try to take that content further through their expression of spiritual scientific facts that are part of their own understanding and interpretation.

The Heart, Sue Pegler

“The heart is a dance hall and a meeting place where opposites meet and polarities exist side by side: where opposing spirals twirl without interrupting each other. It is a place with an immense richness of nerve endings, a second brain of sorts. The heart is a space that is the inside-out in time, **the fourth dimension of inner space and time.** It is a place where etheric or life force streams come in from the world through nourishment and the senses. These streams are mediated in the heart through the interplay of pulse and breath. It is a place where the soul or emotional life builds pictures of the world and expresses them through speech and movement. The translation of inner intention to external deeds happens in the heart.

It is **the seat of conscience and morality. Through the experience of another's heart space or love, new links to the world are forged.**

The heart is the organ of self-realization and self-consciousness. It is **the central organ of reflection and integration** and can respond flexibly to the demands of the whole organism. It is **an organ of love that practices the gesture of giving and receiving** but does not act out of power.

The volume of blood that leaves the heart at any time is regulated not only by the venous return, but also by the hunger of the organs for oxygen and food. The heart is formed by the spiraling flow of blood. The spiral tendency arises when time enters space and develops towards a center. As the blood moves through the heart, spiraling in vortices, it reaches a still point. **In each heartbeat there is a brief moment where the blood stops – a moment of death, a moment of eternity.** Finding this still point means finding **the harmony of inner coherence between heart and brain.** From this inner coherence, one can begin to work towards harmony and coherence with the environment.”

The Art of Perceiving from the Heart, by Paul Salkovskis

“Perceiving is not just hearing, seeing and listening. Perceiving from the heart goes further than that. It is feeling, sensing, knowing how to listen without judging. It's having no prejudices, savoring life with all its flavors and touching reality with all its textures.

We now know that the art of perception depends on many different factors: our motivation, our emotions, culture, intuition, past experiences, and expectations. Essentially, everybody perceives the world differently.

Perceiving from the heart has to do with sensitivity and openness. It is the ability to not only retain what our senses convey to us, but also to apply resolve, feeling, empathy and intuition in order to get to deeper interpretations. It allows us to be more aware of things, nature, people and the world.

Perceiving from the heart is also one of the highest abilities that human beings can develop. It allows us to **synchronize our senses (brain) with our emotions (heart) using our experiences.** We do it with objectivity and a love that invites us to see the world through the lens of respect and consideration. **Let's learn to perceive our surroundings with more awareness, openness and, most of all, heart.**

The perception of spatial layout is influenced by emotions like fear, disgust, social support, and sadness that can actually produce changes in vision and audition – change perception. The perceptual system is highly interconnected, allowing emotional information to influence perceptions and influence cognition. Taking the adaptive significance of emotion into account allows us to make predictions about when and how emotion influences perception. **Emotion influences perception and states or capabilities of the body can alter perception.”**

Heart Lectures, Ehrenfried Pfeiffer

“The radiation from this etheric organ of the heart is actually developing into a spiritual sense organ. **A new sense organ is developing in this etheric heart, and this is the only organ by which man is able to sense and to recognize the Etheric Christ.**

In our time there are certain changes taking place in the heart, by which gradually **a fifth chamber will develop.** In this fifth chamber man **will have a new organ** which will allow him to control life forces in a different way than is possible at the moment.

The heart is not a pressure pump, but an organ in which the etheric space is created so that the blood is sucked to the heart rather than pumped.

In discussing the blood circulation and the motion of the heart, Rudolf Steiner said that with some people the heart is not quite in its proper place. He said that in the case of dancers, the heart is moved from its proper position on the left to the right side. When

this happens, it makes man more perceptive in an inner way to the influence of his surroundings.

Together with the wrong concept of the heart as a pump is connected the fact that we have a wrong social life today. **A healthy social life can develop only if the old pump-concept is removed and is replaced by the proper one.** He said that only when people know that **it is the invisible in man which moves the heart**, will it be possible to construct proper machines and to solve social problems.

The heart is a different muscle because its fibers are laid down differently, and also it is a hollow muscle. The fact that it is a hollow sphere brings about an inner motion, because there is empty space inside.

Concentrate your entire God-made Cosmos to a center, and from this center radiate outward what will someday be a new cosmos. **This is what makes the heart move, the motion which radiates out from the heart.**

The etheric center of the heart draws the blood towards it and then pulses out again. Here is where **substance is transformed into ether, and forms rise up to the etheric brain and thence to the physical brain so that it can function and so that there may be harmony in the organs of the body.** The organs and their functioning are regulated by what takes place between the etheric heart and the etheric brain. Through this heart muscle, with a hollow sphere and etheric center inside it, pulses the blood. The blood enters the heart with its four chambers. Between the second and the third chamber it goes to the lung to be regenerated, and from the fourth it goes out to the body again. **There is no pulse in the main vein which brings blood to the heart – there is no pressure – it is taken from every vein by suction.**

In the lung, with its oxygen, the blood is touched by the outer world. The old, poisoned, used up blood goes back from the lung as regenerated blood. There is really a constant dying and regeneration. New blood is really born. **The heart is the only muscle that only gets tired once (except if diseased) and that is in the moment of death. This shows the eternal youth force in the etheric heart; the heart lives entirely in cosmic rhythms.**

Changes in the heart take place with everything we eat. The secret of digestion is that we do not take foreign matter into our system, but all foods are broken down and their forms are changed. Indigestion takes place when this process has not been carried out. This imposes action on the heart. **The heart has the task of regulating everything and the blood mirrors everything that happens in our body.** The kidney in a healthy person is able to filter out sugar from the blood. Then at another point, in the glomeruli, the blood reabsorbs the sugar. It is necessary that the sugar be out while the blood is being purified in the kidneys, then it is returned. Through the lung the blood is regenerated, through the kidney the blood is purified, and the heart cooperates in both these processes.

At the moment when a person becomes spiritually active, at that moment the composition of the blood changes again.

With every pulse of the heart a certain amount of substance is absorbed, is taken away as physical pressure and added to the etheric substance. This then begins to radiate outward. A clairvoyant can see the amount of radiation that goes up from the heart to the brain. **The radiation from this etheric organ of the heart is actually developing into a spiritual sense organ.** A new sense organ is developing in this etheric heart, and this is the only organ by which man is able to sense and to recognize the Etheric Christ. "Not I, but Christ in me" has to work through the etheric heart, transforming substance into pure ether, pure radiance.

If you become aware of the heart as a spiritual organ, you begin to develop the power to see the Etheric Christ. You do this by realizing that **the force in the heart is the same as the force in the sun**, physically as well as spiritually.

It is a peculiarity of the heart that it is the only bodily organ which is self-maintaining. This is because the blood going through the heart also nourishes the heart. The coronary vessels around the heart are like hands holding it. These coronary vessels nourish the heart and take away the used up substance. The etheric is not able to take up the impact of physical things on the heart. So it becomes stiff or clogged. We can then suffer a sudden end. Modern scientists also know that **fear or despair bring about an**

increase of these diseases. These diseases come because the heart does not get proper spiritual nourishment.”

Clairvoyance and Consciousness, The Tao Impulse in Evolution, by T. H. Myer

“The present day sense organs were laid down during the time of Old Saturn. The heart, on the other hand, has only developed during the Earth evolution. The senses, therefore, have a very ancient past. By comparison the heart is only at the beginning of its evolution; this is demonstrated by a peculiarity of its anatomical structure; it possesses striated muscles which are otherwise only found where muscles can be activated voluntarily. **The heart is therefore predisposed to become a voluntary muscle** and will reach perfection (even if not in a physically material form) during the future evolutionary phase of the Planet Vulcan.

It is evident that such “**time-secrets of the physical body**” were known about in Hibernia by the ‘Great Initiate of the Secrets of the Physical Body’, Scythianos.”

On the Human Heart and its Mission, by John Barnwell

“Just as love is felt as a heart-force; so conscience is the action of this heart-force resonating in harmony with the life of thought. This is the ‘still small voice’ spoken of in the *Gospel of John* - a golden seed planted from above - that must be nurtured. And so, the acts of will that freely arise through this heart-force - or negate it - will determine the totality of your character; and, as a result, your future life and being.

For if you lack conscience, you are not yet truly human, not yet truly living; but only sleeping within an illusory dream of life. Within this dream you are but merely a shadow of life - waiting for humanness to arise - needlessly creating more pain and suffering for oneself and others.

There are those that may never find this; **be kind to them that they may find a way through their self-created cold world of darkness to the heart-force of warmth and light** of which I speak. I have pondered this my whole life, and I am convinced this is really all one needs to know in order to find a sure path to wholeness as a truly human being.”

Matthew (6:19-25)

19 Lay not up for yourselves treasures upon earth, where moth and rust doth corrupt, and where thieves break through and steal:

20 But lay up for yourselves treasures in heaven, where neither moth nor rust doth corrupt, and where thieves do not break through nor steal:

21 For **where your treasure is, there will your heart be also.**

22 The light of the body is the eye: if therefore thine eye be single, thy whole body shall be full of light.

23 But if thine eye be evil, thy whole body shall be full of darkness. If therefore the light that is in thee be darkness, how great is that darkness!

24 No man can serve two masters: for either he will hate the one and love the other; or else he will hold to the one and despise the other. Ye cannot serve God and mammon.

25 Therefore I say unto you, Take no thought for your life, what ye shall eat, or what ye shall drink; nor yet for your body, what ye shall put on. Is not the life more than meat, and the body than raiment?

The Heart as an Organ of Perception, by Charles B. Parselle

“Dr. Harvey made the discovery in London that the heart functions as a pump for blood. Until then, the teachings of the Roman physician known to us as Galen, who taught that the blood moved with a kind of pulse or wave motion, had been treated as the established orthodoxy for more than fourteen hundred years. Modern research tells us that the heart is simply incapable of pumping blood through the 60,000 miles of blood vessels in a human body, and that Galen was partially right. Certainly the heart muscle

functions as a powerful pump, capable of throwing a jet of water vertically ten feet into the air, but to pump two gallons of blood per minute through 60,000 miles of blood vessels would require a pump capable of throwing a 100-pound weight a mile into the air.

Today we know that **the heart emits powerful bio-electromagnetic impulses with every heartbeat and is by far the most powerful such transmitter in the human body.** Shortly after conception, the collection of cells that make up **the beginnings of an embryo begin to pulsate, and those pulsations are electromagnetic.**

The developing embryo perceives nothing but the steady heartbeat of its mother. The embryonic heart develops long before the embryonic ear, which hears first only the rush of blood, but **the developing embryo starts to interpret the mother's heartbeats, and those electromagnetic transmissions are interpreted as emotions.** The four principle emotions are sad, mad, glad and scared, just as the four basic tastes are sweet, sour, bitter and salt, but from these simple bases we combine and interpret an enormous range of information. **The heart is a transmitter and interpreter of emotional states.**

Although our science has been slow to recognize **the heart as an organ of feeling and perception,** our language is in no doubt. Consider the plethora of heart-based expressions in English usage: heartfelt, from the bottom of my heart, I wish with all my heart, with heart and soul, heart-stricken, heartsick, heart-rending decision, heavy-hearted, lighthearted, with an innocent heart, a black-hearted villain, the heart has its reasons that reason cannot comprehend, our hearts are joined as one, I heartily agree, and so on. As a culture, our hearts are uneasy, which is why diseases of the heart are the commonest cause of death.”

The Harmony of the Human Body, by Armin Husemann

“Two opposing streams interpenetrate in the human being – **a sculptural generative stream in the physical vehicle of the arterial blood and a musical stream**

which is embodied in the venous blood as the vehicle of degenerative processes. The “I” uses the sculptural stream when we move and act, the musical stream when we sing, speak and think.”

The Heart-Mind Matrix, by Joseph Chilton Pearce

“There is only one heart, Baba explained, “the one beating in my chest is essentially the same as the one in you. Billions of egos in heads up there, but only one heart.” He further claimed that **in the center or “cave” of the heart, there is a point from which the entire universe arises and radiates outwardly.** Meditate on the heart long enough and you will begin to sense the presence of these wave-forms enveloping you like a warm cocoon of love and power. As Earth’s magnetic fields stream out into space, so the heart’s electromagnetic field streams out beyond our body. These magnetic waves of heat and Earth fuse or merge in varying ways, depending on the coherence of our heart’s field. **Coherent heart-fields merge into Earth’s radiating fields, which, in turn merge with those of the Sun.** Thus, we are incorporated into and reciprocally interact, directly and indirectly, with this whole solar system, to the extent our heart-fields are coherent.”

The Mystery of the Blood, by James Dyson

“The blood is that organ through which all these substance processes are inter-connected, mediated, held in a condition of openness to influences of temperature, pressure, hormonal variations and much else of a more subtle, ever cosmic nature.

Red blood cells have essentially sacrificed their life, yet they carry on functioning. They are the only cells in the body which have died and are not excreted or metabolized. They remain in a state of suspended animation for about 120 days. They carry hemoglobin and combine with the oxygen in the lungs as one of the main gases involved in the processes of cellular respiration.

Within each of these red cells the iron prevents a death process which then allows the entire organism to continue to live through carrying the process of oxygen into the depth of the organism. White blood cells digest and sacrifice themselves in the process of dealing with foreigners in order to protect the integrity of the inner space of human immunity; they maintain physiological integrity and separateness from the outside world. They conceal some of the deepest mysteries of human existence and they guard the very foundations of our earthly life and destiny. Steiner connects the red blood cells to the phosphorus “substance process.” Phosphorus exists in a bound form in which its energy remains hidden in the realm of potential and in a free form after the energy has been released. **Red blood cells are a kind of organ of breathing in their own right, holding the balance between the free and the bound phosphorus, between energy that is realized through a spiritualized process of combustion and energy which is held back as potential.**”

The Dynamic Heart and Circulation, by Craig Holdrege

“We cannot understand the heart’s activity unless we consider the blood, peripheral circulation, and the metabolic activity of the other organs. The heart is continually adapting its activity to the needs and state of the body and person as a whole. Changes in the blood’s pressure, viscosity, warmth, and biochemical composition are communicated to the heart. This communication is mediated by the nervous system, hormones, and heart and blood vessels sensory receptors. **The heart therefore exists as a perceptive center for the body via the circulation. The heart is a sense organ for the organism, enabling it to perceive what transpires in the upper and lower poles of the body.** The heart does not just perceive what comes to it via the blood. It also alters its activity based upon its perceptions. The heart secretes a hormone in response to the changing consistency of blood. If the blood is too viscous, it secretes a hormone named natriuretic peptide into the blood, and the hormone stimulates the kidneys to secrete more water into the blood. **The heart muscle itself is a source of warmth for the blood, while the peripheral circulation can expand and contract to give off or contain warmth.**”

Enlivening the Chakra of the Heart, by Florin Lowndes

“True human love is rooted in the spirit. Wherever such love is truly avowed and truly received, impulses will invariably be present which prepare the way for a real **logic of the heart**. The logic of thinking can lead to the greatest egotism. **The logic of the heart is capable of gradually overcoming egotism and making all people part of an all-encompassing human community.**

The six virtues (*control of thoughts, control of actions, perseverance, patience, faith, and equanimity*) combine to form **the six lotus petals of the heart** that are being developed in our time. The other six petals have been developed in previous incarnations.”

The Human Organs, by Walter Holtzapfel

“The sense-perceptible physical appearance receives life from the etheric body, is animated by the astral body and integrated by the ego. The etheric body is active in the liquid element, the astral body in the aeriform and gaseous processes and the ego in the warmth differentiations. It is the feelings of the soul which give rise to the movement of the blood; **the soul drives the blood**, and the heart moves because it is driven by the blood. **The heart speaks with the inner voice of conscience**, audible only to each individual alone.

But what is suffered involuntarily by man today, will later, at a higher stage of evolution, be in his own power. Later on he will drive his blood by his own volition, and cause the movement of his heart as today he moves the muscles of his hand. The heart with its peculiar structure is a crux, a riddle for modern science. It has diagonally striped fibers, which are otherwise only to be found in voluntary muscles. Why? Because **the heart has not yet reached the end of its evolution, but is an organ of the future; because it will in the future be a voluntary muscle.** Thus it already shows the rudiments of this in its structure.

Four organs characterize the predominance of one of the four elements, the lung by the predominance of the earth element, the liver by that of the watery element, the kidney by the predominance of the element of air, and **the heart by the predominance of the warmth element. In the warmth there lives the ego.** The warmth is the true element of the human ego.

Warmth and the Heart, The Human Ego Organization, Heinz-Hartmut Vogel

“The heart is actually a universal organ which develops a unique and simple polarity in its anatomy and function by **uniting center and periphery**. In rhythmical alternation the periphery becomes center and the center becomes periphery. **The individual self is carried out into the environment and the outer world is brought into one’s inner world.** We call this balancing force the “I” or Ego. We actively identify ourselves with our “I” in the confrontation and harmonizing of our being with the surrounding world.

The heart and circulation together form the central organ of the Ego organization. The Ego organization, working by means of the “connective tissue foundation system” and intermediate metabolism, maintains rhythmical order in the physical organism. In the heart, the polar streams of venous and arterial blood come into direct contact. The right venous heart is subject to an endothermic warmth process, the left arterial heart to an exothermic warmth process. In the interstitium between the right and left heart and capillary systems, the regenerative metabolic process and form-giving nerve-sense process are harmonized. **The silica process serves the balance-creating Ego organization in the heart.**

Ego activity and Ego organization (individualized warmth or Ego warmth and the silica process) largely coincide in the blood, which is the organ of the Ego. Silica as substance is found in the blood only in the minutest quantities. Consequently, **the Ego is active in the blood almost exclusively as warmth of will, and only to a limited extent in its sense perceptive nature.** From this point of view, the heart is clearly more of a sense organ than the blood.

The Ego in the physical body lives in warmth. **The Ego organization** makes use of the silica process in order to work in the physical; but only in such a way that it **continually overcomes silica as substance and is freed from it**. Through warmth activity, the Ego organization dissolves physical form. The substances taken up in nutrition are first destroyed and then new substances are formed.

In their anatomical construction and their energetic function, the right and left heart repeat the polar formative principles of the **venous liver process and the arterial kidney process**.

Myocardial infarction stems from a failure of the balance-creating warmth/silica organization which is the physical carrier of the Ego organization. Following this, the upper nerve-sense man and lower metabolic man become dissociated. These processes strike directly against one another in the left heart. Here **the arterial blood process is most strongly exposed to the influence of the catabolic sense-nerve process**. Thus it is the left heart that failure of the Ego organization and silica process takes place. Therapeutic indications have been given by Steiner for this situation.”

The Bleeding Wound of King Amfortas, Karal Jan Tusenius

“As the largest and least formed organ of the body, the blood is par excellence the bearer of the field of tension between physical substance and the working of processes. In the periphery, where the blood flows through capillaries, and to a certain extent leaves even these smallest of blood vessels, the **blood** is much less substantial and not, or **hardly, subject to gravity**. Thus, there arises in these areas the possibility for **the activity of non-physical influences**. The rhythmic alteration between concentrating and diluting, between major and minor circulation, between the large vessels, the heart and the periphery, thus represents the interaction between the congesting and the sucking activities of the heart and the peripheral tissues. In this, **the heart plays a sensing (nerve-sense) and an impelling (metabolic) role**.

The blood is a suspension of cells in plasma, a solution of protein and salts. The principal component of the blood plasma is water containing dissolved ions and three classes of

proteins; carrier proteins, coagulation proteins, and immunoproteins. The blood cells consist of red blood cells (erythrocytes), platelets and white blood cells (leukocytes). The main function of the red blood cells is to carry oxygen to the tissues and to return to the lungs carrying carbon dioxide.

Platelets work with the coagulation proteins to defend the circulatory system in the event of laceration or rupture.

The normal function of white blood cells is to defend the organism against infection. So both in the plasma proteins and in the blood cells there is an interesting tripartite division consisting of, first:

Salt principle: carrier proteins and carrying, hardly vital, red blood cells

Mercury principle: coagulation proteins working together with the half-vital platelets in the field of maintaining a balance between structuring and dissolving processes

Sulphur principle: immunoproteins and vital white blood cells, being the most autonomous and active part of the blood in the defense mechanism

Leucocytes, **white blood cells, are described as the expression of a process of self-consciousness, the I, an ego activity.** Leucocytes, which at the present time are still fulfilling their task in secret, are described as the seeds of future consciousness. The immune process of the blood seems to display to a high degree aspects of the preservation of the identity and of personality, which is characteristic of ego function. **The human ego enhances the fluidity of the blood.”**

Polarity of Center and Periphery in the Circulatory System, by Heinrich Brettshneider

“The arterial system, is a biological system that slows down blood flow, increases the pressure wave amplitude and transposes pressure pulsations into a higher octave by breaking each pressure curve into two peaks. In other words, **it is both a biological flow resistor and a biological pressure amplifier, that is, a pressure wave**

resonator. Approximately 85% of the body's blood encounters almost no resistance to its flow, that is, **it flows without being under pressure.** The so-called low-pressure system includes the capillaries, the venous system, the right side of the heart, pulmonary circulation, and the left atrium. This low-pressure system is the polar opposite of the high-pressure system in that it relaxes in response to increased pressure and contracts in response to a drop in pressure. It is also capable of counteracting pressure without recourse to central nerve activity. Flow is inversely related to pressure. When the flow increases, pressure readings fall.

Physiological blood flow in the capillaries is highly independent of anything correlated with the movements of the heart, since there is absolutely no relationship between the cardiac cycle and the flow velocity of the blood in the capillaries themselves. Oxygen consumption in the tissues is the only measurable factor that has been shown to increase consistently in proportion to the flow of blood. Blood production by the tissues expands the vascular system, thus producing the pressure that fills the heart with blood.

The function of the heart, with regard to the blood returning in the veins, is to regulate resistance. Human blood is two-thirds venous by volume and only one-third arterial. The blood always flows faster when the venous return increases and the total resistance to inflow exerted by the heart and vessels decreases.”

Human Heart Cosmic Heart, by Thomas Cowan

“Blood actually stops moving in the capillaries, which is necessary for the efficient exchange of gases, nutrients, and waste products. **After the blood stops moving, it oscillates slightly, and then begins to flow again as it enters the veins.** The capillary system is massive; if it were spread out, it would cover at least one entire football field.

Water exists in not three but four “phases.” **The fourth phase is an intermediary between liquid, or bulk, water and the solid phase of ice.** There have been many names given to this fourth phase. Pollack calls it the exclusion phase, gel phase, or

structured water. He describes in his book, *The Fourth Phase of Water*, how structured water forms. Any time you have a hydrophilic surface such as gelatin or nafion (a plastic) and you put it in water, a zone of structured water will form. This zone is sometimes referred to as the exclusion zone (EZ) because it excludes toxins, solutes, and other substances. The thickness depends on the charge on the surface of the hydrophilic substance and some other factors. This fourth phase of water forms best at certain temperatures (around 4 degrees C), and it highly structures the bulk water near it.

The ability of highly hydrophilic substances, especially proteins, to structure water is central to biological life. **The majority of the water in biological systems, including cells, is in the form of structured water.** The cytoplasm in our cells is in a gel-like state because of the network of hydrophilic proteins that **make up the interior framework of the cell.**

As water becomes structured, the electrical charges separate. The structured water becomes negatively charged while the bulk water is positively charged. There are many interesting properties of the structured water that forms right next to these hydrophilic surfaces. These include having an increased viscosity compared to bulk water near it. The structured water layer is also negatively charged as a result of having an abundance of free electrons. The presence of these free electrons is an intrinsic part of the structuring process of water **As the water becomes structured, it also becomes negatively charged. The pH of the structured water zone is different from that of the bulk water.** The molecular configuration of the structured water zone is more dense than that of bulk water simply as a result of a hydrophilic surface being placed in bulk water, with essentially no outside inputs, a layer of structured water forms next to the hydrophilic surface that has a different chemical pH, electrical voltage, and molecular configuration (density) than bulk water.

If you take the hydrophilic surface and roll it up into a tube, you produce a hydrophilic tube with a layer of structured water lining the inside of the tube. As a result of the separation of the electrical charges – the natural and inevitable consequence of the interaction of a hydrophilic tube and water – the bulk water will begin to flow from one end of the tube to the other and then out. This flow will be indefinite, unless acted upon

by a force that stops it. All you need to do to get water to flow, and for mechanical work to be done, and for it to be done indefinitely, it to put a hydrophilic tube in a pot of water. This creates a “perpetual motion machine!”

There are four phases of water, but for biological life two are most important: **The structured water phase creates the electrical charge that does the work, and the juxtaposed bulk phase simply flows.** There are many sources of natural energy that drive this flow, but the most important is sunlight. Sunlight charges the hydrophilic tubes and creates the electrically charged structured water, causing the bulk water within the tube to flow indefinitely, as if life were just a big, blissful, abundant dance.

Knowing this, it is easier now to imagine how blood flows in our arteries and veins. Start at the precise place and moment where the blood in the vast network of capillaries has stopped, the gases and nutrients have been exchanged, and the waste products have been picked up. The blood needs to flow upward, coalescing into larger and larger vessels until the venous blood reaches its destination of the heart. The small venules are very narrow hydrophilic tubes; they are exposed to sunlight that pick up the Earth’s electromagnetic field, and hopefully they experience the warmth and touch of another human being or animal. As a result, they, too, form a tubular layer of structured water on the inside of the venules. At the center of this layer of structured water is the positively charged bulk water with squeezed protons repelling each other. The blood begins to move upward. It goes faster and faster as the large “field” coalesces in a raging central river. There are, of course, contributions to this upward movement from the squeezing of the muscles of the legs and arms, but they are mostly helpful to maintain the spiral movement that support the flows. There are also valves that keep the blood from succumbing to gravity if there are weak moments in the flow. **The bulk water carries the waste and nutrients, and the structured layer creates the voltage or energy that runs the systems. Life in all living systems, we are powered by the Earth and sun.**

Pollack refers to the thick, viscous structured layer lining the vessel as the exclusion zone because it excludes toxins, solutes, and other substances. This layer protects the vessel from inflammatory damage. When the structured, protective gel layer is not formed properly, the vessel walls become damaged and inflamed. They protect themselves from the high pressure by forming plaque.

Viktor Schauberger observed that for a stream or river to be healthy, first the flow pattern of the **water must be in a vortex or spiral flow pattern**. The second is that the temperature of the water, particularly at night, must be very close to or exactly **4 degrees C (9.2 degrees F)** – the temperature that water is most likely to exist in the fourth, or structured, phase of water. When water is healthy, according to Schauberger, it results in a **balance of the forces of gravity with the forces of levity**. He was even able to observe in a waterfall a channel of light within the streaming water. This light was the force of levity that flows upward in vortices in the river. This force of levity allows for the effortless flow of water and is dependent upon certain conditions of temperature and flow dynamics (spiraling or vortex-based patterns). This is the natural state of structured water. **Schauberger's natural state of structured water is also the basis for the flow of blood in our circulatory system.**

In nature, fluid motion often chooses to spiral rather than stream linearly. A beating heart, with its helical myofiber architecture and twisting-untwisting motion, also reveals **spiraling streams of blood flow**. This mechanism is highly conserved in vertebrates. Why does nature choose to move blood in a helical manner, and how does that make normal cardiac function efficient? These are important but complex questions that are just being answered.”

Healing Sounds: Fundamentals of Chirophonetics by Alfred Baur

“Rudolf Steiner has often pointed out that in many respects we should regard the heart as a sense organ. It perceives the nature of the blood passing through it, therefore, we can justifiably **compare what takes place in the heart with a sort of taste perception**. The rhythmical movement is probably the fundamental basis of its sensory activity. The activity of the heart implies a center, which looks into and actively perceives a wisdom-filled moving and living environment.

In the vortex process within the heart we can find that sensitive chaos which can sense how the blood flows. From the movement of the blood it can sense how the fluids are mixed.

The blood pulsates in accordance with the predominating temperament of the moment. The “mixture of blood” is equivalent to the pulse which skips, thumps, creeps, or drags. How a person deals with life depends on the nature and mixture of this “special fluid.

The will to act is based on the metabolic processes of the blood.

The heart is the result of the circulation of the blood, and not the reverse, because the blood already circulates long before the heart of the embryo is formed. **The heart just listens**, experiencing the quality of our deeds through their influence on the movement of the blood. Then another mighty transformation of the heart occurs: **the content which has been absorbed while listening is poured out into the world.**

The contents of the inverted experiences which were absorbed in one incarnation are now poured into the external world and thus karma can express itself. **Now one can perceive what the inverted heart of the past incarnations are poured outward, and from outside our destiny comes toward us.** It is the contents of our heart from a past incarnation which have been thrust out that now obstruct our path.

We must seek the source and origin of our ability to speak within the human heart. **For the etheric forces of the heart overflow, and this surplus of life-force creates the necessary preconditions for articulation in the mouth.** If the heart retained its abundance, the result would be an excess of vitality, and man would possess the physical strength of a lion. In this overflow, however, the activity of the heart is transformed into the activity of articulation. The same etheric forces which pulsatingly structure the blood-flow in the heart are now raised to a new level, and they sub-divide the breath.

The Heart Perceives

The sensory activity of the heart is based on the perception of the blood’s movement. This varies according to the qualitative consistency of the blood. The heart perceives the temperament of the blood.

The Language of the Heart

The heart is not a pump. **The blood is set into movement through hunger for breath or nourishment. The heart articulates the flow of the blood as the tongue articulates the breath.** Articulation is a metamorphosed event of the heart.

The Heart as a Tongue

The heart listens to our deeds. It stores the moral value of our deeds within itself. Its contents flow into the world in the following earthly life. Then the contents of the heart from the past incarnation **speak as the language of destiny.**”

Functional Morphology, by Johannes Rohen

“The sinus node is one of the major elements in the cardiac conduction system, the system that controls the heart rate. This stunningly designed system generates electrical impulses and conducts them throughout the muscle of the heart, stimulating the heart to contract and pump blood. **The sinus node is the heart’s natural pacemaker.** It consists of a cluster of cells that are situated in the upper part of the wall of the right atrium. The electrical impulses are generated there.

The electrical signal generated by the sinus node moves from cell to cell down through the heart until it reaches the atrioventricular node (AV node), a cluster of cells situated in the center of the heart between the atria and ventricles. **The AV node serves as a gate that slows the electrical current before the signal is permitted to pass down through to the ventricles.** This delay ensures that the atria have a chance to fully contract before the ventricles are stimulated. After passing the AV node, the electrical current travels to the ventricles along special fibers embedded in the walls of the lower part of the heart.

The autonomic nervous system, the same part of the nervous system as controls the blood pressure, controls the firing of the sinus node to trigger the start of the cardiac cycle. **The autonomic nervous system can transmit a message quickly to the sinus node so it in turn can increase the heart rate to twice normal within only 3 to 5 seconds.** This quick response is important during exercise when the heart

has to increase its beating speed to keep up with the body's increased demand for oxygen.”

Life Processes in the Blood Organization, Hemsworth Brüder von Laue

“The gradual **refinement of matter in the human being is always happening in the blood**. With the aid of the blood, food units are taken hold of in the intestines and metamorphosed into living body substance sustaining the soul principle and responding to the I. This ascending metamorphosis is matched by descending, eliminatory activity producing excretions. **Blood is thus the key organ for separation, holding the middle position among the life processes**. It provides tools for acting outwards against the foreign nature of the environment and, on the other hand, tools for acting inwards in building up the body. **It “potentizes” substances in the human being, taking them from their ponderable state to live quality, a state where they become vehicles for soul and spirit.**

Considering the blood against this background, it is immediately apparent that the life processes active in the different blood functions are vastly different.

1. Breathing (taking in)
2. Warming (adapting)
3. Nutrition (repelling, analyzing, destroying)
4. Separation (separating)
5. Maintenance (maintaining)
6. Growth (growing)
7. Reproduction (renewing)

Let us take the transport/inhibitory function. The blood takes up substances in infinitely many sites. In the lung it is most open to the environment, taking in air. In the organism it takes up substances everywhere. This intake is only possible because all the different substances are immediately wrapped up, so that they will not react according to their inherent nature, which only comes into play again when the blood lets go of the substances, separating them out - oxygen in the tissues, transferrin iron in the bone

marrow, carbohydrates in the liver, etc. **The maintenance and growth function of the blood takes effect in liver and bone marrow, not in the blood itself.** Nor do we find adaptation and repulsion processes in the blood that might affect the blood itself. The inhibitory/transport function involves only the first (intake) and fourth (separation) life processes.

The coagulation system serves to maintain the surface areas of the organism to keep inner and outer worlds apart. The system is activated when an injury has occurred. The adaptation process comes into play as viscosity changes, with fibrin hardened. It does not go against the environment but lets the vitality of the blood be frozen to a point where maintenance of the whole is assured. This, the second process, is activated so that the fifth (maintenance) may come into action.

The system of nonspecific inflammation in the organism becomes active when foreign life has entered into the organism or tissues and been destroyed. Pathogens enter without active involvement of the organism. **As local inflammation develops, the blood slows down and grows denser, changing its pH (adaptation), granulocytes migrate to the site and provide tools for chemical destruction of the pathogens.** Apart from the adaptation process, this also involves repulsion. The goal of the inflammatory process is once again maintenance of the organism's integrity. No new ability (growth) is gained. The organism uses the second and third life processes (adaptation and repulsion) to safeguard the fifth (maintenance).

The physiological composition of the blood changes when one goes through inner schooling (macrocosmic or microcosmic). Steiner emphasized that the blood has a dual relationship to the environment. On one hand, the blood only enters into relationship with the outside world in such a way that anything it receives from it has been stripped of its own inherent laws; on the other hand, it enters into a relationship that enables it to approach the outside world directly. This happens when the blood flows through the lung and comes in contact with the outside air. It is then quickened by the oxygen from the outside air and configured in such a way that nothing comes up against this configuration to weaken it; the oxygen from the air does indeed approach the instrument of the human I in a way wholly in accord with the essential nature of the I.

Substances brought to the blood from below, through nutrition, must be carefully filtered so that nothing of their outside world character takes effect in the blood. In the lung, however, air from outside the human being comes to the blood directly (intake). The foreign nature of the air is only adapted to the organism by actively changing its humidity and temperature (adaptation). The foreign character of foods is changed in the upper gastrointestinal tract to remove all inherent laws from proteins, fats and carbohydrates. **The inherent nature of metals needs to be specifically inhibited and covered over in the blood.** The two ways of relating to the environment - openness to the environment in the Salt pole of the blood (red blood cells) and the shrouding of substance processes in the Sulfur pole (blue blood cells) - are polar opposites in the transport system of the blood, like positive and negative electricity.

If we ask ourselves in which area of the blood this process takes place, attention focuses on substances such as calcium and magnesium which are partly ionized and in solution and partly withdrawn from specific ionic function, which has outside world qualities, by being hidden in albumin or other inhibitory proteins. **A specific amount of free calcium ions must be present in the serum to make normal consciousness possible.** We cannot, of course, expect complete crystallization in the blood, but the ionic state is the precondition for and, hence, the first step towards crystallization. The free blood salts do, however, come closest to the process of crystallizing out in the blood. In the same Steiner lecture (GA 128), substantial changes in the blood are also described for feeling:

“The thinking process involves solid, salt-like principles being withdrawn from a fluid principle and being deposited. **Feeling has to do with some particles in the blood changing from a more fluid to a denser state.** The substance itself assume a denser condition due to coagulation.”

“The process of thinking is like a process of depositing salts due to an activity of the blood and, in turn, causing irritation of the nervous system; an organic process, therefore, that occurs on the border of the blood and of the nervous system. We know now that everything we have called conscious thinking activity, brought about by the I (human ego), comes to expression in a kind of extremely subtle salt deposition in the blood.”

A kind of blood coagulation is given as an image for feeling, characterizing the processes at the substantial level. A bit later Steiner compared the effect feeling has on the blood with the coagulation of liquid protein. We are not in the habit of considering feeling in conjunction with the coagulation system, with the different viscosity of protein in the blood. It is remarkable that the coagulation system follows on from the inhibitory/transport system just as feeling follows thinking in the order of soul processes. Sentience (feeling) prior to birth is also a process of coagulation: blood coagulates into the mobile muscle. Will impulses as courage to act, courage before action is taken, create temperature differentiations and hence the form and configuration of internal organs. **The will that performs the action reveals itself in temperature differentiations in bodily development that are connected with the functions of organs.** The crystallizing and coagulating processes run parallel to thinking and feeling respectively - in organ development before birth (bone and muscle) and in the way the soul uses the body (crystallizing and coagulation in the blood).

In *Occult Physiology* (March 27, 1911), the influence of the will on the body is described in a uniform way:

“The physical process that corresponds to our will impulses is a kind of warming process causing a rise of temperature in the organism, letting it grow hot, as it were, in a certain respect. **As this process is closely bound up with the whole pulsation of the blood, we may say that will impulses are connected with a rise in blood temperature.**”

We see that, **in the ordering system for blood proteins, thinking may be reflected in the forming of salts (Salt), feeling in the coagulation of proteins (Mercury), and will impulses in differentiated temperature processes (Sulphur).** The balances created between shrouding and release of salts (Thinking), coagulation and fibrinolysis (Feeling), activators and inhibitors of inflammation (Willing) create the conditions under which the I can come to realization in thinking, feeling and taking action.

Steiner spoke of soul processes in *Occult Physiology* (March 27, 1911) in the following words:

“The conscious I organization influences the human being from one side, the unconscious I organization from the other. **Whilst the blood, inwardly quick and mobile, follows the activity of the I as an adaptable tool, the other pole, the skeletal system, withdraws from the I’s active mobility to such effect that the I has no conscious awareness of everything that happens in the skeletal system,** i.e. that all processes in the skeletal system are entirely beneath the surface of the I occurrences that are actually conscious. Those processes are in accord with our I activity, but they are as dead as our blood processes are live; they are therefore essentially part of the processes of which the I has no conscious awareness, and which only rise in stages from the unconscious to the conscious level. If we take a detailed look at the skeletal system in its overall function in the human organism, we have to note that it withdraws everywhere from conscious life, and most of all from all organ systems. With the dead skeletal system, special emphasis is put on the configuration of the whole organism. These unconscious soul processes, which also act on the blood, are not accessible to our intentions but depend on the macrocosm and are mainly active prior to birth.”

“Whereas these solid inclusions in conscious life, i.e. in thinking, come to expression in the blood in a kind of mobile, active salt deposition process, the principle preparing the I comes to expression in the skeletal system in such a way that the macrocosm creates our skeletal system so that it consists largely of deposited salts. These are the resting element in us, the other, opposite pole to the highly active processes in the salt deposition processes in the blood. As human beings we are thus made thinkers in processes coming from two sides - unconsciously on one side, as our skeletal system develops, and consciously on the other, going through the same processes in full consciousness that in the organism present as the deposition processes of which we are able to say that they are inwardly active. **The salts produced as we think must immediately be dissolved again and removed through sleep.**”

For conscious thinking, we use the kind of salt production processes that have their model in the release of calcium from albumin and are always reversible. **Steiner relates salt deposition in the skeleton to the cosmic thinking in us of which we are not conscious.** This greater polarity between blood and bone is reflected within the blood in the lesser polarity between inhibitory/transport proteins and red

blood cells. The latter represent the Salt process in the blood just as the bones do in the greater system. Permanent deposition of salts in the bones metamorphoses into deposition of hemoglobin in the red cells. These cells are much more advanced towards death than bones are. Their shape is also a purer reflection of the spherical form of the macrocosm. **The unconscious, macrocosmic thinking process, the world thinking in us, comes to expression in bone salts, and in metamorphosed form in the red blood cells.**

The effect of a conscious inner life that is open to the surrounding world is reflected in the protein or Sulfur side of the blood. The action of the unconscious macrocosm's soul processes, which are also called thinking, feeling and will, is in bodily terms reflected on the cellular, the Salt side. The side where the blood is open and alive to the environment is closed to the conscious soul processes and vice versa.

If we consider the blood, it will indeed be full of significance for us, presenting as a very special fluid for, on one hand, the blood shows its essential nature as turning to the lowest, humblest realm below us, showing itself to be a form of matter capable of external chemical processes (O₂ uptake) so that it may be an instrument for the I. On the other hand, blood is the substance that is more protected, to enable it to achieve inward processes that cannot be achieved anywhere else for all other organ processes are necessary for this. **The most subtle processes of the highest order that are stimulated from the depth of our organism combine in the blood with physical and chemical processes of the kind we see all around us in the world.** In no other substance does the physical, material world we perceive through the senses come together so directly, demanding the presence, the activity of systems of forces that lie outside the sense-perceptible world - but only in our blood substance.

The cellular aspect opens the blood to the (unconscious) environment and is the instrument for an unconscious, macrocosmic inner life. The serum aspect shuts itself off from the processes of the material environment, enveloping the imponderables connected with the environment, which makes it the instrument for an independent, conscious inner life. At first sight, it may seem surprising to speak of the higher, conscious inner activity that uses the body as related to the lower blood processes which

are open to metabolism and, conversely, see the body-creating, sleeping inner activity as the basis of the aspect in the blood that is open to the environment. It reflects the polarity of life processes and soul processes, a polarity we find again and again. We perceive the archetype of the I organization in the organism - processes going in opposite directions are held in balance, thus creating the conditions for further development. **In the blood organ, we see this embryonic life in the immune system which is capable of development, remaining open to future organic development with its learning capacity.**

Bloods function lies in its ability to flow, its buffering quality, and the ability to take up substances and release them. **The coagulation system of the blood with its surface-preserving function and its sequential processes may thus be seen as a reflection of the ether body in the blood.**

The function of the nonspecific inflammatory system is to kill foreign life in the organism and remove it through pus. **Increased mobility, phagocytosis, elimination of inorganic and organic poisons point to activities under the control of the human astral body.** This, then, is where the astral body is reflected in the blood.

In the coagulation system the tools for activation and inhibition are clearly distinct. In the concerted effort of immunization there are no separate “helper” and “suppressor” cells, but every individual process is both at the same time. Every new infection results in a new imprint, new immunization. This learning process is based in the embryonic part of the blood. Our I organization brings order into the concerted effort.

We thus discover the threefold order of the blood, which reveals the Salt - Mercury - Sulfur forces with their configuring and process-ordering activities. The twofold order of the blood between the more embryonic, live lymph system and the image organs which develop through a sequence of metamorphoses, shows the relationship to past and future. There is also the sevenfold activity of life processes in the blood. **The unbelievably differentiated nature of the blood, which as a whole is an organ of the I, is remarkable.”**

Formation of a New Etheric Heart Organ in the Light of the Michaelic Mystery Culture by Ruth Haertl, Michaelmas, 2000

“Before birth etheric forces are drawn together to create the individual etheric body. These ether forces harbor substances which are taken from the entire cosmos. Rudolf Steiner tells us in GA 212 (May 26, 1922): “It is important to know that when we descend into the earthly world we draw into ourselves a kind of image from the cosmos.” **This first etheric heart configuration regarded as provisional or as inherited.** It remains with the child only until he loses his teeth as they ‘decay.’ It is cast off just as the teeth are discarded at age seven. The wonderful cosmic configuration of the starry images **fades more and more as the seventh birthday approaches.** This happens at the time when the child’s own etheric body is born.

Rays of ether configurations begin to form anew and strive from the periphery to the center. Here they accumulate around the physical heart and as they grow together, **the new second etheric heart is born.** It is the **individualized etheric heart** of the growing young person who matures from age seven to fourteen.

It happens through a process whereby bit by bit the new etheric heart replaces whatever dies off from the inherited heart. **The new heart is condensed from the entire world sphere.**

The astral body is restructured in a new configuration. **In the same area of the body in which the second etheric heart was formed as a reflection of the stars, sun and moon, the forces of the astral body establish an additional central organ.** These two organs weave in and out of each other as one central organ and in it are inscribed all deeds, all moral motivations, human intentions and ideas. Rudolf Steiner speaks of **a small box in which everything concerning our life is recorded.**

In the above-mentioned restructured astral body is a picture of all that which man has experienced in the spiritual world between death and rebirth. Great secrets are being inscribed into the astral body at that time. During youth they merge bit by bit with the physical and etheric organs, which harbor our deepest cosmic secrets as if imprisoned.

Out of the Ego which sympathetically connects with our astral body, these secrets as positive and less positive **intentions and motivations are being engraved into the etheric heart organ**. A joining together takes place of the ego with the etheric and the astral hearts. This means complete adjustment of individual karma with universal cosmic laws.

The Logos in the human heart becomes an organ of destiny creatively working in harmony with the etheric and astral sheaths as well as with the ego of man. It is the creation of our awe-inspiring heart organ. We may stand in awe and wonder when we fully realize the extent of the possibilities that are laid into our own hands. In complete freedom we can work on the structural configuration of our own etheric heart; the new heart which began a process of separating from the physical heart in 1721.

Rudolf Steiner tells us in GA 190 (April 5th, 1919) **that the physical heart swims in the sac of the surrounding separated etheric heart**. The physical organization has no part in the essence of thought because **it withdraws and creates a space for thought**. Man's thought is free and requires a "free space" to live. The will can be freed if the activity of thinking can be so strengthened that the ego is released slowly from the depth of the will. The majestic process of creating in freedom is deeply connected with the miraculous and creative work of the individual human being as he frees himself from that which hinders the rightful unfolding of the etheric heart. **We are talking about the etheric heart as an organ for future lives, an organ with an eye for karmic cognition.**

According to Rudolf Steiner, it is important that mankind creates a spiritual compensation, a counterweight to **the past, when the heart was a God-given, a God-protected organ**. Human beings must connect the separated etheric heart to the spiritual world through a transformed thinking and feeling life. In our age they need to find a new Michaelic (Archangel Michael) path on which they search for the truth, then they will find the right way to this cosmically created third etheric heart. This new spiritual and dynamic path gives man the possibility to structure his etheric heart organ as a sense organ ever more in the greatest possible diversity. **As the third heart is created by the Logos in Michaelic freedom in conjunction with man, it grows**

in size as large as the entire blood organism. It is an invisible sense organ, an inner cognitive eye of the heart revealing the karmic chain of events throughout incarnations.

Rudolf Steiner has indicated how the spirit-pupil can learn to **think with** such a **spiritual heart** and how he can protect and care for such knowledge. When Michaelic thinking has truly been activated, spirit knowledge is gathered through the separated heart, not through the noble head which disregards the subjective as well as man's feelings; yes, **Michael will open the path of thought from the head to the heart**, and hearts not heads begin to have thoughts. All of this follows naturally the great revelation of the creating of the third heart after the loosening of the newly formed etheric heart.

It is Michael's intention that in the future, intelligence will stream through the hearts of human beings and that it will be connected to the same divine spiritual forces that helped to create man in the beginning of time.

It has become possible for souls connected to Michael to be engaged in a goal-oriented schooling for initiation and thus to enter into closer connection with the hierarchies and the etheric Christ, who reveals Himself today as an angel. It is Michael's aim that the spiritual schooling will lead to heart-knowledge and that **the etheric eye of the heart will become an organ of cognition.**

We read the following in Rudolf Steiner's Michael-Letters:

"Hearts begin to have thoughts, that is the new way of thinking with the heart."

"The newly **developed heart-organ** slowly transforms into an eye or better a **sensing-heart-eye-organ.**"

"Everyone who strives in the light of spiritual science and connects himself with the creative World-Logos through heartfelt thoughts, sooner or later will learn to read karma. By doing so he **adds to the substance of the etheric-youth or angel-being through which the etheric Christ reveals Himself today.**"

For spiritually active pupils in the Michaelic stream, the third etheric heart becomes:

- an **eye for self-cognition**, the realization of the true self as the eternal being of man;
- it becomes the **eye of the ego-sense**, which perceives the other in his true being;
- an **eye of cognition for supersensible beings** and for the etheric Christ Himself, protected and cherished in the Michaelic mystery-culture of will as it is destined for our epoch;
- it will also become possible to **perceive the karma of others** as well as one's own karmic chain.

When Dr. Kaelin, a medical doctor and research scientist, asked Rudolf Steiner why there was such a rapid increase of heart problems he explained it with the fact that **the etheric heart is loosening from the physical.**

It can be seen from Rudolf Steiner's answer that we at the beginning of the 21st century stand at the focal point regarding the **developmental process of the etheric heart.** All the more we should work on unfolding our heart organ which allows us to **ascend to imagination and inspiration** and to forms of cognition where we may experience our own, cognitive eye of the etheric heart in the Sun-Logos.

Illnesses of the heart can predominantly be traced to a lack of spiritual activity. **Moral characteristics affect the contraction and expansion of the capillary vessels,** and our moral soul-life also influences the make-up of our blood. The powerful rays of the Spirit-Sun live in the new etheric heart organ. (GA 212)

Our blood, seen from a spiritual perspective, undergoes **a constant process of etherization, creating a foundation for health and life.** If enough spiritual activity is unfolded, it has a positive effect on the blood because used substance **[perception/nutrition] can be etherized.** This ether substance has its occult source in the etherized blood of the Logos. It is the heart-blood of the crucified and subsequently risen Logos. He is united with the Sun ether. If man inwardly connects with the Christ Being, there lives in him indeed in the etherized substance of his etheric heart

and in his etheric blood stream the blood stream of the crucified. **If a human being cannot connect inwardly with the Christ, if he rejects Him, the etheric blood of the Christ does not connect to the etheric blood stream of such a man.** This is a profound occult truth, a prerequisite to the stupendous unfolding of the developmental process of the new etheric heart. These ideas arise from Steiner's lecture, *The Etherization of the Blood*, a lecture given in Basle, October 1st, 1911.

With each heartbeat, a certain amount of material substance is absorbed, taken away from physical pressure and added to the etheric substance. **This etheric substance begins to radiate outward** so that we can become aware of the process in a picture. To begin with there is the human being on the physical cross of his body. Etheric rays stream out from the center of his heart. From the heart of the Christ pinned to the cross of the Tree of Life flows His blood into the dying earth and into men's dying bodies. As etheric sunrays they stream far into the cosmos. We too can **take into ourselves these rays so that out of a small etheric Sun in our new etheric heart organ likewise streams can flow far into the cosmos.** We harbor in our ether heart a creatively active inner sun that radiates warmth and light into the surrounding, into the far reaches of the cosmos. It is the warmth ether that is predominantly active in the etheric heart.

From: Rudolf Steiner's lecture given July 2nd, 1921 in GA 205:

“When we look into the inner heart, we find that there are forces collecting from the metabolic and limb system. We know that that which is connected to the etheric heart-forces has been spiritualized, it follows that that which has to do with our outer life and our actions is also spiritualized and woven into it. **That which is being prepared in the heart as forces turns into karmic predispositions and karmic tendencies.** It is simply outrageous to speak of a heart pump.

“There is another important nuance where morality plays a part. **This moral nuance is indeed stored in the heart and carried over into the next incarnation.** To study the total human being means to find in him the forces which reach beyond the earthly life.”

In GA 205 (July 2, 1921) Rudolf Steiner says:

“You can imagine what a tremendous difference there is, between that which lives in our heart during this incarnation and the condition in which we find ourselves in a new life after having gone through a long development in the time between death and a new birth. And yet **when you look into your innermost heart you can assess quite well**, of course in a hidden way only, not in a fully developed imagination, **what you will do in your next life**. One can, you see, not only say in an abstract way, my next life is being prepared today in all karmic detail, but one can point to the **‘little box’ in which the karma rests, awaiting the future.**”

On May 1, 1915 (GA 161) Rudolf Steiner speaks about the etheric heart in relation to its new position in the back of the head outside the physical body.

“It is quite important that this is taken into account. **It arises as a mighty net of etherized blood which creates an individual thin little skin separating it from the cosmic ether.** With this we have made another step in understanding the size and position of the etheric heart.”

This **new etheric heart organ**, as sense organ or **Sun-eye**, will be able to develop for the future. When we look into ourselves, we can experience our etheric eye as a cognitive eye. It can become the organ for going into one’s own depth. Here we experience the flaming, scorching and burning emotions, desires, passions and drives on the one hand, on the other that in us which does not connect with them, because it is our eternal being. It lives alongside of it. Therefore we can say that **the new etheric organ becomes cognitive for our eternal being in the depth of the metabolism and will organization**. While our head holds our soul as if buried within, we comprehend ourselves, our eternal being, in the dark depth of will purified from emotions and drives.

Rudolf Steiner tells us in GA 212 (May 6, 1922):

“Now we enter the realm where the soul and spirit become one. In the head or brain man is physical. That which is soul-like has been buried there, it is like a corpse. This corpse is the area to which presently all natural scientific research regarding the soul is directed.

But in reality **the soul is true to itself and connected to the spirit below the heart. The new and wonderful sense organ which is as large as the blood organism finds the eternal being of man next to all that which arises from the depth of will as drives and emotions.**”

That which we see as a vision through our heart, which has become a sense organ, that is our own eternal being. We experience our own self in our eternal being. When we continue to press forward into our own being, the Sun-like quality changes. We come to a definite point where we meet inspired knowledge and where we weave with inspired cognition in a real picture-world. Now in complete consciousness through a sudden inner jolt in our spirit soul it feels as if we fuse with the Sun itself. But at the same moment when we come to inspired cognition, **when our heart-sense becomes a cognitive organ**, we suddenly feel as if **our very heart is being transplanted into the sun**, we feel as if we go with the sun, the sun is in us, belonging to us. **The Sun becomes our eye, our ear as well as our warmth organ.** We are jolted into the Sun-like. Steiner puts it this way: “We stand within the light, we touch spirit-beings with our light-organs.” Here supersensible knowledge reaches another stage, a little step further. Then we not only feel ourselves within the Sun but we perceive ourselves “on the other side of the Sun” as well. We have now moved fully into the Sun, we feel part of the Sun with our innermost being and we experience the world within our being, previously it was outside of ourselves, around us.

All this is the crowning of that which can one day be perceived and spiritually known by the **new etheric heart organ as a Sun-eye**, when the Sun as spiritual Super-Sun becomes the cognitive eye of the etheric heart.

It is the powerful esoteric call to each pupil of Michael, to help in the creation of a new Sun-Earth. This co-working can be undertaken when the etheric body and the etheric heart become increasingly Christianized out of the new faculties of **the etheric heart-sun-eye, while the heart learns to interpret karmic events** by reading within the actively creating Logos.

Sooner or later, the new etheric heart of man will become an active organ which through karmic insight can become increasingly helpful and healing in the social sphere. **To the**

pillar of cognition the pillar of will must be added as a column of Christianized blood.

In this way, the secret of the Grail lives in the magnificent occult soul spiritual unfolding of the etheric heart. **The new etheric heart as cognitive spirit-eye of man's eternal being is the place where the Grail-Cup, the etheric organ, lights up as the real force, as the blood of the Redeemer.**



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<https://neoanthroposophy.com/2021/01/17/great-thoughts-about-the-heart/>

Rudolf Steiner on the Human Heart

“The heart is not a pump; the heart is an organ of perception.” Rudolf Steiner

The greatest authority on the human heart, both old and new, is Rudolf Steiner. There is no end to the wisdom Steiner has shared with his Anthroposophical Society about the human heart. Everything stated in the article above is found in seed-form in the Steiner passages below. We have already presented a variety of summaries of some of Steiner’s ideas above; now it is time to hear these ideas from the source. Personal commentary on Steiner’s remarks have also already been presented above in the Introduction. We have highlighted certain passages to bring to the reader’s attention new elements that build on the previous “Anthroposophically Illuminated” remarks and moves the narrative forward. From education to medicine, agriculture to human development, Steiner shed light on the human heart that brings forward ancient wisdom in a new form of spiritual science. We have classified the selections according to general topics for organizational purposes only.

The Heart as a Supersensible Organ of Perception

Course for Young Doctors, January, 1924, GA 316

“The heart is a sense organ of a different kind. **The heart is a sense organ for perceiving the inner being of man.** I have often said that it is nonsense to regard the heart as a kind of pump which drives the blood through the arteries. The movement of the blood is the result of the activity of the ego and astral body, and the heart is merely a sense organ which perceives the circulation, **particularly the circulation from the lower to the upper man.** The task of the heart is to see how astral body and ego are working on the human being. Therefore, **the heart is an entirely spiritual sense organ.**”

Rudolf Steiner, source unknown

The senses are nothing other than differentiated breathing organs. Eye, ear - all are refined breathing organs. Breathing expands to all the senses. As it lives in the lung, it lives in the eye. Except that in the lungs it combines with carbon, and in the ears with highly rarefied silica. Carbon dioxide is formed in the organism. In the senses, very fine silicic acid is formed.

Man lives downward by converting oxygen to carbon dioxide. He lives upward into the zone of his sense-nervous system by combining oxygen with silica, forming very fine silicic acid. So we live in a way that **when breath turns to blood, it generates carbon dioxide; when breath passes around the senses it generates silicic acid** - downward and outward through breath: carbon dioxide; toward the senses and back from the senses to the breathing process in very fine doses of silicic acid.

Spiritual Science and Medicine, Lecture II, March 22, 1920, GA 312

“The heart originates as a ‘damming up’ organ between the lower activities of the organism, the intake and working up of food, and the upper activities, the lowest of which is the respiratory. **A damming up organ is inserted and its action is therefore a product of the interplay between the liquefied foodstuffs and the air absorbed from the outside.** All that can be observed in the heart must be looked upon as an effect, not a cause, as a mechanical effect, to begin with.

The heart is a sense organ, and even if its sensory function is not directly present in consciousness, if its processes are subconscious, nevertheless it serves to enable the ‘upper’ activities to feel and perceive the ‘lower.’ As you perceive external colors through your eyes, so do you perceive, dimly and subconsciously through your heart, what goes on in the lower abdomen. **The heart is an organ for inner perception.**

The heart is primarily that organ whose perceptible motion expresses the equilibrium between the upper and lower processes; in relation to them it is the

perceptive organ that mediates between these two poles of the total human organization.”

The Heart is Not a Pump

Seven Lectures to Workmen, Lecture 3, June 6, 1923, GA 350

“**The function of the heart is not to pump blood through the body. It is a sensory organ.** Through the heart’s activity the head can perceive the entire blood circulation. The pulsebeat is a barometer for health or illness. But the pulsebeat is also nothing other than the movement of the blood.”

Theosophy of the Rosicrucians, Lecture 13, London, GA 99

“The feelings of the soul are the initiating force behind the movement of the blood. The soul drives the blood and the heart moves, because it, in turn, is driven by the blood. **The heart is set in motion by the movement caused by hunger for breath or hunger for nourishment.**”

Esoteric Development, 1923, GA 84

“**The heart is not a pump; the heart is the organ of perception.** Through it, one perceives what the spiritual and soul forces develop in the blood, as one perceives the outer world through the outer senses. The heart is actually the inner organ of perception, by means of which the head perceives everything that takes place in the body. The movement of the blood takes place via the ‘I’ and astral body. **The heart is given to see how the astral body and the ‘I’ work in the human being. The heart is thus an entirely spiritual organ of perception.**”

Spiritual Science and Medicine, Lecture VIII, March 27, 1920, GA 312

“The two processes of breathing and blood formation meet again in the human heart itself. **The whole outside world (including man) appears as a duality that is dammed up in the heart, and in it strives for a kind of equilibrium.**

Outside in the world there is an analysis, a scattering, of all that is gathered together in the heart. **If I look into my own heart, I find, as it were, the inverted heaven, the polar opposite. On the one hand you have the periphery, the point extended to infinity, on the other you have the heart, which is the infinite circle concentrated to a point. The whole world is within our heart.**

All that happens in the moral life, and all that happens physically in the world are found in their real union when we learn to understand all the configurations of the human heart.

In our time **there are certain changes taking place in the heart, by which gradually a fifth chamber will develop. In this fifth chamber man will have a new organ which will allow him to control life forces in a different way than is possible at the moment.**”

The Effects of Esoteric Development, March, 1913, GA 145

“...physically perceptible, such as the earth’s portion of the harmony of the spheres; and everything it receives as life forces that come directly from the sun. Essentially, all of these forces work on the circulation of the blood and from there, they work upon the heart. The external theory would have us consider the heart to be a pump that pumps blood through the body, so that we would have to see the heart as the organ that regulates the circulation of the blood. The opposite is true. The circulation of the blood is the original source, and a resonance of its motion is seen in the movement of heart. **The blood drives the heart, not the opposite.** However, this entire organism I have described, which is focused on the activity of the heart, is

nothing other than a microcosmic human reflection of the macrocosmic effects of the sun upon the earth. **What the earth receives from the sun is reflected in the way the heart is affected by the blood.**

So, what takes place in our brain corresponds to activities lying outside the forces which find their microcosmic human reflection in our heart. **Sun dwells in the human heart; what is present in the cosmos beyond the sun dwells in the human brain.** In fact, in the circulation of the blood and the activity of the heart are a reflection of the hidden forces of the solar system, and in the processes of his brain which he then sees spiritually from without, the secrets of the cosmos.

Through his brain man belongs to the whole stellar universe; through his heart and everything connected with it he belongs to the sun; through his digestive system and everything associated with it he is, in another sense, a terrestrial being.

It is only the most noble part of the brain that must be nourished by the most perfect union of sensory perceptions and the finest mineral extract. **The legend of the Holy Grail tells us that miraculous food, prepared from the finest activities of the sense-impressions and the finest activities of the mineral extracts, whose purpose is to nourish the noblest part of man throughout his life on earth;** for all other nourishment would kill him. It is this celestial food which the vessel of the Holy Grail contains. The legend of the Holy Grail is an occult experience which everyone can experience every evening.”

All of these are connected with the inner forces of the blood circulation, working upon the human heart: the sun forces received by the earth in its solid basic substances; everything the earth receives in its hulls of air and water, and in the changing ration of warmth; everything it receives into the light flooding the earth; everything it receives that is not in any way

“My whole body hungers for oxygen. Because it develops this hunger for oxygen, the instinct arises to get all the blood moving, for the blood has to have oxygen. Using its astral body, the physical body sends the blood to a place where it can get oxygen. Blood grabs the food for itself. All this, **the hunger for air, the hunger for food, sets the blood in motion.** It is the blood which moves in the first place, and the blood takes the heart along with it. And so it is not the heart which pumps the blood through the body, but the blood moves because of its hunger for air, hunger for food, and this moves the heart. We therefore have to say that it is the invisible human being in us which moves the heart.

The heart is not a pump, for the heart is moved by our astral body. We also move our heart with our ‘I.’ If I want to look inside, at the blood circulation, I see my heart. **The heart** does not exist to pump blood through the body; **it is a sense organ which perceives everything,** just as the whole of the head does. **The movements of the whole human being are perceived by the heart. It is this which sets the heart in motion. The movements caused by the hunger for air and the hunger for food set the heart in motion. And the movements of the heart show you if something is out of order in the body or if it is in order.**

The pulse beat truly is a barometer for the whole state of health and sickness. The pulse beat is nothing but the movement of the blood, however. The head is all the time doing what we do when we feel the pulse of a sick person. It is continually sensing the whole blood circulation and it does so through the heart. And indeed, **the head senses everything that goes on in the body, doing so through the heart.** We can therefore only understand what **the heart** really is if we know that it is in fact **the inner sense organ through which the head perceives everything that is going on in the body.**

With regard to the influences on the heart, we certainly have a relationship to the movements of cosmic bodies, especially the moon. If you make your heart such that you **look at your blood circulation** through your body, as it were, and do not have inner

sensation of the heart, nor of your pulse beat, but through them, if you learn to through yourselves – then gentlemen, you will see not just the blood circulation but **you'll see the whole movement of the moon**, everything the moon does, and you'll see how the moon relates to the sun. And you will then see the relationship which the heart has to sun and moon.

First, we have to understand that the heart is not mechanical but takes its orientation from the human being. Then people will also find the basic principles for external machines, making them such that they take their orientation from the human being. But in a science which has so much taken the easy way that the heart is described as if the human being had just a pump there in the blood circulation, in such a science people will feel no compunction to make machines where the human being has to take his orientation from the machine. **All the problems in our social situation are due to this wrong view that is taken in science.** And so one really has to understand that a proper way of thinking must first of all come upon people, for only then will it be possible to begin a proper social life. For as long as people think the heart is a pump, they will also not be able to relate to outer life in the right way. **It is only when people know that the invisible human being is greater than his heart, that it is he who moves the heart, that they will also design their machines to be in accord with human nature.**

We have to have the right amount of iron in the blood, otherwise we don't do well. Blood is connected with the influences that come from Mars also. Mars, which always moves and stimulates the blood activity in us. This is because of its relationship to iron. Mars we thus see as a body that is all the time growing radiant inside.

If a person lives to an age of about 72 years they will have lived 25,920 days. Every day, from one sunrise to the next, a person takes about 25,920 breaths. We take as many breathes in a day as the earth does in the whole of our life. Human beings breathe in such a way that the blood needs the breath. The blood is produced in the belly, and the abdomen therefore wants to breathe that quickly. But the head really wants to slow the breath down, make it much slower. We are therefore able to say **the head is really doing cosmic breathing; only the breathing from the body is all the time**

rushing up to the head, fast, and the breathing then goes slowly from the head to the body. The human being takes in the whole world in the breathing process.

People with low blood pressure grow extremely weak, tired, pale, and their digestion suffers severely. They grow feeble inside and do not properly manage to perform their bodily functions, and so they will go into a gradual decline and become sick. We have to realize that **the astral body is an invisible body in us and it lives in the pressure we have in us, in the blood pressure.** The astral body always has to have the right blood pressure so that it may spread out. The astral body is healthy when our blood pressure is right. Low blood pressure means that the astral body and the I do not enter sufficiently into the physical body, whilst high blood pressure means that the astral body and the I enter too deeply into the physical body.

The astral body determines whether you age early or late. We live too fast when the blood pressure is high. Growing old has to do with the organs growing more and more calcified. If the blood pressure is too high, the sensitive organs will calcify too soon.

Inner gladness, deep interest, is what we need for the life of the mind and spirit. **And when people are full of interest, the blood which has grown too heavy - the blood has grown too heavy in everyone today - will grow lighter again."**

Therapeutic Insights: Earthly and Cosmic Laws, Lecture IV, July 2, 1921, GA 205

"The heart has nothing whatsoever to do with pumping the blood; rather the blood is set into activity by the entire mobility of the astral body, of the I, and the heart is only a reflection of these movements. **The movement of the blood is an autonomous movement, and the heart only brings to expression the movement of the blood caused by these forces.**

Something is **reflected from the surface of the heart** that is no longer merely a matter of habit or memory but **is life that is already spiritualized when it reaches the outer surface of the heart.** For what is thrown back from the heart are the pangs

of conscience. This is to be considered, I would like to say, entirely from the physical aspect: **the pangs of conscience that radiate into our consciousness are what is reflected by the heart from our experiences.**

If we look into the inner aspect of the heart, however, we see gathered there, forces that also stem from the entire metabolic-limb organism, and because what is connected with the heart, with the heart forces, is spiritualized, within it is also spiritualized that which is connected with our outer life, with our deeds.

The forces thus prepared within the heart are the karmic tendencies, they are the tendencies of karma. **The heart is the organ which, through mediation of the metabolic-limb system, carries what we understand as karma into the next incarnation.** If you look into the inner aspect of your hearts, you can perceive quite well what you will do in your next life. We can actually point directly to **the vessel in which resides the karma** of the following incarnations.

The heart system as an organ is connected with the warmth element; it is formed entirely out of the warmth element. This element, therefore, which is the most spiritual, is also the one that takes up the inclination for karma into these exceptionally fine warmth structures that we have in the warmth organism of breathing and circulation.”

Mysteries of the Human Heart

The Influence of Spiritual Beings Upon Man, Lecture 3, GA 137

“Once human beings can free the higher members from the physical heart, they will begin to experience a soul life that is attached to a higher heart organism than the physical muscle of the heart which is bound to the blood. If they learn to experience higher heart forces than those which are bound to the physical heart, they will really discover that which is palpable all around, **like an inexpressible word which resounds on every side.**”

Color, Lecture 3, GA 228

“The human heart is the result of gold which lives everywhere in the light and which flows in from the Universe and that light carries the gold and actually forms the human heart. They imagined that light weaves through the Universe, and the light carries the gold. The gold is everywhere in the light. It lives and weaves in the light. And, as he stands in earthly life, man’s heart is made up of gold of this light.

The Workmen’s Lectures, 1922, GA 347

“Sleeping and waking are connected with the activity or inactivity of the brain cells, the nerve cells in general, and the white blood cells.

Thus, life actually originates between the processes in the intestines and those in the blood. In turn, in the blood processes, that is, between the activities of the blood and the air, our feelings come about.

Whereas the white corpuscles are in constant motion, the brain cells are at rest and in fact are almost dead. White corpuscles have the ability to multiply, whereas the brain cells cannot multiply. The white blood cells are full of life, independent life, and they can reproduce.

When a person faints and loses conscious they have too many white corpuscles in proportion to red corpuscles in the blood. When we faint or sleep, we have white corpuscles that are too active. When we have too many white corpuscles in the blood, we have too much life in us and as a result we lose consciousness.

The strength required to increase the brain activity when we sleep must be withdrawn from other areas of the body. It is withdrawn from some of the

white blood cells. Since the white corpuscles are more at rest during the night, we should actually begin to think. We should be able to think with our bodies.

Psychoanalysis in the Light of Anthroposophy, Lecture 6, London, GA 205

“If we look into the innermost part of the heart, we can see forces gathering through the whole metabolic and limb system, and because that which is connected with the heart forces is spiritualized, whatever is connected with our external life is also spiritualized in there. The forces which are prepared within the heart are karmic tendencies. The heart is the organ which **carries what we understand as karma from the metabolic system into the next incarnation.**”

From the Contents of Esoteric Classes, Berlin, February, 26, 1908, GA 266

“The atmosphere of Saturn was fiery-bloody. Man didn’t have any blood yet, but the first **germ of his later blood lay in the atmosphere around him.** Man’s physical parts were only germinally present.”

Health and Illness, The Relationship Between the Breathing and the Circulation of the Blood, December 23, 1922, GA 348

“Now, if you consider respiration and the activity of the blood, these two processes are related in today’s adult in a ratio of **one breath to four pulse beats.**”

Philosophy, Cosmology, and Religion, September 1922, GA 215

“The physiological after-effects of the **nightly planetary experiences of the human soul and spirit contribute significantly to the blood circulation.**”

Spiritual Science and Medicine, 1920, GA 312

“The breathing function conducts itself in an inverse relationship to the sensory function, in the same way the blood circulation is related to the digestive function. Digestion is, to a certain extent, a compressed version of blood circulation. Or the opposite: **what circulates in the blood is a finer version of the breathing process.** I could also say the breathing process is a cruder sensory perception process.”

Wisdom of Man, of the Soul, and of the Spirit, Lecture 3, October 26, 1909, GA 115

“**In the neighborhood of the heart the third organ develops, the twelve-petal lotus flower, the intuitive sense.** If we draw a diagram of such a structure, where **in one organ the currents of the physical and etheric bodies are dammed up against those of the ego and astral body, the result is nothing less than the diagram of the human heart with its four chambers.**”

That is the way the human heart came into being. When we consider all that **the human heart achieves - the co-operation of the physical, etheric and astral bodies and the ego** - it will be borne in upon us that the spirit had to build the human heart in this way.

From left to right, the currents of the physical body.

From right to left, those of the etheric body.

From the front backward, those of the sentient body.

From the rear forward, those of the sentient soul.

From above downward, those of the ego.
From below upward, those of the astral body.

The ego, then, acts downward from above; so how would its physical organ have to lie? The physical organ of the ego is the circulating blood; and the ego could not function downward from above without an organ running in the same direction in the human body. Where the main direction of the blood-stream is horizontal, not vertical, there can be no ego, as in men. **The main direction of the blood-stream had to raise itself in man to the vertical in order to enable the ego to lay hold on the blood.** No ego can intervene where the main blood-stream runs horizontally instead of vertically. The group ego of animals can find no organ in them, because the main blood-line runs horizontally. Through the erection of this line to the vertical in man, the group ego became an individual ego.”

From Limestone to Lucifer Answers to Questions, May 7, 1923, GA 349

“Now the situation is that **we are born again out of the blood every day and every hour. Blood always means renewal.** We have two opposite principles in us – the nervous system that makes us get old all the time, actually handing us over to death all the time, and **the blood system which is connected with the nutrition system and lets us grow young all the time.** The nerves have to be in a condition throughout life, as it were, in which the blood vessels must never be. The blood vessels have to be fresh. The nerves must all the time be inclined to die off. We really get a little bit older all the time from morning to evening. **During the night this freshens up again, something that comes from the blood.** And that is how it goes all the time, like the pendulum swing of a clock – grow old, grow young. A temperature develops when the getting-young process grows much too powerful in us. We cannot cope with this. We begin to be too fresh with the whole of our body. We then have a temperature, or pleurisy, or pneumonia.”

Anthroposophical Approach to Medicine, Lecture IV, October 28, 1922, GA 314

“The iron in the blood unceasingly plays the role of a remedial agent, protecting man from his innate tendency to disease. **The iron-bearing corpuscles swimming in the blood loses as much of its weight as the weight of the volume of fluid displaced.** And now, if **our soul-being lives in the force of buoyancy**, just think what this possession of iron-bearing blood corpuscles must mean for the whole life of feeling and perception, indeed for the whole life of the organism.

The relation of the etheric to the astral organism of man is bound up with the iron-content of the blood. The possibility, however, of promoting the corresponding balance, of enabling the organism to lead the necessary amount of foodstuff into the domain of the kidney activities, is provided by regulating the iron-content in the blood. And **by imbuing the actual dynamic element in the blood either with weight or with the force of buoyancy** - according to how we regulate the iron-content - **we are thereby regulating the whole circulation of blood**, which in turn reacts upon the kidney activities. In adding to or decreasing the iron-content we have brought about a fundamental regularization of the blood circulation: that is, of the interplay between the etheric and astral parts of man.”

Man as Symphony of the Creative Word, Lecture III, 21st October, 1923

“**No other animal has the same proportion between the blood-weight and the entire body-weight as the cow**; other animals have either less or more blood than the cow in proportion to the weight of the body. And weight has to do with gravity and the blood with egoity; not with the ego, for this is only possessed by man, but with egoity, with separate existence. The blood also makes the animal - the higher animal at least. And I must say that **the cow has solved the world-problem as to the right proportion between the weight of the blood and the weight of the whole body** - when there is the wish to be as thoroughly animal as possible.

You see, it was not for nothing that the ancients called the zodiac 'the animal circle.' The zodiac is twelvefold; it divides its totality into twelve separate parts. **Those forces, which come out of the cosmos, from the zodiac, take on form and shape in the animals.** But the other animals do not conform to the zodiacal proportion so exactly. **The cow has a twelfth part of her body-weight in the weight of her blood.** With the cow the blood-weight is a twelfth part of the body-weight; with the donkey only the twenty-third part; with the dog the tenth part. All the other animals have a different proportion. **In the case of man the blood is a thirteenth of the body-weight.**

You see, the cow has seen to it that, in her weight, she is the expression of animal nature as such, that she is as thoroughly as possible the expression of what is cosmic. A fact I have mentioned repeatedly during these days - namely that one sees from the astral body of the cow that she actually manifests something lofty in physical-material substance - this comes to expression of itself through the fact that the cow maintains the partition into twelve in her own inner relationships of weight. The cosmic in her is at work.

Everything to do with the cow is of such a nature that the forces of the earth are working into spiritual substance. In the cow, earth-heaviness is obliged to distribute itself according to zodiacal proportion. Earth-heaviness must accommodate itself to allow a twelfth part of itself to fall away into egoity.

What the cow possesses as spiritual substance has necessarily to enter into earthly conditions.

Thus the cow, lying in the meadow, is in actual fact spiritual substance, which earth-matter takes up, absorbs, makes similar to itself. When the cow dies, this spiritual substance which the cow bears within herself can be taken up by the earth, together with the earthly matter, for the well-being of the life of the whole earth. And man is right when he feels in regard to the cow: You are the true beast of sacrifice, for you continually give to the earth what it needs, without which it could not continue to exist, without which it would harden and dry up. You continually give spiritual substance to the earth, and renew the inner mobility, the inner living activity of the earth.

When you behold on the one hand the meadow with its cattle, and on the other hand the eagle in flight, then you have their remarkable contrast: the eagle who, when he dies,

carries away into the expanses of spirit-land that earth-matter, which - because it is spiritualized - has become useless for the earth; and **the cow**, who, when she dies, **gives to the earth heavenly matter and thus renews the earth**. The eagle takes from the earth what it can no longer use, what must return into spirit-land. The cow carries into the earth what the earth continually needs as renewing forces from spirit-land.”

From the Contents of Esoteric Classes, Berlin, March 14, 1908, GA 266

“During the Saturn period, there was only a warmth globe on which the spirits of darkness attained their human stage. The blood we had then was dark. There was a hidden fire or warmth on the planet, but no light. When Saturn disappeared, the Sun rose from the darkness, the second, air element with its oxygen made Saturn’s glimmer burst into flames, and then there was light, as is symbolized by the alchemist’s sulfur. Blood turned from black to yellow. Our present men with their red blood are shaped on the earth.

Thus we have four kinds of fire in the four kinds of blood: black on old Saturn, yellow on old Sun, white on old Moon, and red on earth. The warmth that now lives in our blood is the warmth of the planet Saturn. **All these bloods or fires are still in us and are instruments for spirits who work in and on us, until we will be individualized enough to do what these spirits do.** Saturn spirits find a point of attack in the warmth of the blood and ego. Some of them are very bad and dangerous.

The four kinds of fire refer to our four lower sheaths that are the ‘children’ of the I. We must ‘add fire to fire,’ that is, the fiery, **lower passions must be purified by uniting them with the higher, spiritual fire.**

Blood is the I’s instrument. Saturn spirits work in the warmth of our blood, as Christ worked in Jesus’ blood from age thirty on. Then Christ took hold of the blood and purified it during the three years. That’s why blood had to flow. **When we’ve purified our four bodies in the same way we’ll then have the four-fold philosophical fire that belongs to the Vulcan period.**

“But thou hast something within thine own inner being that will not permit thee to fall either below or above, either toward the right or toward the left; thou hast the center of gravity of thine own being within thyself. One learns to feel within oneself that central point. **It is in the heart primarily that the center of gravity lies which will not permit one to sink, to fly away in space, which presses neither toward the right nor toward the left, but holds one fast within the universe.** At that point where physically the muscles of the heart lie, everything is concentrated which gives us a firm hold. **One becomes aware that what holds one to the earthly consciousness is gold, disseminated in most extraordinary minuteness through the world, working directly on the heart.**

Gold works upon the inner man with immeasurable harmonizing effect, establishing a state of balance, an inner equilibrium. The human being threatens to fly to pieces outwards, to faint away outwards, **is held together by the heart.**

When we move in consciousness above the heart, consciousness then becomes more attenuated. We come near swooning. But, if we move downward below the heart, consciousness condenses. We enter into the worlds that are real. Only one must be able to endure it. These press upon one, they are painful. But, if we thrust ourselves forward with sufficient courage, we enter.

Thus, **we have the ordinary consciousness of the day in our hearts;** a second consciousness in the **larynx;** a third consciousness in the **region of the eyes;** a fourth consciousness **above the head,** which leads wholly out into the cosmos; **and then a fifth consciousness below the heart, which leads us, not in the space-worlds, but backwards in the periods of time. We move through time.** We make a path through time. We have stepped out of space and passed over into time. If we transport ourselves into these other states of consciousness, we then experience the other worlds.

The world of the stars determines the directions in the circulation of the blood. But what pulsates within the blood as warmth, **what really pulsates as**

warmth through our life and in the right manner through our blood, - this bears effectively within it that force which has come over out of previous earth-lives. The secret of the warmth of the blood is the secret mystery of silver.

From Comets to Cocaine Answers to Question, January 8, 1923, GA 348

“The influence on human beings of the red and white corpuscles that are produced within the hollows of the bone is such that the **red corpuscles are more important for the woman and the white are more important for the man.**

If the heart muscle – it is also a muscle – becomes too thick from overexertion, however, it exerts pressure on all the other organs with the result, as a rule, that beginning from the heart the blood circulation becomes disturbed. **The next consequences of a thickened heart is that the kidneys become ill, since it is due to the harmonious activities of heart and kidneys that the entire human bodily organization is kept functioning properly. The heart and kidneys must always work in harmony.”**

From Sunspots to Strawberries Answers to Question, July 31, 1924, GA 354

“We can say that the green part of the plant works particularly on heart and lungs, while the root strengthens the head. **When we eat greens,** they chiefly give us plant fats; **they strengthen our heart and lungs,** the middle region, the chest.

The Heart is the Temple of the Human Spirit

The Mystery of Golgotha, 29 July, 1906, GA 97

“In the temple of the human body is located a Holy of Holies. Many people live in the temple without knowing about it. But those who sense it, receive from it the power to purify themselves so that they may enter into this sacred place. There is the sacred vessel which was prepared through epochs of time. There rests the holy Chalice which was prepared through epochs of time so that it would be ready when the time came to hold the blood of Christ, the life of Christ. When the human being has entered this place he has also found the path to the Holy of Holies in the great Earth temple. Many on Earth live there too, without knowing it; but **if the human being has found himself in his innermost sanctuary, he will also be allowed to enter the great Earth temple and find the Holy Grail.** Firstly, the chalice will appear to him, carved as though from wonderfully gleaming crystal that forms symbols and letters; then gradually he will sense its holy content, so that the content itself shines for him in a golden radiance. A human being then **enters into the Mystery place of his own heart, and then a divine being emerges from this human mystery center and connects itself to the God without, with the Christ being.** This divine being lives in the spiritual light which streams into the chalice, hallowing it.

The time has arrived where these secrets may be proclaimed, if the hearts of people make themselves mature through a spiritual life, so that they are able to raise themselves to the understanding of this great Mystery through gazing at this holy chalice. If people become ever more prepared for the reception of the Christ-I, **then shall the Christ-I ever more pour itself into the souls of people.** People shall then evolve themselves up to where their great archetype, Christ Jesus, is. Then people shall begin to learn to understand to what degree Christ Jesus is the great prototype of the future redeemed humanity.”

Rudolf Steiner from his sick bed in 1924

“Blood in the heart, striving toward the breath in the lungs, is humanity’s striving for the cosmos. The breath in the lungs, striving toward the blood in the heart, is the cosmos forgiving humanity.

The human being streams into the cosmos on an ongoing basis in the flow of the blood. **The Christ mystery is the revelation of the great miracle that takes place between the heart and lungs. The cosmos becomes the human being and the human being become the cosmos.** The Sun carries the human being out of the cosmos and onto Earth. The Moon carries the human being from the Earth into the cosmos. In larger terms, **what streams from the lungs to the heart is the human correlate of the descent of Christ onto the Earth; what moves from the heart to the lungs is the human correlate of the human being carried into the spirit world by the Christ impulse after death.** Thus, the secret of Golgotha lives between and heart and the lungs in each human being, in a very human, organ-related sense.”

How the Spiritual World Projects in Physical Existence, May 5, 1913, Paris, GA 150

“A third power also gains independence through meditation. It involves not only brain and larynx but also the circulation and the heart. We are aware of it in a low-level activity when we blush or grow pale. **There, a soul element intervenes in the blood’s pulsation, going as far as the heart. This power of the soul may be withdrawn from the blood’s pulsation and become an independent inner power. It comes about through meditation at the point where the will enters into it.** We meditate ‘Wisdom shines in the light’ but decide to connect our will to act with it in such a way that we want to go with this radiant wisdom in human evolution. When we come to such a will meditation we get the powers of will to flow in the soul. **We can find these powers and withdraw them from the blood – though not entirely – and they then create a power of clairvoyance which allows us to go beyond our earth.**”

An Occult Physiology, March, 1911, GA 128

“The prickles of the conscience are thrown back by the heart, which can be interpreted entirely as a physical phenomenon; **prickles of conscience that stream into our consciousness are the content of our experiences, reflected by the heart.** This teaches us about the spiritual knowledge of the heart. **The processes of life become spiritualized as they complete their reflection on the outside wall of the heart.** Every organ, in addition to serving this or that function in the organism, is also a sense organ. The heart is an apparatus for registering the human circulation and that which flows into the circulation from the metabolic system of the blood.

Spiritual activity in the physical organism is a working together of the Ego with warmth relationships. **Silica forms the physical basis of the Ego organization.** If the human organism, working from the Ego organization, were not able to bring forth the warmth organization, which must exist in the heart region then this human organism would, for example, not be able to think or perceive.”

Therapeutic Insights: Earthly and Cosmic Laws, Dornach, July 2, 1921, GA 205

“You can imagine what a tremendous difference there is, between that which lives in our heart during this incarnation and the condition in which we find ourselves in a new life after having gone through a long development in the time between death and a new birth. And yet **when you look into your innermost heart you can assess quite well**, of course in a hidden way only, not in a fully developed imagination, **what you will do in your next life.** One can, you see, not only say in an abstract way, my next life is being prepared today in all karmic detail, but **one can point to the ‘little box’ in which the karma rests, awaiting the future.**”

Supersensible Man, November 1923, GA 231

“In their work upon the nervous system, the Beings of the Second Hierarchy are looking downwards, towards Earth. In their work upon the blood system they are looking upwards. Both the nervous system and the blood system (as well as the organs connected therewith) are created by the same Hierarchy, but their gaze is at one time turned towards the Earth and at another upwards to the spiritual world, to the heavens.”

Foundations of Esoterism, September 1905, GA 93

“One takes up the warmth of the world in the heart and lets it stream forth again through the pituitary gland in the brain. Once this capacity has been achieved, the heart will have become the organ it was intended to be. There is a reference to this in the words from *Light on the Path*: ‘Before the soul can stand in the presence of the Masters, its feet must be washed in the blood of the heart.’ **Our heart’s blood streams out as today our words stream out in the world. In the future warmth of soul will flood over mankind.**”

Man: Hieroglyph of the Universe, April, 1920, GA 201

“Just as the circulatory course of the lungs with its absorption of oxygen, and giving out of carbonic acid, belongs to the planetary system, just as what is introduced through the digestive apparatus belong to the Earth, so **the part of the circulatory course that branches off above, belongs to the starry world.**”

Macrocosm and Microcosm, March 1910, GA 119

“When the thinking of the heart changes Time into Space, our whole being has to move about; we have to be involved in a perpetual circulation. Such is the definite experience of anyone who passes from ordinary memory to the higher form of memory possessed by the spiritual investigator. Whereas in an act of remembrance an ordinary man looks back to the past, the spiritual investigator has the inner experience that he is actually moving backwards in Time in the same way as he otherwise moves in Space. And this consciousness expresses itself outwardly in the experiencing of our blood, which must also be in perpetual movement if we are to go on living. In our blood we are involved all the time in the movement from the heart through the body and back, so that what really belongs to the heart is in perpetual movement. Not so what belongs to the head. **The several parts of the brain remain stationary, so the brain is in very truth a physical symbol for the consciousness of Space; the flowing blood, the fluid of the heart is in its circulation an image of the mobility of spiritual consciousness.** Thus, every physical phenomenon is a symbol for the corresponding spiritual reality. It is an extremely interesting fact that in our very blood we have an image of certain faculties of the spiritual investigator and also of the worlds in which he moves.

Reminding ourselves of what has been said about human evolution it may be affirmed that **in earlier epochs man already possessed a kind of logic of the heart; at the present time he is passing through the stage of logic of the intellect and in the future he will regain a logic of the heart in which the logic of the intellect has been absorbed and elaborated.”**

Supersensible Man, Lecture IV, November 17, 1923, GA 231

“The fact that we receive into ourselves in the Sun sphere the first germ of the physical heart is less important than the fact that **in this germ of the heart is concentrated all that we are morally, all our qualities of soul and spirit.** The **spirit-germ of the heart** unites with the embryonic germ of the future body because **the heart in**

man is a spiritual being, a moral being of soul and spirit created out of the Cosmos; only later does this moral being of spirit and soul - which man now feels living within him, which man has, as it were, acquired in the course of his return journey to Earth - unite with the embryo. **This concentration, in the germ of the heart, of his whole soul-and-spirit being is experienced by man in communion with the sublime Sun Beings - those Sun Beings who rule over the creative forces of the planetary system and therewith of earthly existence.**

The beat of the spiritual heart of man is the heart-beat of the world in which he is living. The blood-stream of this world are the deeds of the creative Beings of the Second Hierarchy, the forces which stream out from them. And just as the blood-stream on Earth centers itself in the heart where it is unconsciously experienced by man, so at this point of time between death and **a new birth it is given to man, as a grace bestowed, to hold and cherish within him a cosmic heart - one of the organs of perception, one of the cosmic hearts, created out of the pulse-beat of the Macrocosm, even the deeds of the Beings of the Second Hierarchy.** For let it be remembered that the physical heart is a sense organ, which perceives the movement of the blood, not a 'pump' as the physiologists imagine. **The spirituality and vitality of the human being - these it is that cause the movement of the blood."**

Occult Significance of Blood, Berlin, October 25, 1906, GA 55

"A man's blood is therefore a true double ever bearing him company, from which he draws new strength, and to which he gives all that he can no longer use. Blood is, therefore, **an expression of the individualized etheric body,** just as the brain and spinal cord are the expression of the individualized astral body. And it is this individualizing which brings about that which lives as the ego or 'I.'

The blood vessels, together with the heart, are the expression of the transformed etheric body, in the same way in which the spinal cord and the brain express the transformed astral body. Just as by means of the brain the external world is experienced inwardly, so also **by means of the blood this inner world is transformed into an outer expression in the body of man.**

Blood is therefore the material that builds up the human body. We have before us a process in which the blood extracts from its cosmic environment the highest substance it can possibly obtain, oxygen, which renews the blood and supplies it with fresh life. In this manner our blood is caused to open itself to the outer world.

Blood originates when man confronts the external world as an independent being, when out of the perceptions to which the external world has given rise, he in his turn produces different shapes and pictures on his own account, thus himself becoming creative, and making it possible for the Ego, the individual Will, to come into life. **By means of the blood, assisted by the oxygen of the external world, the individual body is formed according to the pictures of the inner life. This formation is expressed as the perception of the ‘I.’**

The ego turns in two directions, and the blood expresses this fact externally. **The vision of the ego is directed inwards; its will is turned outwards.** The forces of the blood are directed inwards; they build up the inner man, and again they are turned outwards to the oxygen of the external world. Thus **the blood stands midway, as it were, between the inner world of pictures and the exterior living world of form.**

At the present time, **everything in a man’s environment is impressed upon his blood;** hence the environment fashions the inner man in accordance with the outer world. In the blood of the descendants were to be traced the effects of the ancestors’ tendencies. Now, when the blood was mixed through exogamy, **this close connection with ancestors was severed, and the man began to live his own personal life.** Thus, in an unmixed blood is expressed the power of the ancestral life, and in a mixed blood the power of personal experience.”

*An Occult Physiology, The Blood as Manifestation and Instrument of the Human Ego,
Lecture 6, March 26, 1911*

“Earth-man, has in his blood-system the instrument of the ego, so that he actually is man by reason of the fact that he harbors within himself an ego, and that this ego can create

an expression of itself as far as the physical system, can work with the blood as its instrument.

We can state thus that **the blood-system is the most immediate instrument of the human ego**. Yet the blood-system is possible only if all the other systems are first existent. There is no passion, no instinct, no emotion, whether we experience these habitually or whether they come to expression in an explosive way, which does not pass over, as inner experience, to the blood as the instrument of the ego, which does not there express itself externally. **All the unwholesome elements of the inner life of the ego express themselves primarily in the blood-system**. And so, wherever we wish to understand anything that goes on in the blood-system, it is important not merely to inquire as to the nutritive process but even more to look into the soul-processes in so far as they are inner ego-experiences, such as moods, habitual passions, emotions and the like. **All soul-processes, all processes of the ego, react directly upon what is occurring in the circulation of the blood.**”

The Etheric Heart and Blood

Curative Education, June, 1924, GA 317

“Starting at the time of sexual maturity, all human activity begins in the etheric heart, taking a detour through the astral body. **The etheric heart is the organ that arose from the reflection of the stars and the cosmos. Everything begins there. The substance of the entire cosmos is there inside, contracted into the heart, in the etheric body. If you think in term of the etheric world, you find a compact form of the cosmos in the heart.** At the same time, if you think in terms of the astral world, you see in contracted form all that is undertaken by the human being. The human being and the cosmos, with all of its cosmic events, find their connection in the heart. **In all of the human body, only in the area around the heart do we find such a close correspondence between the astral body and the etheric body. This is how the human heart becomes and remains an organism for the development of karma.**”

Pastoral Medicine, September 1924, GA 318

“Cosmic warmth enters the human organism by way of breathing. But not only warmth. The warmth carries with it light, macrocosmic chemism, and macrocosmic life, vitality. **Light ether, chemical ether, and life ether from macrocosm are carried by the inhalation of warmth into the human organism. The element of warmth carries light firmly embedded in it, also the chemical element, also the life element** into the human being, and gives them over to the air-inhalation process. This entire process lies over the air-breathing process and which appears as a refined (or even, metamorphosed) breathing process.”

The Human Soul in Relation to World Evolution, Lecture VI, May 26, 1922, GA 212

“For what has thus rayed together into a center becomes, at the time of puberty, the etheric heart. The etheric heart he had before this time he had received as heritage through forces inherent in the embryo. When man gathers his ether body and with it approaches the physical organism a kind of etheric heart, a substitute etheric heart, so to speak, is drawn together by the forces of the physical body. But **this etheric heart which man has in childhood slowly decays** - this may not be a very nice expression, but it does fit the situation - **and is replaced gradually, as the decaying processes take place, by the new etheric heart.** The latter is formed by a raying together of the whole universe. In reality, it is an image of the cosmos which we bring with us as an etheric structure when, through conception and birth, we enter earthly existence. Thus, we trace, throughout the time from birth or rather conception until puberty, a distinct change in the structure of the etheric body. **One can say that not until puberty is man’s own etheric heart present - formed out of his own etheric body. Thus, he no longer has a provisional heart.**

All the ether forces active in man up until the time of puberty have a tendency to provide him with a fresh etheric heart. The inherited etheric heart, which we have until puberty, is pushed out and we get our own etheric heart. This is what is essential: that we get our own etheric heart.

In the heart, not only the astral process, but the etheric, too, is concentrated. This is also the reason why the heart is such a uniquely important organ for man. From puberty, a central organ is created wherein all our doing, all our human activity is centered. In the same region where man has his heart the sum total of all his activity is centralized, but in this case neither physically nor etherically, but astrally. The significant thing is that at the onset of puberty - the astral process coincides only approximately with the physical process - man's etheric heart is so far prepared that it can take into itself the forces which develop from our activity in the external world. Thus, to describe what actually occurs one could say: **From puberty onwards, the totality of man's actions pours, via the astral body, into the etheric heart - i.e., into the organ which is an image of the whole cosmos.**

You have in the heart, as far as the etheric world is concerned, a whole cosmos drawn together, and, at the same time, as far as the astral world is concerned, the totality of man's activity drawn together. This is where the cosmos and its processes join with man's karma. Only in the region of the heart is there such a close correspondence between the astral and etheric bodies and man's organism.

When man goes through the portal of death and lays aside his physical and etheric bodies, this etheric-astral structure - within which the physical heart, as it were, swims - contains all that which man takes with him into his further soul-spiritual life. **Because within the heart, in the etheric body, the substance of the whole cosmos is drawn together, man is able, as he grows spiritually larger and larger, to hand over to the cosmos his entire karma.** The etheric structure, which is an essence of the cosmos drawn together in the heart, now returns to the cosmos.

When we observe the human organization in its becoming, we have to say: **In the region of the heart the cosmic and the earthly come together.** They form a union in such a way that the configuration of the cosmos is taken into the etheric heart and there it prepares to receive all our deeds. Then when we go through the gate of death and enter a new cosmic existence, we take with us the outcome of this intimate union of the etheric and our human actions.

To begin with **the ‘I’ has a somewhat separate existence along the bloodstream within the child, then it begins to unite ever more closely with the blood circulation until at puberty they are fully united.** Thus, while you have an astral structure surrounding the etheric and physical heart, the ‘I’ takes another path to the heart. Let us say the ‘I’ slips into the lungs - it will then, through the veins leading to the heart, gradually approach the latter. The ‘I’ follows the circulating blood, becoming more and more intimately united with it, so that here again, via the detour of the ego forces circling with the bloodstream, **the ‘I’ enters the structure formed by the union of the etheric and astral heart. This structure alone makes it possible for the cosmic-etheric to grow together with a human astral.**

Hidden from sight, **at the onset of puberty, our inherited etheric heart succumbs to forces of decay and we acquire a kind of permanent etheric heart.** Only the permanent etheric heart is fully adapted to take into itself our deeds. The real building up of karma only begins from the moment when the astral heart has fully penetrated the etheric heart, so that the two form a unity. One could say that this union constitutes, as it were, an organism for the forming of karma.”

The Etherization of the Blood, Basle, October 1, 1911, GA 130

“These streamings arise because human blood, which is a physical substance, is perpetually resolving itself into etheric substance. **In the region of the heart there is a continual transformation of the blood into this delicate etheric substance which streams upwards towards the head and glimmers around the pineal gland.** This process - the etherization of the blood - can be perceived in the human being all the time during his waking life.

The occult observer is able to see a continual streaming from outside into the brain, and **also in the reverse direction, from the brain to the heart.** Now these streams, which in sleeping man come from outside, from cosmic space, from the Macrocosm, and flow into the inner constitution of the physical body and etheric bodies lying in the bed, reveal something remarkable when they are investigated. These rays vary greatly in different individuals.

At the moment of waking or of going off to sleep a kind of struggle takes place in the region of the pineal gland between what streams down from above and what streams upward from below. When a man is awake the intellectual element streams upwards from below in the form of currents of light, and what is of moral-aesthetic nature streams downwards from above.

The intellectual, the aesthetic and the moral elements stream downwards from above, from the brain toward the heart. At the moment of waking or of going off to sleep, these two currents meet, and in the man of low morality a violent struggle between the two streams takes place in the region of the pineal gland. In the man of high morality there is around the pineal gland as it were a little sea of light. Moral nobility is revealed when a calm glow surrounds the pineal gland at these moments. In this way a man's moral disposition is reflected in him, **and this calm glow of light often extends as far as the heart. Two streams can therefore be perceived in man - the one Macrocosmic, the other, Microcosmic.**

Just as **our human blood streams upwards from the heart as ether**, so since the Mystery of Golgotha the etherized blood of Christ Jesus has been present in the ether of the earth. The etheric body of the Earth is permeated by the blood - now transformed - which flowed on Golgotha. This is supremely important. If what has thus come to pass through Christ Jesus had not taken place, man's condition on the Earth could only have been as previously described. But **since the Mystery of Golgotha it has been possible for the etheric blood of Christ to flow together with the streamings from below upward, from heart to head.**

Because **the etherized blood of Jesus of Nazareth** is present in the etheric body of the Earth, it **accompanies the etherized human blood streaming upwards from the heart to the brain**, so that not only those streams of which I spoke earlier meet in man, but **the human blood-stream unites with the blood-stream of Christ Jesus**. A union of these two streams can, however, come about only if a person is able to unfold true understanding of what is contained in the Christ Impulse. Otherwise there can be no union; the two streams then mutually repel each other, thrust each other away.

If this comes to pass, individuals will be able to receive and comprehend the event that has its beginning in the Twentieth Century: this event is the appearance of the Christ as an etheric being in contradistinction to the physical Christ of Palestine. For we have now reached the point of time when the Etheric Christ enters into the life of the Earth and will become visible - at first to a small number of individuals through a form of natural clairvoyance. **Individuals will see the Etheric Christ and will themselves experience the event that took place at Damascus.**”

The Human Heart, Dornach, May 26, 1922, GA 212

“The gathered radiance that arises at the time of puberty becomes the true etheric heart of man. The etheric heart he has before this time is one that he received as a heritage through the inherent forces of the embryo. When a man gets his etheric body, and with it makes his way into the physical organism, a kind of etheric heart - a substitute etheric heart, so to speak - is drawn together by the forces of the physical body. He keeps this etheric heart during his childhood years, but then it gradually decays. The first etheric heart slowly decays, and in its stead, as it were constantly replacing that which falls out in the etheric process of decay, there comes the new, the real, etheric heart. **This etheric heart is a concentration of the whole cosmic sphere we brought with us as an ether form, a faithful image of the cosmos, when we proceeded through conception and birth into this earthly life.** Not until puberty does the human being possess his own etheric heart - that is, the etheric heart formed out of his own etheric body, and not supplied provisionally by external forces. All the etheric forces that are working in man until puberty tend to endow him with this fresh etheric heart. So, likewise, the etheric heart we have until puberty is cast out, and we now receive our own.

In the heart, not only the astral process but the etheric process also is concentrated. Therefore the heart is the uniquely important organ which it is for man.

At the same place where the etheric heart - our own etheric heart - has formed itself, we now have an astral structure too, which gathers together all our actions. And so from puberty a central organ is created wherein all our doing, all our human activity, is

centered. It is so indeed: in the very region where man has his heart, all his activity is centralized - centralized, in this case, neither physically nor etherically, but astrally. And the important thing is that in the time when puberty occurs man's own etheric heart is so far formed that it can receive these forces that develop out of our activity in the outer world. Thus we can truly say **from puberty onwards man's whole activity becomes inserted, via the astral body, in his etheric heart - and in that which has grown out of the pictures of the stars, out of the images of the cosmos.**

The heart, as far as the etheric universe is concerned, is a cosmos gathered up into a center; while at the same time, as far as the astral is concerned, you have a gathering together of all that man does in the world. This is the point where the cosmos - the cosmic process - is joined to the karma of man. **This intimate correspondence of the astral body with the etheric body is to be found nowhere in the human organism except in the region of the heart.**

Then when man passes through the gate of death, this ethereal-astral structure - wherein the heart is floating, so to speak - contains all that man takes with him into his further life of soul and spirit, when he has laid aside the physical and the etheric forms. Now, **as he expands ever more widely in the spirit, he can hand over his entire karma to the cosmos, for the substance of the whole cosmos is contained within him; it is drawn together in his heart, in the etheric body of his heart.** It came from the cosmos and changed into this etheric entity, then it was gathered up as an essence in the heart, and now it tends to return into the cosmos once more.

In the region of the heart there takes place a union of the cosmos with the earthly realm, and in this way **the cosmos,** with its cosmic configuration, **is taken into our etheric body.** There it makes ready to receive all our actions, all that we do in life. Then we go outward again, together with everything that has formed itself within us through this intimate permeation of the cosmic ethereal with our own human actions.

When, later on, the ego slips with its astral body into the organs of the physical, this is what happens: whereas, in the little child, the ego was present only outwardly along the paths of the blood, it now unites with the blood circulation more and more inwardly, intensively, until - at puberty once more - it has entered there in the fullest sense. And

while you have an astral formation around the etheric and the physical heart, **the ego** takes a different path. It **slides into the organs of the lung, and with the blood vessels that pass from the lung to the heart approaches nearer and nearer to the heart.** More and more closely united with the blood circulation, it follows the paths of the blood. **By way of the forces that run along the courses of the blood, the ego enters into that which has been formed from the union of the etheric and the astral heart, wherein an etheric from the cosmos grows together with an astral from ourselves.** Here, then, you have a complete linking up of karma with the laws of the whole cosmos.

All that happens in the moral life, and all that happens physically in the world, are brought together precisely in the human heart. These two - the moral and the physical - which run so independently and yet side by side for modern consciousness today, are found in their real union when we learn to understand all the configurations of the human heart.

At puberty, in an invisible way, our etheric heart is given over to disintegration, and we now acquire a kind of permanent ether heart. Only this permanent ether heart is fully adapted to receive into itself our activities. **The forming of karma, properly speaking, begins only at the moment when the astral heart takes hold of the etheric heart and they join together.** This, indeed, is the real organism for the forming of karma. For, at death, what is gathered up and concentrated there in the human being becomes increasingly cosmic; and in our next earthly life it is incorporated in the human being once again out of the cosmos.

If you recall all that I have said in this lecture, you will be able to see that the region into which the breath was breathed is the intervening region that is in between the onsets from before and behind and from above and below - there, in the middle, where Jehovah created man, as it were **in the form of a cube.** There it was that he so filled man with His own being, with His own magic breath, that the influence of this magic breath was able to extend into the regions in the rest of man that belong to Lucifer and Ahriman. Here in the midst, **bounded above and below and before and behind, is an intervening space where the breath of Jehovah enters directly into the spatial human being."**

“All this takes place gradually throughout the period of life between the change of teeth and puberty. At puberty the process is so far advanced that these rays, having grown together at the center, form, as it were, a distinct structure. It could be said that the surrounding stars become very pale and so too the rays, though something is still discernable. By contrast, what has come together into a ball-like formation in the center becomes particularly vivid and alive. Within this structure the physical heart, with its blood vessels, is suspended by the time puberty sets in.

Thus, we have this extraordinary situation that the **star-ether body draws inwards**. As ether body it is, of course, present throughout the body but in later life it is undifferentiated at the periphery. During the time from the change of teeth until puberty **it rays intensely from without inwards. It forms a center within which the physical heart is suspended.**

You must not suppose that until then man has no etheric heart. He certainly has one, but one obtained differently from the way in which he acquires the etheric heart he now has. For what has thus rayed together into a center becomes, at the time of puberty, the etheric heart. The etheric heart he had before this time he had received as heritage through forces inherent in the embryo. **When man gathers his ether body and with it approaches the physical organism a kind of etheric heart, a substitute etheric heart, so to speak, is drawn together by the forces of the physical body.** But this etheric heart which man has in childhood slowly decays - this may not be a very nice expression, but it does fit the situation - and is replaced gradually, as the decaying processes take place, by **the new etheric heart**. The latter **is formed by a raying together of the whole universe**. In reality, it is an image of the cosmos which we bring with us as an etheric structure when, through conception and birth, we enter earthly existence. Thus, we trace, throughout the time from birth or rather conception until puberty, a distinct change in the structure of the etheric body. One can say that not until puberty is man's own etheric heart present - formed out of his own etheric body. Thus, he no longer has a provisional heart.

All the ether forces active in man up until the time of puberty have a tendency to provide him with a fresh etheric heart. It can really be compared with the change of teeth in the physical sphere. At the change of teeth, the inherited teeth are pushed out and replaced with our own. Likewise, **the inherited etheric heart, which we have until puberty, is pushed out and we get our own etheric heart.** This is what is essential: that we get our own etheric heart.

Parallel with this, something else occurs. When we observe man soon after his entry into the physical world, that is, when we observe a very young child, we find an extraordinary number of organs distinguishable in his astral body. As just described, man gathers together an ether body which is an image of the external cosmos. But in his astral body he brings with him an image of the experiences he has undergone between his last death and his present birth. Much, very much is to be seen in the astral body of the young child; great secrets are inscribed there. Very much is to be seen of his experiences since his last death. This astral body is extraordinarily differentiated and individual. The strange thing is that during the time when all that I have described takes place in the etheric body, the highly differentiated astral body becomes ever more undifferentiated. Originally, it is a structure of which one must say - if one observes it with understanding - that it comes from a different world. It has entered into this world from a realm that can be neither the physical nor the etheric. Up to the time of puberty all the many individual structures living in the astral body slip into the physical organs, as it were, primarily into those which are situated above the diaphragm. Wonderful structures, radiantly present in the astral body in the first days of life, gradually slip into the brain and also penetrate the sense organs. Other structures slip into the organs of breathing, yet others into the heart and through the heart into the arteries. They do not slip directly into the stomach; but through the arteries they spread into the abdominal organs. Gradually, one sees the whole astral body, which man brings with him into physical existence through birth, dive down into the organs. The astral body slips, as it were, into the organs. One could express it by saying that **by the time we reach adulthood our organs have imprisoned within them the individual structures of our astral body.** This may sound strange to ordinary consciousness but it corresponds absolutely to the reality. It also provides a deeper knowledge of the human organs. One cannot fully understand the human organs unless one understands the astral body that man brings

with him. One must know that each individual organ, in a certain sense, harbors within it an astral inheritance, just as the first etheric heart is an inheritance.

Gradually, the inherited astral is completely permeated by what man brings with him as his astral body. This astral body dives down, bit by bit, into the physical and etheric organs. The heart is as it were an exception. Here, too, the astral dives down; but **in the heart, not only the astral process, but the etheric, too, is concentrated.** This is also the reason why the heart is such a uniquely important organ for man.

The astral body becomes ever more indefinite because it sends the distinct structures it brought over from another life through birth into the physical organs in which they become confined. This causes the astral body to become more or less like a cloud. But the interesting thing is that while, on the one hand, the astral body becomes cloud-like, on the other, new differentiations enter in, slowly at first, but from puberty onwards quite regularly.

The strange thing is that what is thus inscribed has a tendency to meet inwardly just as **the rays in the ether body meet in the etheric heart. All human deeds also meet there.** This coming together is due to an outside cause. As human beings we must, right from childhood, engage in some activity. All this activity expresses itself as indicated throughout the astral body; but there is a constant resistance to its being inscribed. The influence on the organism cannot always take full effect in the upper part. It meets resistance everywhere in this part and is pushed down. Whatever we do with the help of our physical organs has a tendency to stream upwards to the head. But the human organization prevents this from happening by holding it back. This causes the influences to collect together and form a kind of astral center.

This, again, is clearly developed at the time of puberty, so that at the same place where our own - not the inherited - **etheric heart formed itself we have also an astral structure which centralizes all our deeds.** Thus, from puberty a central organ is created wherein all our doing, all our human activity is centered. **In the same region where man has his heart the sum total of all his activity is centralized,** but in this case neither physically nor etherically, but astrally. The significant thing is that at

the onset of puberty - the astral process coincides only approximately with the physical process – man's etheric heart is so far prepared that it can take into itself the forces which develop from our activity in the external world. Thus, to describe what actually occurs one could say: **From puberty onwards, the totality of man's actions pours, via the astral body, into the etheric heart - i.e., into the organ which is an image of the whole cosmos.**

This is a phenomenon of extreme significance. When you think about it you will realize that it amounts to an interconnection of man's earthly deeds with the cosmos. **You have in the heart**, as far as the etheric world is concerned, **a whole cosmos drawn together, and**, at the same time, as far as the astral world is concerned, **the totality of man's activity drawn together. This is where the cosmos and its processes join with man's karma. Only in the region of the heart is there such a close correspondence between the astral and etheric bodies and man's organism.** The reality is that the ether body which man brings through birth is an image of the whole cosmos; and this essence of the cosmos within him permeates itself with all his deeds. This flowing into one another in mutual permeation provides the opportunity for human actions continually to be inserted into the essence of the cosmic images.

When man goes through the portal of death and lays aside his physical and etheric bodies, **this etheric-astral structure - within which the physical heart, as it were, swims** - contains all that which man takes with him into his further soul-spiritual life. Because **within the heart, in the etheric body, the substance of the whole cosmos is drawn together**, man is able, as he grows spiritually larger and larger, to hand over to the cosmos his entire karma. The etheric structure, which is an essence of the cosmos drawn together in the heart, now returns to the cosmos. The human being expands into the whole cosmos and is received into the soul-world. He then continues his passage through what I described in my book Theosophy as the Soul World and Spirit Land.

When we observe the human organization in its becoming we have to say: **In the region of the heart the cosmic and the earthly come together. They form a union in such a way that the configuration of the cosmos is taken into the etheric heart and there it prepares to receive all our deeds.** Then when we go

through the gate of death and enter a new cosmic existence, we take with us the outcome of this intimate union of the etheric and our human actions.

This is, in fact, a concrete description of how man lives his way into his physical body and how he is able to withdraw from it again through the fact that his deeds give him the force to hold together what he formed out of the essence of the cosmos.

The physical body is built up within the physical-earthly realm through heredity - i.e., through embryonic forces. With this unites that which man brings down from the spiritual world after having drawn together the ether body. This "I", which has gone through many earth-lives and has a certain development behind it, lives within that wonderful structure he has brought with him as his astral body. His "I" has a certain sympathy for the structures that exist in the astral body. When they slip into the organs of the physical body as described, the "I" retains this inner sympathy which now extends to the organs. The "I" expands more and more within the organs and takes possession of them. Indeed, the "I" has already in earliest childhood a relation to the organs; however, at that time the hereditary conditions are present, as I explained, and the relation is, in consequence, an external one.

Gradually the "I" and astral body slip into the organs of the physical body. This occurs as follows: To begin with the "I" has a somewhat separate existence along the bloodstream within the child, then it begins to unite ever more closely with the blood circulation until at puberty they are fully united. Thus, while you have an astral structure surrounding the etheric and physical heart, the "I" takes another path to the heart. Let us say the "I" slips into the lungs - it will then, through the veins leading to the heart, gradually approach the latter. The "I" follows the circulating blood, becoming more and more intimately united with it, so that here again, via the detour of the ego forces circling with the bloodstream, **the "I" enters the structure formed by the union of the etheric and astral heart.** This structure alone makes it possible for the cosmic-etheric to grow together with a human astral. I said earlier that the astral body gradually comes to contain an extraordinary amount because all our deeds are inscribed in it. But more than that is inscribed. Through the fact that the "I" has sympathy for everything concerning the astral body, our intentions - that is, the ideas on which we base our actions - also become inscribed. In this way human karma unites with cosmic laws.

Of all this taking place in man's inner being, practically nothing is known nowadays. What is known are the results of man's physical actions which are judged according to laws of nature; also known are his moral actions which are judged according to laws of morality. But **man's moral and physical deeds come together in the heart.** Therefore, these two things, which for man today go on side by side independently of each other, are discovered to be a unity when one learns to understand the whole configuration of the human heart. That is to say, when we understand what takes place in the heart, albeit in a much more hidden way, it is comparable to what occurs openly at the change of teeth.

We inherit our first teeth and form the second ones out of the organism. The first fall out, the second remain. The first have an inherent tendency to decay; even if they did not fall out they would not last. The reason that the second teeth sometimes decay is due to external circumstances; to these belong the external causes within the organism itself. **Hidden from sight, at the onset of puberty, our inherited etheric heart succumbs to forces of decay and we acquire a kind of permanent etheric heart. Only the permanent etheric heart is fully adapted to take into itself our deeds.** Therefore, it makes a great difference whether a person dies before or after puberty. When a person dies before puberty he has only the tendency to bequeath his earthly deeds to karma. Separate earthly deeds may be incorporated in their karma when children die before puberty, but these will be indefinite and changeable. The real building up of karma only begins from the moment when the astral heart has fully penetrated the etheric heart, so that the two form a unity. One could say that this union constitutes, as it were, an organism for the forming of karma; what has thus united and contracted within man, becomes after death ever more cosmic. In the next earthly life, it is again incorporated into the human being. Thus, something is incorporated in us out of the cosmos which retains the tendency to hand over our deeds after death to the cosmos. The laws that shape our karma are effective within the cosmos so that at the start of a next earthly life we carry into it the consequences of what the cosmos made of our deeds.

Heart Thinking as Living Thoughts

Macrocosm and Microcosm, Organs of Spiritual Perception, Thinking of the Heart, March 29, 1910, GA 119

“A spiritual organ develops in the neighborhood of the heart, the **twelve-petalled lotus-flower**. **This organ becomes a kind of organ of thinking in one who achieves inner development and this thinking of the heart is very different from ordinary thinking.** In logical thinking we experience above all a kind of conscience, and by developing that we establish in the soul (heart) a certain sense of responsibility towards truth and untruth, without which nothing can be achieved in the higher worlds. Anyone who wants to undergo higher development must for a certain time also undergo training in logical thinking and then discard it in order to pass over to thinking with the heart.

To develop the thinking of the heart we must have the power to go out of ourselves and look back upon ourselves from outside. All true presentations of the higher worlds proceed from the thinking of the heart although outwardly they often seem to be purely logical expositions. **The truths imparted from the higher worlds are tinged with something like the heart’s blood.**

From the moment a man has developed the thinking of the heart, he experiences something that seems like a vision; yet what he experiences is not a vision but the expression of a soul-and-spiritual reality, they are direct experiences of the soul.

Thus do we **penetrate** into the realities, **into the spiritual Beings themselves**, and we have to unite with them. We become more and more intensely involved in the experience; we are within the Beings and things themselves.”

“One is in this way enabled to see how a man assimilates life-wisdom, life-experience all his life through. And one can study through it the relation between what the head can provide with its short development, and what the rest of the human being can furnish with its long development in the social life. It is really true that during his young days a man takes in certain ideas and concepts that he learns; but he then only learns them. They are then head-knowledge. The rest of life that runs more slowly, is destined to **transform the head-knowledge gradually into heart-knowledge** - I now call the other man not the head-man, I call him the **heart-man - to transform head-knowledge into heart-knowledge**, knowledge in which the whole man shares, not only the head.

We need much longer to transform head-knowledge into heart-knowledge than to assimilate the head-knowledge. Even if the head-knowledge is an especially clever knowledge, one needs today the time into the twenties, is it not so? then one is a quite clever person, academically quite clever. But in order to unite this knowledge fully with the whole man, one must keep flexible one's whole life through. And one needs just as much longer to change head-knowledge into heart-knowledge as one lives longer than to the twenty-seventh or twenty-sixth year. In so far is the human being also of a twofold nature. One quickly acquires the head-knowledge and can then in the course of life change it into heart-knowledge.

The dead have a thorough consciousness of how man develops quickly as headman and slowly as heart-man. And if the dead wish to express what really happens when the quickly gained head-knowledge lives itself into the slower course of the heart-knowledge, they say their wisdom-knowledge is transformed through what **ascends from man as heart-warmth or love. Wisdom is fructified in man by love.** So say the dead.

And that is in fact a profound and significant law of life. One can acquire head-knowledge rapidly, one can know a tremendous amount precisely in our age, for natural science - not the natural-scientist - natural science has made very great advances in our time and has a rich content. But this content has remained head-knowledge, it has not

been transformed into heart-knowledge because people - I pointed this out yesterday - no longer pay attention to what approaches in life after the twenty-seventh year, because people do not understand how to become old - or I could say, to remain young in growing old. **Because men do not keep the inner livingness their heart grows cold; the heart warmth does not stream up to the head; love, which comes from the rest of the organism, does not fructify the head.** The head-knowledge remains cold theory. There is no necessity for it to remain cold theory, all head-knowledge can be transformed into heart-knowledge. And that is precisely the task of the future; that head-knowledge shall gradually be transformed into heart-knowledge. A real miracle will happen if head-knowledge is transformed into heart-knowledge! One is completely right if one vigorously declaims today against the materialistic natural science, or, really, natural-philosophy - one is completely right, but all the same, something else is true. If this natural science which has remained mere head-knowledge in Haeckel, Spencer, Huxley, etc. and is therefore materialism, became heart-knowledge, if it were absorbed by the whole man, if humanity were to understand how to become old, or younger in old age as I showed yesterday, this science of today would become really spiritual, the true pursuit for the spirit and its existence. There is no better foundation than the natural science of the present day, if it is transformed into what can flow to the head from the rest of man's organism, that is to say from the spiritual part of the organism. The miracle will be accomplished when men also learn to feel the rejuvenation of their etheric body so that the materialistic natural science of today will become spirituality. It will the sooner become spirituality the greater the number of people who reproach it with its present materialism, its materialistic folly.

If humanity knows someday that it has a twofold nature, a head-nature and a heart-nature, then it will know too that the head obeys quite other cosmic laws than the rest of the organism. Then the human being takes his place again within the whole macrocosm, then man can do no other than form concepts that lead him to say 'I do not stand here upon earth as merely a higher animal, to be born and to die, but I am a being formed from out the whole universe. My head is built up for me out of the whole universe, the earth has attached to me the rest of my organization, and this does not follow the movements of the cosmos as my head does.' Thus, when we do not look at man abstractly, as modern science does, but regard him as picture in his duality, as head-man and heart-man in connection with the universe, then the human being is placed again

into the cosmos. And I know, my dear friends, and others who can judge such things know it also: if man can make **heart-warm concepts** of the fact that when one looks at the human head it is seen to be an image of the whole star-strewn space of the world with its wonders, then there will enter the human soul all the pictures of the connection of man with the wide, wide universe. And these pictures become forms of narrative which we have not yet got, and which will bring to expression, not abstractly, but linked with feeling, what we can pour into the hearts of the youngest children. Then these hearts of young children will feel: here upon earth I stand as human being, but **as man I am the expression of the whole star-strewn universal space: the whole world expresses itself in me.** It will be possible to train the human being to feel himself a member of the whole cosmos. That is the one condition.

The other condition is the following: when we are able to arrange the whole of education and instruction so that **man knows that he is an image of the universe in his head**, and in the remaining organism is withdrawn from the universe, that with his remaining organism he must so work upon what falls down like a rain of the soul - the whole universe - that it becomes independent in man here upon earth, then this will be a particular inner experience.

When he comes to know that from the whole universe there flow unconsciously into his head, stimulating its forces, the secrets of the stars, but that all this must be worked upon his whole life through by the rest of his organism, so that he may conserve it on earth, carry it through death back again into the spiritual world - when this becomes a living experience, then man will know his twofold nature, he will know himself as head-man and heart-man. For what I am now saying means that man will learn to solve his own riddle, to say to himself: inasmuch as I become more and more heart-man, inasmuch as I remain young, I view in later years through what my heart gives me, that which in childhood and youth I learnt through my head.

The heart gazes up to the head and will see there an image of the whole starry heavens. **The head however will look to the heart and will find there the mysteries of the human riddle, will learn to fathom in the heart the actual being of man.** The human being will feel as regards his education: To be sure, I can learn all sorts of things with my head. But as I go on living, as I live on towards death that is to bear me

into the spiritual world, what I learn through the head is fructified in the future through the love ascending from the rest of the organism and becomes something quite different. There is something in me as man that is only to be found in me as man; I have to await something.

Our natural science is either execrable, if it remains as it is, or it is something quite extraordinarily grand, if it changes into heart-knowledge. For then it becomes spiritual science. The older science which is involved in all sorts of traditions had already transformed head-science into heart-science; the modern age has had no gift for transforming into **heart-science** the science it has acquired up to the present, and so it has come about that head-science, especially in the social field, has performed the only real work, and has thus brought about the most one-sided product it is possible to have.

You see, man's head can know nothing at all of the being of man. Hence when man's head ponders over the being of man and his connection with the social life, it has to bring something quite foreign into the social common life. And that is the modern socialism, expressed as social-democratic theory. There is nothing that is such pure head-knowledge as the Marxist social-democracy. This is only because the rest of mankind has shirked any concern in world problems, and in the Marxist circles they have only occupied themselves with social theories. The others have only - no, I will be polite - let themselves be prompted by professorial-thoughts, which are purely traditional. But head-wisdom has become social theory. That is to say, people have tried to establish a social theory with an instrument which is least of all capable of knowing anything about the human being. This is a fundamental error of present-day mankind, which can only be fully disclosed when people know about head-knowledge and heart-knowledge. The head will never be able to refute socialism, Marxist socialism, because in our times the head's task is to think out and devise. It will only be refuted through Spiritual Science, since **Spiritual Science is head wisdom transformed through the heart.**"

The Human Soul in Relation to World Evolution, Lecture V, Dornach, 7th May 1922

"While we carry out exercises which lead us to knowledge of the external spiritual world, we also make progress in the inward direction. What we first discover is that, from the

viewpoint of the soul, we come to value our head with its knowledge rather less. By contrast, **we become very aware of that knowledge which is more concentrated in the heart, not so much in the physical heart as in the etheric and astral heart.** At this point something of the greatest significance becomes crystal-clear knowledge.

Well, the life of thought is, in a certain sense, a distinguished world, unconcerned about subjective states. However, when man sends his subjectivity into this distinguished realm, thus making it feel closer to his human nature, then his feelings pass through his heart. **Rays from the head shoot, as it were, down into the lower part of man and from there well up again.** But what is it that wells up?

From below there arise feelings, instincts, urges, passions; everything active in man's nature bursts forth. Within all this subjectivity, which is part of man, wells up also the effect of everything that seethes in the organism itself. The effects of whatever processes that are taking place in the stomach or intestines or in any other bodily function burst forth and come up to meet him together with the instincts and passions, so that one can indeed say that there, above, a distinguished world exists. Distinguished it may be but, as it has no concern for subjectivity, it contains no soul life. Thoughts in themselves are not subjective; for them it is quite immaterial whether Smith thinks of a lion or a triangle or whether Jones thinks of them. Thoughts are not concerned about subjects. The soul aspect only becomes evident when out of man's inner being there well up feelings or instincts which saturate the thoughts. Subjectivity only enters when, for example, Smith, being a hero, thinks of a lion and there wells up within him feelings of a kind that make him unafraid of a lion; whereas when Jones, being a coward, thinks of a lion, he immediately wants to flee. The thought "lion" is universal; it contains no soul element, it is spiritual. Soul comes into it when it meets the instinctive element within man. That is what imbues the thought "lion" with a soul content which in Smith's case makes him think of some instrument with which to attack the lion and defend himself, come what may; or in Jones' case makes him think of how fast he can run, and so on. In ordinary life thoughts are imbued with soul because in one way or another the soul element always rays into the spiritual.

However, when the ascent has been made first to imaginative cognition, and then to inspired cognition, things become different. At first there is a great struggle to beat back the instincts and desires which are now all the more in evidence for being undisguised. They must not be allowed expression; they must be vanquished completely. However, **something else rises towards the heart, which has now become a wonderful sense organ - a great etheric sense organ as large as the whole blood system.** Towards this heart there now rise, not what lives in instincts and passions but another kind of thought complex. These thoughts come up to meet the thoughts which have their origin in the external world and have made the head their abode in such an aristocratic manner. But **the thoughts now rising through the heart to meet them are mighty pictures which do not in any way express what otherwise rises up within the organism. They express what man was before birth.**

Man learns to know himself in his existence within the spiritual world before he was born (or conceived) on earth. That is what comes up to meet him. He is transported into his existence in the spiritual world before he descended into physical embodiment. This occurs, not through what lives in his passions and desires, but **through what meets him when he has attained imaginative and inspired cognition.** As he learns to know his own being within the spiritual world, he also learns to distinguish himself from what, to imaginative and inspired cognition, otherwise surrounds us as an external spiritual world. In that world we learn to know elemental beings, angels, archangels and so on. Out of the wisdom itself we learn to know our own being, now widened beyond earth existence.

This also leads to a significant insight into the working of the soul. We gradually come to recognize that the soul is completely poured out within the head. It has shaped the head in its own image and organized it for the external world, so that the latter can imprint itself and become mental pictures which we retain in memory, whereas within the rest of the organism, as I indicated yesterday, the soul life does not unite so intensely with the physical; it remains more separate. Therefore, **when the heart becomes sense organ we can look down into the flaming, scorching, burning emotions, desires and passions on the one hand, but also into that which lives alongside them, yet never unites with them: our eternal being.**

It now becomes clear that as far as the head is concerned our soul is buried within it; there the soul rests. The head is essentially an external organ, organized for reflecting the physical environment; in the head we grasp the external physical world. **We grasp ourselves when we look through the heart into the depth of our being.** For ordinary consciousness the waves of emotions are all that are thrust up from that depth. When we gain more insight through higher knowledge then **our eternal being comes up to meet us.** Then our soul learns to unite itself with that spiritual being which is our self. We are not part of the spiritual environment which we see outside. **We are that which we behold through our heart when it has become sense organ.** The path which otherwise led only to the experience of our soul's external side, its urges and desires, now leads us into the eternal soul within us, which is saturated with spirit. The eternal soul is as spiritual as the spiritual environment. We have come into a sphere where soul and spirit are one.

No matter how much you seek within the brain, only what is physical is to be found there; in the head you are yourself physical. Yet the brain is the main field of research for modern psychology. It is said that psychology investigates the soul, but only the brain is investigated. This can be done because **the brain is an expression of the soul which lies entombed within it.** The soul rests like a corpse within the brain and this corpse is the subject of modern psychology. **The soul itself is beneath the heart where it is united with the spirit.** Only its external aspect unites with the instincts and desires; the soul's inner being does not.

We are, in reality, within the sun. We are within the external physical-etheric aspect of the sun in all that which we externally perceive because of the sun's presence, and our senses' inner connection with what the sun enables us to perceive.

However, **when we attain imaginative and inspired cognition - that is, when through the heart we penetrate further into our own being -** then we experience the sun differently. At a certain point, when inspired cognition begins and we are within a world of pictures which at the same time are realities, we become aware, as if through a sudden jolt of soul and spirit, that we have arrived within the sun.

This is an experience of immense significance. On earth the sun shines on us; as human beings we perceive things around us because they reflect the sunlight. But the moment **we ascend to inspired cognition, when for us the heart becomes a sense organ**, we suddenly experience ourselves within the sun. We no longer look up and see the sun move in its orbit - I am taking into account only the sun's apparent movement - rather do we feel that with our heart we are within the sun and moving with it. For us **the heart is in the sun and the sun becomes our eye** with which we behold what begins to appear around us. **The sun now becomes our eye and our ear and our organ of warmth.** We no longer feel that we are outside the sun; rather do we feel transported into the sun and existing within the light. Formerly we were always outside the light, but now that **we have plunged with our being into the heart we have the feeling that our relation to the world is such that we are within the light, that our being is light.** Within the undulating, weaving light we touch the spiritual beings with the organs of light which we now possess. We are now, in our soul being, akin not to the world outside the sun, but to the world within it. And I want to emphasize that our being becomes linear, so much so, that we feel we are within the sun's linear path. **When we advance just a little further in higher cognition we feel ourselves to be not only within the sun but also to a certain extent beyond it.** Formerly we were tiny human beings there below and we looked up at the sun. But now that we have come into the sun we feel we are, with our soul being, within the sun and the world which was formerly around us is now within us.

Verse by Rudolf Steiner

Sun, thou bearer of rays,
Thy light's power over matter
Magics life out of the earth's
Limitless rich depths.

Heart, thou bearer of soul,
Thy light's power over spirit
Magics life out of the human being's
Limitless deep inwardness.

If I gaze upon the Sun
Her light speaks to me in radiance
Of the Spirit, filled with grace,
Wielding through the beings of worlds.

If I feel within my heart
The Spirit speaks its own true word
About the human being, loved by him
Through all time and eternity.

Looking upwards, I can see
In the Sun's bright disc
The mighty heart of worlds.

Looking inwards, I can feel
In the heart's warm beat
The human Sun ensouled.

Verse for Ita Wegman, February 27, 1925

Hearts interpret Karma
When hearts learn to read
The Word,
Which creates in
Human Life;
When hearts learn to
Speak the Word
Which creates in
The Human Being.

Verses and Meditations, by Rudolf Steiner

In the human Heart
there lives a part of Man
which contains matter
more spiritual than in any other organ;
also a part of Man
of which the spiritual life
is made more manifest in matter
than that of any other organ.

Hence, in the Microcosm that is Man
Sun is the Heart,
and in his Heart is Man united
most of all with the deepest fount-
the fount of his true Being.



To view this chapter in a multi-media format:

<https://neoanthroposophy.com/2021/01/21/rudolf-steiner-on-the-human-heart/>

Dodecahedron Universe

“Wherever you go, go with all your heart.”

Confucius

As has been presented above, the human heart is nested in the mediastinum which appears as a type of cube, or box surrounding and protecting the heart itself. In our current age, the shape of that box is a six-sided cube, but in the future, the shape of this protective enclosure will develop into a twelve-sided dodecahedron. The heart shape and size evolve over time. This mystery of the heart is little known and even less understood. Dr. Rudolf Steiner was very keen on this idea and believed that the evolution of the heart was a key factor in the overall development of humanity. The significance of this heart evolution is critical to expand human awareness and consciousness of the inside and outside world of the individual. As humans expand beyond the awareness of the inner world of the human body, a larger, more universal perspective must arise in a new form.

This new perspective takes the step to become aware of the twelve directions raying in from the surrounding cosmic shape. The human being becomes more universal, or macrocosmic, through this expansion of awareness. Steiner insinuated this new perspective by teaching what he called, the “Twelve World Views.” Only when one is able to understand the world through twelve perfectly valid, but different, World Views, is the individual able to become a universal citizen of the cosmos. Broadening and expanding human consciousness to encompass the entire world of the stars that ray in from the twelve cosmic directions opens the heart to the new shape it will become as the heart develops into a greater and greater sense organ of the entire universe.

The original Foundation Stone of Rudolf Steiner’s first Goetheanum was a double pentagon-dodecahedron made of copper which was laid into the ground in Dornach, Switzerland. Ten years later, a tragic fire destroyed the nearly completed building. In 1923, at the Christmas Foundation meeting, Rudolf Steiner presented a ‘spiritual Foundation Stone,’ the ‘Dodecahedron of Man,’ as he called it, to the members of the newly-formed General Anthroposophical Society, which was to initiate a new phase in the revelation of the Mysteries of mankind. The meditation is mantric, that is, a spiritual

revelation in which sound, form and rhythm integrate with the esoteric meaning which lies in layers of evocative multiplicity.



Foundation Stone Parchment, 20th September 1913, by Rudolf Steiner

Rudolf Steiner: “Let us here and now lay in the ground of our hearts the dodecahedral Foundation Stone of love. Our own hearts are the proper soil in which to lay this Foundation Stone - our hearts, in good will, imbued with love, working together to carry the anthroposophical will and purpose through the world.”

Supersensible Knowledge: Blood is a Very Special Fluid, Rudolf Steiner, 25 October, 1906

“**Thus the whole cosmos lives in the form of a crystal.** In the same way the whole cosmos is expressed in the living substance of a single being. The fluids coursing through it are, at the same time, a little world, and a counterpart of the great world. And when substance has become capable of sensation, what then dwells in the sensations mirror the cosmic laws, **so that each separate living creature senses within itself microcosmically the whole macrocosm.** The sentient life of a simple organism is thus an image of the life of the universe, just as a crystal is an image of its form. The

consciousness of such living creatures is, of course, very dim. But its vagueness is counterbalanced by its far greater range, for the whole cosmos glimmers in the faint consciousness of an elementary being. In man there is only a more complicated structure of the same three bodies that are found in the simplest sensitive living creature.”

Toward the 21st Century - Doing the Good, The Stone of Love, Bernard Lievegoed

“Rudolf Steiner describes the reality of that dodecahedral love stone. He says, **‘The foundation stone will light up before the eye of our soul. Even that foundation stone which receives from universal and human love its substance, from universal and human Imagination its living picture quality and form, and from universal and human thoughts its radiating light.’**”

Love is its substance; Imagination is its form; thoughts are its radiating light.

It is not an earthly thing. It is an Imagination living in the hearts of a society. Such words are spoken by the hierophant, the high priest of mysteries - in this case the high priest [Rudolf Steiner] of new mysteries in which human hearts are the altars, the radiating love stones on which the hierarchies may celebrate the cosmic cult of the future.”

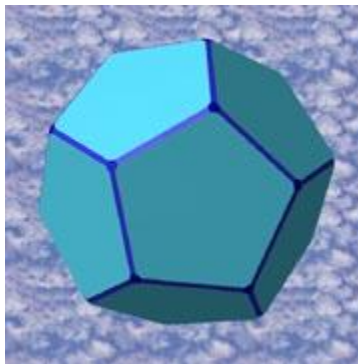
The Universe as a Phi-based Dodecahedron, by Gary Meisner, May 1, 2012

“New findings in 2003 reveal that **the shape of the Universe is a Dodecahedron based on Phi.**”

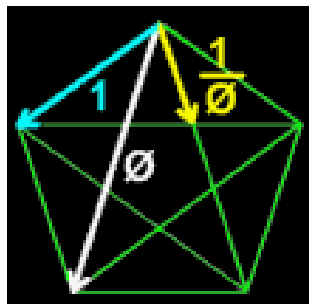
In October 2001, NASA began collecting data with the Wilkinson Microwave Anisotropy Probe (WMAP) on cosmic background radiation. Like visible light from distant stars and galaxies, cosmic background radiation allows scientists to peer into the past to the time when the universe was in its infancy. Density fluctuations in this radiation can also tell scientists much about the physical nature of space.

NASA released the first WMAP cosmic background radiation data in February of 2003. In October 2003, a team including French cosmologists and Jeffrey Weeks, a freelance mathematician and recipient of a MacArthur Fellowship used this data to develop a model for the shape of the universe.

The study analyzed a variety of different models for the universe, including finite vs. infinite, flat, negatively curved (saddle-shaped), positively curved (spherical) space and a torus (cylindric). The study revealed that the math adds up if **the universe is finite and shaped like a dodecahedron**, as in the illustration below provided by Weeks.



The Universe as a Dodecahedron is based on Phi, the golden ratio. The connection to Phi is found in the pentagons that form the faces of the dodecahedron. A dodecahedron consists of twelve pentagons. Take a pentagon and connect all the points to form a 5-pointed star. The ratios of the lengths of the resulting line segments are all based on phi, or 1.618. This is still a theory but supported by data that can be tested.”

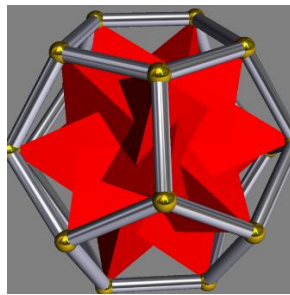


Phi and the Golden Proportion in a Pentagon

This unique platonic solid (dodecahedron) incorporates the golden ratio, which is often denoted by the Greek letter phi, usually lower case: ϕ . When you stack a number of dodecahedra together, interesting things happen with the way the different faces and vertices rotate: they can be seen to enfold one into another, and the resulting hints of rotating helix shapes, fractals, and the spirals found in nature link not just to the broad field of sacred geometry, but to cosmological theories about the structure of our universe.

Our universe is not really flat and infinite, but rather slightly curved, making it finite but unbounded. Curved spaces includes the Poincaré dodecahedral space model which lets you fly through the stacked dodecahedra that would form the surface of the 4D hypersphere our finite but unbounded universe resides within.

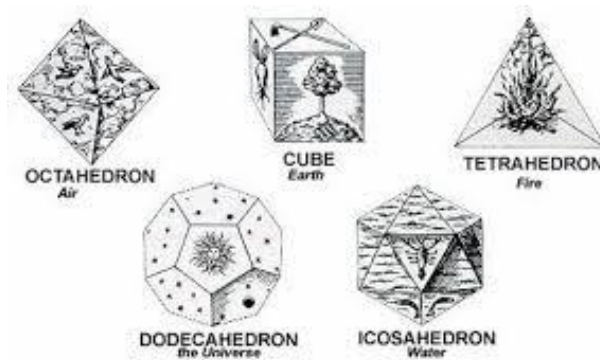
Another interesting thing about a dodecahedron is that it can be constructed from five pyramids (tetrahedrons).



Besides tutoring Eudoxos, some historians assume that Archytas also tutored Plato in mathematics at some point during the ten years that Plato spent in Sicily and Southern Italy. Plato was impressed by Archytas showing him that only five regular solid forms exist; the tetrahedron, cube, octahedron, dodecahedron and the icosahedron. Plato develop a whole mathematical theory using these geometrical objects to associate these with the four elements the fire, earth, water and air. And because one polyhedron was left he introduced the “ether” or “quintessence.” In using triangles as building blocks for the geometric objects he developed something like our “quarks” as building blocks of the “Platonic solids.”

Of the five solids, the tetrahedron has the smallest volume for its surface area and the icosahedron the largest; they therefore show the properties of dryness and wetness

respectively and so correspond to FIRE and WATER. The cube, standing firmly on its base, corresponds to the stable EARTH but the octahedron which rotates freely when held by two opposite vertices, corresponds to the mobile AIR. The dodecahedron corresponds to the UNIVERSE because the zodiac has 12 signs (the constellations of stars that the sun passes through in the course of one year) corresponding to the 12 faces of the dodecahedron.



The Five Platonic Solids

It is clear that the very ratios of the planetary intervals from the sun have not been taken from the regular solids alone. For the Creator, who is the very source of geometry and, as Plato wrote, ‘practices eternal geometry,’ does not stray from his own archetype. Thus, God, the eternal geometer must have given us the Platonic solids on behalf of the planetary orbit structure -- they were made for each other.

Kepler was also influenced by Plato’s ideas. He assigned the cube to Saturn, the tetrahedron to Jupiter, the dodecahedron to Mars, the icosahedron to Venus, and the octahedron to Mercury.

Pacioli devotes the second part of his book *De Divina Proportione*, published around 1509, to the Platonic solids. He writes:

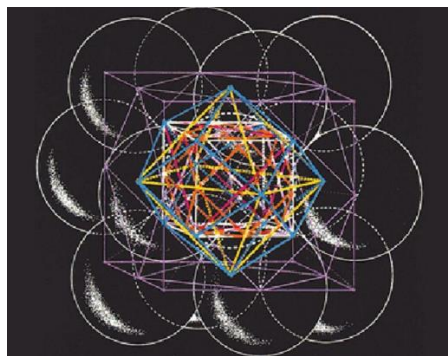
“As God brought into being the celestial virtue, the fifth essence, and through it created the four solids . . . earth, air, water, and fire . . . so our sacred proportion gave shape to heaven itself, in assigning to it the dodecahedron . . . the solid of twelve pentagons, which

cannot be constructed without our sacred proportion. As the aged Plato described in his *Timaeus*.”

The most amazing vindication of Plato has come from recent surveys of the universe that indicate that the universe may indeed be a dodecahedron, whose reflecting pentagonal faces give the illusion of an infinite universe when in fact it is finite. Plato’s answer is that: ‘time is an image of eternity.’

The best candidate to fit the observed power spectrum of the universe is a well-proportioned space called the Poincaré dodecahedral space. This space may be represented by a polyhedron with 12 pentagonal faces, with opposite faces being “glued” together after a twist of 36° . This is the only consistent way to obtain a spherical (i.e. positively curved) space from a dodecahedron. The Poincaré dodecahedral space is essentially a multiply connected variant of a simply connected hypersphere, although its volume is 120 times smaller.

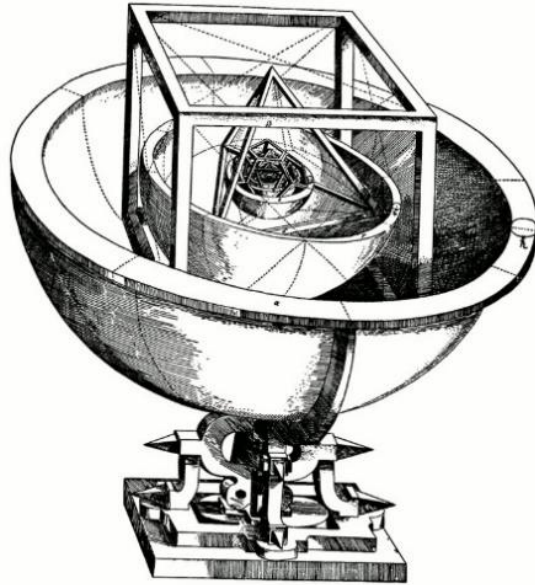
In the dodecahedral universe, a rocket leaving the dodecahedron through a given face immediately re-enters through the opposite face, and light propagates such that any observer whose line-of-sight intercepts one face has the illusion of seeing a slightly rotated copy of their own dodecahedron. This means that some photons from the cosmic microwave background, for example, would appear twice in the sky.



The Universe as Dodecahedral Fractals

The pentagon in space disperses into the number twelve and becomes the number of the

transfigured spatial cube. In this way it descends into the plane becoming dodecahedron woven of triangles, squares and hexagons - the dodecahedron in the plane. Twelve is the number of opened up space, through and through transformed to the pentagon.



'Kepler's Dream' of Nested Platonic Solids

In the plane, the strong qualities of three dimensional space are preserved in it -- it is revealed there. In this same way, the oldest Egyptian representations of starry space show a bow of an arch of twelve star pentagrams. There are also ancient traditions which show that the twelve parts of the zodiac are related to the zones of the dodecahedron.



To view this chapter in a multi-media format:

<https://neoanthroposophy.com/2021/01/24/dodecahedron-universe/>

Historical Review of the Centrality of the Heart

*“Your work is to discover your world and then with
all your heart give yourself to it.”*

Gautama Buddha

Ancient Indian Wisdom of the Heart

Heart knowledge has evolved over time rather slowly and often has forgotten what the ancients already understood about the function and nature of the human heart. Modern science is only slightly further along in a comprehensive understanding of the cosmic significance of the human heart and its nature as a supersensible organ of perception. The ancients had the advantage of being clairvoyant and could “see” what was actually happening in the heart. They used archaic images and descriptions of heart functions and pointed at mysteries concerning the ultimate nature of the heart. They placed the heart above all else in the grand picture of human evolution. Following this path through history is quite instructive and demonstrates that the ancients may have used poetic language to describe the heart but their insights were just as useful now as they were then. We can learn a great deal about the evolution of the understanding of the heart by hearing historical descriptions, in their own words, concerning the truth about the heart.

In the Vedas and Upanishads, the central core of divinity possessed its true center of incarnation within the human heart. The organ itself then takes on a creating, transforming, and sculpting character. There, in the “ether of the heart”, the divine lives in “deepest slumber” in a “hollow space” sheltering the universe. It is there that the human being and the world become one. The spiritual power of the divine is divided into infinitely tiny pieces within our individual bodies and throughout the world generating the warmth of the heart. Out of this arises the breath, and from the breath the Om-sound is created in the heart as the word of creation. It rises up to the throat and the lungs,

becoming the “sound of the heart” and “matrix” of the world; the voice at the center of everything, the womb of creation.

The Para-pravesika by Ksemaraja

“That self-referential capacity of the heart is given many names in the agamas: **spirit, consciousness, the ever-arising supreme word, freedom, the Supreme Self, the preeminent, sovereignty, agency, flashing vibratory throb, essence, subtle vibration** - and because of this, its real nature is that of the original natural egoity.”

Chandogya Upanishad (8.1.1-4)

“Now, what is here in the city of brahman, is an abode, a small lotus flower. Within that is a small space. What is within that should be searched out; that, assuredly, is what one should desire to understand. As far as this world-space extends, so far extends the space within the heart. **Within it, indeed, are contained both heaven and earth, both fire and wind, both sun and moon, lightning and the stars, both what one possesses here and what one does not possess;** everything here is contained within it that does not grow old with one’s old age; it is not slain with one’s murder. That is the real city of Brahman. In it, desires are contained. That is the soul (atman), free from evil, ageless, deathless, sorrowless, hungerless, thirstless, whose desire is the real, whose conception is the real.”

Brihadaranyaka Upanishad (4.1.7)

“Brahman is the heart . . . **the heart is the seat of all things.** The heart is the support of all things, for on the heart alone all things are established. The highest Brahman is the heart. The heart does not leave him who, knowing this, worships it as such.”

Brihadaranyaka Upanishad (5.6.1)

“This person (purusha) here in the **heart is made of mind**, is of the nature of light, is like a little grain of rice, is a grain of barley. **This very one is ruler of everything**, is lord of everything, governs this whole universe, whatsoever there is.”

Svetasvatara Upanishad (4.17)

“That god, the all-worker, the great soul (Mahatman) ever seated in the heart of creatures, is framed by the heart, by the thought, by the mind. **They who know that become immortal.**”

Katha Upanishad (6.16-17)

“There are a hundred and one channels of the heart. **One of these passes up to the crown of the head. Going up by it, one goes to immortality.** The others are for departing in various directions. A person of the measure of a thumb is the inner soul (antaratman) ever seated in the heart of creatures.”

Taittiriya Upanishad (1.6.1)

“This space that is within the heart - therein is the person, **consisting of mind, immortal, resplendent.**”

Maitri Upanishad (6.22)

By closing the ears with the thumbs, they hear the sound of the space within the heart. Of it there is this sevenfold comparison: like rivers, a bell, a brazen vessel, a wheel, the croaking of frogs, rain, as when one speaks in a sheltered place. Passing beyond this variously characterized (sound-brahman), men disappear in the supreme, the non-sound, the unmanifested Brahman. The ether-storehouse of the heart is bliss, is the supreme abode. This is our self, our yoga too; and this, the heat of fire and sun.”

Maharayanopanisad Upanishad (13.6-12)

“In the middle of that (narrow space of the heart or sushumna) remains the **undecaying, all-knowing, omni-faced, great fire, which has flames on every side**, which enjoys the food presented before it, which remains assimilating the food consumed, (the rays of which spread scattering themselves vertically and horizontally) and which warms its own body from the insole to the crown. **In the center of that fire which permeates the whole body, there abides a tongue of fire, of the color of shining gold, which is the topmost among the subtle.**”

Brihadaranyaka Upanisad (4.2.3)

“Indra by name is this person here in the right eye. Now that which has the form of a person in the left eye is his wife, Viraj. **Their meeting-place is the space within the heart.** Their food is the red lump in the heart. Their covering is the net-like work in the heart. The path that they go is that channel which goes upward from the heart. Like a hair divided a thousand-fold, so are the channels called hita, which are established within the heart. The person here who among the senses is made of knowledge, who is the light in the heart.”

Khandogya-Upanishad

“There is this city of Brahman (the body) and in it the palace, the small lotus (the heart) and in it that small ether. Now what exists within that small ether, that is to be sought for, that is to be understood. **As large as the ether of space is, so large is that ether within the heart. Both heaven and earth are contained within it, both fire and air, both sun and moon, both lightning and stars,** and whatever is not, all that is contained within it. **Ether does not age,** and at the death of the body this ether is not spilled. It is this ether, or Brahman, that **is the true Self,** free from ignorance and change and partaking of the qualities of reality. **The Lord of the past and of the future, should be meditated upon as a light (flame) the size of the thumb in the cavity of the heart.** The spot in the heart which is the last of all to die is the seat of life, the center of all, Brahma, the first spot that lives in the fetus, and the last that dies. **This spot contains potential mind, life, energy, and will. During life it radiates prismatic colors, fiery and opalescent.** When the time of death arrives, the spirit withdraws its radiations from the parts and extremities of the body in the heart. The heart becomes luminous; from it the soul departs. There are a hundred and one arteries of the heart; one of them penetrates the crown of the head; moving upward; by it a human reaches the immortal. **He is going to the Sun, for the Sun is the door of the world, the little door in the wall of heaven.**”

The Rig Veda

In the *Rig Veda*, the terms for heart (hrd and hrdaya) occur close to a hundred times. Here are some of the descriptions of the heart:

- able to see what is denied to the physical eye
- by which one comes into touch with the Gods
- enables a human being to penetrate into deep secrets and mysteries
- it is in or by the heart that visions are fashioned into words
- visions undergone in the heart are explicitly described as a purification or clarification

- the soma juices which are drunk by the officiants are believed to be in their hearts
- through the heart, the light of higher insight and contact with the transcendent one arises through the heart, one becomes all-seeing
- inspired seers pay heed to the god who is not subject to decay within their heart
- clarified butter of the word flows from the ocean in the heart
- words of the poets come to and touch the heart of a god
- the poet bears the soma in his heart
- the spiritual heart is the soul and its psychic activity
- the heart is considered the seat of feelings
- Atman, the spiritual heart, has no physical or mental dimensions
- the heart chakra is a level or dimension of our being and of the entire manifestation
- the spiritual heart is a spark of God
- Atman (the spiritual heart) and Brahman (the absolute) are one
- our heart - our eternal, undying self - is identical with Brahman
- the spiritual heart is a reflection of everything, the supreme consciousness
- the heart is the essence of everything, the background of existence
- we are all revealing the same heart, the same divine self, the same ultimate reality
- the heart of man and the heart of the world are a single heart
- we should surrender into the heart, into the supreme reality, into God
- the godly atom of the self is to be found in the right chamber of the heart
- the self is in the cave of this heart, here lies the dynamic, radiant spiritual heart
- the spiritual heart, is the intuition of who we are
- the limitlessness of the spiritual heart is absolute because it has no form - it can contain totality
- we should lower the mind to the heart
- the heart is the object, means, and subject of meditation
- the spiritual heart is the witness of consciousness, the profound and intimate self
- the heart becomes the knower, the instrument of knowledge, and the object of knowledge
- meditation starts from the heart and returns to the heart
- the divine reality of existence, the present, the "I am," resides in the heart
- when we withdraw the senses and center ourselves in the heart, we can search "the interior"

- we pass from the usual “conquering” attitude of the mind to a receptive, contemplative disposition using surrender to attain lucidity
- the spiritual heart has a radiance of pure presence, not action of the ego
- the heart has a plenitude of the wholeness
- the attention of the heart-mind has an attitude of waiting, peace, and sacredness
- attention emanates from the heart and ends up in the heart
- real knowledge resides in the heart, in the wisdom that illuminates us with brightness
- the best way of keeping the awareness of the spiritual heart is to love
- the spiritual heart generates love, devotion, zeal, fervor, heartiness, ardor, adoration, ecstasy
- our spiritual heart (as the organ of perception) needs to be cultivated
- art and contemplation are some of the ways to cultivate our spiritual heart
- we should meditate for the revelation of the spiritual heart and love
- we should teach the sacred principles of the kingdom of the heart
- the heart produces pure love, yearning, fervor, the sacred tremor, and the aspiration for God
- complete silence of the mind is necessary before entering the secret sanctuary of the heart
- initiates of the spiritual heart are able to rise above their egos toward the supreme essence
- the heart is a subtle organ of wisdom, or transcendental intellect
- the rational mind cannot understand the reasoning of the heart
- spiritual intuition comes from the heart
- rational thinking is the reflection of the energy of the heart - reflected knowledge
- the mind knows through information - the heart knows through surrender, trust, and joy
- the knowledge of the heart is instantaneous and undivided, revelation, whole, non-dual
- the heart is named “The circle of the Sun”
- intuition comes from the heart, is divine, and participates in universal spiritual wisdom
- the heart is the spiritual Sun, the place of revelation, the vital center of being, and intuition

- the heart is a visible manifestation of God to humanity - a sacred symbol
- the primordial subtle energy ascends from the heart to the mind
- the mind is seen as a Moon which simply reflects the light of the heart's Sun
- in the heart, all the vain noise of the world is quieted - a sanctuary of silence
- in the "cave of the Heart", the consciousness of unity is revealed - the world and man are one
- the Heart should be trained to increase its purity and capacity to love, witness, and surrender
- the spiritual heart is a gateway to infinity, where the supreme self, Atman, is revealed

The Triadic Heart of Siva, by Abhinavagupta

"The heart (hrdaya), the resting place of all, is mantra, which, in its essence, is nothing but free-consciousness, which also is simply the power of transcendental speech.

The power which resides in the heart of consciousness is freedom itself. The purpose of its creative activity is the immortal group, the entire range of perceiving subject, perceived object, and process of perception.

The heart is, above all, formed of an undivided self-referential consciousness.

My heart, which is composed of the emission of the quivering flashing condition of the union of the Mother and Father, whose body is full, which generates that concealed light which has five faces, producing the great and quite new manifestation, which is the abode of the stainless manifesting energies, because of its quivering and throbbing, is the supreme immortal group.

Within whom all this universe appears, appearing as the external luminous projection during the process of manifestation. Situated in the supreme, which is trembling, which is immovable, **to Her I bow down, the one Goddess who is the perception of one's own self.**

The heart is called the place where there is a repose in the pure light and pure consciousness, which is not different from the parts of the body. Only the light of the heart truly exists; in creative activity it is the active agent, and this activity, when it reposes in itself, is the self-referential capacity of consciousness, whereas when it begins to spread outwards it causes the manifestation of the universe.

The nature of such a consciousness is its capacity for self-referral, and because of that, there always arises a spontaneous sound which is termed the supreme, the great heart. That self-consciousness in the heart in which the entire universe without remainder is dissolved, present at the beginning and at the end of perception of objects, is called in the authoritative texts “the

Vibration”, and more precisely, “**the universal vibration**”, and its nature is an overflowing in the self. For that vibration, which is a slight motion of a special kind, a unique vibrating light, is the wave of the ocean of consciousness, without which there is no consciousness at all. For the character of the ocean is that it is sometimes filled with waves and sometimes waveless. This consciousness is the essence of all. The insentient universe has consciousness as its essence, because its very foundation is dependent on that, and its essence is the “great heart.”

When the heart is in a state of contraction, the awakened awareness of the individual self is in fact a state of ignorance. But when this contraction ceases to function, then the true nature of the self shines forth.

In the two conditions, the inner and the outer, there exists a vibration of consciousness whose nature is the three powers, a vibration which is both universal and particular, which is always in the process of expanding and contracting because it so wishes to appear even though in reality it is **beyond all expansion and contraction.**

It is the heart whose nature is a vibration which constitutes the supreme method for achieving the highest non-duality which consists of **a universal grace.** For the nature of the self-referential character of the consciousness which composes the awakening in the heart is that it is an astonishment brought about by the total fullness of consciousness.

That reality which is **higher than the highest and the lowest, is called the Goddess**, that reality is the essence, the heart, the supreme emissional power of the Lord.

In order that a sacrifice be successful, one must properly honor the Goddess with fragrant flowers which effortlessly allow for an entrance into the heart; and by flowers are meant all substances - external and internal which nourish the heart because they bestow their own nature within the heart.

Now as for the supreme, as it is called here, there is a meditation on it. The light, the freedom, whose essential nature is consciousness contains within it all principles, realities, things. This light abides in the heart.

The knower of truth sees that reality within the heart like a flower within which are all external and internal things, a flower shaped like a plantain bloom. He should meditate with undistracted mind on **the union there in the heart of the sun, moon, and fire**. This union expands and flames violently in the great firepit known as the heart.

Just as the large tree is to be found potentially in the banyan tree seed, so **this world, both inanimate and animate abides in the seed of the heart**.

This heart which moves in the midst of the lunar stations made up of time - of the all - is present in everything in the form of an undifferentiated self-referential consciousness; one should continually meditate on this seed of the heart as having penetrated into one's own heart, into one's consciousness, which is in the form of the lotus-flower because it plays at expanding and contracting.

This heart is the abode, the dwelling place, the resting place of all beings.

That which is mine, belongs to the perceiving subject. For of all existing appearances beginning with blue and extending as far as the worm, there is nothing whatsoever which may be termed blue, and so on, unless it be penetrated by a portion of consciousness. So my consciousness attains a portion of the uninterrupted astonishment and then, when it encounters blue, it

experiences, 'Blue appears to me.'

That which is the space of the Heart which belongs to me, in which are found all beings within the infinite, there the entire universe, whose nature is represented by the sound Mama (mine), has gone, and is completely held. But when it abandons its differentiated nature the space becomes empty. Then my heart takes on a double nature, which is both differentiated and non-differentiated, supreme consciousness and non-supreme consciousness, and becomes the place of repose, the dwelling place of limits, that is, the 'I.'

That which is **the stream of manifestation, that is the supreme**, which is situated in the space of my heart.

The tantric practitioner who has penetrated into the heart whose essence is pure existence and potency, who because of the particular efficacy of the practice of the ritual of adoration is capable of remembering perfectly the mantra, thus attains to a very high degree the potency of the mantra which is the reality known as the heart. By the peculiar efficacy of the ritual of adoration he crosses over completely, either by himself or as a result of the clear and pristine lotus-word of the teacher, and obtains the power of the mantra, whose essential characteristic is the heart, and in this way he **attains liberation in this very life.**

The essence of consciousness is freedom, and the essence of that is a mass of bliss. It is for this reason that ritual actions directed toward an attainment of a state of identity and absorption should be carried out **employing elements that bring joy to the heart.**

When the absorption into the heart is maintained for four periods of forty-eight minutes, then the totality, whose nature is essentially light, attains the condition of day, and the contraction of the night of Maya (illusion) is destroyed. **Then the practitioner with this very body becomes omniscient.**"

Vimarsini, by Abhinavagupta

“I adore the supreme with the priceless goblet of the heart which is full of the ambrosia of bliss.

This supreme wheel goes out from the heart through the spaces of the eyes, and so forth, and ranges over the various objects of the senses. Because of the wheel's (chakra's) rays of light, a form whose nature is of the light of the moon, sun, and fire is established in those objects by regular degrees in conjunction with manifestation, maintenance, and dissolution. In this way, as this wheel falls on the various objects of the senses by way of the sense-capacity openings, one should recognize that sensory object as identical with the wheel. Thus, wherever the universal wheel falls, by this methodical practice it falls in its entirety like the universal monarch. In this way, the whole multitude of paths is effortlessly dissolved in the great wheel which is contained in consciousness. Then, even when all this has come to an end and all that is left are latent impressions, one **should meditate on the great wheel which revolves and is the overflowing of the true self.**

He whose heart is completely fulfilled and who does not desire any specific fruit, because of the absence of all limitations, before him the Goddess in her universal form appears.

At first abiding in the heart, due to a repose in the mere emptiness, in the portion of the knower alone, in the innate bliss, he experiences a state known as 'devoid of bliss.' Then, when the vital breath rises, he experiences in the 'knowable object' the bliss that arises from another. In this condition of the bliss that arises from another, he abides at ease in the apana, which is filled with the infinite portions of the knowable, and he is embellished with the moon of the apana. Having attained the level of the samana, he abides wholly absorbed in the unification of the infinite rays of the knowable objects. He becomes one who is composed of the bliss of Brahman. He is totally dedicated to devouring the limiting forces of the streams of the knowable objects and the means of knowing; he reposes in the fire of the udana and comes to know the great bliss. Then, having entered this repose, and when the great flames begin to abate, the great pervasion

which is beyond all qualifications ensues, and this is called the vyana, the unlimited. Then, indeed, the bliss of consciousness occurs which is not strengthened by what is inert. For here indeed there is no possibility whatsoever of a difference which would be formed of the insentient. That is a state where there is no distinction, where everything appears shining on all sides, where consciousness is unstruck and fed by the supreme nectar. There, one does not meet with any realizations in the proper sense of the word at all. This condition taught to me by Sambhunatha is known as the universal bliss. **The repose in this state may be obtained by employing the pronunciation of the heart.** The complete repose in this state corresponds to the attainment of the condition of the supreme. **These are the six states which arise from the ascension of the vital breath into our different internal abodes, even if in essence our essential nature, flowing out of the heart, is always one.”**

Heart Research in Egypt

Knowledge about the cardiovascular system, which led Harvey to the discovery of blood circulation, was achieved only gradually through the ages. It started in Egypt around 3500 BC, was elaborated by ancient Greeks, was better defined in Alexandria, and, in the West, ceased after the fall of the Roman Empire. This knowledge was preserved in the Islamic world and in European monasteries, and it later advanced with the revival of the anatomical dissection in European universities, paving the way to Harvey's discovery. This review provides an overview about how knowledge about the cardiovascular system developed through the ages.

In ancient Egypt (3500 BC), the heart was considered the central element of a system of channels distributed throughout the body, transporting blood, feces, semen, benign and malignant spirits, and even the soul. There was a clear notion that the peripheral pulse originated from the heartbeat.

The Heart According to the Greeks

In the Pre-Aristotelian Period, Thales from Miletus, paved the way for questions regarding the human anatomy. Medical schools came into existence along with philosophers in the 5th century BC. Alcmaeon believed that the venous system was distinct from the arterial system, although he did not make an anatomical distinction between them. The function of the vessels was associated with wakefulness: withdrawal of blood from veins induced sleeping, but arteries, which brought blood to the brain, promoted wakefulness. According to him, all vessels originated in the head, and their function was to distribute the pneuma (spirit) to the brain.

Empedocles from Agrigento (492-432 BC) had a different view. For him, the heart was the seat of the soul and the center of the cardiovascular system; blood vessels distributed the pneuma, which was internalized by pulmonary respiration. Nonetheless, Empedocles also believed in the existence of fleshy tubes that contained blood and the terminal portions of which externalized in the skin, absorbing and expelling air.

The school of Kos, the main exponent of which was Hippocrates (460-375 BC), with regard to the cardiovascular system in the book *On the Heart*, reported for the first time the anatomical details of the heart, ascribing to the cardiovascular system the transportation of life throughout the body. According to the authors of the book, the lungs surrounded the heart, in the thorax, in order to cool the excess heat produced by incessant cardiac activity. The heart had a pyramidal shape, red color, and intrinsic electric activity. In contrast to the rest of the body, which was nourished with blood delivered through veins, the heart nourished itself from the pure substance created during blood dialysis. The heart housed the mind and the spirit, which predominated over the rest of the soul.

The Sicilian branch of the school of Cnidus, probably with works by Philistion of Locri around 370 BC, also contributed to the anatomical knowledge about the cardiovascular system: the presence of two ventricles was well known, the left being more hypertrophied than the right; the presence of two atria, whose beats were discordant in time with those

of the ventricles, was also observed; moreover, the author noted the presence of a vessel connected to one ventricle only, along with semilunar valves.

Aristotle (384-322 BC) believed that the heart was the most important organ of the body and was the seat of the soul. The breath contained only air, the main function of which was to cool the heart. In the same manner, he conceived the brain as a mechanism for cardiac cooling.

Aristotle believed that the pulmonary artery and superior vena cava were subdivisions of another great vessel, which he called the “great vein.” In addition, he described another vessel connected to the medial ventricle, which he named the aorta. Further, he believed that the heart was the origin of all nerves and vessels. According to Aristotle, in comparison with the left ventricle, which had air and more pure blood, the right ventricle contained blood that was warmer and more abundant.

From: Aristotle's On the Generation of Animals

“We are justified in seeing the heart as the source of the being’s life, shape, and organization.”

“Blood and its blood vessels are the original source of life.”

“The actual nourishment process of each living thing is involved intrinsically with the entire process of forming the blood. The formation of the blood constitutes ‘the final step’ of internalizing and transforming nourishment.”

“All other parts of the body depend on the heart and have their source, or origin, in the heart.”

“Warmth enables digestion and brings about the overcoming, surmounting, and internalization of outside, foreign qualities and find its origin and center in the heart.”

“The particular prerequisites for human thought activity are grounded in the polar opposite and painstakingly balanced processes of warmth and cold in the human heart and brain.”

“The heart is the center of the perception process of the soul and the sensory environment of the human being. In the heart, these sense impressions are perceived, detected, bound together, and thus first truly felt and understood. The heart is the starting point for all sensory impression.”

From: De Anima, Aristotle

“The heart is not just the physiological source of life, warmth, nourishment, and growth, but also the center of sensory perception and closely connected with conscious life. It is also the source of sensations. The heart enables, shapes, and manifests the actual soul life in the present moment, while the corresponding processes of sensation and feeling are accompanied by warmth processes. Warmth offers the greatest assistance for the bodily work done to activate the soul. We are dealing with changing, reactive warmth process, focusing on the blood as it moves in and around the heart.”

“Memory is seated in the heart. The blood assists with current sense impressions, the associated powers of thinking and imagination, and our processes of sensing, feeling, and sentiment. The heart is also the source of the human capacity for movement.”

“Every stirring of joy, pain, and other sensation originates and ends in the heart.”

“According to our theory, life itself, every movement and every perception, depends on the heart.”

Alexandrian Period

Better anatomical knowledge about the cardiovascular system appeared later in the works of Herophilus of Chalcedon (325-255 BC) and Erasistratus of Chios (310-250 BC) in the school of Alexandria in Egypt. In the famous school of Alexandria, dissections of the human body were routinely performed. Herophilus’s main contribution to the knowledge about the cardiovascular system was his differentiation of the thickness of

arteries relative to veins, suggesting that the former were six times thicker than the latter. He termed the vessel connected to the right ventricle “the arterial vein,” and he observed that arteries were less thick than veins in the lungs. He also believed that only arteries were associated with the heartbeat because the contraction and relaxation movements depended on the heart.

Erasistratus recognized the heart’s activity as an impeller pump that contracted due to its so-called intrinsic force. To the contrary to what Herophilus believed, Erasistratus emphasized that arteries did not have active movements of contraction and relaxation, but they were passively filled due to heart contraction. Some authors believe that Erasistratus was the first to describe the valves in veins. With the conquest of Egypt by the Roman Empire, the scientific activity in Alexandria progressively declined, and dissection of human bodies was no longer performed.

Roman Period

In the 2nd century AD, Galen (130-200 AD), a gladiators’ physician in the temple of Asclepius in Pergamun, demonstrated that arteries contained blood, not air, as was the belief until that time. Further, Galen stated that the heart was a muscle with different orientation planes, which permitted its strong and incessant activity. Galen recognized that the left ventricle was more hypertrophied than the right ventricle; he attributed these differences to the presence of air in the left ventricle, and he emphasized the function of the right ventricle in handling blood. Two vessels originated in the right ventricle; one transported blood to the lungs (pulmonary artery), whereas the other transported peripheral blood back to the heart (vena cava). The left ventricle was the source of the great artery (aorta) as well as of other venous structures (pulmonary veins) that transported blood from the lungs to the heart.

Following Galen’s period, dissections were performed less often, and anatomic studies were left behind. Galen considered the human body to be the temple of the soul, and his teleological explanations for all phenomena were in concert with the dominant force that had settled in Rome in the 4th century AD. Because knowledge was supposed to be derived from faith, anatomical knowledge was not considered important. This explains

why Galen's erroneous beliefs lasted until the Renaissance, and the functioning of the cardiovascular system was understood only in the 17th century.

Byzantine Period

Oribasius' work (325-403 AD) in Byzantium used magnifying lenses to confirm the anastomosis between veins and arteries in the kidneys capillaries. He discovered renal circulation: perfusion through the renal artery branch of the aorta and venous return through the renal vein branch of the inferior vena cava.

When the school of Edessa was closed in 489 AD, the Nestorians took refuge in the city of Gondishapur in Persia, founded in 271 AD, taking with them the works by Hippocrates, Aristotle, and Galen translated to Syriac. Greek doctors experienced a similar displacement after the school of Athens was closed in 529 AD. These intellectuals also became part of the School of Gondishapur, which served as a model for subsequent Persian medical schools. A teaching hospital was constructed and inspired the creation of other hospitals not only in the Islamic world but also in Spain and Portugal. In this manner, medical knowledge acquired in the previous centuries, but forgotten in the Middle Ages in Europe, was preserved in the schools of the Islamic world. When important medical works were translated into Latin, from the 11th century onward, medical knowledge finally returned to Europe.

Summa Theologica, Thomas Aquinas

“The heart is related to the higher cognitive activities, which take place after sensory perception and the development of imaginative images.”

“Something takes place in people whenever they perform an act of perception. This is the act of receiving and conceiving the perceived object. This concept designates the sound, and the concept itself is called a ‘word of the heart.’”

“This thought process takes place in the individual penetration and unification of the act of perceiving with what is being perceived.”

“Sense perception is the tool for the spiritual and intellectual activity of thought.”

“The human heart is an organ of knowledge and love, mediating between heaven and earth, thinking and willing, human being and environment.”

Summa Contra Gentiles, Thomas Aquinas

“The bodily life of the sense beings exists because of the living breath that streams through the limbs from the foundation of life, that is, from the heart.”

“The pure of heart shall look upon God.”

“None of the senses perceives itself or its activity. The eye neither sees itself, nor perceives the fact that it is seeing. The knowing spirit, however, recognizes itself; and recognizes that it recognizes itself.”

Islamic Period

Rhazis (865-925 AD) disagreed with Galen regarding the presence of bone in the cardiac base. Haly Abbas (930-994 AD) advanced the morphological characterization of the pulmonary artery in two muscle layers, in describing the aorta more precisely, and in describing the coronary arteries in 965 AD. He also suggested a functional communication between the endings of veins and arteries. In the 10th century, Al-Akawayni Bukhari (983 AD) stated that the heart had four cavities, the pulmonary vessels, and the aorta, all of them with valves that impeded blood reflux. He described the pericardium with anatomic precision. He emphasized that most of the blood received by the right ventricle was transported to the lungs. From the lungs, blood was transported to the left ventricle, from there to the aorta, and from the aorta throughout the body. Thus, Bukhari described a rudimentary lung circulation, emphasizing that the

function of the heart was to pump blood and that blood vessels transported only blood, not the pneuma. He also described the coronary arteries with precision.

Avicenna (980-1037 AD) recognized the cardiac systole and diastole and adopted the cardio-centric model of Aristotle and accepted the presence of pores in the interventricular septum. In his view, the left ventricle was the cardiac chamber that housed the pneuma, and it was the seat of emotions.

The “Eye of the Heart” in Sufi Tradition

The expression “the eye of the heart” appears also in the Sufi tradition. Here it represents the opening toward the divine, the eye through which the depth of the heart can be seen and through which the heart can know the supreme divine reality. According to the Sufi description, we can imagine this eye of the heart having two faces: one is oriented toward “interior,” through which the meditator can “see” the infinite depths of the heart; the other is oriented toward “exterior.” This is the eye through which the supreme subject, the inner knower, God, or the witness consciousness is witnessing the world. For Sufis, this place, deep in the Heart, is the symbol of the point of contact with God.

Cultivating the Heart is a fundamental spiritual need that the great Sufi mystic and poet Rumi affirmed:

“There is a candle in your heart, ready to be kindled.

There is a void in your soul, ready to be filled.

You feel it, don’t you?

You feel the separation from the Beloved.

Invite Him to fill you up, embrace the fire.

Remind those who tell you otherwise,

that Love comes to you of its own accord,

and the yearning for it cannot be learned in any school.”

European Period

Berengario da Carpi (1470-1550 AD) showed the existence of only two ventricles, two atria, and semilunar and atrioventricular valves, thus recovering the knowledge acquired by the ancient Greeks and the Alexandria school and adding to that the existence of papillary muscles as components of the subvalvar apparatus.

Leonardo da Vinci (1452-1518 AD) ascribed a functional significance to the atria, showing that the atria contracted when the ventricles dilated. He emphasized that the heart is a muscle, not a seat of spirits or air (pneuma) and presented a detailed picture of the mitral apparatus and described the moderator band of the right ventricle.

Michel Servetus (1511-1553 AD) a theologian trained in anatomy, described pulmonary circulation in a few pages of his *Christianismi Restitutio* (1553), which led to his death at the stake. He believed that the blood in the right ventricle passed through the left side of the heart through the pulmonary capillaries; there were no pores in the interventricular septum. Further, blood mingled with air in the lungs, but not in the left ventricle. He believed that blood passed from the pulmonary artery to pulmonary veins via blood capillaries.

Andrea Vesalius (1514-1564 AD) gave the name mitral to the atrioventricular valve, which separates the left atrium from the left ventricle.

Matteo Realdo Colombo (1559) correctly described the anatomical position of the kidneys and demonstrated pulmonary circulation. He believed that blood was transported from the right ventricle to the pulmonary artery and from there to the lungs, where it was attenuated; thence, it moved from the lungs, along with air, through the pulmonary vein and to the left ventricle drawing attention to the width of the pulmonary artery. He also described cardiac abnormalities such as the hydrothorax probably secondary to decompensate chronic heart failure, bacterial endocarditis, myocardial infarction, and chronic pericarditis.

William Harvey (1628) perceived the functions of vein valves to contain blood and direct blood flow. His discovery of blood circulation began the modern age of heart research.

The Christian Desert Fathers

The Desert Father St. Isaac believed in the “The intellect of the Heart.” For him, the heart is not simply a physical organ, but is the spiritual center of the human’s being, his deepest and truest self, or the inner shrine, to be entered only through the sacrifice of individuality, in which the mystery of the union between the divine and the human is consummated. “The eye of the heart” or “the intellect of the heart,” (called nous), dwells “in the depths of the soul,” representing the innermost aspect of the heart. Nous is the highest faculty of humanity through which he knows God or the inner essences by means of spiritual perception or direct apprehension. “The intellect of the Heart” understands Divine Truth by means of immediate experience or intuition.

To protect this sacred ground, the Desert Fathers believed in the “guardian of the heart” who embodies watchfulness and represents spiritual sobriety, alertness, vigilance and an attitude of attentiveness in which we are almost continuously aware of the heart. This shows how central they held the awareness of the spiritual heart.

Microcosm Heart, Paracelsus

“The heart is the seed of the microcosm and the sacred island, the first of the seven continents, and within it dwell the ‘children of the fire mists’ whose reflections are set up in the organs and functions of the outer body. The heart is the Garden of Eden – a place of beauty and felicity. Within it are the springs which, becoming rivers (arteries), pour forth the living waters (blood) for the preservation of the land (body). The ‘kingdom of heaven within’ refers to the mysteries of the heart. Man is the living temple of God and the heart is the Holy of Holies of that Mystery Temple. It is the inner room, the sanctuary, the adytum, the very oracular vent in which moves the Deity. It is the cave of initiation, the urn of the spirit. There are seven brains in the heart and also seven hearts

in the brain. The seven heart brains are the intelligences of the vital organs, the ‘Seven Spirits before the throne.’”

The Perfect Way, by Anna Bonus Kingsford

“Paracelsus knew the mysteries of blood; he knew why the priests of Baal made incisions with knives in their flesh, and then brought down fire from heaven; he knew why Orientals poured out their blood before a woman to inspire her with physical love; he knew how spilt blood cries for vengeance or mercy and fills the air with angels or demons. Blood is the instrument of dreams and multiplies images in the brain during sleep, because it is full of the Astral Light. Its globules are bisexual, magnetized and metallized, sympathetic and repelling. All forms and images in the world can be evoked from the physical soul of blood. The blood then becomes a true elixir of life, wherein ruby and magnetic globules of vital light float in a slightly gilded fluid.”

G. R. S. Mead's Theosophical View

“In the human body are at least two ‘Trees’, the nerve and vascular systems. The former has its roots above in the cerebrum, the latter has its roots in the heart. Among the trunks and branches run currents of ‘nerve ether’ and ‘life’ respectively. The one is the reflection of the other and both are within the human being. Blood has its life and motion from within itself – that is, from the Nephesh, which is the breath of the Elohim. The history of blood is the history of humanity.”

Isis Unveiled, Helena P. Blavatsky

“Blood begets phantoms, and its emanations furnish certain spirits with the materials required to fashion their temporary appearances. ‘Blood’, says Levi, is the first

incarnation of the universal fluid; it is the materialized vital light. Its birth is the most marvelous of all nature's marvels; it lives only by perpetually transforming itself, for it is the universal Proteus. The blood issues from principles where there was none of it before, and it becomes flesh, hair, nails, tears, and perspiration. It can be all neither to corruption nor death; when life is gone, it begins decomposing; if you know how to reanimate it, to infuse into it life, by a new magnetization of its globules, life will return to it again. The universal substance, with its double motion, is the great arcanum of being; blood is the great arcanum of life."

A Sleep of Prisoners, by Christopher Fry

The human heart can go to the lengths of God.
Dark and cold we may be, but this
Is no winter now. The frozen misery
Of centuries breaks, cracks, begins to move;
The thunder is the thunder of the floes,
The thaw, the flood, the upstart Spring.
Thank God our time is now when wrong
Comes up to face us everywhere,
Never to leave us till we take
The longest stride of soul we humans ever took.
Affairs are now soul size.
The enterprise
Is exploration into God.
Where are you making for? It takes
So many thousand years to wake,
But will you wake for pity sake?



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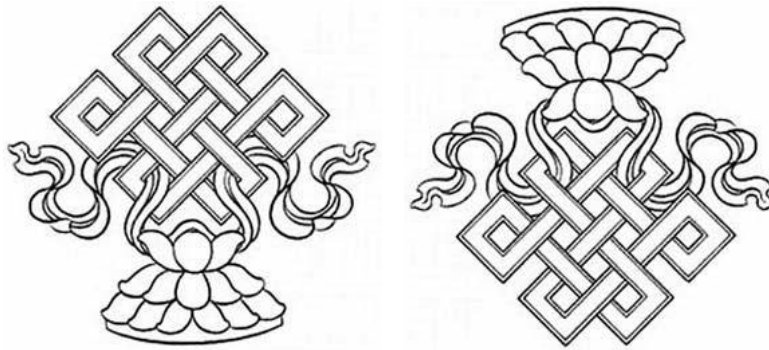
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Eastern Wisdom of the Etheric Heart

“Streams of butter flow from the ocean of the heart . . . our words flow together like rivers, made clear by understanding deep within the heart... the whole universe is set in your essence within the ocean, within the heart.”

Rig Veda (4.58.5-6)





The Eternal Knot

THE ENDLESS OR GLORIOUS KNOT

Ancient Hindu philosophy described the heart as an endless knot that goes on continuously forever. They called it the Eternal Knot, or Glorious Knot because it was seen as the first and last aspect of human existence. This knot creates the immortal spirit of the individual that goes from life to life and never stops the drumming of Shiva that signals spiritual life. The Eternal Knot insinuates that the heart has in itself the drum of Shiva that brings life and ends life. This knot is often found inscribed on the chest of Shiva, Vishnu and many other gods and goddesses. It is an abbreviation for spiritual life and the human soul evolving into a deity. Through the endless sounding of this drum, human life aligns with cosmic life and the universal spirit is reflected in the resonant response of the individual's heart. This knot was also seen as one of the eight signs of Buddha that indicate spiritual advancement and enlightenment.

The endless/eternal knot, net, or web denotes the auspicious mark emblematic of love and the human heart. It is a **symbol of the ultimate unity of everything**. It represents the intertwining of wisdom and compassion, the inseparability of “emptiness” and “interdependent origination” in enlightenment. It is the symbol of harmony and one of the eight auspicious symbols of Buddhism. It overlaps without a beginning or an end, symbolizing the Buddha's **endless wisdom and compassion**.

The shrivatsa is an auspicious mark that adorns the breast of Vishnu. Shrivatsa means 'beloved of Shri' and refers to the goddess Lakshmi; the consort of Vishnu. Lakshmi's insignia on Vishnu's breast represents the devotion in his heart for his consort, and since Lakshmi is the goddess of wealth and good fortune the shrivatsa forms a natural auspicious symbol. The shrivatsa either takes the form of a triangular swirl (vortex), or an upright diamond with loops at its four inter-cardinal corners.

Krishna, as the eighth incarnation of Vishnu, also bears the shrivatsa at the center of his chest. Another name given is 'curl of happiness', and this curl is shaped like a Greek hooked-cross. Indian and Chinese representations of the Buddha frequently show the nandyavarta or swastika on his breast as a symbol of his enlightened mind.

Another possible derivation of both the endless knot and swastika arose from the S-shaped markings on the hood of the cobra. This in turn gave rise to the nagayantra, where two or more entwining snakes form an endless knot design or yantra. The endless knot or granthi also appears on clay seals from the early Indus valley civilization (circa 2500 BCE).



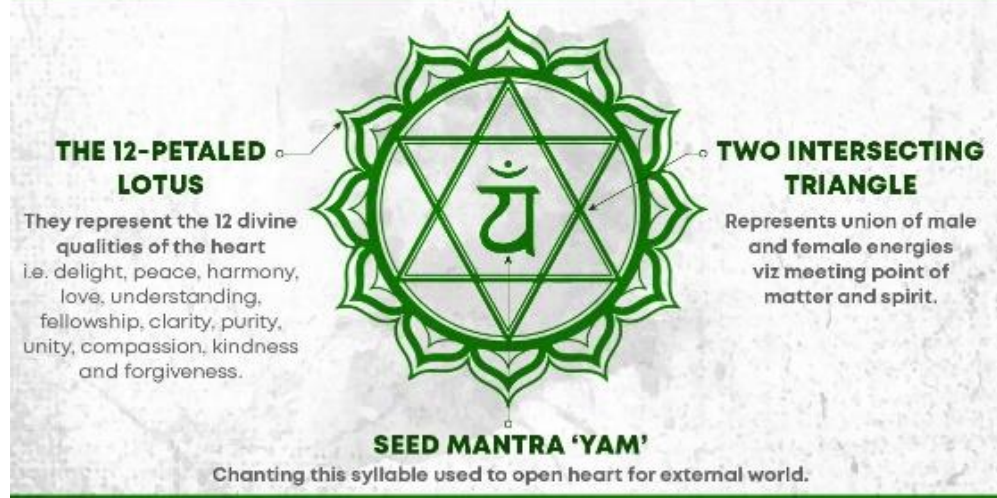


Ancient Oriental Views of the Heart Chakra as the Eternal Knot

In its final evolution as a geometric Buddhist symbol, the eternal knot or 'lucky diagram', which is described as 'turning like a swastika', was identified with the shrivatsa-svastika, since these parallel symbols were common to most early Indian traditions of the astamangala (The Eight Auspicious Symbols).

The eternal, endless, or mystic knot is common to many ancient traditions, and became particularly innovative in Islamic and Celtic designs. In China it is a symbol of longevity, continuity, love, and harmony. As a symbol of the Buddha's mind the eternal knot represents the Buddha's endless wisdom and compassion. As a symbol of the Buddha's teachings it represents the continuity of the 'twelve links of dependent origination', which underlies the reality of cyclic existence.

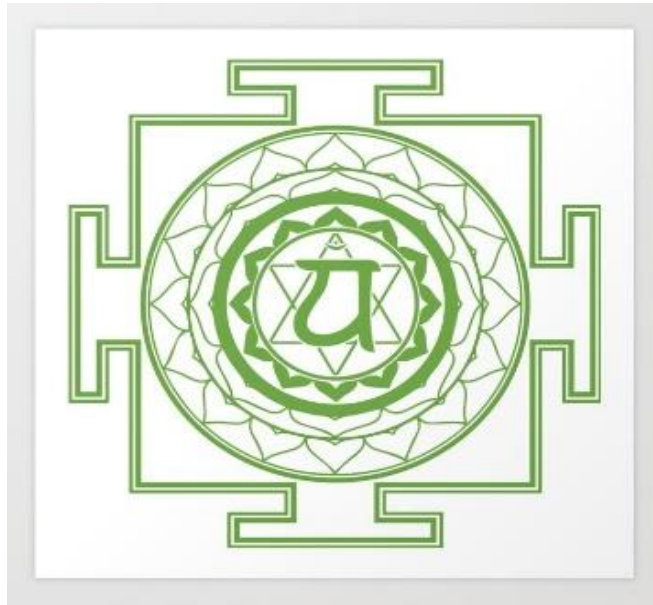
COMPONENTS OF HEART CHAKRA SYMBOL



Explanation of the Elements of the Heart Chakra Symbol

THE BOX AROUND THE WISH FULFILLING STONE

In Buddhism, the cintamani is said to be one of four relics that came in a chest that fell from the sky [many terma (teachings) fell from the sky in caskets] during the reign of the first king of Tibet, Lha Thothori Nyantsen. Though the king did not understand the purpose of the objects, he kept them in a position of great reverence. Several years later, two mysterious strangers appeared at the court of the king, explaining the four relics, which included the Buddha's bowl and a mani stone (cintamani stone) with the Om Mani Padme Hum mantra inscribed on it. These few objects were the "bringers of the Dharma" to Tibet.

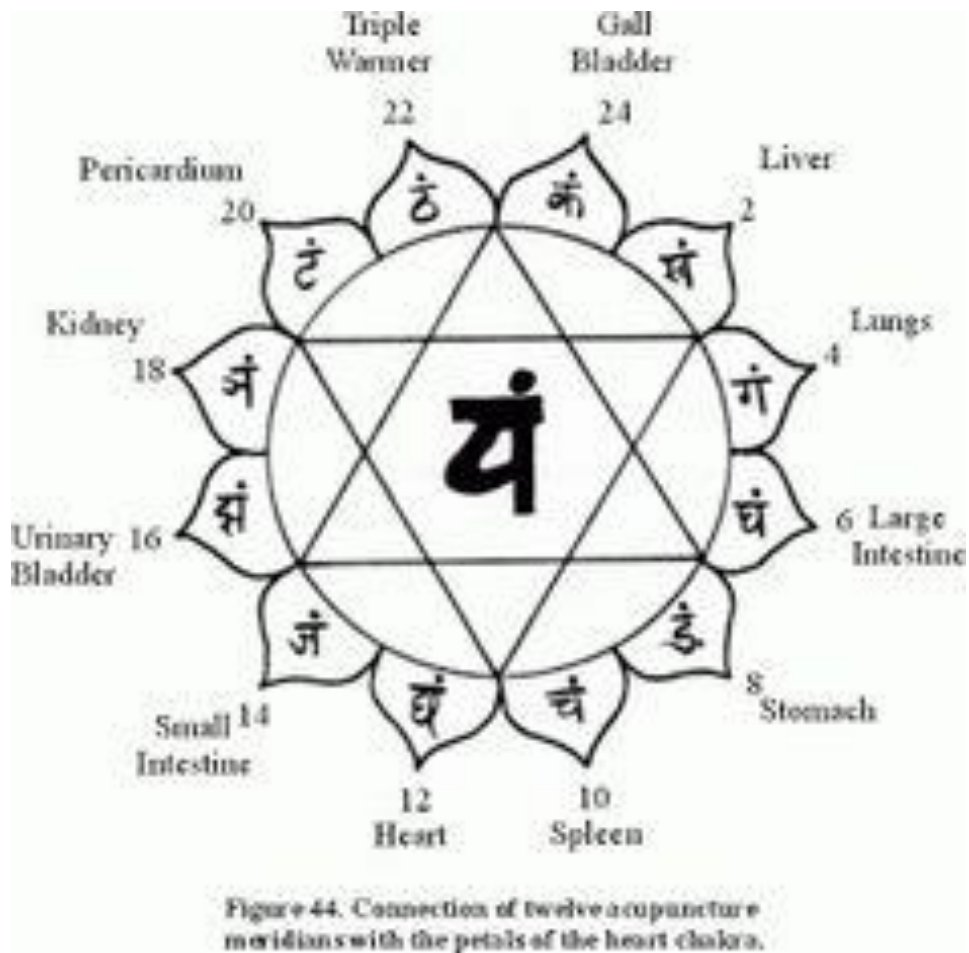


Oriental Mandala for the Heart Chakra

Inside the “box” that fell from heaven was a maṇi-jewel (cintamani stone), which is a magical holy grail which manifests whatever one wishes for whether treasures, clothing, food, drink, or any desire can be manifested. The wish-fulfilling stone grants health and can remove suffering and sickness and life itself can be enhanced. It is the source of the Buddha’s teachings and virtues given by the Buddhas in the sky – Tushita Heaven.

THE WISHING FULFILLING TREE – CINTAMANI JEWEL

Just below the anahata or heart chakra is a space called the Ananda Kanda, which means the ‘root of bliss.’ It is the secret inner altar where the personalized deity is worshipped. It is a center where devotion is intensified. Here is said to be the Celestial Wish-Fulfilling Tree - the Kalpa Taru or Kalpavriksha. It is one of the beneficial things that was manifested during the churning of the ocean of milk during creation.



Heart Chakra Petals Control Organs

In this **heart cave** one is said to receive what one truly wishes for, if the intention/will is strong enough. In some places, the Kalpa Taru becomes the ‘cintamani’ or Wish-Fulfilling Jewel. It is still a tree, this cintamani, **located on an island in the middle of a beautiful lake, which is itself in the middle of a beautiful garden. It is the tree of bounty, able to provide all needs.** The Atman, the “I am”, is said to live there. It is sometimes described variously as red or white or pink. It is the spiritual heart.

HEART: CHINESE FIRE-ENERGY

The heart is called the King of the organs and commands all of the organs and viscera, houses the spirit, and controls the emotions. In Chinese, the word for heart (hsin) is also used to denote ‘mind.’ When the heart is strong and steady, it controls the emotions; when it is weak and wavering, the emotions rebel and prey upon the heart-mind, which then loses its command over the body.

Physiologically, the heart controls the circulation and distribution of blood, and therefore all the other organs depend upon it for sustenance. **Thoughts and emotions influence the function of various organs via pulse and blood pressure, which are controlled by the heart, where emotions arise.** Internally, the heart is functionally associated with the thymus gland, which is located in the same cavity and forms a mainstay of the immune system. Extreme emotions such as grief and anger have an immediate suppressive effect on the immune system by inhibiting thymus function.

Externally, **the heart is related to the tongue**, to which it is connected by the heart muscle. The **color and texture of the tongue thus reflect the condition of the heart.** Speech impediments such as stuttering and mutism are often caused by dysfunction or imbalance in heart energy. Facial complexion, which is a direct reflection of blood circulation, is also a major external indicator of heart function. Fire energy makes the heart the dominant organ of summer, during which season the heart must increase circulation to the surface in order to dissipate excess body heat.

The heart’s associated organ is the small intestine; its element is fire. Long-term memory, **thinking, emotions, intimacy, cognition, intelligence, and ideas are all dominated by the function of the heart.** The heart is sometimes called ‘The Emperor’, or ‘supreme controller of all Yin and Yang organs.’ **The heart houses the body’s spirit.** The heart dominates sleep; if the heart is strong the patient will fall asleep easily and sleep soundly. If the heart is weak, the patient’s mind will “float,” resulting in an inability to fall asleep, disturbed sleep, or excessive dreaming. **The heart’s positive psycho-emotional attributes are love, joy, peace, contentment, propriety, insight, wisdom, orderliness, forgiveness, and**

courtesy. Its negative attributes are hate, guilt, shock, nervousness, excitement, longing, and craving.

TRADITIONAL PULSE DIAGNOSIS

Pulse diagnosis is a diagnostic technique used in Ayurveda, traditional Chinese medicine, traditional Mongolian medicine, Siddha medicine, traditional Tibetan medicine, and Unani.

In Ayurveda, advocates claim that by taking a pulse examination, humoral imbalances can be diagnosed.

Ayurvedic pulse measurement is done by placing index, middle and ring finger on the wrist. The index finger is placed below the wrist bone on the thumb side of the hand (radial styloid). Pulse can be measured in the superficial, middle, and deep levels thus obtaining more information regarding energy imbalance of the patient.

In traditional Chinese medicine, the pulse is divided into three positions on each wrist. There are several systems of diagnostic interpretation of pulse findings utilized in the Chinese medicine system. Some systems utilize overall pulse qualities, looking at changes in the assessed parameters of the pulse to derive one of the traditional 28 pulse types. The traditional 28 pulse types include Floating, Soggy, Empty, Leathery, Scattered, Hollow, Deep, Firm, Hidden, Long, Surging, Short, Rapid, Hasty, Hurried, Moderate, Slow, Knotted, Full, Thready, Minute, Slippery, Choppy, Wiry, Tight, Weak, Regularly intermittent, Rapid-irregular, and Stirred. They are analyzed based on several factors, including depth, speed, length, and fluid level.

Other approaches focus on individual pulse positions, looking at changes in the pulse quality and strength within the position, with each position having an association with a particular body area. For example, each of the paired pulse positions can represent the upper, middle and lower cavities of the torso, or are associated individually with specific organs. For example, the small intestine is said to be reflected in the pulse at the left superficial position, and the heart at the deep position.

THE HEART CHANNEL PATHWAY VIA ACUPUNCTURE POINTS

The major channel of acupuncture points **begins at the heart** and emerges via the surrounding blood vessels to pass down through the diaphragm to the small intestine. Another internal branch extends through the throat to the eye, and a connecting channel goes to the tongue. A third branch goes first to the lung before surfacing at the center of the armpit. From here the channel descends along the inner aspect of the arm on the opposite side of the biceps to the lung channel, passing the inner end of the elbow crease. It continues down to the tip of the little finger by the corner of the nail on the thumb side.

The heart meridian has its origin in the heart itself, but does not permeate the heart, rather it permeates the “supporter of the heart”, the aorta and other major blood vessels entering and exiting the heart. Following the descending abdominal aorta, the descending part of the small intestine, spirally wrapping the small intestine. The branch that passes upwards, surrounding the throat, and going to the “supporter of the eyes” (the optic nerve), follows the blood vessels passing up into the head, i.e., the carotid artery. The main meridian passes from the “supporter of the heart,” along the pulmonary artery, to the lungs and thence to the side of the body. **The heart and uterus are related:** When the menstruation doesn't come, it means that the blood vessel of the uterus is stagnant. The vessel of the uterus, belonging to the heart (meridian), spirally wraps the inside of the uterus. In this case, chi rises up and presses the lungs from the lower parts. The heart chi cannot pass down smoothly, therefore the menses do not come.

The heart meridian does not permeate the heart itself, rather it permeates the “supporter of the heart”, which becomes the descending abdominal aorta. This vessel is palpable as the moving chi between the kidneys. The energetic consequences of this distinction are enormously important. We feel that this is making a very direct statement about the energetic nature of the heart, especially about the relation of the heart to the blood. Some authors see the uterus as the place where the moving chi between the kidneys resides. This tends to reinforce the energetic connections that the heart has to this source. Further, it is the superficial trajectory of the supporter of the heart that is the main

meridian. This is possibly one reason why many great practitioners have consistently refused to treat the heart meridian directly.

ETERNAL PARA-BINDU DROPS

Nada and Bindu are two shakti powers – Naada (Shakti) is seen as a semicircle and sound, while Bindu is seen as a dot, point, or a circle with void inside (Shiva). **Bindu is a singularity with no dimension, from which everything proceeds.** Nada and Bindu are the progenitors of tattvas, the building blocks of the universe.

Sakti powers divide again into Nada, Bindu, and Bija. **Bindu is Shiva and Bija is Shakti.** Nada is the relationship between the two. Nada is action and Bindu is static; Nada is white and Bindu is red.

Sound is contraction and expansion, vibration and motion. Nada transforms into Bindu which is Isvara Tattva, the origin of the worlds. **Bindu's abode is the thousand-petalled lotus chakra in the highest cerebral center of the head.** The Bindu should be worshipped like Shiva and Shakti.

Nada and Bindu are all aspects of this universe, known and unknown. Even gods came from these entities. Nada in its original intent was an act like the union of two entities.

Nada is action where there is a form (Rupa) to the action (Kriya) of power (Shakti), Kriya-Sakti-Rupa. The product in this case is Bindu (Para-Bindu or Supreme Bindu). Para Bindu is a drop, a particle or a dot. It is light, it is space, it is devoid of decay. **Bindu is a compact, super-dense power seed ready for blossoming out into the building blocks of the universe in an orderly fashion.**

Sakti brings about blossoming, actualization and unfolding of the universe from Bindu. Para Bindu resides in Sahasrara, or the thousand petalled lotus, the seat of Isvara.

Nada is the exciter and also the excited resulting in creation. From Nada, Goddess creates three Devis and three Devas who possess the Saktis – Will (Jayestha), Desire

(Vama), and Action (Raudri) in addition to creation of Fire, Moon and Sun (Brahma, Vishnu, and Rudra). This is known as the creation of sound, the primary creation. The second creation is object creation. **The male god comes from female deity**; they become couples. Vama creates the universe; Jayestha maintains what is created; Raudri dissolves.

THE DRUM OF SHIVA

According to Hindu mythology, Shiva is the lord of the cosmic dance and the cosmic sound of AUM, from which the entire universe is generated. Shiva is often depicted with an “hourglass drum” (damaru) which provides the music for the dance and symbolizes the act of the creation of the universe through sound. The sounding of Shiva’s drum produced the first sound (Nada, the source of creation) in the void of nothingness; its pulse setting up a rhythm to which Shiva began his dance of creation.

Another interpretation of the sound of the damaru suggests that the drum depicts the powers of the rhythm of the heart-beat. If you see your heartbeat, it is not just one straight line but it is a rhythm that goes up and down. The whole world is nothing but rhythms; energy rising and collapsing to rise again. The damaru is also a symbol of sound. Sound is rhythm and energy. The whole universe is nothing but a wave function, it is nothing but rhythms. It is just one wave (Adviata). So the damaru signifies the non-dual nature of the universe. The drum symbolizes the universe which is always expanding and collapsing. From an expansion it collapses and then it re-expands, this is the process of creation. Other symbolism suggests the sound of damaru symbolizes the words of the Vedas.

The damaru is a small drum with two drumheads, which symbolize the two states of existence--unmanifest and manifest. When a damaru is sounded, it produces dissimilar vibrations which are fused together by resonance to create one sound. The drumbeat is the tuner sound, the sound that fuses the unmanifest and manifest aspects of vibration into one resonance. The sound thus produced by the damaru symbolizes Nada, the cosmic sound of AUM, which can be heard during deep meditation. According to Hindu scriptures, Nada is the source of creation. It is through this drum that the universe was

created, and through it the universe will be destroyed and renewed again in the endless cycles of time.

The damaru, like all double-headed drums, constitutes a microcosm of the universe, unites the masculine and feminine principles, and produces sounds with a tremendous dynamic range. By playing a double-headed drum we become co-creators. In such a drum there is balance between male and female forces. Earth and sky, matter and spirit, Shiva (divine masculine) and Shakti (divine feminine) are working together in perfect harmony. With clarity of thought and intent, the drummer becomes a co-creator of all that is needed to benefit all beings unto seven generations.

The damaru was first created by Shiva to produce spiritual sounds by which this whole universe has been created and regulated. Shiva loves damaru. In the shield shape of some damaru, the triangular upward representation also symbolizes male procreativity (the Lingam), and the downward round representation symbolizes the female procreativity (the Yoni). Symbolically, the creation of the world begins when the lingam and yoni meet at the midpoint of the damaru, and the destruction takes place when they separate from each other.

There is also a symbolism regarding the shape of the damaru - the top portion of the damaru symbolizes the male creativity of procreation (the Lingam), and the downward representation symbolizes the female creativity of procreation (the Yoni). Symbolically, the creation of the world begins when the lingam and yoni meets at the mid-point of the damaru, and the destruction takes place when both separate from each other.



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<https://neoanthroposophy.com/2021/04/13/eastern-wisdom-of-the-etheric-heart/>

Conclusion

“The heart is the seat and fountain of life, of heat, of spirits, of pulse, and respiration; the Sun of the body, the King and sole commander of it: the seat of the organ of all passions and affections.”

The Zohar

The supersensible nature of the heart has been presented here as the penultimate expression of the human soul and spirit. From ancient teachings to modern research we have pointed out that no greater sense organ exists beyond the human heart. The modern view that the brain is the seat of the mind and consciousness is simply partial truth. Without the heart being in coherence with the brain, the brain is only a mirror of the five senses that is lacking wisdom without the participation of the heart. Brain-bound thinking leads to cold, dead, materialistic shadow-thinking that will not get beyond superficial knowledge. But heart-thinking, the source of wisdom extracted from experience, is the key to understanding the meaning of life and the reality of life after death. Warmed-up thinking, which comes from the heart, leads to living thinking that Steiner called Imagination. Imagination leads the human heart to commune with archetypal thoughts generated by hierarchical beings (deities) that resonant with the spiritual content of human understanding that transcends the material world. Then comes the Inspiration and Intuition that arises from the same spiritual domain that illuminates the true nature of reality.

The heart is not usually viewed as an important sense organ, but in fact it is the most highly developed organ of perception that has transcendent moral capacities that can evolve into supersensible perception of the spiritual. The heart can sense the outside world with much more than the five senses provide and can know and understand much than is considered invisible, or beyond the five senses. The heart can also sense every organ inside the human body and respond to the needs of respiration, circulation, nutrition and all of the bodily systems. The highly developed heart can assume the autonomic aspects of the cardiovascular system and control circulation, respiration and many other aspects of maintaining internal equilibrium. The pulse of the heart is the

voice of the divine, both inside and outside of the human being. Heart perception is far beyond what science understands about this Holy Grail of human consciousness.

The heart creates the concepts that accompany percepts and colors the individual's world view. Subsequently, that world view is projected onto the world and sets the boundaries for new percepts. When the heart is happy, the world looks lovely. The same sensory input can create a heaven or a hell in the mind of the perceiver, depending on the condition of the heart. Even thinking is changed by the heart as it digests thoughts, feelings and experiences and tempers them into a personal cosmology. The heart's wisdom is this cosmology that responds to the input of the cosmos and the internal input of the "temple" of the human body. We perceive the world and our own individuality through the heart. Thus, the heart is the primal, and ultimate, sense organ that evolves into a supersensible organ able to perceive the invisible and the eternal.

This article was started to research the mechanisms whereby sense perception is written into the blood and thus into human memory. We knew that Steiner had said that there are three aspects to this process that involved the alchemical understanding of salt/mercury/sulfur as it applies to human blood. The mechanisms of these processes have been presented above in a variety of ways to shed light upon the central pillar of individual human consciousness that drives and controls percepts that can pierce through the delusion of material substance to dispel the illusion of permanence in the physical world. We believe that when this process is fully comprehended, the 'I Am' of the individual, the self, will become empowered to directly communicate with the spirits behind matter. We hoped to "see through" matter to the hierarchical spirits behind substance using the supersensible perception of the evolved human heart.

Once a cosmology has been constructed that aligns hierarchical correspondences of the spirit and matter, the heart becomes able to perceive the language of the spiritual world. Things of this world begin to speak the "Language of the Birds", that forgotten language that explains the wisdom inherent in all things. Stones, trees, birds, and all physical substance begin to speak as the heart learns to listen to this language and starts to understand the sacred word, Logos, behind all substance both physical and spiritual. The heart becomes the ear of the cosmos, the sense organ of the gods that listens to the strivings of humans. The heart becomes an antenna to attune to a holy language that

contains the “lost word.” Human blood becomes the vehicle for perceiving and communicating to invisible worlds that interpenetrate the world of matter. The heart becomes a forge where the smithy hammers sense perception into eternal insight. The crucible of the heart burns and transforms iron in the blood to gold in the heart, the mission of the alchemist.

Modern medical research and discovery continually affirm what we can learn from the ancients. History has shown that physical, material knowledge of the heart can only provide a partial view of what the heart was, is, and will become. To speak of the fifth chamber of the heart or the loosening of the physical heart and the etheric heart is sheer madness to scientists. But recent discoveries of heart vortex rings and the predictive ability of heart rate variability demonstrate that medical science is still in the beginning stages of understanding the full nature of the heart’s capacities. To insinuate that the heart can perceive the invisible or commune with spirits will get you kicked out of medical school. To point in the direction of the auricles of the heart becoming new organs of perception would be judged equally crazy. But, the ancients haven’t been wrong yet about the evolving heart and the modern scientific view of the heart is obviously sorely lacking.

The heart is a forge that takes carbon and ionizes it into warmth ether that changes oxygen, nitrogen, sulfur and calcium into refined substances that bathe the brain and its glands. This steady stream of elements being etherized and ionized into subtle substances that nourish the pineal and pituitary glands was well known in many spiritual traditions but is totally ignored by science and modern medicine. Science is a new materialistic philosophy of children who won’t listen to their parents. Seldom ever does science discover anything that wasn’t already known and understood through intuition. As Socrates indicated: All knowledge is remembered. Perhaps we should take this wisdom and see if what the ancients have told us might just be something worth remembering and utilizing to heal the weary heart. Then, when the wisdom about the heart that has always been known can lead scientific research, we just might find some of the answers to the mysteries of the heart.

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