

Elementary explorations in Body-Mind Centering

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The BMC system is based on the connection of the body and mind.

It comes out of the experimental studies based on the use of anatomical, physiological and psychological principles of the movement, touch, voice and mind. This system can be widely used in dance, sport, physical therapy, psychotherapy, work with children, education, voice over work, music, fine arts, yoga, meditation and other body - mind disciplines.

The founder of the BMC system and the director of the School for Body - Mind Centering is Bonnie Bainbridge Cohen.

Basic principles

The natural laws of movement are principles of movement related to the movement evolution or to principles of the body functioning seen from the body system point of view – skeleton, muscle, organ, etc.

We are not only informed about these principles in the theoretical level but we use the methods to absorb these relations within our own body while exploring the movements and perceiving the structures and relations from inside of our body.

The exploration within the movements is a method that enables you to fully feel the movement. This feeling creates perfect conditions to sharpen the movement perception which can subsequently support the movement in the aspect of its functioning on the contrary to the aspect of form which is the most common way of dance (or other) education.

When exploring the movement we focus on pursuing the movement from the inside. We focus our attention to the sensual perception (mostly to the perception of the movement and touch) as well as the feeling that appears during the work with various systems, parts of the body and movement organisations.

The movement exploration is an inner technique. It's a process we need to learn and is necessary to be trained.

We use the following methods of movement exploration:

Visualisation, somatization, personification, improvisation.

Terms and their meaning

The unity of the body and mind

Even if the body and mind have different functions, using the inner method we discover that they are inseparable parts of the complex. The body as well as the mind are in constant movement, which is the reaction to the processes taking place inside and outside. The body and mind are one unit.

The term **mind** means the mental functions comprising and processing the information, thinking, fantasy, memory, controlled attention together with awareness.

Awareness : Awareness is a conscious recognition of what's going on in our consciousness or what is going on inside ourselves while we are conscious. Moshe Feldenkrais

Inner and External environment

The Inner environment: The environment inside our body, body systems and their mutual relations. As well as the relations between physical processes and mind.

The External environment: the environment outside the limits of our body. The inner and the external space have a constant influence on each other.

We receive the information from the external environment through the senses: sight, hearing, smell, taste, movement and touch.

Even if it seems that the sight and hearing are dominant for the orientation in the external space, the evolution of the sensual perception indicates the importance of the other senses in a different way.

During the evolution process the senses are developed in following order:

Touch + movement

Smell + taste

Hearing

Sight

Through touch and movement the baby in the uterus recognizes and communicates with the surroundings. They develop in a tight connection.

The reaction to the touch stimulus is always a movement and subsequently we receive the movement- kinesthetic perception. The touch creates a brighter notion about a certain body part and therefore we can better articulate the movement using the certain body part.

The receptors to perceive the movement and touch are spread through the whole body on the contrary to the receptors of smell, taste, hearing and sight that are concentrated only in the head.

We often use the relation between touch and movement in our profession to explore the possibilities of the movement of certain body parts.

For example during the initiation of the head movement we can touch the top of the head, e.g. the partner can touch the top of the head.

Or when working on breathing it's helpful to touch the ribs and the abdomen.

Processing the sensual perceptions is related to the **perception**.

It's an ability to use the information obtained by the sight, hearing, smell, taste, touch and movement.

The process of perception is closely attached to the limbic system which is also called the brain of the senses. It's the spot where the sensual perceptions are evaluated by the feelings.

Together with a pleasant feeling the bond appears - with an unpleasant feeling the rejection comes.

This process of feelings evaluation is related to the motivation of the motor activity.

The Movement organisation – coordination

The human evolution process creates the basic organisations of the movement and perception that shows the maturity of the nervous system and comprise the repertory of basic coordinations we use and which develop for the whole life – the basic neurocellular formulas.

The basic neurocellular formulas

The basic neurocellular formulas are more complex formulas of the movement coming from the movement possibilities saved in the nervous system through the phylogenetic (evolution development within the animal realm) and ontological (development process of a child) terms.

These formulas comprise prevertebral and vertebral movement lines. They reflect the evolution sequences starting with movement of the monocellular organism to the bipedal human walking.

The prevertebral movement formulas are:

1. Cellular breathing
2. Sponging
3. Pulsation
4. Umbilical radiation
5. Mouthing
6. Prespinal movement formula

The vertebral movement formulas are:

7. Spinal movement formula
8. Homologous movement formula
9. Homolateral movement formula
10. Contralateral movement formula

Each of the basic neurological formulas represents itself through a characteristic organisation of the movement as well as through the organisation of perception. This is reflected at physical and social interaction with their surroundings.

Specifics of the prevertebral movement formulas

Based in the water environment they reflect the movement of invertebrates and their organisation of the nervous system. While working on the prevertebral formulas mostly the inner focus represents itself, the parasympathetic nervous system is activated, the movement is soft and smooth.

The main initiation systems within the prevertebral formulas are the organs and the transverse striped musculature covering the abdomen that grows and evolves in order to support later the skeleton – muscle system within the vertebral formulas.

The power grows in the water system

In the I-Ting book the water is mentioned as follows:

“The highest goodness resembles the water. The goodness of the water lies in the fact that it brings profit to ten thousand things but doesn’t fight for any of them. It remains at the lowest position, where no human would like to remain. Therefore its form is close to tao (VIII).“

“There is nothing so soft and weak as water in the nature, still nothing can overcome the strong and hard better than water.

There is nothing to supply the water. Weak defeats strong. Soft defeats hard. “(LXXVII)

“The man is born soft and weak and dies strong and hard. Ten thousand things, grass, trees are born soft and weak. When they die they become dry and firm. That’s why the strong and hard things are heading to death. The things soft and weak are leading to life. “(LXXVI)

“It’s essential to weaken ourselves to become stronger; to become full it’s necessary to be empty, to gain we need to lose.“ (Tchaj-ti-tchuan I.)

Prevertebral formulas

The first formula is vibration. Through the attractive and repulsive powers the field of relations with other beings is created within vibration. These vibration formulas are formed into movement waves that connect the beings through rising and declining space energies.

Via vibrations we can experience our place in the sphere of our existence.

The awakening of the vibration supports the awareness of our body. We can use the sound vibration. The sound resonates in body tissues, affects the organs and supports the perceptivity of the cells.

Explore the possibilities of sound and the sound system.

Cell breathing

The cell is a basic structural and functional unit of the animate matter organisation. The cell is **able to move equally in all directions in the form of contraction and expansion.**

The cell breathing is according to Bonnie Bainbridge Cohen a movement formula of monocellular organisms, an egg cell, sperm and every cell of the animate organism. The monocellular organisms live in the water environment as well as the body cells live in the intercellular fluid.

The spatial symbol for this level is a circle derived from the simplicity of this basic form.

The basic perception at this stadium is a touch. The directing center of the cell breathing is a part of every cell.

At this state nothing has to be done – all the activities are processed inside the cell.

The cell breathing is a state of silence and reassurance. The nervous system which is usually on alert can rest consciously. Astute observation, release of redundant tension from muscles and mind is a solution to perceive the present and creativity at all levels.

We can exercise the cell breathing when we lie down, release ourselves and focus on observation of our breathing and the movements accompanying the process. We can lie our

hand down on the abdomen. Then we calm down our breath, we can let it descend so that it seems that the breath is spreading inside the body. You can also discover the expansion and compression perception. This can help us contact the inner breathing when the oxygen in the lungs is transferred by blood to every cell of the body and the carbon dioxide as a product of the energy transformation at the cell and via the blood it's coming back to lungs and by exhaling to the external environment.

Sponging and pulsation are two transitional stadiums subsequent to the cell breathing. The power and the movement of the fluids grow stronger and they create stronger and expanding complex structures and consciousness.

It's related to the fluid flow through simple cell structures.

Sponging is related to the sea sponge in the animal realm. The distribution is even between fluids and membranes. Via the Sponging formula we can experience the inner stability.

We use this formula to the soft and sensitive touch that invites us to the release and activity.

All the healthy tissues - mostly the kids tissues have firm and elastic quality similar to the sea sponge.

Pulsation is related to the movement of jellyfish, whose tissues are compressed and expanded to and from the center.

Pulsation - the pulsating flow presses and bounces from the external membrane. It provides the basis to the inner mobility, the limits of ourselves and a contact with the external world.

In this formula we differ the center and suburbia for the first time.

Exercise with an elastic rubber

In threesomes. We need an elastic rubber Tera band 1,5 m or 2 metres long for this training.

Two partners are holding the ends of the rubber slightly tightened so that they are not tightened too much.

The third partner approaches smoothly, he is in contact with the rubber and continues walking until the rubber stops him. He observes the direction of his movement and also the powers of the rubber against the resistance, when accepting and using the powers of rubber it starts a movement backwards - rebound.

We can try various speeds. This is a great example to perceive the physical phenomenon of the powers interaction and the possibility of their conscious use.

Umbilical radiation

According to Bonnie Bainbridge Cohen the umbilical radiation is a formula of echinoderms - for example the starfish.

The ontogenesis process is the intrauterine state where the fetus flows in the amniotic fluid fixed by the umbilical cord. Echinoderms live in the water and the fetus lives in the amniotic fluid.

It's a state of symmetry and its control center is situated in the center of the body.

The spatial symbol comes out of all the extremities to the body center.

The primary perception developing at this stage is the perception of movement.

Movement within this formula is characterised by the connection of all the limbs to the body center.

The fetus in the uterus is connected to its mother and fed through the umbilical cord.

The umbilicus works as a primitive centre for physical functions and movement. All six extremities (head, coccyx, two upper limbs, two lower limbs) are directly attached to the umbilicus and play an important part in processes of differentiation and integration of perception and movement during our life.

The formula of an umbilical radiation create the bases for an effective coordination of the body movement. That's where the equal connection from the body center to all the limbs.

The waist and the belly had a unique position in various cultures. We remember the dances of the Eastern Art, traditional dances of african tribes.

The contemporary dance techniques and contact improvisation take care about the „waist“ area which is usually named **the center**.

The term „center“ is bind to the body center which has some specific qualities.

We can explore them from the two points of view:

- mechanical aspect related to the body center
- The aspect of the movement direction

Centre as a core

Human body as any other material object has its own material spot where the mass of the body is concentrated.

Three body levels cross at the spot called the **body center**. The movement around the body center is organized. The human gravity center is usually settled between the 4th and 5th vertebra from the beginning of the spine (behind the abdomen). Centering means in this case the relation between the body gravity center and the ground, we also use the expression grounding.

To feel the body center we can try the following exercise:

1. Start with the reassurance of the body when lying on the ground. Concentrate your mind on the body center so that you can feel the gravity and the relation between the body center and the ground.
2. Slowly change your position and observe the changes within the perception of the relation body center and the ground.
3. Subsequently concentrate on the position changes and the perception of the relation between the body centre and the ground in movement. Gradually fasten the movement and feel the relation between the body centre and the ground and observe your movement.

We explored the body center as a spot of perception of the body in relation to the ground, at the moment we feel the body center as an interconnection of all the body parts.

To explore the center as a neurological center, we recommend the following exercise by B.B.Cohen:

Find a comfortable place on the ground. Let the body breathe and relax, let it expand and compress. Watch how the subsequent release of the body and breath reflect in the movement of the abdomen.

1. Connect the umbilicus with all six extremities (head, coccyx, two upper limbs, two lower limbs). When you feel the connection of every limb to the umbilicus, explore their relation in the movement.
2. Try to start the movement from the umbilicus out to a limb and backwards from the limb to the umbilicus.
3. What is your experience?

Which limb is more and less accessible?

Which relation is more accessible? Which relation is less accessible?

Mouthing

A dominant formula for the tunicates – ascidia and for the newborns during the breastfeeding. It's a continuation of the previous formula of umbilical radiation.

The mouth and the reverse side of the alimentary canal – anus become dominant as centers of control and movement.

According to the B.B.Cohen the mouth is a prolongation of the stomach and a basic extremity to survive. The mouth is able to search, catch, hold and release, their movement formulas create the basics for the development of the other limbs.

Together with the nose as a supplement organ they are the main orientation and initiation body parts for a little child. Therefore the mouth is the first extremity.

B.B Cohen points out that persisting problems with this formula can lead to a disproportional tension in the mouth and throat which can be the main reason for a tension in the cheeks and

neck as well as in the shoulders, lumbar spine, feet). These restrictions can also lead to the problems with movement coordination, speech, suppression of the feelings and reaching our desires.

Exercise to feel the mouth

1. Exercise the mouth and lips.
2. Explore the inner space of your mouth, lips, teeth, hard and soft palate with your tongue. Feel how the tongue touches the teeth and how the mouth touches the tongue.
3. Initiate the mouth movement
4. Lead the voice to different parts of the mouth
5. Lead the mouth movement
6. What are your feelings?

Prespinal movement formula

This formula proves within the lancelet, the ancestor of fish. We can also observe the formula in the waving movement of fetus and a newborn child.

During this evolution stage starts the connection between the gastrointestinal system and the autonomous nervous system in the spinal cord and brainstem that is directing the movement of the gastrointestinal system.

It's a soft, organic spinal formula that precedes and supports the firm vertebral spinal formulas. It's a formula developed in the water system. It's related to the development of notochord – the first axial structure that divides the gastrointestinal system and nervous system.

At this stage the baby develops soft and smooth movement of the whole body.

The adults develop soft and elastic body. It's essential to precede the fragility and consistence that accompanies the aging.

According to B.B.Cohen this formula of the soft spine is the basis of subsequent mobility for further movement development of the „hard spine“.

Practically we can train this formula in various ways of scrolling the spine

1. Focus on the front side of your body and on your face and soften them.
2. Start scrolling from the mouth and gradually continue down while focusing on the gastrointestinal system. While softening the front side of your body. It's useful to help yourself with a touch. Scroll down softly.
3. While scrolling up repeat the same, but start the movement at the pelvic bottom from the front side of the coccyx.
4. When scrolling down once again focus on the skull, brain and spinal cord. Help yourself with touch.
5. When scrolling up focus on the brain and spinal cord structure.
6. Try to initiate another scrolling in the space between gastrointestinal system and nervous system – where the notochord used to be placed during the embryonal stage.
7. Work with the imagination of notochord – elastic canal starting at the pelvic bottom and ending at the eye level.

We can consider the prespinal movement as a basis to the slow-adagio movement in dance.

When the attention is focused only on the spinal – muscle structures, the movement seems crabbed and mechanical, the fluency is missing.

The fluency and tenderness are characteristic for the initiation of the movement via the organ system.

The prespinal movement on the border of prevertebral and vertebral creates the space to support and fulfill the slow movement as well as the fast and rythmical movement.

Vertebral formulas

They are partly based in the intrauterine (spinal, homological) and extrauterine (homolateral, contralateral) and they develop fully within the gravity environment during the first year of life.

A key to copy the movement formulas **is the location of movement initiation and its progress within the body.**

The spinal formulas start either from the head or from the coccyx while the other formulas start from the hands or the upper limbs or from the feet and the lower limbs.

Using the senses- mainly the hearing and sight – we open ourselves to the external environment that creates the motivation for the movement.

The motivation is a progress to next levels (from the position of lying down to the standing position). The progress is characteristic for its higher speed, direct pointing, stronger power demanded by the movement against gravity.

Four basic vertebral formulas are:

Spinal

Homological

Homolateral

Contralateral

Movement initiation

The BMC system focuses on body systems and their structures and subsequent initiation of the movement by an exactly localized area. This system develops the ability to distinguish the slight shades of movement perception within various body structures as well as a precise orientation in perception of the movement as well as its leading through the body. This way the body learns to recognize, distinguish and register the change in movement and this way also in its neurological organisation.

Regarding the neurological formulas we focus on two basic ways to initiate the movement:

- Initiation through release and compression
- Initiation through stretching and tightening

The basic formulas are therefore divided into:

1. **The formulas of release and pushing away** where the movement leading to the head starts with coccyx or the lower limbs and the movement to the coccyx starts from the head or the upper limbs.
2. **The formulas of stretching and tightening** where the movement leading to the coccyx starts from coccyx or from the lower limbs and the movement towards the head starts from head or the upper limbs.

These formulas express the method to overcome the gravity.

Another key to distinguish the formulas is the attention, interest and intention accompanying the formula.

According to the B.B.Cohen it's important to realize that the difference between the formulas of release and pushing away and stretching and tightening is a change of focus from the inner to the external environment. It's an activation of the perception. The change of perception level is a reason of the body position change. If the change of the perception level is realized only by pushing away with the lower limbs or by the coccyx, the feeling of boredom appears, the eyes refuse to shine and feeling of hardness rises at the spine, because the body changed the position physically, but the level of perception hasn't changed.

The student observed this phenomenon in dog's movement... „ When the dog was walking without any intention, he walked homolaterally (the formula of release and pushing away), he usually held his head down. Then the bee disturbed him. The dog focused, at first he cocked his ears and then he pulled his head up. The movement transformed from slow into fast and rapid.

When his eyes found the bee, he ran contralaterally (a formula of stretching and tightening).

The key to understand the movement functioning is harmonise the attention and intention with the action.

Spinal movement formula

„...If we hold the spine up from the cyccox, the spirit ascends to the top of the head and when the head is straightened up as it is hanged, the body becomes mobile (The song about thirteen movements – Tai – ti – chuan)“

The spinal movement starts at one ending of the spine (head or cyccox) and fluently progresses through the spine to the end. This movement relates to the fish movements.

We recognize these basic formulas of the spinal movements in the evolution line:

1. The spinal release and pushing away in following forms:
 - spinal release and pushing away of the head
 - spinal release and pushing away of the cyccox

2. The spinal stretching and tightening:
 - spinal stretching and tightening of the head
 - spinal stretching and tightening of the cyccox
 - Spinal movement is a movement at the horizontal level

The spinal release and pushing away

The formula of the spinal release and pushing away represents the first formula that develops the strength for the birthing process and the life of the newborn in the environment full of gravity. The spatial symbol is a table – horizontal level where the movement develops at first. The movement at the horizontal level arises through rotation around the vertical axis.

It's represented by the continuous rotation of the spine around its axis leading from the head to the cyccox or from the cyccox to the head.

The child starts to develop this formula during the last months of his intrauterine stage, when its space is getting smaller and his movements are more and more limited by the wall of the womb. The child starts to use the resistance of the wall to push himself away and for a subsequent movement. When the child lies in the embryonic position – the head, whole back and the feet are touching the wall of the womb.

According to B.B.Cohen the spinal formula develops the strength of the move initiated from the centre. We can observe it in the fluent movement of the back leading from head to the coccyx or from the coccyx to the head. The upper and lower limbs are not active parts of the process.

The formula of the spinal release and pushing away creates the feeling of attention and it's the base for such qualities of the movement, lightness, progression and strength.

The spinal stretching and tightening

It's a second fish formula. Regarding the fetus – it's a preparation for the stretch through the birth canal to the external environment and for the newborn it's a start of stretching into the space.

On the contrary to the spinal release and pushing away formula which is developing through compression, spinal stretching and tightening develops through prolongation. The spinal release and tightening create the strength in relation to the gravity, spinal stretch and tightening are building the ability to reach beyond the borders of the personal kinesphere, they create the lightness in relation to the space. The formulas of the spinal release and pushing away define the parameters of an individual personal kinesphere. The spinal stretching and tightening create the ability to stretch behind the personal kinesphere.

Homological formula of the movement

We **flex together or extend both our upper or lower limbs** when moving homologically. We learn to distinguish between the upper and lower side of the body and use the sagittal level of the body. These formulas provide a solution to quadrupedal position. In the animal realm is this movement represented mainly by the frog movement.

We recognize these basic formulas of the homological movement:

1. Homological release and push away in the form of:
 - Homological release and push away of upper limbs
 - Homological release and push away the lower limbs
2. Homological stretching and tightening in the form of:
 - Homological stretching and tightening of upper limbs
 - Homological stretching and tightening of lower limbs

Homological release and pushing away

Spinal release and pushing away and the subsequent stretching and tightening create the solution for another – more mature organisation, where both of the upper or lower limbs participate on the transferring the balance to the ground.

During the homological release and pushing away the upper limbs the power of antigravity revealed by the push of the forearm to the ground is transferred through the shoulder girdle and through the spine to the cyccox which she stretches backwards while moving the body backwards as well.

During the homological release and pushing away the lower limbs, feet, preknees and knees pushed into the ground which creates the extension of the flexed limbs. This moves the body forward and that's represented by a higher elevation of the head and supporting upper limbs from the forearm to the palms.

These formulas develop the strength, gross motor activity, extension of the limbs and skeleton represent the inner concentration.

Homolateral movement formula

Homolateral movement takes place at the vertical level. It's a movement where the limbs on the same side of the body flex and extend at the same time. One side of the body is flexed, the other one is extended. This movement creates the perception of right and left side. Homolateral movement is represented mostly by the snakes.

The homolateral movement is represented in the following formulas:

1. Homolateral release and push away of upper limbs
2. Homolateral release and push away of lower limbs

The baby represents this formula around the 6th month accompanied by the developing homological stretch.

The baby that learned to bear its weight on both upper limbs, subsequently starts to transfer the weight from one side to another. Then he starts to release and push away from the hand or from the forearm to move backwards. The impulse is transferred through the skeleton to the lower limb on the same side that is then stretched. The whole side is stretched and takes over the weight and enables the other side to move – lateral flex.

Later the baby learns how to use the release and pushing away from the flexed lower limb.

It pushes to the ground and the strength is transferred along the skeleton to the lower limb on the same side. The prolonged side is loaded by the weight of the body while the other side is flexed (upper limb, skeleton, lower limb) and is ready for another push from the foot or knee.

Another representation of the homolateral formula of the release and pushing away is the progress to the autonomous sit down. In this case the baby turns on the side and by pushing the lower or upper limb with the support of the spinal stretching and tightening he can sit down himself.

The baby becomes very mobile while using these formulas, in the position on the belly he moves in various directions and he is capable to change the level of movement from the low to the medium.

Contralateral movement formula

Contralateral movement is the basis of the movement integration on all three levels and the spiral movement. During this movement we cross the central body axis and interconnect both brain hemispheres that simultaneously participate on the movement.

It's represented in the evolutionary link as follows:

Contralateral stretching and tightening

The contralateral movement formula that is in its basic form known as crawling that is used by most of the mammals to walk. It's also a basic formula for the bipedal human walk, running, etc.

We recognize two forms of contralateral stretch and tightening

1. contralateral stretching and tightening of the upper limb
2. contralateral stretching and tightening of the lower limb

1. **Contralateral stretching and tightening of the upper limbs** initiate by stretching the upper limb (fingers) which tightens the body forward and by the subsequent tightening of the skeleton and the opposite lower limb. The support of the weight is on diagonal between the stretching upper and tightening the opposite lower limb. The enlightened upper limb is ready for another stretch. This formula is the basis for the crawling forward.
2. **Contralateral stretching and tightening of the lower limb** is initiated by the stretching of the lower limb (toes) that tighten the skeleton and the opposite hand backwards. Baby usually uses this formula to turn around and change the levels.

This formula also creates the perception of the space „behind“.

Embryological process

First days and weeks of the human being development are fascinating. From the connection of two cells – an egg cell and sperm starts the process of birth and death, transformation and formation of this amazing system that we are. Not only our body but what we are. We all succeeded in this fascinating process – we are alive. Our earliest learning at the cell level is related to the process of our early development.

Why shall we focus on embryology?

It offers us the earliest forms of physical, social and psychological formulas.

The embodiment of the embryological process is a spatial incarnation, not a real structure.

The space remaining after the early structures is highly potential and can have a healthy influence on the body tissues and their organisation.

It reveals us the sanctity certain body parts of our body as they are considered in the ancient eastern ATS of the body and soul.

It's very effective when working with children – children have experienced this process not so long ago and their cells are very perceptive to the embryological resonance.

The simplicity and unity of the embryological structures offers a simple orientation and deeper comprehension to the relations.

Important milestones and their personification:

The connection of an egg-cell and a sperm.

An egg cell and a sperm bring completely different energies. The egg-cell we were born from was a part of the body of our mother when she was in her mother's body. It existed three generations ago.

On the contrary the sperm lives only 48 hours and is released together with two other millions of sperms – it has to move very fast. Their qualities are very different. But for our birth we need both of these qualities. The meditative attention and patience of the mature egg-cell and the spontaneity, strong-mindedness and determination of the demanding activity of sperm.

“The balance between these two qualities is giving us our jin and yang, our inner and external, our full spectrum of existence.“ B.B.Cohen

How do you feel these early qualities inside yourself?

Between the 5th day and the 6th day after the fertilization the external ring of the blastocyst and the mucous membrane of the uterus are connected to each other.

The trophoblast cells are stimulated to implantation into the receptive environment of the endometrial tissue.

The embryoblast cells are moving along the inner wall of the trophoblast cavity on the side connected to the endometrium. The cells of the fetus are well oriented – they are directed to the contact area and transferred to the contact area.

Observation: Lie down your palm on one of the thighs. Focus on the palm and notice if the cells on the palm are oriented to the place of contact or to the opposite one. Direct them consciously to the contact area. Notice how the cells are progressively oriented to the area of contact. Notice how the cells of the whole body are oriented to the contact area.

Change the direction of the cells from the contact area. What has changed?

Two layer embryonic shield

During this stage of inception the fluid that fill in the trophoblast cavity of the free blastocyst is shrinking – condensating inside and getting flat. The embryoblast is evolving into the two layer of the embryonic shield is composed of the lower ventral endoderm and the dorsal ectoderm.

The amniotic cavity develops out of the ectoderm cells. Once the inception into the mucous membrane of the uterus is finished, the cells of endoderm are moving inside from the sides of ectoderm and out of the trophoblast cavity line and they are creating inside the trophoblast cavity primary yolk pouch.

Exploration:

Comfortably standing you can fully feel like a two layer embryonic shield.

The front side – endodermis and the front space is the yolk pouch – the primary source of alimentation for the embryo.

No layer is ectoderm : From the backside of the ectoderm (the space behind the body) is an amniotic cavity creating the protection for the embryo.

Research:

Make yourself round on the front side like you are holding a great ball. Make yourself round in the space behind like you are lying on a great ball. Change the positions and explore their possibilities.

Feel the alimention from the front and the support in the back. You can work with great fitballs.

Three layer embryotic shield:

During the third week the two layer embryotic shield transforms into the three layer shield when the intraembryotic mesoderm layer is created. It evolves out of the structure called primitive stripe. The primitive stripe determines the front-and-back vertical axis and bilateral symmetry of an embryo and prolongs the shield lengthways.

The following structures evolve out of the intraembryonal mesoderm : notochord - the central structure, symmetrical sides, paraxial mesoderm, intermediate mesoderm and lateral intervertebral discs.

The cores of the intervertebral discs evolve out of notochord.

The vertebra, ribs and the skull bones, muscles and dermis – the inner layer of the skin – they all develop out of the paraxial mesoderm.

The kidneys and genitals develop from the intermediate part. The lateral layer rolls up and creates the body cavities. The limbs, bones and gristles of the facial part of the head and neck.

The heart and the vascular system evolve out of the extraembryonic mesoderm.

According to the Bonnie Bainbridge Cohen the organs are the transmitters of our inner propelling powers and the skeleton systém transfers the power into action. In order to comprehend this aspect she recalls the following story at her book: “One of my most important teachers was a twelve-year old boy who was born without hands and legs. He was full of organ vitality, enthusiasm and motivation, but he wasn’t able to express his desires in action without the limbs. The only possibility was the speech and the body-facial language. But he was able to swim by flexing and extending the skeleton like a dolphin. His joy that he was this way able to represent his inner motivation became immeasurable. Through this young boy I was able to crystallize the strength of the organs for the inner propelling powers

and the motivation as well as the inevitability of the skeleton system to transform the motivation into action.“

Feeling the organs:

- Lie down comfortably and slightly breathe. Observe your breathing without evaluation or conscious intervention.
- Then focus on releasing the weight of your bones so that it could fall down in the direction of gravity. What do you feel when you are consciously releasing your bones towards the ground? Has the way of your breathing changed?
- Release the weight of your organs so that it could fall the in the direction of gravity. Has your breathing changed when releasing the organs?
- When you are ready, change the position. Where in your body can you feel the initiation of the change in movement? Are you able to notice how the movement pervaded the body?
- At a new position you can release the weight of the organs once again in the direction of gravity. Be aware of the space your organs are fullfilling as well as of their weight related to the rich blood supply they receive. How has your breathing and perceiving changed and the perception of the organ release?
- With a new change of position observe the change in the organ relation to the gravity. Are you able to observe the adaptation of the organs to the new position? The organ fluid immediately react to the change of position by pouring in the direction of the gravity.
- Which organs appearing on the way of movement can you recognize?
- Using the anatomic pictures identify the localities of certain organs and then try the exercise once again.