

LEARNING THROUGH THE HAND.
THE INPORTANCE OF LEARNING WITH OUR HANDS

When everything in life is mechanised from the making of essential products to the beating of a cake mixture how can children learn the importance of the human hand in their development and for a healthy future living in this world?

Hopefully we can achieve this through a sound and healthy education that works with the development of the whole child; in mind, body, soul and spirit.

Children need to learn through wonder, beauty, truthfulness and a healthy balance between physical work, which connects us to the earth we live upon, and mental work. Too many people today have become one sided, living predominantly in their heads, only using their fingertips to turn pages or to press keys.

Through mechanisation; computers, television, radio etc. we loose touch with reality, with the real world. It would seem that this is very unhealthy. Young people today have difficulty finding out who they are as they become confused as to what is natural or actual reality and what is virtual reality. They are living in a world that only exists in their heads and are cut off from the world of nature and senses. They are cut off from the rest of their bodies and the healthiness of basic physical work using their hands.

The hand is the main organ for the sense of touch along with the skin of our whole body. If a child does not develop a healthy sense of touch he subsequently cannot develop a healthy sense of Ego. If the child does not discover his boundaries and who he is through touch he cannot recognise and discover who his neighbour is.

The Role of the Hand in the Development of the Young Child.

One of the first parts of a baby's body that it moves is the hand. To begin with these are chaotic jerky movements dominated by reflexes. After the first few months the reflexes are inhibited and the baby gradually gains control over the movements of its hands and so is able to grasp things within its reach.

The baby and small child explores its world through its hands, through touch. Every thing is grasped by the hands and then usually put into the mouth.

He then gains uprightness through the power of the hands in pulling himself upright, and holding onto furniture to aid his balance. Again with his first steps the arms and hands are important in aiding balance. The hands are instrumental in the achieving of human uprightness.

The small child is constantly busy using her hands to explore the world around her and so learns about the world she lives in. Through touch the hands experience hot, cold, rough, smooth, hard and soft. With a good role model in front of her whom she can imitate, she learns through doing again and again and her hands are educated and strengthened through play. She builds up memory through habit by repetition.

Before speech man communicated through gesture. So often the little child can make it plain what he wants through gesture.

He holds up his hands to be lifted. He points at an object, opening and closing fingers together. I have seen the same gesture used, this extension of the arm with the hand held out and the fingers opening and closing, asking you to follow. They will also take your hand and silently lead you.

We greet one another by shaking hands.

In the kindergarten one works a lot with gesture, which has a stronger effect than speech. The children will actually respond much quicker to a hand gesture to sit down than they will from a spoken command. During ringtime the gestures that go along with the spoken

word are slightly ahead of the words. This is in order to follow the development of the child in relation to the larger picture of the development of mankind. As mankind first communicated through gesture so young children respond first to gesture.

Our hands are active in the social sphere. We express ourselves through our hand gestures showing anger, fear, love etc. We give and receive security through touch by our hands, we administer and we work.

Before mankind had tools he used his hands, tools are extensions of our hands. The young child will eat with her hands before she has the dexterity, intelligence, in her hands to be able to hold and use a spoon properly. She will jam fistfuls of food into her mouth, not yet able to use her fingertips.

After learning to grasp, the first purposeful use of a tool is to grasp an object in the fist and beat the table with it.

Over the years the child learns finer and finer motor skills. The hand is educated; it becomes nimbler, more intelligent.

A Picture of the Human Hand.

If we look more closely at the hand we can see that it has three main parts. Firstly the fingers. They stand together but they have their different uses, some more than others. For instance if we compare the work of the forefinger with the work of the little finger, we will find that the former has a dominant part to play while the latter has mainly a supporting roll for the others. The second and third fingers are also dexterous. So in the main the fingers stand as individuals, and have a relationship to our thinking soul—our soul activity of thinking. We can speak about finger dexterity, or finger intelligence.

Our fingertips have highly sensitive nerve endings, which relates the fingers to the head as nerve centre of the body. As adults we have individual thoughts ordered in a logical way, but the young child cannot do this yet. So we have to educate their fingers. We begin in the kindergarten to teach dexterity through finger games, sewing, using knives, playing the lyre etc. These are fine motor skills.

A quote from Professor Matti Bergstrom. -

“ The brain discovers what the fingers explore. The density of nerve endings in our fingertips is enormous. Their discrimination is almost as good as that of our eyes. If we don't use our fingers, if in childhood and youth we become 'finger-blind', this rich network of nerves is impoverished—which represents a huge loss to the brain and thwarts the individual's all round development. Such damage may be likened to blindness itself. Perhaps worse, while a blind person may simply not be able to find this or that object, the finger-blind cannot understand its inner meaning and value.

If we neglect to develop and train our children's fingers and the creative form-building capacities of their hand muscles, then we neglect to develop their understanding of the unity of things; we thwart their aesthetic and creative powers.”

Again and again Rudolph Steiner points out that-

“ Such adult qualities as those that form, for instance, sound judgement, to have balanced thinking, depends far more on whether a child was taught to use his hands, his fingers in a right and practical way, than in later life the exercising of logical thinking.”

The second part of the hand is the palm. It has an enfolding nature, cupping and holding, giving warmth. The palm has the most sensitivity to feeling. So we can compare it to the middle system, the lungs and heart. Our heart is slightly to the left of our chest, so let us think on the nature of our left hand. The left hand is rather clumsier than the right. In French left is gauche, when we talk of someone being gauche we infer that they are clumsy, socially clumsy. The left hand has a more receiving nature and is open to the

heavens. Whereas on the other hand (signifying balance), the right hand has a more giving nature. The palm faces the earth where we toil to live our human existence.

To take part in finer motor skills we need something else, the third part of the hand, which is the thumb. The thumb stands strongly opposite the rest of the hand as Will, so relating to the limb system. It grasps what is going on in the thinking and feeling of the fingers and palm and enables one to transform through the will. The heel of the hand also relates to the will, for example in the kneading of bread

Within the hand we have the pentagram and so the five pointed star, which is an image of the human being. This seems very fitting, as our hands are very important in our being truly human. It is our most human organ. It sets us apart from the animal kingdom.

Each species of animal is a specialist, e.g. The dog has specialised nose as it lives by its sense of smell, the mole has paws that have developed for digging, the giraffe has a long neck to allow it to reach the only food that is available to it at times so allowing it to live where it does, etc.

Each species is perfected for its situation or way of life, but the human is not a specialist in that respect as the human hand is not perfected to the extent where it has only one main function. We could say it is unfinished, imperfect but mobile and versatile.

The hand can transform and create ever anew, whatever the human Ego wants, no animal can do that.

In the hand lies the possibility for dignity, freedom and the future. It is our choice as to whether we use our hands morally, for the good of mankind and ourselves or immorally, to destroy. We hold our destiny in our hands, and to a certain extent the destiny of others.

This “morality” of the hand is brought to consciousness when we for instance take an oath. We might “give our hand upon it” when making an agreement on something, we shake hands on sealing a deal. This shows the importance of gesture, it shows in our actions, words not being enough.

In school we have the important person the Handyman, he can handle many things, on the other hand we have the Headmaster who can get his head around things.

Our grandmother might give us her blessing, laying her hands upon our head, suggesting a balance being brought about between the wisdom of the old hands and the young head,

The young child must learn how to use their hands morally, scratching, punching and pushing others in the kindergarten is disallowed, these are animalistic instincts, our hands are for working. To make the children aware of this is part of educating them. One of the first things the new class one hears is how they are going to use their hands in learning. Active hands are moral hands, “The Devil finds work for idle hands.”

The kindergarten Child.

For the young child there is no separation of animal, plant and mineral, they are all one along with the child. As the under six-year-old has this strong impulse in him to imitate this is used in the kindergarten to great advantage. Normally the teacher only has to begin some work and soon many of the children will join in. However some children who do not join in “participate” by watching, even if this is not apparent. They will be taking it

all in and you may be surprised to see it all being played out a week later with the gestures perfectly imitated.

So in the kindergarten we lay healthy foundations and the children experience us living life, working in a meaningful way with our hands. If children do not see examples set by teachers and parents they are less likely to “do” themselves.

It is particularly important for children to experience “sourcing” these days, when vegetables come from boxes in the supermarket already cleaned with no trace of their source left, milk is found on your doorstep in bottles and woolly jumpers come from clothes shops.

Towards the healthy rectifying of this problem a little patch of garden for growing a few vegetables in gives the children a truthful picture and the possibility to test and exercise their strength in digging and raking and develop their dexterity in handling small seeds. Care is needed in nurturing the seedlings. Nature is beautiful and true, it is moral, and so the foundation is laid for children to gain an inner morality.

What a healthy and truthful experience it is to pit your strength against a carrot or leak, pull it from the earth, wash it and chop it with a knife, which requires great care and fine motor skills for those young fingers. Later one can partake of the soup knowing from where it has come and how it was prepared, having shared in the work oneself.

Another lovely example of “sourcing” began in Holy week. We sowed a little patch of wheat, which we harvested with a sickle in the autumn. We threshed it by hand, ground it in a hand grinder and by Michaelmas we had enough flour to make our harvest loaf. The grinding gave potentially idle hands hard and challenging work, which was very popular. The children could exercise their strength on this simple bit of machinery. When they became good at it, it became a rhythmical movement, which exercised their hands, arms and backs and opened up their chests.

The thickest straightest lengths of straw left after the threshing were used as straws to drink our homemade juice through. One child encapsulated it all beautifully when he said

thoughtfully, “Well these are straws..... so I suppose the other kind should be called plastics.” What more needs to be said?

So we can see by these examples how, for instance the realms of the plant and mineral kingdoms are bound up together for the young child. Of course this is also true in garden work for any age, but the separation of the mineral kingdom in a more conscious way only comes later further up the school. In the kindergarten it is experienced through playing and working with sand and soil. The children will of course make all manner of excavations in the sand pit, introducing water aswell. They will spend hours making mud pies and playing at cooking in imitation of adults. In their play they will freely mix plants with the mud, sand and water.

In the kindergarten garden where I worked the soil was very clay. We experienced this when digging, as the gnomes held tightly onto the spade making it very difficult for us to pull it from the ground again.

For a time there was a craze for fashioning mud clay balls. You could say this was the beginning of clay work. However this came purely from their own initiative and was in no way taught. I did not discourage this activity, as it would have killed some of their impulsive creativity, even though I do not find clay a suitable medium for the young child.

Clay is cold and heavy and is an ancient substance needing a lot of energy to transform it, the formative forces necessary for this are still needed by the young child to build up their bodies and inner organs. Clay has a tendency to suck up into itself, sucking the moisture and the warmth out of the hands. This all can be etherically weakening for the young child. Far better to model out of bees wax which has been formed from the sun’s warmth on the plants and transformed by the bees which belong to the animal kingdom which is the closest to us humans out of the animal, plant and mineral kingdoms.

Substances from the animal kingdom need the least effort in transforming them. The plant kingdom which is one more step away from mankind needs rather more energy in it’s transformation, so in the realm of craft work it is more appropriate further up the

school. The mineral kingdom is the furthest removed from the human and needs considerable energy and heat in its transformation. As the young people become more earth bound around puberty, more deeply incarnated into their bodies, so it becomes more appropriate to work with the mineral kingdom.

One could say that the less transformation needed in what one is making the more suitable it is for the young child. So when working beside young children the adults make what is needed and the children, through imitation, transform the material only as far as they are able. Without assistance they can only achieve what is appropriate to their age.

Other than what has already been mentioned there are other possibilities to work and play with different elements of the plant kingdom in the kindergarten.

Little baskets and crowns can be fashioned out of leaves from the sycamore tree.

In the summer when there is long grass available, figures and human forms can be fashioned out of grasses. It can be plaited and made into little mats or even hats as one can also do with reeds. Straw left over from the threshing can be used to thatch a bird table incorporating a few ears for the birds to pick at. The better pieces can be used to make straw stars in advent time.

Also in advent time when it comes to wreath making the children will love to make their own little wreaths along side the adult.

Little Easter baskets can be made out of vines, green willows, dogwoods and other plant substances, using moss and grasses to line them. The weaving will be quite random, but as in all other activities in the kindergarten the children will work purely out of imitation and not instruction, at least until they are six. It is the doing that is more important not so much the finished product. Having said this we, the adults, always make things that have a purpose, not just for the sake of entertainment, it must have a pedagogical value. We take part in meaningful work as adults; this helps instil a sense of morality into the child.

With the six-year-olds we can undertake individual projects or allow them to use tools that younger children are not yet allowed to use. This also gives the younger ones something to look forward to, helping to counteract the “instant gratification” expectation prevalent today.

A very popular job was to scrape the bark off thin hazel rods or willow wands, which were going to be used for different things e.g. fishing rods at our summer festival or to make dusters by binding a piece of sheepskin with wool attached to one end. While the younger children used suitable sharp edged stones for the scraping, the older ones were allowed to use pocket-knives to remove the bark, so moving as it were, from stone age to iron age.

The older children were also encouraged to undertake little projects that involved the sawing of wood with a handsaw and the subsequent sanding of the piece e.g. in the making of drop spindles.

They could also pit their strength and skill against sawing and chopping firewood for the outside fire.

These projects each required slightly more energy than the last.

Coming at last to the animal kingdom, we have, besides the bees-wax for modelling already mentioned, the whole realm of wool. Being the closest kingdom to mankind it is the one needing the least energy to transform.

It is of course of great benefit to the children if they can experience from where the fleece comes and how. Sheep shearing is a fascinating thing to watch. I believe the more times they experience this the better as the senses of children today are so bombarded with negative and disturbing pictures and experiences that the senses become numbed and hardened. So they need to experience things many times before it has enough effect on them that it can work down into their feeling soul life and they can subsequently experience a welling up within of the sense that the world is innately “good”.

After the shearing we see how the shorn sheep runs and jumps in the air experiencing the release from the heavy warm fleece. The fleece can be gathered up, still warm, by many little hands, which experience the softness and the grease. There is a strong aroma from the raw wool, which stimulates the sense of smell. Usually at this age if the adult is matter of fact about things the children will not object to the smell and dirt. However an older child might well show reticence in touching the wool in its raw state if they have not encountered these kinds of experiences earlier in life.

Next the wool can be carefully washed in warm soapy water. A certain amount of control is needed at this stage or we will have felt.

The washing is a very sensual experience. The softness of the wool, the warmth of the water along with the slipperiness of the soap, it brings about a sleepy, dreamy state of consciousness, which is where the young child is at anyway. Compare this to the hammering of metal or working with cold clay which are both awakening

When the wool has been dried there follows the rhythmical work of teasing and carding it. A lot of patience is needed here especially for children further up the school as it takes a lot of work. The young child tends to get so caught up in the process that they do not think about what they want to do with it afterwards, and are content to work away beside the adult. .

If one passes by this stage too quickly the subsequent stages will not work out properly. Especially with older children one stage must be mastered and finished before the next is undertaken. Preparation is essential in again counteracting the “instant gratification” aspect but also from a moralistic point of view.

The wool has a wonderful airy floating quality, which suits the sanguinity of the young child.

The wool which has a life of it's own, is more manageable when wet. it can then be formed. Here begins its transformation. It is best for the under six year old to work a small ball of wet soapy wool in the palm, where it sits comfortably and can be easily enfolded and formed into a ball.

One can observe the will of the child here when we see how well felted the ball becomes. One child may have a firm ball while another may only just be holding together.

The children can go on to form hares, chicks and puppets. The older children, six plus, could assist in felting flat pieces for use in sewing projects; e.g. Purses, doll clothes or recorder case.

It is interesting that when the children form shapes in the palms it is a less conscious process than when they come to felt two-dimensional pieces, whereas further up the

school when we move away from two-dimensional into three-dimensional it is an even more conscious and intellectual process.

I would not recommend beginning three-dimensional work using a template until class seven or even eight when the children have more consciousness of inner and outer through learning about their own bodies, inner skeleton, muscles and outer skin.

However to stimulate the intellect in the upper school the youngsters can undertake complicated projects where they have to lay out coloured patterns and motifs first and work out how to place them so that when the piece is opened up and turned inside out the motifs and patterns will appear as wished. They will also have to take into consideration the implications of flaps on bags etc.

Such projects could be the making of waistcoats, bags, hats, slippers etc.

It seems that in most schools the children work in the three kingdoms of nature in the Kindergartens, but when they start in class one the tendency is to only work with wool e.g. in knitting.

However it is just as appropriate now to continue with little projects in the plant kingdom. They can saw, whittle and sand, for example in the making of. Skipping rope handles from branches, they can undertake along with the teacher to plant a live willow house. Various bulbs can be planted, watched and tended, sun flowers grown and the seed heads hung up for the birds.

Infact the whole realm of gardening is healthy and appropriate to all ages. This of course involves the two kingdoms, plant and mineral.

Lavender can be grown to make lavender bags.

Class three can of course grow their own grains in conjunction with their farming lesson, harvest, thresh and grind and then bake. Most likely the children will have already taken part in these activities in the kindergarten, but now they will be that much older and will experience it from a different perspective.

The continuing caring for the soil and growing of vegetables in which the children can delight their senses can culminate in the production of a healthy balanced meal being

prepared in class eight when they learn about health and nutrition. Health includes a good relationship and understanding of the earth that we live and work upon.

In class nine the chemistry of soil can be looked at along with the process of composting and the breakdown of organic matter.

There is the possibility to learn about fermentation using plant substances from the garden.

Dye plants can also be grown.

The possibilities are endless when one starts to look at the curriculum.

In the upper school the classes can prepare simple lunches using produce from the school garden.

Within the mineral kingdom of course the children work with the soil in the lower classes, but in class three they can learn how to make mud bricks.

Perhaps class four or five could build a bread oven in which to cook some of their garden produces e.g. cobs of corn, as well as bread or baked potatoes, pizzas, etc.

During the firing of the oven the children will experience the amount of energy required to transform the clay. They will meet this again when they take up pottery in class ten and learn about the chemical processes taking place.

The “doing” of the lower classes can be met again in the upper school but incorporating the intellect now as well, the understanding of processes is possible in the upper school. Ever more energy, intellectual understanding, and transformation is required to challenge the youngsters.

They go from the relative softness of green woodwork and carving in the middle school to carpentry and joinery in hard woods with a degree of pedantry not previously needed. They meet copper work and blacksmithing, perhaps not for the first time as they may experience this in simple forge work in class five and upwards, but now the expectations are far greater, and the whole element of design, planning and intricate work can be expected.

The power of judgement, intellect and refinement of motor skills are called upon.

So now we hope that our young people have a healthy respect and understanding of this wonderful planet that we live on, the ability to be practically resourceful, useful and with high moral standards. That they have developed a healthy thought life, openness to life and good empathetic abilities. That indeed they have developed as whole human beings which will serve them and mankind further into the future than we can possibly imagine.

Frances Graves 1998