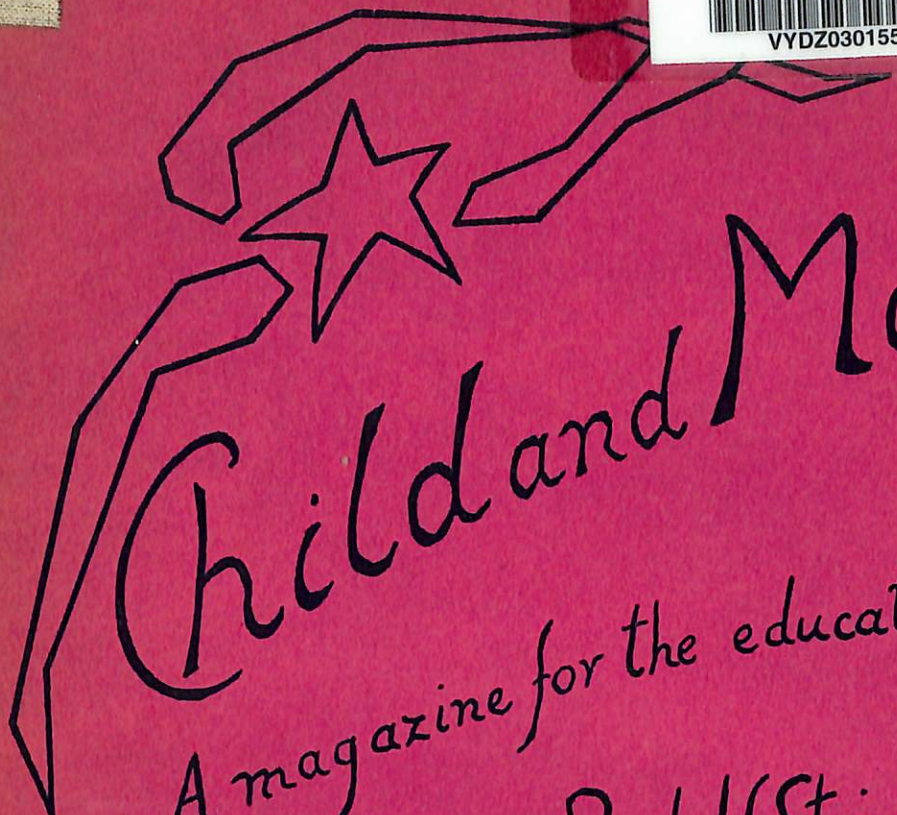


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CHILD AND MAN

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Contents

	PAGE
Literature with the Upper School	I
The Age of Puberty	11
Children in a Scientific World	18
Dr. Steiner in the Waldorf School	26

Literature with the Upper School

THE child of fourteen and fifteen has particular difficulties to live through. He is beginning to develop a "mind's eye," to grow *objective*, to range and order his experiences. He swings between outer inquiry and inner searching; beats back and forth between enigmas without and doubts within; is subject to sudden impulses, strange moods and feelings, unexpected thoughts. Question after question forms itself rising to startling clearness out of dim worlds of feeling. "How am I related to my parents, to the people around me? Do I accept their authority? What is death? Is there a spiritual world? Is there immortality? What do my teachers really know?" And the great underlying questions that we all seek to answer, "What am I as a human being? What is my task in the world?"

Children at this stage can feel great loneliness, and uneasiness.

The ordinary world to-day can give no satisfactory answers to such questions. Too frequently the child grows up therefore to feel himself an unhappy stranger in the world, an isolated factor unable to relate himself to his environment or to his historic past. He stands an uncomfortable onlooker, or feels about helplessly for anchorage.

Man can only find his true position in the world through a right knowledge of human evolution; and amongst all the evolutionists to-day, whatever their position may be, Rudolf Steiner alone has taught the evolution of the *whole man*. He has taught how man can experience his full humanity only by understanding how he is related in every detail to his environment; how man and the world are one and have always been one; how changes in the outer world have accompanied changes of consciousness, and how the world to-day and the consciousness of man to-day are one stage in a great organic development.

For the adult it becomes a task to unlearn and to relearn; to labour, often with difficulty, out of one's own accustomed thinking life, slowly to gain freedom and begin anew.

The child of fourteen and fifteen is still to a large extent free in his nature and can receive directly, without prejudice, what the adult can acquire only through great effort. True knowledge lives in every human being; it has only to be awakened and brought to consciousness. The teacher standing before his class knows that the beings before him, in their inner nature, are wise, wiser perhaps than he is himself, and less spoilt. Let him but present his facts rightly, and the children will themselves from inner necessity seek out the right connections. There may be individual questions and difficulties, but his chief task is to try and represent, in a series of powerful pictures drawn from life, some aspect of human development down to the present day; the children will seize on the truth in his narrative through the knowledge that is already there in their unconscious lives. Their inner problems, as yet only beginning to grow conscious, will find answers in the light of this world development, and they will gain assurance in life and a feeling of security in the world.

In the literature course it becomes a question of selecting a number of characteristic works, beginning with the ancient Epics, the first great literary compositions, following the

transition into Drama, which already implies a stepping out upon the earth, and leading over into later forms of literature nearer the present day.

We will begin with Homer's Iliad (Lord Derby's translation, Everyman edition):—

"Of Peleus' son, Achilles, sing O Muse,
The vengeance, deep and deadly; whence to Greece
Unnumber'd ills arose; which many a soul
Of mighty warriors to the viewless shades
Untimely sent. . . ."

Is this invocation merely literary? Is the story that follows the fruit of a single man's inventiveness? Or is it true that through the poet we enter into a real world of past human experience?

We speak of a poet's originality, of that which he describes as his unique experience of the world. We do not question his integrity. We delight in the manifold uniquenesses to be found in any anthology. It stimulates and lights up our own life experience. But what if the poet should describe experiences for which we have no parallel in our own lives? Occasionally there are such poets. For many the Irish poet, A. E., is one. For years he has practised the art of matching word to thought, of giving true and noble utterance to his experiences. He describes a world of imagination behind the world of sense, of greater majesty, splendour, beauty than anything the physical eye can behold. He tells how the light of day is darkness to the brilliance of that other light.

What do men say to such descriptions? They are divided in opinion, perhaps speak with respectful reserve. No one doubts the "reality" of A. E.'s experiences for himself, but do they arise out of his nature or are they related to an objective world which he perceives with an inner eye?

That which Homer describes was felt to be true by many generations of men; it was the life pulse of a great civilization. The Greeks enter history out of a world of "Myth," but right through their historic period this world of myth is for them very truth; it is the substance of their daily life; their being echoes to the wonder of it. The events of the Epics had long preceded historic Greece. It is indeed at the entry of Greece into outer history, when consciousness of these events was

fading into memory, that Homer gathered up into his soul those great imaginative experiences and wrote his Epics. Greek Art taken as a whole is homogeneous. The Greek Gods and Goddesses stand clear in men's imaginations; they are the same for all Greeks and they are for all Greece as they were for Homer. What is the picture of the Greek world in the poems of Homer?

Below is the world of men, and above, in the upper atmosphere as it were, dwell the Gods grouped around Zeus (Jove). Sensible and supersensible, physical and imaginative consciousness merge into one. Man is not only surrounded by objects, he is everywhere surrounded by beings. Human thought, feeling and will is penetrated by this world of beings. The Gods and Goddesses appear in their own form; in human likeness as friend or foe; or they speak through signs and tokens and dreams. They are favourable or adverse; protect or injure; have human offspring and fosterlings—that is, men on earth in whom is incarnate a portion of their being; group themselves round chosen heroes who carry with their leadership the fates of communities or kingdoms; are inseparable from the warp and woof of human fate and action. Men see them, know them, converse with them, are guided or misled by them.

A young race in the ascendant is opposed to an old race in marked decline. Achilles, young, proud, impetuous, extreme, preferring a short memorable life to a long easy one, stands opposed to Hector, also young, but wise with the experience of his race, temperate, constant, loving life and friends, but heroically submissive to fate. The Gods, according to their attributes and tasks, are ranged on the one side or the other, Apollo with the Trojans; Athene and Hera (Minerva and Juno) with the Greeks. Homer has an epithet for each, a specific epithet, expressive of their whole being; by their natures they are impelled to enter the field of human action, to play their part through men for the fulfilment of world destiny.

Jove alone is free. He alone does not appear amongst men though he watches and directs all. He alone is impartial, for in him there works a deeper law. He can enter the inner sanctuaries of existence and understands the wisdom of fate.

[4]

"Expect not Juno, all my mind to know,
My wife thou art, yet would such knowledge be
Too much for thee; what I in secret plan,
Seek not to know, nor curiously inquire."

He holds the scales; in his will is cosmic law. A higher knowledge makes him free among Gods and men.

"While yet 'twas morn, and wax'd the youthful day,
Thick flew the shafts, and fast the people fell
On either side; but when the sun had reach'd
The middle Heav'n, th' Eternal Father hung
His golden scales aloft, and plac'd in each
The fatal death-lot; for the sons of Troy
The one, the other for the brass-clad Greeks;
Then held them by the midst; down sank the lot
Of Greece, down to the ground, while high aloft
Mounted the Trojan scale, and rose to Heav'n.
Then loud he bade the volleying thunder peal
From Ida's heights; and 'mid the Grecian ranks
He hurl'd his flashing lightning; at the sight
Amaz'd they stood, and pale with terror shook."

Nothing in the Iliad is by chance; everything, great and small, is ruled by wisdom. Love and hatred, sympathy and antipathy play themselves out in human souls, not merely personally but with a human mission. It is not a personal destiny that sets Hector against Achilles. Each knows, or half knows, his own fate and the fate of his opponent. They stand opposed on earth by a greater destiny. So, too, with the Gods. For men the drama is of life and death. For the Gods there is obedience to cosmic laws by which they live. As the planets are now in conjunction and now in opposition, so do the Gods group themselves according to their natures and the script of the heavenly constellations.

Often it is difficult to follow their actions, to grasp their moral nature.

"All night in sleep repos'd the other Gods,
And helmed warriors; but the eyes of Jove
Sweet slumber held not, pond'ring in his mind
How to avenge Achilles' cause, and pour
Destructive slaughter on the Grecian host.
Thus as he mus'd, the wisest course appear'd
By a deluding vision to mislead

[5]

The son of Atreus; and with wingéd words
 Thus to a phantom form he gave command:
 'Hie thee, deluding Vision, to the camp
 And ships of Greece, to Agamemnon's tent:
 There all, as I command thee, truly speak.
 Bid that he arm in haste the long-hair'd Greeks
 To combat; for the wide-built streets of Troy
 He now may capture; since th' immortal Gods
 Watch over her no longer; all are gain'd
 By Juno's pray'r; and woes impend on Troy.
 He said: the Vision heard, and straight obey'd;
 Swiftly he sped, and reach'd the Grecian ships,
 And sought the son of Atreus; him he found
 Within his tent, wrapp'd in ambrosial sleep;
 Above his head he stood, like Neleus' son,
 Nestor, whom Agamemnon rev'renc'd most
 Of all the Elders; in his likeness cloth'd
 Thus spoke the heav'nly Vision——"

Can it be that Jove must stoop to deliberate deception, that he must lie in order to bring Agamemnon and the Greeks to disaster? Can moral necessity take such a form? Or is it that Agamemnon, by the misuse of his kingly prerogative has weakened his nature and so laid himself open to the forces of delusion? There, where he is weak, he is seized upon by the Vision, that a wrong committed may find adjustment. Jove, perceiving the necessity, allows the consequences to come about according to the nature of the circumstances. He is no judge punishing the offender. Agamemnon, although in error, is still his representative on earth.

"... while in the midst
 The mighty monarch Agamemnon mov'd:
 His eye, and lofty brow, the counterpart
 Of Jove, the Lord of thunder; in his girth
 Another Mars, with Neptune's ample chest.
 As 'mid the thronging heifers in a herd
 Stands, proudly eminent, the lordly bull;
 So, by Jove's will stood eminent that day,
 Mid many heroes, Atreus's godlike son."

So it is with all things in the Iliad, till the conviction grows that it is patterned everywhere on cosmic law. Day follows day evenly. The narrative proceeds as steadily and as inevitably as the sun through the sky. Nothing is hurried and

nothing delayed; nothing is overstressed, and no detail is neglected. The story is grandly human; we accept all or none; it stands in the realm of art as a sublime mountain range in nature.

The feeling grows that in the past there lived a race of men whose "real" was not our "real." Space and time, life and death, what man felt as his environment, were different. It was an age when imagination was an objective experience, common to all. The world of objects stood revealed as the shadow picture of a world of being. It was a golden age when the spiritual was manifest outwardly in daily life and men inherited a knowledge of their divine origin.

The question might be asked, was asked indeed, "Do you then believe in these Gods and Goddesses and in their existence? Where are they then?" One may believe in the reality of the Greek Imagination. To that Imagination the spiritual world of beings and facts appeared in mighty pictures as described in the Homeric Epics. For centuries men shared this common experience. They discussed these higher facts as we discuss the weather. As they changed, this experience changed; slowly it withdrew from outer consciousness and was drawn into men to live as vitalizing force within the subjective real of to-day. When man overcomes the tyranny of self, then, with God-inspired eye, he will know that world again.

To other men, in other times, according to their natures and their mission in the world, the spiritual world appeared differently. They had a different Imagination of it.

We will now turn to another Epic, the Volsung Saga (William Morris's version).

This Epic, too, had lived amongst men for centuries before it was written down. Here, too, a world experience is gathered up around a particular race of men, around the last of that race, the mighty figure of Sigurd. The inspiration of an age-endeavour pours itself into the grand imagination of the slaying of the dragon. There is the brooding of an even higher world in this story, profound preparation, a universal sacrifice. The epic speaks of an approaching darkness, a world death. It is as though something of the deepest consequence is offered, is longed for, and recedes; as though something had

been prepared but could not, for that time, be given. That which lived in Greek imagination actually descended into earthly life; filled a mighty epoch of human history; brought to earth an era of art, religion, science. That which lives in Norse imagination seems only to have reached down to the outer hem of human existence, to have lit up a strange wonder and longing in the human soul and then to have faded away before men's gaze; it is as though a Being of the highest wisdom and grace hovered above men but could not find entry and was lost to them. Everywhere in this epic there is the pain of parting, of being sundered, of sinking out of light into darkness. As men look the sun of the world appears to be setting for ever. Strange contrast with the sun-filled vigour of the Iliad!

"There was a dwelling of Kings ere the world was waxen old;
Dukes were the door-wards there, and the roofs were thatched with gold;
Earls were the wrights that wrought it, and silver mailed its doors;
Earls' wives were the spinning women, queens' daughters strewed its floors,
And the masters of its song-craft were the mightiest men that cast
The sails of the storm of battle adown the bickering blast.
There dwelt men merry-hearted, and in hope exceedingly great
Met the good-days and the evil as they went the way of fate:
There the Gods were unforgotten, yea whiles they walked with men,
Though e'en in that world's beginning rose a murmur now and again
Of the midward time and the fading and the last of the latter days,
And the entering in of the terror, and the death of the People's Praise."

It is strange that this mood should find an echo in a man of to-day, in A. E.

"We dwindle down beneath the skies
And from ourselves we pass away:
The paradise of memories
Grows ever fainter day by day.
The shepherd stars have shrunk within
The world's great night will soon begin."

When the story of Sigurd opens, the glory of the day is already nearly by. The Gods have withdrawn, all but one, Odin, the greatest and the last to be with man. He still comes in rare moments to give or to end a mission.

"Then into the Volsung dwelling a mighty man there strode,
One eyed—and seeming ancient, yet bright his visage glowed:

Cloud-blue was the hood upon him, and his kirtle gleaming grey
As the latter morning sun-day when the storm is on its way:
A bill he bore on his shoulder, whose mighty ashen beam
Burnt bright with the flame of the sea and the blended silver's gleam
And such was the guise of his raiment as the Volsung elders had told
Was borne by their fathers' fathers, and the first that warred in the wold."

Out of an ancient past he brings to men once more the mission of the race, the sword for the slaying of the dragon. Sigmund alone can wield that sword; his son, Sigurd, fulfils the mission. He passes from the world like the last golden beam of a setting sun. Death descends like night on that race and generation of men. It is the death of the ancient imagination. The curse of something misbegotten is the cause of that ruin. That curse descends indeed into earthly history, it is the curse of a phantom treasure on earth and leads to a universal forgetting of the spirit.

The world of the epic dissolves away and man sinks more and more into the sense-perceptible, the physical. What was darkness before is now his only light.

The last descendant of the heroes is Beowulf. In the story of Beowulf there is also contained a world experience. In this story, however, a cosmic Heaven has shrunk to a blue sky, a flaming sun-hero to a grim warrior fighting for truth. The eye of imagination, almost blind now, still perceives dimly something of the grandeur in human life; sees in the gloaming of the gathering soul-night the last faint rays of a spirit sun gleaming round the helmet and glancing along the sword-edge of the fighting figure.

Beowulf wrestles with the first dragon at night, in the dwelling of man. He lays aside all external means, and fights with his hands alone, with his mighty grip, his will.

The second dragon, the fiercest and the mother of the brood, he can only reach in the murky depths below earth existence. He descends into the water to fight below the surface. His companions are left above on the shore in the daylight. There below the surface—that is, in the imaginative worlds, for so only can one understand the story—he fights the doer of evil on earth; and he fights with the weapons of that world, for the sword with which he slays the monster is taken from her hall and melts at contact with her blood.

The third dragon he kills in the sight of men. The fury of this dragon is roused by a man stealing its treasure. Beowulf alone, in his old age, dares go to meet it, and of all whom he has helped and befriended in his long life, one alone stands by the hero in his last conflict. The rest dare not approach. They keep their distance, and when dragon and hero are dead, rush for the treasure and receive its curse.

With Beowulf's death half the world's history comes to an end. Men sink into despair, for their last hope and support seems gone—but already something new is approaching. It is woven curiously into the story of Beowulf itself like a message of unfamiliar sound borne across great distances.

The following passage comes early in the story:—

"There was the sound of the harp, the clear song of the minstrel. He who could tell of men's beginning from olden times spoke of how the Almighty wrought the world, the earth bright in its beauty which the water encompasses, the Victorious One established the brightness of sun and moon for a light to dwellers in the land, and adorned the earth with branches and leaves: He also created life of all kinds which move and live. Thus the noble warriors lived in pleasure and plenty, until a fiend in hell began to contrive malice. The grim spirit was called Grendel, a famous march-stepper, who held the moors, the fen and the fastness. The hapless creature sojourned for a space in the sea-monsters home after the Creator had condemned him. The eternal Lord avenged the murder on the race of Cain, because he slew Abel. He did not rejoice in that feud. He, the Lord, drove him far from mankind for that crime. Thence sprang all evil spawn, ogres and elves and sea-monsters, giants too, who struggled long time against God. He paid them requital for that."

Later occurs the following phrase:—

"The truth has been made known, that mighty God has ever ruled over mankind."

And what a mingling of something old and something new is in the following:—

"Then the sword, the battle-brand, began to vanish in drops of gore after the blood shed in the fight. That was a great wonder that it all melted like ice when the Father loosens the bond of the frost, unbinds the fetters of the floods; He has power over times and seasons. That is the true lord. . . .

"The wave surges were all cleansed, the great haunts where the alien spirit gave up his life and the fleeting state."

Beowulf lying wounded calls for a sight of the treasure.

"Then he spoke, the aged man in his pain; he gazed on the gold. 'I give thanks in words to the Prince, the King of glory, the eternal Lord, for all the adornments which I behold here, that I have been able to win such for my people before my death-day. Now have I sold my old life for the hoard of treasures; attend ye now to the need of my people. No longer may I tarry here.' "

A few lines later:—

"The prince of brave mind took from his neck a golden ring, gave to the thane, the young spear-warrior, his helm bright with gold, his ring and corslet; bade him use them well: 'Thou art the last of our race, of the Waegmundings. Fate has swept all my kinsmen away to their destiny, earls in their might; I must needs follow them.'

"That was the last word from the old man's thoughts, before he sought the pyre, the hot, fierce surges of flame. His soul passed from his breast to seek the splendour of the saints."

The substance of the story is old, yet the language declares the presence of something new. As men sink finally into the sense world, they are greeted there, on the floor of the world, by a new teaching. Beowulf, at the last, has perhaps caught a glimpse of an approaching new day. Christ has walked this earth. The moment of greatest loss becomes the moment of greatest gain.

(To be concluded.)

L. F. EDMUNDS.

The Age of Puberty

THE gradual descent of the child from spiritual worlds into earthly existence has often been spoken of in these pages. Physical birth only marks the decisive point at which the human spirit, having entered into a physical body, begins to work on that dwelling which is to be its abode for a period of three score years and ten. In the first three years of his development we can see the divine spirit working unimpeded in the child, whose soul is as yet like a cloudless sky at sunrise. It is under the guidance of divine spirit that characteristic faculties of our soul life are developed in those three years—walking, speaking, and thinking.

Our educational task at this stage consists largely in removing external obstacles and wrong surroundings from the child,

such as quarrelsome conversation, mechanical music, ugly colours, mechanical toys, all of which have a deep effect on the child; for, as Dr. Steiner once put it, he is at this age like one great sense organ, and like initials cut into a tree, the impressions of his surroundings are deeply engraven even into his physical body. Apart from this removing of unsuitable surroundings in the child's life, we may remove hindrances arising from our own inner nature by ourselves endeavouring to approach more nearly to what we would wish to be; for inner development is a matter of the soul, and hence doubly perceptible to the child who at this tender age is especially sensitive to all that concerns the soul.

At the age of three there sets in a darkening of the child's soul which is now for the first time laid open to temptation—we can now speak of a human spirit which has severed its close connection with a universal spirit, even as a drop of the wide ocean might be sucked up by a sponge, and thereby separated from its source. As soon as this has taken place error and sin become possible in the child's life: and now the human educator must take on the responsible task of endeavouring to carry forward the work begun by the divine powers.

It cannot be stated often enough that the consciousness of a child differs from that of the adult almost as much as does man's waking life from that of his dreams; only whereas the consciousness of the child is something intensely vivid and full of colour and movement, the dream of the man of to-day is frequently exceedingly vague, dim, and fleeting. This difference between the consciousness of the child and that of the adult must be borne in mind in every educational measure that we adopt, yes, in every thought about the child; the neglect of this difference is one of the fundamental causes of the failure of modern education to preserve and to foster the "Child in Man" which is the higher ego.

To the consciousness of the child the world is akin to the parable; for just as the parable uses an external picture to express a hidden meaning (as we may feel the divine creative spirit when we look out on nature), so the whole world may show to the child only its outer side, but subconsciously his creative soul is always sifting it for its true content, for the reality which stands behind appearance:

One can go even further and say that bare facts, divested of an imaginative or pictorial cloak, are hindering forces in the child's development, they are stones instead of bread, and parch the soul of the child as the heat parches the tongue of the weary desert traveller.

But towards the age of fourteen, beginning perhaps at twelve or thirteen (the time varies according to the child's individuality, surroundings, and inherited qualities), the consciousness of the child approaches that of the adult; and as trees, houses, and distant hills, that were veiled in a morning mist, stand out bright and clear at midday when the wind has driven the haze away, so the facts of the world and the achievements of the modern intellect begin to stand out clearly in the child's mind. And even as an observer who has seen the outlines of a house softened by the mist may be disappointed when it stands out clearly and out of harmony with the nature around it, so the child, at the entrance to puberty, standing before a world of facts that are gaunt and base and often out of harmony with nature, may feel a great and bitter disappointment with the world he now sees. A chasm is suddenly opened up between what the child feels to be true and what is to be seen in the world. The child, who has naturally a universal love, suffers terribly when he becomes consciously aware of war, unemployment, and conditions of society, which we adults regret but nevertheless have to accept. But yet another chasm is opened up at this age, this time within the child himself.

The child at fourteen feels in himself a duality; one part of him lives in the memory of earlier childhood, that blissful age when the sea of the soul was yet untroubled, and a universal love was spread over all human beings and things, the other is as though withdrawn from the child's real self and looks both at this other self and the world from a critical point of view. From now onwards for some years (as a rule till about seventeen) the chief characteristic of the child is that he swings from one extreme to the other. There are moments when one would be inclined to say, "He is his old self again," when the child is child once more; but suddenly a mysterious force wells up, like a cloud covering the sun and turning the bright landscape into grey. A critical or reproachful word from an adult may very often bring about this over-clouding, but its

origin is in the child himself. The symptoms of this overclouding are well known. Moodiness, melancholy, lack of interest for the world in general and human beings in particular, rudeness, lack of respect, carelessness in schoolwork, lack of attention—these are some of the unpleasant but unavoidable accompanying signs of the age of puberty. In the happier moments of this time the child seems for a while to forget the present and remember the past, and it is often a tendency in adults to try and foster this looking back to the earlier age of childhood. But this does not lead out of the difficulty; for in reality the child is experiencing something like a Fall, and if he is not helped to find his new being, the deeper and darker will be his fall. No, something must be found that is beyond and outside of this duality, a third principle must enter consciously into the child; it is the higher principle, the ego, which will not be fully born until twenty-one, when the adolescent becomes man. But from fourteen onwards this birth is being prepared, and one of the foremost things for the parent and educator to remember is that this birth of the ego, of the "I AM," is to take place, and that every educational measure must be guided by this thought. The question must be asked again and again: What must I do to help the ego to enter into the growing youth from fourteen onwards? Will I help him by judging him critically, by treating him logically, perhaps by saying: "Because you have done this, therefore you must be so and so, and therefore must be punished in the way which is always the same for such an offence?" Or will I help the youth more if I treat him in a more human way, taking his mistakes as something more in the region of error than of wrong. In other words, whom or what must I hold responsible for an outburst of rudeness or even of cruelty? If I look upon the human being as an absolute unity I shall find great difficulty in answering the question. But in reality the youth is already a twofold complicated entity in which all kinds of forces are striving for the upper hand, the idealistic not less than the more sub-human impulses. There may be many who at this moment will say: "Ah, but then you must teach the youth self-control." Have such people ever asked themselves: "What is the instrument by which you control yourself?" Is it not precisely that

ego which is not fully born till twenty-one, when the child becomes the man? Until then the educator and the parent are in the position of the gardener who has a very sensitive plant, which he may choke by too much well-meant fertilizing, which he may drown by over much water, when only one exact quantity and quality of healing and helping agents will bring about the intended growth.

We really are face to face with the root of the problem of puberty when we ask—what are those healing and helping agents which will bring about the birth of the ego? Naturally, children who from their earliest childhood have received the right education are in a different position from others with regard to puberty. A youth who, for example, has been educated before the age of seven by human beings who have had the consciousness that every thing that they do, say, or think is eagerly imitated by the child, and have consequently endeavoured to be a picture worthy of imitation will have a certain inner strength which will go a long way to overcome the difficulties of puberty. Or, again, a youth who has followed the natural authority of his educator between seven and fourteen and has not been encouraged to use his judgment before it is developed, will have greater authority and power over himself and riper judgment too. For a true educator will realize that everything is transformed in the child, that natural authority before fourteen is changed into inner strength after, that the withholding from judgment before fourteen gives the power to judge later, that all artistic imaginative teaching before fourteen is changed later into will power and ability to think clearly.

Assuming for the moment that the child has been rightly educated up to fourteen, what is the right education now at this difficult point? It is not a question of removing difficulties—especially as we find again and again that children with the greater difficulties develop into greater men and women—but of helping the child through his difficulties. It is at this time that the child ripens to an intellectual understanding of scientific phenomena and of all those departments of knowledge which demand this type of understanding, for example, the law of cause and effect in history—one event causing a number of others, and so on. It would, however, be a great mistake to imagine that because this intellectual understand-

ing is ripening the educator would now be entitled to cram the brain and mind of the youth with such a form of knowledge. In that case the abyss in his knowledge would be all the deeper and the contrast to the light-filled world of imagination all the greater. The birth of the ego which we are anticipating in the youth brings with it the greatest idealism and enthusiasm for what is true and beautiful in the world. He yearns to be shown the sphere where the human being produces living substance and not pure matter. Accordingly at this age the children are shown the great works of art from the earliest times up to the Renaissance; for in the realm of art they can experience how the spark of the divine, we could also say the ego, works in the human being—for which the youth within himself is yearning. Artistic activity of a more advanced type is important at this age.* Charcoal drawing, modelling, and woodwork done out of the imagination, not by copying, are extremely valuable as a means of freeing the children from those forces which are at work at this age of puberty, and frequently have no chance for an outlet. Such work gives the youth a real opportunity of expressing the duality in his life, and the artistic effort needed in its expression is really the seeking for the third element, the ego which has to fight its way through as the knights of old fought the enemies of good and right. The whole history of mankind is a fight for the ego, the higher self in man, and between fourteen and twenty-one the child experiences this world battle within himself. No wonder then that there are upheavals—moments of exultation and of deepest depression. The educator who constantly sees this battle as a reality and strives to contact this objective being of the ego struggling towards its birth, unites himself with the divine and brings about a feeling of great strength in the youth, who experiences that his teacher is not concerned so much with his momentary being, as with the being that is born of time, the eternal being. He can say: "My teacher loves what is good in me, and does not hate me for what is bad in me."

With children who have not received a right education and have been overdeveloped on their intellectual side, the difficulties are greater and more subtle. Much surface matter has to be cleared away before the child can be properly

* *Vide* article on charcoal drawing in Vol 1, No. 5, of this Magazine.

approached. Many great difficulties which sap man's strength in later life arise at this age and carry on an unhealthy subterranean growth. It is the duty of the educator to let daylight in, often a painful process, especially for the educator, for the sub-human forces at work at this age prefer the roundabout way if they are to come out, and deception of every kind is a common occurrence.

The sexual problem has not so far been touched upon, because it is only a symptom of puberty and not in truth the most important feature. That it has taken a foremost position in the mind of many people is only a proof of the mistaken direction in the education of yesterday and to-day. Needless to say, where the intellectual head forces are continually strained beyond their true capacity—as is the usual thing to-day in the education of children before fourteen—there is bound to be an upsetting of the child's equilibrium, and with a knowledge of the threefold being of man, as it has often been outlined in these pages, it is not difficult to see in what way this upsetting will work.

The mediator between the thinking in the head and the willing of the limbs is feeling. We know what a vague thing this feeling is, how few of us dare rely on it, indeed, how many brush it aside as something unmanly; yet this feeling life is the source of love itself, it is of the heart, and in it is the Christ who stands before us as the mediator, as the balancing power in life, symbolized in the cross—the cross, too, in man. Where the feeling is undeveloped from the point of view of the "Ego," the central being of man, there are constant short circuits, if the term may be used, from thinking to willing, and vice versa. Thoughts that are not living brought to children in the years before puberty call forth and awaken the sexual life which is only one manifestation of the will, the unsatisfied thirst for living thoughts is converted into a life of impulse. The solution of the sexual problem is to awaken the imaginative and feeling quality in the child. When the youth possesses imagination and artistic power, his life of impulse is not awakened at puberty, but is transformed into real creative powers; for in the sphere of art Man becomes one with Divine creative power.

A. W. HAUFMAN.

Children in a Scientific World

WE are living in an age when every man is a scientist. By this I mean that our outlook on the world, our way of thinking, are essentially of the same kind as those of the trained scientist. Our ordinary, everyday thinking, which is perhaps our most precious possession, is largely dependent on our sense impressions, and thus it tends to become rigid and confined. Rarely does our thought become mobile and alive and free from sense impression; only in so far as it does so can it become creative; to think creatively is one of the hardest tasks for a man of to-day and requires a great effort of will. Why is this? It is because our thinking lacks imagination to give it life. Our Western civilization is the product of man's intellect—an intellect which has become the ruling force in his life. As a result of this one-sided development the faculty of imagination has become so enfeebled as to be almost without real influence in the affairs of the world. Humanity will only regain a strong and healthy imaginative life (and only so can man's thinking become wise and not merely clever) if we can foster the powers of imagination which are so strong and vivid in the soul of the young child. This is a responsibility which rests almost entirely on the shoulders of parents and teachers for there is very little in the environment of the child, whose destiny it is to be brought up in town or city, which is a natural food for his imagination. Nature herself is the great foster mother of the imagination, but how rarely does the city child have the opportunity of really coming into contact with Nature! From his earliest years the impressions that pour in upon him are those derived not from Nature but from the artificial world of scientific invention, and all that belongs to it. To put it more strongly, one may say that our children grow up more in contact with the forces of dead matter than with the world of living things. (It has been our experience several times at the New School to find that children have thought that milk is really *made* at the large milk bottling depot in the neighbourhood!) Such forms of amusement as the cinema and the radio belong to the same world of dead forces, and we know how these enter into the everyday life of most children. In what I have here been saying

it is not my wish to criticize but to characterize the kind of environment which surrounds most children living in our Western civilization. We can at once have a picture of what is here expressed if we for one moment compare the influences which surround the country child with those surrounding the city child. Why is it that our children are so often nervous and restless? It is that all the impressions which crowd in upon them from this world of dead forces work directly on their nerves and senses and the great strain which is thus put upon these functions of the growing child is in danger of starving the life of imagination which is a force of health and life. I am well aware that this statement will seem nonsense to many; they will say: "I have a boy of twelve years: he is always imagining himself at the wheel of Malcolm Campbell's racing car or perhaps breaking records in the air, and here you say that the world of the machine provides no food for the imagination!" But is this really food? Is it not rather a subtle poison which, if not counteracted, will lead to the ill-health of the soul? The soul mediates between two worlds—the physical and the spiritual; and the images formed in the soul may be the pictures based on reality in the one world or the other. If a child can only fill his imagination with pictures derived from mechanical things his soul life will become spiritually empty and therefore uncreative. Again, true imagination always contains a moral quality which can ennoble the soul life. Now this moral element is not to be found in the world of dead things nor in the ideas which science forms about this world; and yet it is just these moral imaginations for which the soul of every child is thirsting and which can bring healing and nobility into his whole being. There is little or no relationship to-day between science and conscience.

Where then can children find that nourishment which is so vital to the healthy life of the soul? It is clear that the task rests on the shoulders of parents and teachers, who must supply just this element of moral imagination which is otherwise lacking in the child's environment. In the school this quality is present in the teaching in so far as the teacher is an artist in his work. Every lesson should be presented in an artistic way. Many of the essays that have appeared in the magazine describe in some detail how this may be done in

different subjects. I shall confine myself here to giving certain examples of how the imaginative element enters into all our school work.

The fairy story, the myth, and the legend are of course the right approach to the imagination of the young child, say, up to the age of eleven, and one can see from the paintings these children do, how wonderfully their imagination has lived in what they have been told, and throughout the whole school the art work in all its different forms—painting, drawing, modelling, handwork, carpentry—give the finest opportunity for the children to express (perhaps unconsciously) all that lives in their inner life of soul. It is un-educational for mere copying to enter into the art lesson, but by working freely in the particular medium within the scope of its own peculiar nature, children can unfold and objectify their imagination. If we now consider the different subjects of the school curriculum we at once see that some, such as History or Geography, by their very nature give great opportunities of imaginative treatment, while Mathematics, Physics, and Chemistry do not perhaps seem, at first sight, to lend themselves to such a presentation. This is certainly true, for these latter subjects do appeal more to the thinking activity, to the clear and cold intellect. Yet even here the teacher can enliven the interest of the children and bring warmth and creative activity into their thinking life; for a true understanding of Mathematics and Science, an understanding that is not one-sided, will reveal a moral imaginative element also in these spheres of knowledge. What science tells us about the universe is one-sided in that it is almost entirely quantitative; it is only interested in phenomena in so far as they lend themselves to measurement. Such has been the tendency since the time of Galileo and Newton. The purely qualitative treatment of phenomena has been largely neglected as being of quite secondary importance. And yet it is just this qualitative experience that can appeal to man's moral imagination; while in the realm of pure measurement the imagination can take no part. In illustration of this let us place side by side two descriptions of the nature of the sun, the one written by Kepler in the sixteenth century, and the other by Eddington in our own time. We should remember that Kepler was a great mathematician and one of

the first to apply mathematics and measurement to the movement of the heavenly bodies in the sense of modern astronomy; and yet he says:—

“In the first place, lest perchance a blind man might deny it to you, of all the bodies in the universe the most excellent is the sun, whose whole essence is nothing else than the purest light; than which there is no greater star; which single and alone is the producer, conservator, and warmer of all things, it is a fountain of light, most fair, limpid and pure to the sight, the source of vision, portrayer of all colours, though himself empty of colour, called king of the planets for his motion, heart of the world for his power, its eye for his beauty, and which alone we should judge worthy of the most high God, should he be pleased with a material domicile and choose a place in which to dwell with the blessed angels.”

Now let us compare with this a passage from Professor Eddington's *Stars and Atoms*, where he describes the inside of the sun as:—

“A hurly-burly of atoms and electrons and ether-waves. Dishevelled atoms tear along at one hundred miles a second, their normal array of electrons being torn from them in the scrimmage. The lost electrons are speeding one hundred times faster to find new resting-places. Let us follow the progress of one of them. There is almost a collision as an electron approaches an atomic nucleus, but putting on speed it sweeps round in a sharp curve. Sometimes there is a side-slip at the curve, but the electron goes on with increased or reduced energy. After a thousand narrow shaves all happening within a thousand millionth of a second, the hectic career is ended by a worse side-slip than usual. The electron is fairly caught and attached to an atom. But scarcely has it taken its place when a X-ray bursts into the atom. Sucking up the energy of the ray the electron darts off again on its next adventure. I am afraid the knockabout comedy of modern atomic physics is not very tender towards our aesthetic ideals. The stately drama of stellar evolution turns out to be more like the hair-breadth escapades on the films. The music of the spheres has almost a suggestion of jazz. And what is the result of all this bustle? Very little. The atoms and electrons for all their hurry never get anywhere; they only change places.”

Children begin their science lessons, physics, and chemistry at an age (about twelve years) when the imaginative faculty is very active, whereas the faculty of logical, intellectual thought is only just beginning to awaken. It is therefore essential that the teacher should present the purely qualitative aspect and not introduce into these early lessons any quantitative considerations or theories based on experimental measurement, for at this age the child can have no inner relationship to such things. I have already described in previous articles in this

magazine how the Chemistry and Physics lessons may be approached from this point of view.* Even later (after the age of fourteen), when these things are dealt with in a more intellectual way, the teacher must always preserve a balance between the qualitative and the quantitative treatment of his subject. Only so will our children gain a conception of the universe which is not one-sided, but one which can satisfy not only the clever intellect but the inner life of feeling and imagination which searches for the truth just as intensely as does the life of thought.

Into the teaching of Mathematics,† too, this qualitative element can enter and can provide a real basis for an understanding of numbers and for working with numbers quantitatively. In olden times men associated moral qualities with the realm of numbers. Nowadays such an idea seems fantastic and ridiculous; we can only think of numbers in a quantitative sense, although perhaps now and then, especially if we have some knowledge of higher mathematics, we shall feel a certain aesthetic pleasure in the harmony and beauty of form which perhaps suddenly appears through a maze of mathematical relationships. Very rarely, however, does the teacher make any attempt to bring any *feeling* for the world of numbers to his children, and yet this is just as vital for the whole development of the child as that he should be able to add up a column of £ s. d. correctly. Think of the significance of the numbers 1 and 2 as the symbol of "unity" and "duality" and of 3 as the symbol of "trinity" not only in its religious interpretation, but in "three foldness" to be found everywhere in the universe. The Greek mathematicians had a deep experience of this real essence and quality of numbers. Pythagoras was once asked by a pupil as to the nature of friendship, and he replied that friends are to one another as the two numbers 220 and 284! We can have some idea of the meaning of this answer when we examine these two numbers.

The factors of 220 in order of magnitude are as follows: 1, 2, 4, 5, 10, 11, 20, 22, 44, 55, 110. The sum of these factors is 284, the other "friendly number." Also the factors of 284

* "First Lessons in Chemistry," Vol. 1, No. 2, p. 5. "The Teaching of Natural Science," Vol. 1, No. 4, p. 1.

† See articles on the "Teaching of Geometry," Vol. 1, No. 1, p. 6; Vol. 1, No. 5, p. 8.

are; 1, 2, 4, 71, 142, and the sum of these gives us 220, the first "friendly number." Thus from a realization of the inner content of these two numbers Pythagoras saw they were "friends"!

"What can such an answer as that of Pythagoras teach us? It teaches us that the mathematics of an ancient time does not stand there by itself as a single sphere of human knowledge, but that it is only to be understood in connection with the moral-spiritual world. The relationships of mathematics were a language through which the higher worlds revealed themselves. The stream of mathematics flowed from spiritual heights down to man on earth. To-day we no longer see its source, but only look at the direction in which, with such tremendous development, it has flowed on further."*

Again, to the Greek the number six signified perfection. The perfect number is such that it is equal to the sum of its factors ($6 = 1 \times 2 \times 3$). In this connection it is significant to note what Professor Eddington said concerning the number six in his Swarthmore Lecture, 1929:—

"We can scarcely call it an accident that among the integers there should happen to be the number 6; but I do not know how otherwise to express the fact that organic life would not have begun if Nature's arithmetic had overlooked the number 6."

As a further example let us consider the phenomena of leaf distribution in plants (phyllotaxis). In their arrangement leaves follow a definite order. The points on the stem at which leaves appear are called nodes, and these nodes lie on a spiral curve wending round the stem. We may perhaps find, as in a cherry branch, that five leaves complete a cycle and the sixth leaf lies vertically over the first from which we started counting; furthermore, in ascending (or descending) from the first leaf to the sixth we have traced out two complete spiral turns. Such an arrangement is expressed by the ratio 2:5 (i.e. five leaves in a cycle consisting of two spiral turns). Other plants will have other phyllotaxia ratios, e.g. 1:2, 1:3, 2:3, 5:13, 34:55. Now the numbers which form such ratios belong to a very important series, known to mathematicians as the Fibonacci series: 1, 1, 2, 3, 5, 8, 13, 21, 34, 55, 89, 144, etc. This series is such that each term is the sum of the two preceding terms. Under normal conditions of growth plants give

* From an article by Ernst Bindel of the Waldorf School, Stuttgart.

phyllotaxis ratios whose numbers belong almost invariably to the Fibonacci series: "Out of 140 plants counted by Weisse, six only were anomalous, the error thus being only four per cent."

Again, if we form ratios from pairs of consecutive numbers in this series we find that they give values alternately greater and less than a mean value (which is undeterminate), and to which they approximate even closer and closer the further we proceed in the series.

Thus:—

1 : 1	=	1
1 : 2	=	0.5
2 : 3	=	0.66666
3 : 5	=	0.6
5 : 8	=	0.625
8 : 13	=	0.61538
13 : 21	=	0.61904
21 : 34	=	0.61764
34 : 55	=	0.61818
55 : 89	=	0.61797
89 : 144	=	0.61805
144 : 233	=	0.61802
etc.,		etc.,

There seems to be something almost living in the way these values swing backwards and forwards about this elusive mean value, approaching it more and more nearly, but never attaining it. And yet this mean value is the expression of a very important and well-defined geometrical proportion, i.e. the proportion known as the Golden Ratio (this is the same proportion which is to-day referred to under the dull and unimaginative name of medial section). The Golden Ratio is the division of a line into two parts such that the smaller part is to the larger in the same ratio as the larger part is to the whole

line. This ratio can be expressed numerically as $\sqrt{\frac{5-1}{2}}$ and this irrational proportion is that to which the pairs of consecutive terms of the Fibonacci series more and more closely approximate. The Golden Ratio (it has also been called the Divine Ratio) is fundamental to an understanding of the proportions of the human body down to the smallest detail, and we also find it over and over again embodied in all the

greatest works of art throughout the ages, whether in painting, sculpture, or architecture.

Such examples as I have given here can perhaps help us to understand what Pythagoras and his followers meant when they said that it is only through number and form that man can grasp the nature of the universe around him. "Number rules the universe." It is a narrow and limited point of view which looks upon number as being of importance only in the sphere of measurement and quantity. A qualitative experience of numbers can unlock for us many gateways leading to the knowledge of phenomena around us. Moreover, this qualitative aspect can give us a field of experience in which our powers of imagination can work in harmony with our thinking, and we have seen how essential this is in the sphere of education.

In the years that are ahead of us men and women will need great wisdom if they are to meet and overcome the increasing difficulties and problems of our Western civilization. Many people to-day who are awake to what is going on in the world are very apprehensive of the future; they see everywhere the signs of decadence and decline, and yet at the same time they feel a certain powerlessness in themselves and in others to grapple with this situation. This future then lies with the children who are to-day in our schools. What are they going to do with it? That largely depends on how we educate them. There rests with parents and teachers to-day the grave and solemn responsibility of seeing that their children do not grow up merely clever, but wise. This is essentially the aim of those who are working in education in the sense of Rudolf Steiner. Rudolf Steiner has given to humanity the knowledge and understanding whereby we can so educate and train our children that they may unfold to the utmost degree, all those capacities of soul and spirit through which the life of a man or woman can become enfilled with wisdom. Such men and women will be able to bring healing into world affairs because they will be working on the earth in full harmony with those wise spiritual forces which would fain lead mankind out of the chaos which is so prevalent to-day.

A. R. SHEEN.

Concerning the Teaching of Painting

WILHELM RUHTENBERG

WHEN I became a class teacher in the Waldorf School I had to begin everything from the very beginning. Is all beginning really difficult? I resolved I would at all events bravely endure making mistakes. I had reason to fortify myself in this resolve when after a few weeks it dawned upon me that the class teacher must also instruct his children in painting. How on earth did one do that?

To my many questions I got many different answers of which I could make neither head nor tail. I simply didn't understand a thing. Then I began to paint myself, perpetrating terrible daubs, but gaining at all events an acquaintance with the recalcitrant medium. Unluckily there was not time for me to paint away long enough to learn anything—were not the children waiting to start their work with colour?—I therefore simply began. The children daubed, nay, wallowed in orgies of colour, I daubed, too, but suffered horribly in my want of clarity and my uncertainty.

Then I resolved I must write a letter to Dr. Steiner in Dornach begging for help and advice. No answer came to me in writing, but when shortly afterwards Dr. Steiner came to Stuttgart he visited my painting lesson, thus giving me in action an answer to my questions. He sat down at a school desk where the children had just been painting—took up one of the children's paintings—or rather smudges—in his left hand, took the paint brush in his right hand, and now on a new piece of paper painted the same colours as the child had chosen. But what a difference between the one and the other! What struck one immediately was how peacefully Dr.

* Translated from the German, *Rudolf Steiner in der Waldorfschule*, by kind permission of the Waldorf-Spielzeug & Verlag, Stuttgart.

Steiner moved his brush, how slowly, stroke by stroke, he covered a shining space with a colour.

And watching now there dawned on me the surmise that in this way it would be possible to harken to what the colours had to say to one another. But how long would it take before the realms of colour would reveal themselves?

When he had finished Dr. Steiner pointed out to the children explicitly that once they have painted any space over with colour they must not touch it up again with their paint brushes. That is, they were not to scrub to and fro on the paper—or they might even make a hole.

I had now gained the tiniest glimmer of understanding as to what was involved, but for a long time I still felt heavily oppressed whenever I thought of the painting problem. By good fortune, about two years later Dr. Steiner again came into one of my painting lessons. . . . When he came in there were people outside urgently waiting to speak to him. Inside the classroom there was noise, a loud uproar—disturbance within and disturbance without. Again Dr. Steiner sat down at a desk by one of the pupils and once more he painted what the child had wanted to paint but had only succeeded in smearing. The class seemed to take no special notice, the children continued to talk loudly and ran hither and thither to the water jugs. I began to get hot. I stood near Dr. Steiner and watched him, and one or two children watched him also. He sat and painted calmly and peacefully, as if there were no quieter spot in the world, as if none were outside impatiently waiting with "urgent" questions. His paint brush laid one stroke beside another. When one patch of colour was finished the next was added, but none of them touched—only at the end, quite at the end did he join the patches and let the colours come together and touch each other.

Since then I have often sat down to paint at home and practised moving the paintbrush quietly and looking at one surface of colour next to another so as gradually to understand more and more what each colour says, and what the colours say to one another. And it is in this way that I now prepare for every painting lesson which the children have.

Dr. Steiner in an Arithmetic Lesson

BETTINA MELLINGER

IT was a Festival day for the Waldorf School, for Dr. Steiner had arrived and was to visit the different classes. The children on all hands looked happy and expectant; there was not always time for him to visit every single class, hence all the greater excitement and expectation. Every time a door opened faces lightened up joyously, and it was triumphantly reckoned that since last time he visited the parallel* class, this time he *must* come to us. In the meanwhile, however, all must work their very hardest, for they know that nothing delights Dr. Steiner so much as good and willing work. We happened to be having an Arithmetic period* in the first class, and we had stamped and clapped the two-times table gallantly and practised it also in connection with many fairy tales. We had built an imaginary golden staircase, which led up to a noble castle, where stood the Princess awaiting the Prince. The Prince of course had been enchanted and had long sought the Princess, and now he stood at the foot of the golden stair, and when he saw her above him, he did not stop to mince up one step at a time, but two steps at a time forsooth, 2, 4, 6, 8, 10, etc., to be up the quicker. Thus had the children steeped themselves in the two-times table, and we were just wondering whether a really clever Prince could not go up three steps at a time when the door opened and Dr. Steiner was with us. Joy shone on all the children's faces. After he had greeted us with a warmth which was characteristic of him, the lesson proceeded. Since Arithmetic always frees and releases the children very much there was great liveliness in the class, and as we were on the point of continuing with our fairy Prince and his golden steps, Dr. Steiner himself intervened, to our great joy. "Just think," he said, "we are now in Summer and outside the roses are in bloom; how splendid it would be if someone were to come in to us and

* I.e. a second class of children of the same age.

bring us a basket of roses. And each one of you were to receive the same number. Look! you could get the first three," and here he turned to a little girl with dreamy eyes. "But," he warned her, "you must be very skilful and really catch them, and we will see at the same time how many roses there were in the basket." Then the next child had three roses thrown him, and at once called out 6, and the next got three and called out 9—and so it went on faster and faster, 12, 15, 18, 21, 24, 27, until at 30 the basket was empty. Now there was great rejoicing, but also a great outcry, for the remaining 20 also wanted roses, and so the whole thing had quickly to be done again, and by the time all had received their three roses, the three-times table had been thoroughly practised with the utmost zest and vivacity. Moreover, it had worked through the whole body, for the little hands and feet had been every bit as active as the heads in grasping the roses. Very beautiful also was the rhythm of throwing and catching which brought about simultaneously a bond between teacher and taught. With friendly words of leave-taking and a warm "Auf Wiedersehen," Dr. Steiner hastened on to the next class to bring warmth and happiness to the hearts of other children.

It had indeed been a festival day for children and teachers, and often when the responsibility of the work with the children weighs heavily—work so beautiful and yet so arduous—comfort comes from remembrance of the words of encouragement and warmth which Dr. Steiner always gave to a teacher where he perceived good will and earnest responsibility for the work of education.

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