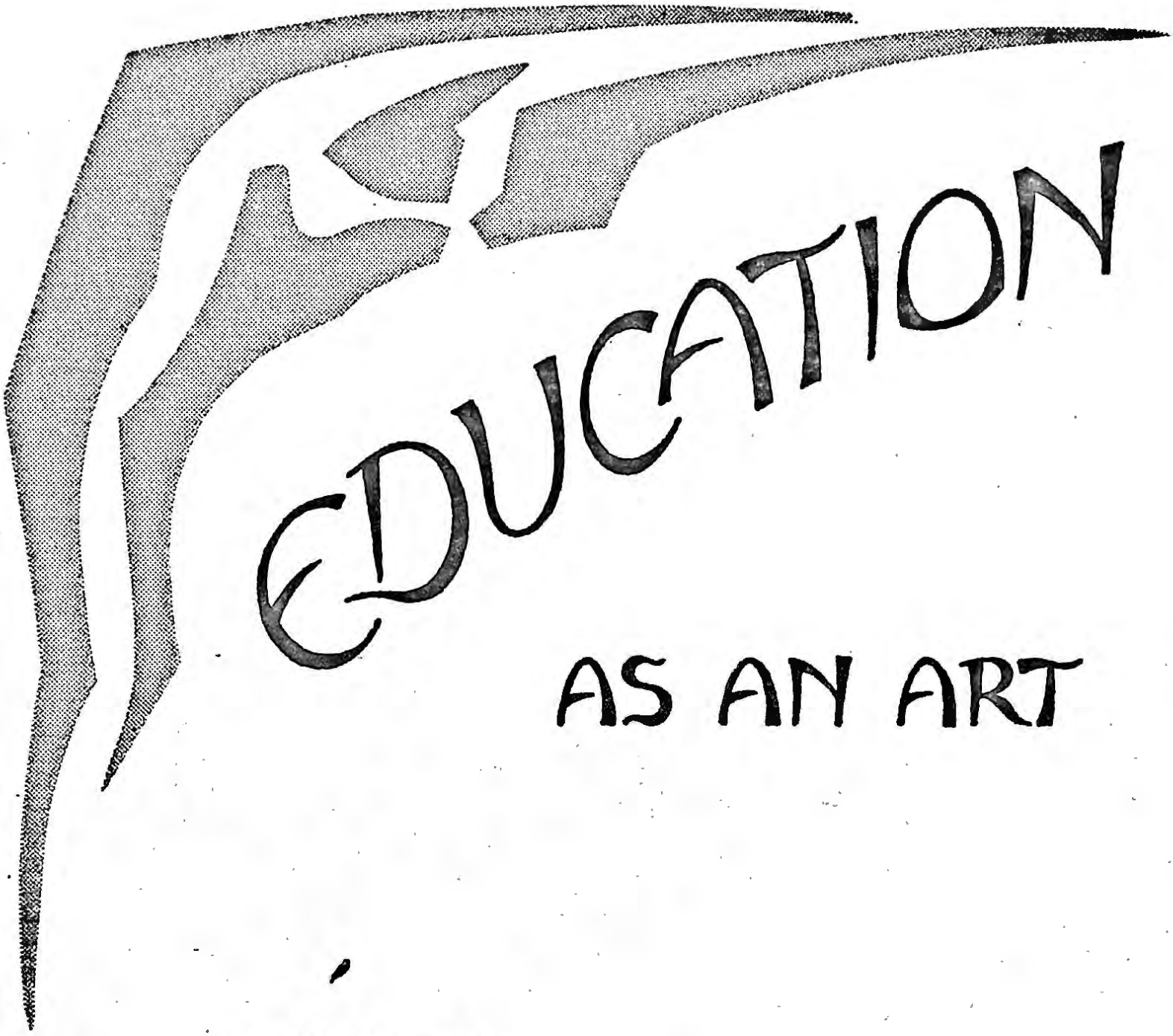




# EDUCATION

## AS AN ART

Published by the  
Waldorf Schools  
of North America

### SCHOOL SUBJECTS

*What, when, why? Articles by  
Susanne Berlin, Alan Howard,  
A. W. Mann, C. Kovacs*

Vol. 29

Spring-Summer, 1971

No. 2

## CONTENTS

|                                                                        |                                                                                    |
|------------------------------------------------------------------------|------------------------------------------------------------------------------------|
| History in the Lower School . . . . .                                  | C. Kovacs<br>( <i>Class teacher, Rudolf Steiner School, Edinburgh, Scotland</i> )  |
| "Now Read On . . ." . . . . .                                          | Alan Howard<br>( <i>Chairman of the Faculty, Toronto Waldorf School</i> )          |
| The Value of Art for the Adolescent . . . . .                          | A. W. Mann<br>( <i>Teacher, Michael Hall School, Forest Row, Sussex, England</i> ) |
| In Third Grade . . . . .                                               | Susanne Berlin<br>( <i>Class teacher, Waldorf School, Adelphi University</i> )     |
| Thomas and John . . . . .                                              | Pehr Sällström<br>( <i>Teacher, Kristofferskolan, Stockholm, Sweden</i> )          |
| Books: Goethe's <i>Theory of Colours</i><br><i>The Human Encounter</i> |                                                                                    |
| The New Schools in Washington                                          |                                                                                    |

\* \* \*

## THE WALDORF SCHOOLS OF NORTH AMERICA

|                                    |                                                        |
|------------------------------------|--------------------------------------------------------|
| Detroit Waldorf School             | 2555 Burns Avenue, Detroit, Michigan 48214             |
| Green Meadow School                | Hungry Hollow Road, Spring Valley, New York 10977      |
| High Mowing School                 | Wilton, New Hampshire 03086                            |
| Highland Hall                      | 17100 Superior Street, Northridge, California 91324    |
| Kimberton Farms School             | Phoenixville, R.D.#2, Pennsylvania 19460               |
| Mohala Pua School                  | Niu Estates, 350 Ulua Street, Honolulu, Hawaii 96821   |
| Rudolf Steiner School              | 15 East 79th Street, New York City, New York 10021     |
| Sacramento Waldorf School          | 3600 Fair Oaks Boulevard, Sacramento, California 95825 |
| Toronto Waldorf School             | 1087 Lillian Street, Willowdale, Ontario, Canada       |
| Waldorf School, Adelphi University | Cambridge Avenue, Garden City, New York 11530          |

\* \* \*

All communications should be addressed to  
"Education As An Art"  
15 East 79th Street  
New York, N. Y. 10021

Published twice yearly  
Subscription \$2.00  
Editor: Ruth Pusch

## HISTORY IN THE LOWER SCHOOL

Perhaps you have heard of people suffering from amnesia, from a loss of memory. It happens, sometimes, after a shock of some kind, that people suddenly cannot remember their past life, — and having lost their past, they have also lost their identity. They don't know their own name, or where they live. They don't know where they belong.

From this you can see the part memory plays in our lives. It is not merely a matter of recalling this or that detail. Our memory contains the sum-total of the past experiences which have made us what we are, and if the connection with that past is broken, one has also lost one's identity, one's place in the world.

But we have not only a personal, individual past which we need to function as individuals. There is the past of mankind as a whole, the historical process which brought mankind to its present stage. And this great stream of human history has made us what we are today, just as much as our private, individual past has made us what we are as individuals. Without at least some idea of the history of mankind as a whole, I would also suffer from a kind of amnesia. I would not know where I am and what I am in the present world as a human being, as a member of the human race.

This is the first important function of history, — to give us (at least in outline) a memory of the past of mankind and so to know ourselves as part of the great stream of mankind's evolution, and to know our place within this stream. By teaching history to our children we provide them with the memory of mankind and prepare them to meet the present age with an awareness of their place in the world not only as individuals but as parts of the human race in its striving, in its triumphs and failures.

Of course very much will depend on *how* history is taught. In our view it should be done in a form which meets the needs and the mental disposition of the growing child. In the lower school, up to the age of 14, one must keep in mind that the word "story" and the word "history" are really the same, — that history was at first a telling of stories — and that what the child before the age of puberty needs is "stories." And so, in the lower school, history is first and foremost a story to be told as vividly, as dramatically as possible. And the people in the story have to be made alive. The children should feel sympathy and antipathy, likes or dislikes, for the men and women who appear on the stage of history. If the teacher fails in this respect, if the historical persons appear as neutral shadows, the history lessons will have no effect, make no impact on the feelings of the children, and so be wasted. In the lower school history must engage the children's feeling to be of true educational value.

Another point to keep in mind is this: history in our sense of the word emerges only at a fairly late stage of human evolution. The first historian — the father of history, as he is called — is Herodotus, a Greek of about 400 B.C. What all nations had before historical records were kept was something different. It was myths, sagas, legends about their past, — stories in which gods and semi-divine heroes appeared. And just as in human

evolution history emerges at a certain point of time, — emerges from mythology, from legendary traditions, so history teaching should quite naturally follow the same course so that eventually Greek mythology, stories of gods and heroes, the Trojan war, lead over to the history of ancient Greece.

It is not an accident that at the dawn of history all nations spoke of their past in the form of myths and sagas. The dream-world of mythology is the expression of the dream-like consciousness of men at that time. It is only slowly, in a process that spans many centuries, that clear, waking consciousness emerges and with it the ability to think rationally, logically. This emergence of rational thought rises in Greece at the time of Socrates and Plato, and this is also the time when factual, non-mythological history appears. So, as the children in their lessons in Class 5 go from mythology to history, they follow a process of awakening — a gradual waking up from a more dream-like state to a more conscious state of mind. And the children themselves are going through quite a similar process. They themselves, as they grow up, become more and more conscious, become more and more able to think logically. And thus they see in history, in a larger panorama a process which — in a shortened form of a few years — has taken place in themselves.

It is not necessary for the children to be aware of this analogy between their own development and the mental evolution of mankind. They need not be consciously aware of it, but in the deeper layers of the soul it is of tremendous importance to feel that the life of mankind is reflected in one's own life, that the laws of mankind's history also work in one's own life's history. A feeling for this creates a link between individual and mankind.

But history is never "just history" in the narrow sense of facts and events of the past. By its own nature history leads over into other subjects: One can hardly speak of the age of discovery, — of the journeys of Columbus or Magellan, without reference to navigation, and this means on the one hand astronomy, and on the other, as the magnetic compass has to be mentioned, the physics of magnetism. One cannot speak of any period of history without reference to the art of that period, — the Greek temple, the Gothic dome, the art of the Renaissance, nor would one leave out Shakespeare when telling the children of the Elizabethan age. And when, in Class 8, one has to speak of the Industrial Revolution, one must give an outline of the mechanical inventions, — the spinning jenny, the steam engine which brought this revolution about. One must also, in this context, speak of the social questions which this Industrial Revolution has brought with it. So history lessons cannot be too narrowly confined; they simply demand other subjects at almost every stage.

There is one element which is always there when you teach history to children, one which is not a special subject but which, in history, is, one could say, almost demanded by the children, — the moral element. No matter what the professional historian may think, children want to know who is right and who is wrong. Their hearts feel with Joan of Arc, and suffer with her, and they cheer at the suicide of Nero. They learn from history that righteousness does not always triumph but also that at all times men have given their lives for the sake of great ideals. It is in this way that history is the most profoundly educational subject, the one subject

which, without preaching moral precepts, rouses the children's feeling for moral issues, for ideals. And this must be the most important aim of all education.

—J. KOVACS

*Reprinted with the kind permission of the Rudolf Steiner School News Sheet, Edinburgh, Autumn, 1970.*

\* \* \*

*When a Waldorf teacher recently visited Summerhill, A. S. Neill spoke to him about Waldorf education, which he had heard "prepared children for the future." Neill commented that this limits them to our own idea of the future, — whereas Summerhill educates for the Here and Now: "It's here and now that children should be happy."\**

### "NOW READ ON . . ."

Nowadays when education is compulsory and universal, one of the dangers arising from this colossal undertaking is that the *How* of it all tends to obscure the *Why*. Details of planning, administering, and equipping take more and more time, people, and money, not to mention the broadside of new techniques and gadgets that commercial interests and educational theorists are constantly firing into the schools.

Why do we educate?

For unless we are convinced that education has no other task than just to supply the demands of modern civilization, an answer to this simple question should be constantly occupying us.

It is a pity in some ways that our Waldorf education is so often named with the word 'method,' as if 'the Waldorf method' were the only thing to say about it. Waldorf certainly is a method, — but if ever it came to mean nothing more than this, then the whole impact which it could make on educational thinking and practice might be lost.

Waldorf education grew out of, and is based on, an idea of man and the world that includes, but goes far beyond, the immediate need and standards of the present day. It is an attempt to apply in the sphere of practical activity a conception of human evolution which will still be valid long after the needs of today are forgotten. And unless one believes human life to be entirely fortuitous, nothing else can be the aim of education.

Rudolf Steiner, who initiated Waldorf education, was able to do so because he was first able to contribute to a knowledge of human destiny, far beyond any of his contemporaries. He was able to give a practical direction to teaching, because he was also able to develop a living, intuitive conception of the being, man, whom we have to educate. The 'method' depends entirely on that.

We are accustomed to trace all life and phenomena back along a path, which, while we are still not sure how it all started, has retained sufficient traces of their progress to make us pretty certain how they proceeded. We call it Evolution. Rudolf Steiner was an evolutionist, too, but he did not

\*See "*Erziehungskunst*", Monatschrift zur Pädagogik Rudolf Steiners, December, 1970

stop with natural evolution at the point where man became a higher animal. He went further; and on the basis of the same data, and using the same method, he carried the evolutionary concept up to the point where the individual man emerges as an independent spiritual being and co-creator in his further progress. He pointed to *individuality*, at its highest potential, as the goal of evolution. The individual was not just an incidental item in the whole. He was the possibility for the self-conscious experience of that whole, in the single personality. The evolution of Man was the sum total of all the individuals composing it, not the undifferentiated evolution of a species.

From such a point of view, education can only be the way of helping each individual to find himself in the context of humanity as a whole. It must do this, certainly, by providing him with what he needs to serve his present day and age, but in such a way that a concept of man arises that compels him to look beyond this present age for his real motivation.

When a child comes into the world he has first to mature what has been given him by heredity: his body and all the capacities it contains for learning and doing. He does this by the process of growth, and education allies itself with this process; first, by creating the most favourable circumstances in which it can take place; and then by bringing the child up to date by means of knowledge on what has been happening and what has been learned before he came on the scene. How he will subsequently think and act as a mature individual, the growth-education process completed, is not education's business, but his. If education does its job properly, however, the chances are that he will have no difficulty in doing this, to his own and his neighbors' satisfaction.

We have to do, therefore, not only with an essential concept of man as an individual, but with our concept of knowledge, too. Knowledge is still far too much of a 'holy cow,' before which we feel we have to bow down in reverence. It is still too abstract, too distant from the human being, even when everything points to its intimate connection with him. Knowledge is man's relation to the world in which he finds himself. It is man-centered; it is his response to the being of the world as it speaks to him in perception and ideas. "Knowing," as Steiner says, "is not a concern of the world in general, but an affair which man must settle for himself. *Things* demand no explanation. They exist and act on one another according to laws which can be discovered through thinking . . . Thus the conditions necessary for an act of knowledge to take place are there *through* the I and *for* the I."

We err, really, although we can hardly do otherwise, in dividing knowledge up into separate 'subjects.' They are all interrelated. There is really only one subject, in which all the others are contained. That is History, the history of human growth and achievement; and for the child, at least, it must be — if the reader will forgive a crude pun — His Story: the story of how that particular child came to be where he is now, with all the possibilities at his disposal.

Education is the art of telling that story. It must be something not only accessible to the child's intelligence; it must stimulate his feelings, too,

and activate his moral will. It must 'involve' him. And this can be done, without in any way prejudicing the facts or detracting from the disciplines involved, *as long as* a human being who not only respects both facts and disciplines, but also has a feeling for the art of the story, is the medium of communication.

We must overcome our blind devotion to facts as facts. Just as there is no art for art's sake, but only for man's, so there is no science for science's sake. The objective truth of what is known, while independent of any arbitrary personal decision, is none the less a personal experience of the knower, if only in that he can know it. The child must be helped to experience knowledge as such; finding, as Emerson says, "something of himself in every great and small thing, in every mountain stratum, in every new law of colour, fact of anatomy or atmospheric influence which observation or analysis lay open." Only this can bring him ultimately to the point where, as Emerson again so gloriously says, "he feels by knowledge the privilege to BE."

The family journals and magazines of fifty years ago invariably carried one or more stories of the domestic kind printed in weekly instalments. Each instalment began with a little paragraph in italics, entitled, "The Story So Far," and ended with the injunction, "Now Read On."

This should be the clue to preparing our students for graduation. We tell them the story — "so far." They must "read on," but with one essential difference. They must realise that this is no predetermined story. They will have to *write* what follows, before it can be read. They are part of it all. How it will develop is up to them; for this is none other than the drama of the unfolding of the free spirit of man — which they themselves are — where anything may happen — an 'anything' that should awe as well as inspire them.

Rudolf Steiner sought to rescue the concept of evolution from any chance or arbitrary determinism. He wished to reveal it as the pre-condition for conscious free activity on the part of every mature individual. While evolution, he said, quite rightly teaches that reptiles have descended from primeval organisms called proto-amniotes, no one could have known that, had he only had the facts of the proto-amniotes before him. We only know it because we can trace the process backwards. The creative process which brought it about, however, goes forward and is hidden from external observation.

But what is hidden in nature is open and obvious in man. It is the self-conscious human spirit, as it comes to expression through education in the single personality. It is the ability to know. Our knowledge of man and the world shows how man has come to be; our ability to know reveals the potentiality of what man may become. Knowledge of the world is at the same time knowledge of man himself. We need no extra-terrestrial revelation to demonstrate the creative potential of the human spirit. It is the very stuff of knowing itself and our libraries are full of its fossilized remains. We have to make "these dead bones live."

Each and every child is a knowable specimen of evolution so far. He is also in his single personality an embodiment and bearer of the human

spirit. We can trace how he has 'happened' as specimen; we can describe how he functions as phenomenon, we cannot predict what he may be as spirit. He alone can discover that for himself through real self-knowledge. But what he "may be" should be the inspiration of all we do; and our 'method', the opportunity of putting him in the way of that discovery, by exhibiting at every point how human progress has only proceeded by something new and incalculable leaping forth in the *created* man, from the individual *creative* spirit indwelling it.

This was something Rudolf Steiner laid as a kind of foundation stone for all future education. On this, what the teacher would be, and what the child may be, as Man, can be built that communion of human experience which alone gives confidence in the present and hope for the future.

—ALAN HOWARD

## THE VALUE OF ART FOR THE ADOLESCENT

Before us on the screen is the figure of a Pharaoh. His body is uncomfortably still and rigid. He looks as if he were confined within an invisible strait jacket. His legs are stiff and parallel down to the toes, the feet flat on the ground. His weight rests on the back leg; we do not feel the urge to move arising within this man. His arms and hands are almost painfully harnessed to the body — no greater absence of freedom could be portrayed (even Michelangelo's Bound Slave is not so imprisoned). Lastly the head: the senses wide awake, full lips, large nose and nostrils, large eyes and ears; but there lies a secret: the eyes are not looking at you or me — they are gazing into space; their interest lies not in this world but beyond. They are not asleep, and not rapt in mystic reflection — the beyond is visible, a world of constant change, or filled with objects or beings that call forth respect and wonder. The head, whose importance is accentuated by the striking headdress, is slightly thrown back as though to emphasize the direction of the gaze into the beyond.

"Let not mine eyes stray from beholding thee, so that my deeds be but the expression of thy will."

We are spellbound by the tenseness and uprightness of the figure. And now we look at the same Pharaoh from behind. What a different picture! Most striking of all, it is a solid pillar from the very ground up to a point between the shoulder blades. There it changes to a thick, rope-like form composed of a series of rings; this in turn holds together, one might say controls, the whole headdress. Lines have their meaning — Egyptian sculpture makes this very clear — and the vertical lines of the pillar, resolved into the outspread, sunlike rays of the headdress, certainly give the impression of a personage who is held upright entirely by a force outside himself.

We have before us then someone quite different from ourselves, for — except for the medium held in a state of trance — we should certainly object if we felt we owed our upright stature to anything but ourselves.

Is there anything in Egyptian history that would help us to understand this phenomenon?

The Egyptian, when asked by the Greeks who was their first king, replied, "King Menes." (3400 B.C.) "Who was King before that?" "Before that, the Gods ruled over Egypt."

Or take the Old Testament story of the Pharaoh and his dreams, which only Joseph could interpret. How insistent is the Pharaoh that the dream shall be interpreted! How else is he to know how to rule over Egypt?

So we have here a confirmation in art of something we know and can learn from history. The Egyptians stood differently in their relation to freedom than do we. If therefore all historical documents were destroyed, and only art were left, we should still have quite a lot to say about that time. Thus we confront art as a bringer of truth and knowledge.

And now, in striking contrast, we will look at a Greek sculpture, the statue of an Olympic runner. It is a maiden, yet we are not made specially aware of her feminine sex. What strikes us is the light poise, freed from material grossness, of the body on one foot, — the other ready to leap off; the hands slightly lifted, lifting the body as if on wings; a short garment with a series of delicate, fluidic, vertical folds, held together underneath the breast by a broad, quiet band; and the head with no particular expression, a familiar characteristic of Greek sculpture.

When the children see this, they are again and again seized and uplifted by the buoyancy of the figure, so light, so effortless, so rhythmical — the very essence of life and latent movement.

The Greeks knew how to form the body so that it could bear the stamp of the spirit. The lines run harmoniously, the forms are not infinitely removed from the 'ideal' form of the human body, — that ideal which in physical reality does not exist. And in beholding such harmony, we too begin to see more purely, to breathe more rhythmically, to will more 'lightly.' The shadow that so easily clouds the brow of the adolescent is dispelled: where life is so abundant, death has no entry. Art is beauty — the life-giver!

Lastly, an example from the realm of the painter. Most people know the head of Christ by Leonardo da Vinci from the Brera gallery in Milan. What does it express? We have before us a face with somewhat soft, feminine features. The eyelids seem to sink rather heavily; the nose is long, expressive of great feeling; the mouth so sensitive, there is almost a quiver on the lips. Lips that could pronounce words of such great contrast as those spoken to St. Peter, "Flesh and blood hath not revealed this unto thee but God," and "Get thee behind me, Satan," — lips that could say, "Maiden, arise," and with those words command both life and death: such lips must needs be sensitive. But above all, the downward look, the seemingly heavy eyelids! What can divine goodness do other than lower the eyes before the weakness of humankind? These drooping eyelids are always waiting to be lifted that the gaze may fall direct on man, when man too shall be able to behold Him 'no longer through a glass darkly' but seeing 'face to face.'

With all this, there is no sentimentality in this picture, no weakness, — only patience, only the essence of goodness, only Christ as a child may imagine him.

Here art speaks the language of goodness.

And now let us turn to the curriculum of a Rudolf Steiner school and look up what it says about the adolescent. Here are Rudolf Steiner's words: "In the very age when the child has to learn to understand that nature is ordered according to abstract laws which must be comprehended through the intellect, when in physics he has to learn how cause and effect are connected in each particular case, — in this same age we should create a counterbalance through an understanding of art. We should introduce the child to an understanding of how the different arts have developed in the various epochs of human history."

And further we find the following paragraph: "Many of the difficulties and moral inhibitions at this age of the child's life which is so rich in riddles, wonders and surprises, and in which consciousness is striving to master the overwhelming life of feeling, can be surmounted by artistic and craft work, but also by lessons which are permeated by phantasy, enthusiasm and artistic feeling on the part of the teacher."

This last applies to the scientific subjects as well as to the humanities but nowhere so much as in the realm of art, where the human activity that has led to artistic creation is itself born of just these qualities of phantasy, enthusiasm and artistic feeling.

Artistic expression is something that lies deeply embedded in the human soul; it may take on many different forms of expression, but it is fundamentally a force to be considered and to be used. By allowing this force to remain dormant, by not giving it the right opportunities to come to expression, by not rightly releasing the pent-up enthusiasm, the hidden power of phantasy, the creative urge of artistic feeling, we stifle a vital part of the human being, and that which would otherwise add to life is obliged to find an outlet in forbidden ways. Destructiveness, nervous tendencies, pleasure-seeking, sexual difficulties, and many other errings of the adolescent can be found to originate in the lack or denial of this all-important factor in the totality of life.

It is a mistake to think that art is a luxury. Doctors emphasize the need for a correctly balanced diet for the body, and how the lack of this or that ingredient in our daily food leads to a corresponding weakness or even illness. Has a true psychology not yet discovered that the soul, too, needs its essential nourishment for its well-being?

Observe how children at the age of puberty develop physically more towards the earth, how the limbs grow longer, heavier, more ungainly, how the boys tend to slouch and the girls to stoop, how different this is from the freedom of movement and buoyancy of children of nine to eleven. And mentally, too, there is a change. Thoughts are developing by which understanding can be gained; but thoughts can also have a life of their own, they can be used for criticism, for peering into the shady recesses of human weaknesses, one's own as well as those of others or of the world in general.

And now recall the picture of the Olympic runner with its purity and rhythm. See how the forces of gravity, the down-pulling forces, are overcome — and so they can be overcome in the observer, too. Having taught art to adolescents over a period of sixteen years, I can say from experience that with each class in turn there has been a changed attitude towards life on the part of the children: the walk becomes different, the head is held higher. I can instance cases of children who have caused grave anxiety, who were sullen, stubborn, who would brook no guidance of any kind, and who, during the period on art, have become quiet, attentive, have gone out of their way to be generally helpful, and have devoted the utmost care and time to their notebooks. For such it would not be too much to say that the period on art was a turning point in their lives.

And let it not be thought for a moment that the study of art is essential only for the abnormal, the difficult or the intellectually weaker child. The effect for them may be more obvious, but I could equally well instance cases of highly intelligent children, who through their very force of intelligence were lifted away from their will-life and were in danger of remaining brilliant but ineffectual intellectuals. The interest in art, supported by the practical activities offered by the Waldorf curriculum at this time, awakened in them the desire — I would even say the faculty — for creative work and so proved to be for them the most healing thing that the school could give them.

It would be fatal to imagine that humanity divides into the artistic and the non-artistic. Life is a totality, and the life of the individual is a seeking to achieve this totality in himself, — and art, its perception, understanding and, if possible, its practice, is an integral member of this totality.

—A. W. MANN

\* \* \*

### IN THIRD GRADE

The realities of time and space as the adult knows them are foreign to a six-year-old. A first grader may announce grandiosely: "I used to suck my thumb when I was little!" — meaning until last week. He can't wait for his next birthday — eleven months from now. "When are we going home?" he may ask plaintively 30 minutes after the school day has started. He is, in fact, very close still to the age that knows only two tenses: 'Now,' and 'Not now.'

His grasp of spatial distance is equally elusive. A foot-sized doll may be crammed into a six inch doll bed simply because she ought to have a nap now. Fred Gipson tells of a day in his childhood when he decided to climb the mountain in back of his house, only to find it a day's walk away.

By the third grade the child's experience of time and distance begins to approximate our own. He *doesn't* need his sneakers *this* week any more, because the next gym class is on *Monday*. He may still guess a door to be 3 feet, or 20 feet high, but when he sees the teacher standing eloquently

in the doorway he can adjust his guess to come close to the measurable dimensions of the door.

With this new-found way of seeing the outer world comes a growing awareness of an inner world, shut off from the outer. A nine-year-old has dreams and memories and can recognize them as such. He feels himself a person unlike any other, often misunderstood. . . . *Shades of the prison-house begin to close upon the growing boy . . .*

The curriculum for the third grade in a Waldorf School includes stories from the Old Testament. Adam is cast out of Paradise and must earn his bread by the sweat of his brow. Moses must lead his people in the wilderness. David can subdue Goliath.

In Rudolf Steiner's suggestions for the third grade we find that he advocates the study of matters of practical life. The hints are few. Children should learn the duties of a farmer, care of the soil, the different food grains, etc. They should become acquainted with the steps in house building, — brick-laying, mortar-making.

From such hints whole units of study in 'Farming' and 'Housing' have evolved. At many Waldorf Schools a three or four week block of the main lesson — the first double period every morning — is in the third grade dedicated to the subject of Housing. What follows is an attempt to outline such a block.

As a teacher looks for certain rhythmical pulsebeats of expansion and contraction, movement and contemplation, joy and sorrow to pervade each lesson, so does he look for a similar dynamics in the structure of a whole unit of study. In our block on Housing the first day or two were thus given over to, as it were, global considerations; the main part of the unit was concerned with the steps and details involved in building a house such as we live in; the last two or three days were spent considering how people around the world build their houses in accordance with climate and available materials.

First, then, we talked about how the whole earth is a home — if not a house — that all men share; the rock-foundation providing a solid flooring, the vaulted sky a roof overhead. We considered, too, how each of us lives in his own body as in a house, with the sense organs in the head for windows and doors through which to communicate with the world.

When we came to the study of how a house is built we first followed the biographies of the materials, giving one day's lesson to each of the more important ones. One day the children learned about lumber, from the seedling in a great northern forest to the truck-delivered beams at the building site. Another day was spent on the life-story of a brick, from the digging of the clay to the final placing in a bond named according to its pattern. The children heard descriptions of the mining of iron ore, the smelting, the casting of girders. This was followed by a day learning about quarrying, masons' tools, dressed stone.

When 26 nine-year-olds vividly imagine what they hear, the atmosphere in the classroom becomes charged with the content of the lesson. There was a green, outdoor feeling of the woods in the room as we spoke

of the forester, the look-out man in the fire tower, the lumberman. The temperature seemed to rise when the blast furnaces were our topic. The air became dry and dusty as the mason dressed the stone. Yet when I asked the children later where they would like to work if they were given a choice, the vote for the forest was by no means unanimous. Many were challenged by the heat and noise of a foundry; some felt attracted even to work in the pits of a mine.

After about a week of thus getting to know the materials, the construction of a house was followed step by step, from the choosing of a site and consultations with the architect to the finished home and the house-warming party, with various customs of blessings, offering of bread and wine, etc. We then compiled a list of people involved in the actual building. It was a good experience to see how many men's help is needed for us to live as we do.

We were not able to do any building ourselves, but we visited the construction site of the house of a classmate, saw the exposed wiring, bundles of insulating material, plumbing fixtures not yet in place; we climbed up raw staircases, and we watched masons dressing the stones of the facing of the house. Before we left we recited a house-blessing that we had learned in the classroom.

Such a unit of study provides much factual information and new terminology, which children of this age take up with zest. It also affords practice in arithmetic, scale-drawing, composition — and letter-writing. It can broaden cultural horizons. It engenders gratitude, both to the natural world and to our fellow-men for their services, and respect for materials and human skills.

It also allows confidence to grow. At the end of our studies, one third grade boy went home to tell his mother, "If I had the materials now, I could build you a house!"

—SUSANNE BERLIN

## THOMAS AND JOHN

The so-called polarisation of light, and the color phenomena which appear in connection with polarised light, constitute a fascinating field of study. The phenomenon of polarisation has been known since the beginning of the 19th century. Formerly quite complicated experimental arrangements were necessary to produce the effect. Nowadays, however, one can use plates of so-called polaroid (used, for instance, in sun-glasses).

These plates have the following property. If they are held one in front of the other, in a certain relative position they look quite transparent. But if one of the plates is then turned ninety degrees in its own plane, no light can pass through the two plates. In this position the area where they overlap looks black and opaque. If now a piece of torn plastic-bag, a plastic ruler or a piece of glass is held in between the two polaroids, many-colored patterns appear, which make visible the stresses in the material.

In the same way certain crystals, i.e. thin slices of mica, can give rise to colors. If one or both of the plates are turned, the colors transform in a most surprising way.

Some weeks ago, two bright boys of eleven years of age, Thomas and John, were visiting me and I showed them the polarisation colors. As expected, these aroused their curiosity. The boys were soon occupied with testing different objects, turning the plates and making friends with the variegated phenomena. They accepted without hesitation my explanation, that the colors are stresses in the material that are made visible by help of the polaroid. — "Sort of an X-ray," they thought.

John, however, was a bit puzzled about the polaroid plates themselves. There is certainly something curious about the fact that two plates, which singly look quite transparent, when put together can give rise to complete opacity, or any degree of opacity, depending of how they are turned in relation to each other. You put them together so that the common area is black, he suggested to me. Then carefully draw away one of the plates, and the black area successively becomes smaller and smaller until at last it disappears, and there you are, with two transparent plates. There is something unnatural about this. Where does the blackness come from, and where does it go?

Thus, while John in an unconscious, innocent way was confused by the peculiarity of the phenomenon, psychologically the situation was quite different for Thomas. That is to say, he knew "the explanation," I suppose by some visual memory from a textbook of physics.

— "The light sort of makes waves and can pass the first plate only this way about, and then, if you turn the other so, the light can't pass through."

Understandably, he had difficulties in presenting the explanation verbally. But it was obvious that he was clear about the thing and that to him it was quite uncomplicated. To John, on the other hand, the phenomenon was still a bit puzzling, and he made suggestions for further experiments. If you put a thin slice of mica between the two plates, the area where the mica is, becomes white. This means: putting more material in the way of the light gives you back transparency, where previously complete blackness reigned! Such a conditional absorption of light also seems to be something quite unnatural.

At the first moment both boys were equally astonished. Addressing Thomas, I gave an explanation: the mica turns the plane of oscillation of the light, so that it can pass also the second polaroid. At once he nodded with an air of comprehension. Why, that is evident. Nothing curious about it any more.

However, John continued stubbornly to make his observations. There was to be seen a black spot on the white area, and it turned out that it corresponded to a small hole in the mica. A hole makes opacity! He himself presented an explanation to this: "Where the hole is, the situation is exactly the same as before, when we had just the polaroid plates and no mica." Logically, this is quite another sort of explanation from the one Thomas

accepted. An explanation not based on a model or some concept about the nature of light, but on a connection to a previously established matter of fact. You go from one experiment to the next, finding the connections between the different observations. This is also a way to attain understanding!

This incident caused me to consider the question about different kinds of knowledge of reality. What is it, in fact, that school-aged children want and need, when they come with their "why" and "how do you explain that"? Often, one gets the impression, that they are content with — or plainly prefer to get — a simplified thought-model, appealing to the sense for the concrete, or quite simply a verbal explanation. They are pleased when they are able to say that matters stand so and so.

But the example above makes us realize that there is also another mode of explaining things. I mean, the kind of explanation that the ambitious teacher of physics gives when he answers: — "Well, that will become clear when we recall the experience we had the other day, in that experiment, you remember . . ."

Understanding might be something that grows inside a person, when he begins to be able to survey and grasp the connections in all the diverse phenomena he is confronted with. To understand, need not mean to have learnt a wording, or to have assimilated some sort of conception of a mechanism behind the phenomena

It seems that we are faced here with a question of great importance: Whom ought we to support? Thomas — quick-witted, sharp and confident, skillful in technical things. Or John — tentatively searching, imaginative and carefully observing.

Evidently there are two ways of bringing young people to the study of the laws of nature. And those who are today shaping the school of tomorrow must take the responsibility of making a choice at this point. Unfortunately, it is a matter of course that one has to decide upon one or the other of the two alternatives. If we choose the way that Thomas represents, to some degree we irretrievably make impossible the unfolding of the "John-side." The way that Thomas takes is efficient and is the simpler one to control and design. John's way is toilsome and requires much more time. We know about Thomas' way of acquiring scientific knowledge, that it gives a good yield, in the form of technical applications. We know less about John's way. Yet, after all, in his uncertainty, John stands nearer to the actual state of things. The nature of light and color is something that science is as yet far from being sure of. The question about the nature of light has in the course of time got several answers, which have all shortly been found to be only partial answers: light as a stream of particles, as a wave motion, as electromagnetic radiation, as quanta of energy, as the fastest possible signal in the theory of relativity . . .

Without doubt a decision with consequences: it concerns laying the foundations for the direction and aim of scientific research, the effect of which belongs to the future.

—Pehr Sällström

*Translation, by the author, of his article in PÅ VÄG,  
publication of the Kristofferskolan, Stockholm, March, 1969.*

\* \* \*

.... When we bring to the child, just at the right moment, matter appropriate to his faculties, to his disposition, then what has been thus introduced will become a re-creating source of refreshment for the child throughout the whole course of his life.

If the parents of our children perceive that we have the will to work in such a way that we place into the decades lying before us people capable of dealing with the ever-increasing difficulties of life — but still having questions to ask of life — then the parents will stand in the right relationship to the school. For it is upon the parents' understanding that we must build. We cannot work, as do other schools, protected by the state or by any other authority. We can only work supported by a community of parents who have this understanding ...

We love our children; our teaching is inspired by knowledge of man and love of children. And another love is being built up around us, the love of the parents for the true essence of the school. Only within such a community can we work towards a future of mankind able to prosper and withstand.

—RUDOLF STEINER

(From an address to parents of the first  
Waldorf School, January, 1921)

\* \* \*

## BOOKS

There are few people today who study the scientific works of Goethe, whose *Theory of Colours*, refuting Newton, created great controversy. It is therefore interesting to note that the *Theory of Colours* has been re-published, as an exact facsimile reprint of the famous translation by Charles Lock Eastlake, with his preface to the 1840 edition and an introduction, four plates in black and white and color. Published by M.I.T. Press, the book is available in paperback (\$2.95) at St. George Book Service, Sparrowbush, N. Y. 12780.

\* \* \*

*The Human Encounter*, Readings in Education, edited by Sheldon Stoff and Herbert Schwartzberg. Harper and Row. 1969.

The publication of a book for students of education that takes cognizance of Waldorf education is a noteworthy event. Stoff and Schwartzberg, professors of education at Queens College of the City University of New York, have gathered a large number of readings to present many points of view on a spectrum of educational problems. Short comments by the editors introduce the various topics and discussion questions follow each selection. But the authors of the readings speak for themselves without critical comment from the editors. The student is on his own to evaluate the merit of any particular idea.

Indicative of the approach is the first section on the goals of education. Readings from such diverse thinkers as James Conant, Martin Buber, John Dewey, Franz Winkler, A. S. Neill, Paul Goodman, and John Gardner are presented for consideration. Specifics for readers of *Education as an Art*: Franz Winkler's contribution is a chapter from *Man: The Bridge Between Two Worlds*, entitled "Information and Education," in which he stresses the importance of both the leading out of the inner self through *education* and the forming of self through *information* about the outer world. A defense of fairy tales is a welcome part of the chapter. John Gardner, in a selection from his *Experience of Knowledge*, emphasizes the necessity of really experiencing knowledge through feeling and will as well as cognition, if man today is going to be a shaper of events, a truly practical person.

Mr. Gardner is represented again in the section on religion through his essay "Education is Always Religious," in which he suggests that since all schools have a concern that can be deemed "religious" whether it be a formal religion, a political ideal, or a spiritual impulse, the state should be neutral in regard to education as it must be in regard to other religious institutions. This is a position that Mr. Gardner has long held, but it is particularly timely right now.

Due to the emphasis in the book on contemporary problems, most of the selections were written in the 1960's. However, two earlier writers are included because their ideas are pertinent today — John Dewey and Rudolf Steiner! Steiner's introduction to *The Threefold Commonwealth*, stressing the importance of the separation of the spiritual sphere (and of education in particular) from the political and economic spheres, is reprinted.

In addition to enjoying the warm feeling that comes with meeting familiar ideas, readers of *Education as an Art* may find a wealth of information in this volume. Too overwhelming for an evening's reading but excellent for reference are the ideas on segregation in schools, control of education, and teaching the disadvantaged, as well as consideration of such specifics as electronic media, the thought of Jean Piaget on child development, and the current concern with interpersonal relationships as exemplified by Carl Rogers.

Sheldon Stoff teaches philosophy of education with John Gardner in the Waldorf-Adelphi Teacher Education Program. We are pleased to report that Dr. Stoff has received letters from all over the country expressing gratitude that a "spiritual alternative" has been included in his book of readings. A seed has been sown; who knows how large the plant will be?

—PATRICIA BROWN

*Dept. of Education, Adelphi University,  
Garden City, N. Y.*

## WASHINGTON WALDORF SCHOOL

The Washington Waldorf School opened with a first grade of eleven children in the fall of 1969. This important undertaking in the nation's capital was made possible by six years of preliminary nursery school work.

In the fall of 1970, the school moved into a wing of Hearst Hall on the grounds of the Washington Cathedral and expanded into kindergarten through second grade.

In September of 1971, the third grade will be added. The staff will then consist of: Director Carl John Hoffmann, who has taught for sixteen years in Waldorf schools in England and Germany (third grade); Miss Adele Matthewson, of the Adelphi University Teacher Training Institute (second grade); and Mrs. Carmen Barr, who came to the school from the nursery (kindergarten). There are special teachers for language, music and crafts. Teachers are now being interviewed for first grade.

While its present site is central, it is hoped that by the fall of 1972 the school will be in its own home. There has been an almost continuous stream of visitors. To demonstrate the contemporary relevance of Waldorf education in the political center of the United States is a serious challenge.

—LOUISE H. MILLER

\* \* \*

## RUDOLF STEINER SCHOOL, FALLS CHURCH, VIRGINIA

Our school is located in the rooms of St. Patrick's Episcopal Church in an easily accessible part of the western suburban area of greater Washington. It serves four counties and two cities, one of the counties being Fairfax, Va., with a population of 450,000. There has been a slow but steady growth, from two children enrolled in the Kindergarten in August, 1969, to eight in first grade and thirty in a combined Nursery-Kindergarten at this time. Two experienced Waldorf teachers form the nucleus of the faculty and are responsible for the two groups of children. Around them have gathered two assistant teachers in Kindergarten, a half-day secretary (a parent), and our music teacher (a former student of Sigurd Rascher, the saxophonist), who drives the school bus, cleans, and is responsible for the health-food lunch which all the children receive at noon. Three former parents are students at Emerson College in England, to prepare themselves to join the school as class teachers when they are ready. Our parents show much enthusiasm and gratitude for the education their children are receiving and are active within the Waldorf School Association of Northern Virginia, which supports the school in many ways.

We plan to have the school grow into a full eight-grade school during the next seven years. There is good reason to believe that with caution and careful planning this goal can be reached.

The faculties of the Washington Waldorf School, located in the District of Columbia, and ours meet at monthly intervals, to study together and to exchange news of the two schools.

—HARTMUT SCHIFFER

*The foundation, Waldorf Education in the West, has offered to place with libraries, colleges and teachers' training schools a free subscription to "Education as an Art," if no subscription to this bulletin is as yet on order.*

*The purpose of the Foundation is to further Waldorf education, to make it more generally known, and to assist persons wishing to work in and for this impulse.*

*Please send requests for subscriptions to "Education as an Art." Requests for information may be addressed to the Foundation at Sage, Gray, Todd and Sims, 40 Wall St., New York, N. Y. 10005; or, Tylehurst Farmhouse, Forest Row, Sussex, England.*

\* \* \*

## BOOKS ON EDUCATION BY RUDOLF STEINER

The Kingdom of Childhood

Essentials of Education

The Roots of Education

The Education of the Child

The Four Temperaments

Discussions with Teachers

The Study of Man

Education as a Social Problem

The Younger Generation

## BY OTHER AUTHORS

John F. Gardner, The Experience of Knowledge

A. C. Harwood, The Way of a Child

A. C. Harwood, The Recovery of Man in Childhood

L. Francis Edmunds, Rudolf Steiner Education

Elisabeth Grunelius, Early Childhood Education and the  
Waldorf School Plan

Karl König, The First Three Years of Childhood

H. von Baravalle, Rudolf Steiner as Educator

\* \* \*

*Please ask for further information.*