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Child and Man

Education as an Art

Teeth



Child and Man

ISSUE THEME:
Teeth

"...what we come to know in the creative way just described ... it is this which forms the second teeth ... and reaches conclusion in the seventh year.

Rudolf Steiner
(Manchester College, Oxford 17th August 1922)

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Inside Front Cover: *A knowing look, interwoven with wonder and questioning, all part of the experience of passing through the gateway that leads from Kindergarten to Lower School. The change of teeth: one of the key indications that the child is ready to pass through this gateway and begin the long journey of formal learning (see article on 'School Readiness').*

Front Cover: *A colour exercise in Class 1 (age 6/7) at the time of the second dentition, when new, imaginative faculties are released in the child.*

Journal for Waldorf (Rudolf Steiner) Education May 1990 Vol. 24 No. 2

Child and Man is a focus for ideas, insights and achievements in Waldorf, Steiner and all truly human education throughout the world.

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Opinions expressed in this journal attach to the respective authors and are not necessarily those of the Editor.

Editorial Introduction

An old (octogenarian to be precise) amateur viola-playing friend of mine would recount his procedure on awaking each morning: "I grope on my bedside table for my specs . . . in order that I may find my teeth . . . in order that I may hold my pipe!" He had been an almoner and the failure of the 'human frame' amused him as much as it seemed to cause him discomfort. In an educational journal I should, perhaps, hasten to add that I never actually saw him *puffing* at his pipe, which may partly account for the fact that he waited until the ripe old age of a hundred and two before laying aside that human frame — and with it, the specs, the teeth and the pipe (not to mention the viola) that had become foremost among its accessories.

Childhood may be considered from many points of view and in this issue of *Child and Man* we are making 'teeth' the centre of attention, though the notable *absence* of spectacles in Steiner classrooms, the *rarity* of addictions and the *importance* of music would be equally interesting tales to tell (neither are they totally disconnected).

From birth until the eruption of the milk teeth, a 'babe in arms' has still little connection with the forces of gravity. Children who are breast-fed do not even partake of any ordinary earthly substance to begin with. The appearance of the incisors at around six months — that first white speck of tooth-corner showing through their tight red gums and the varying degrees of pain — may be just as much a part of the 'teething troubles' of motherhood as it is babyhood. But whatever trauma there may be is overridden by the joys and triumph of standing (with its ups and downs), of eating (with its ins and outs!) and of sound exploration (with its heavenly gurgles coming

from the nursery, albeit at 5 a.m.) — all major steps in the business of taking hold of earthly matter. Thus the coming of the teeth is also a heralding of a greater form of arrival: the personality/individuality of the child himself.

At this point, parents' awareness of the child's teeth may recede, till at c. 6/7 years (towards the end of the Steiner kindergarten), the grin becomes unforgettably toothless. The *second* teeth signify on the one hand that the first seven-year bodily recycling process is reaching its climax, and on the other hand (in Steiner's educational philosophy) that the first stage of metamorphosis is taking place, in which some of the *growth* forces of the physical body, producing the teeth, are transformed into forces of a different kind, forces through which *education* can take place. In Waldorf educational circles, some understanding of this is a central part of the debate on *school readiness*.

As the pupils develop and they prepare for 'stepping into life' the teeth become just as much an object of study in Steiner Schools as do other topics. The form of the human teeth is compared with that of teeth in various animal species. This first happens at c. 9/10 years at the point in development when the pupils become increasingly self-conscious and therefore aware of their own humanity, bodily and otherwise. The balance and reserve of the *form* of the human dental arches afford a deeply significant lesson, revealing — in purely *pictorial* terms at this stage — essential and unique human qualities.

As the children approach puberty a still more conscious, notably more personal consideration of the teeth is undertaken. Now the key-note is the *care* of the teeth, together with the whole

human body (and the whole earth body of the planet), extending into care of the *function* of the teeth, hence the title often given to this (main) lesson: *Health, Hygiene and Nutrition*.

A still further step is taken in the Upper School: the adolescents, with their penetrating powers of observation and day-wake consciousness, view the human being's position in evolution from as many sides as possible, the anthropological and zoological again forming, as in the fourth class, a complementary approach. At this stage, a more detailed study of the teeth (human and animal) has much to offer.

After leaving school — and it is sometimes not until the last years at school that the back molars finally come through — attention to the teeth assumes less importance than attention to *life itself*. This does not indicate bodily neglect, but in the twenties and thirties young people are 'getting their teeth into' their work — and determining which leisure activities they 'have an appetite for'. Community and communication become the watch words. Meals often become social occasions in which the teeth subside, so to say, into the role of speech organs.

In the very last phase of life — "sans teeth" as Shakespeare put it, in the pre-denture days of Elizabethan society — we 'let go', deliberately if we manage life wisely, or else overtaken by events ('losing one's grip'). Tolstoy portrayed this stage, and its accompanying dependence on the social body to subsidise one's failing faculties — 'false teeth' are acknowledged as the gift of society, in so far as they are provided by the welfare state — in a cute and imaginative form, in his fable: *The Dog and the Bear*. In it, the bear finds a way of teaching the dog's ungrateful master how to look after one who has 'worn down his teeth' in loyal service.

One of the greatest attractions in Waldorf education is the fascinating way in which the educational ideas are brought (down) into every detail of classroom life. This sometimes appears odd to the onlooker who is used to 'playing with ideas' and who is happy with leading a life divorced from the reality which those ideas may represent. This was demonstrated forcibly on one occasion when a discussion of Steiner education was taking place between a parent and a teacher (both representing the education) and a solicitor

and a barrister (representing the discerning onlooker). The latter two had happened upon a remark of Steiner's in which he referred to the development of the child as reflected in the teeth. Both solicitor and barrister were clearly non-plussed. How can teeth be more than teeth? Not so much the tooth or the whole tooth: rather, *nothing* but the tooth, one could almost hear! The solicitor — before realising how energetically the teacher had researched Steiner's indications, and was prepared to bring forward corroborative evidence — blurted out something like, "... those crazy bits about the teeth!" (Yes, a solicitor!) The barrister, who was not present at that point in the discussion, later put it more discreetly: "... some of those more puzzling *esoteric references*". But the stand-point was the same.

We hope that this issue of *Child and Man* might provide readers with a kind of dental map of childhood. Maps of course have to be confined to making certain features visible, while other features either require a trained map-reader or an actual guide.

Our team of contributors, consequently, provides: —

- notes from a mother's diary — some guide hopefully for young parents through the *teething* phase;
- a well-researched article on *school readiness*, bringing forth evidence from academics which supports the Waldorf approach to this vital moment in the life of every child at the time of the change of teeth;
- a lucid account of the teeth by an ex-parent, an anthroposophist whose career was devoted to many aspects of *dental health* both as practitioner and inspector/consultant — a voice of understanding and authority;
- a *song* version of Tolstoy's fable, in pentatonic mood, for use in Class II;
- some welcome peeps into classrooms of both Lower and Upper Schools and, still deeper, into the minds of the teachers who have prepared the lessons taking place. Steiner emphasised how different each teacher's approach might be: and how well this is borne out by the present examples!

● a specially written report of a medical conference in which the significance of the child's teeth was emphasised, particular attention being given to the educational perspective.

All spur for action and certainly well worth chewing over.

B.M.

Announcement

The Godparents' Association Children's Fund, besides collecting donations for assisting with school fees for those unable to meet the costs of Waldorf education, would like to make a special appeal to assist with paying for 'private' music lessons for Waldorf School children. Those children who might seem most in need of music are often those whose parents can least afford this essential element of the education. A covenant form, which enhances the value of any gift, can be sent on request.

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"The Tooth, The Whole Tooth and Nothing But —"

by NORMAN NIVEN

Our language has many metaphorical references to teeth e.g. to fight tooth and nail, to escape by the skin of our teeth; and although our memories of cutting our own baby teeth may no longer be vivid we can observe this phenomenon in children. And also who has not (or is likely to do so in the future), experienced a twinge of what that great humane poet Burns described as "The hell o' a' diseases" — toothache? But the physical nature of the tooth itself and its surrounding structures together with their development may not be as familiar to you as they deserve to be.

Shape and structure of a Tooth

Every tooth consists of a crown and one or more roots. The crown is the part visible in the mouth, and the root is the part hidden inside the jaw. Every tooth is composed of enamel, dentine, cementum and pulp.

Enamel. The outer, protective covering of the crown. It is the hardest of all living substances, but unlike most other bodily tissues it cannot undergo repair. Therefore any damage caused by disease or injury is permanent. The main constituent is apatite (double salts of calcium phosphate and another calcium salt), and since it contains no nerves it is insensitive to pain.

Cementum. The root's outer, protective covering, similar in structure to bone, it meets the enamel at the neck of the tooth.

Dentine. The softer, pain-sensitive material forming the main part of both crown and root. Ivory is the dentine of an elephant's tusk — exactly the same dentine as our own.

Pulp. Rich in nerves and blood vessels, it fills the centre of the dentine.

Teeth and Dentitions

Incisors are the front cutting teeth and are made up of the central incisors and the lateral incisors. They are positioned next to each other and are identified by dentists in this country as numbers 1 and 2.

Canines or Cuspids are the "dog teeth". They lie next behind the lateral teeth. Their number in the arch is 3.

Premolars or Bicusps are the narrow chewing teeth with two cusps which lie behind the canines. There are first and second premolars, again on both sides, top and bottom. They are numbered 4 and 5.

Molars are the larger chewing teeth which have more than two cusps and they come successively behind the premolars. They are given the numbers 6, 7 and 8. The last representing the wisdom teeth.

The Primary (deciduous) dentition consists of 20 teeth — 8 incisors, 4 canines and 8 molars. Their notation is as follows;— Incisors A and B, Canines C and Molars D and E. These teeth begin to erupt about the 6th month of a baby's life, and the dentition is rarely complete before the age of 3 years. There are often small spaces present behind the lower canines and in front of the upper ones. Known as "primate spaces", they are named after similar gaps in the dentition of the primates.

The Mixed dentition phase begins with the eruption of the first permanent molars (No. 6)

at approximately 6 years of age i.e. be it noted, before any baby teeth are shed, a fact which is often a surprise even to otherwise knowledgeable parents.

The Permanent dentition is made up of 32 teeth – 8 incisors, 4 canines, 8 premolars and 12 molars. The eruption time-span is from roughly 6 years of age to 12 years. Except, of course, for the third molars or wisdom teeth which usually make their appearance between the ages of 17 and 25.

A point of interest is that the first permanent molar may have begun its calcification stage in utero.

When the upper central incisors first erupt a space (disastema) in the mid-line of the arch is normally present. This phase of development, described once as the "ugly duckling stage", can be a cause of concern to parents and they may seek dental advice. This appearance should not be mistaken for a malocclusion, and treatment is not indicated to close the space – which ought to happen spontaneously on the eruption into the arch of the upper permanent canines.

The upper canine is the wanderer of the upper dentition. It begins its development under the floor of the orbit (hence "eye-tooth"), and so has a long path of eruption from which it can be displaced. Ultimately it may lie horizontally, be moved towards the mid-line or may be high on the cheek side of the upper jaw bone. More commonly it just misses the correct eruptive path and is deflected slightly towards the palate or to the cheek and the deciduous canine is retained.

Teeth in the lower labial segment usually erupt before their upper counterparts. They may appear lingually and then move forwards under the influence of the tongue into their correct positions as their predecessors are shed.

Supporting Structures

The jaws. The upper jaw is called the maxilla, is fixed to the skull and is immovable. It contains all the upper teeth in a ridge of bone – the alveolar process.

The maxilla consists of halves, the right and left maxillae. These are joined together below the nose by the hard palate and alveolar process, but they are separated above by the nasal cavity. So you can see that the lower surface of the hard

palate forms the roof of the mouth, whilst its upper surface forms the floor of the nose.

On either side of the nasal cavity there is a space in the maxilla called the maxillary sinus or antrum. The nasal cavity is continuous with the antrum through a small hole at the latter's top. This connection between the air spaces of the antrum and the nose gives resonance to the voice.

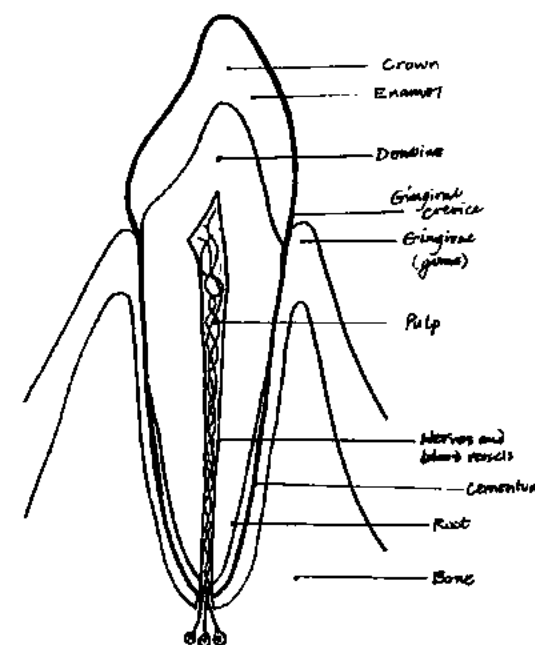
The lower jaw is called the mandible and is the jaw which moves. It is horseshoe shaped with its ends bent up at right angles for some distance. These upright ends are called the ascending rami, while the horizontal part carrying the teeth is the body.

The periodontal membrane consists of collagenous connective tissue, cells, blood vessels and tissue fluids. It has visco-elastic properties. This membrane is connected with the root cementum and the compact bone lining the tooth socket, acting as a sort of shock absorber. In addition to "fixing" the tooth in its socket this important membrane attaches the gum margin to the tooth and the alveolar bone, and each tooth to its neighbour. What all this means is that the teeth are kept firmly in position; but are still sufficiently mobile to cope with the considerable forces exerted on them during biting and chewing. The nerves of the periodontal membrane are particularly sensitive to excess pressure, causes pain and thereby warns of abnormal forces acting on a tooth: e.g. newly placed fillings which are too "high"; trying to eat extra hard foods etc.

Three Functions

Remembering that the moving jaw is the mandible, we see that by its movement backwards and forwards a shearing action of the incisors is produced which, just like scissors, cuts food into pieces ready for chewing. Chewing and grinding are brought about by rotary movements of the mandible which swings from side to side, crushing food between the cusps of opposing premolars and molars. When you are next in a restaurant observe discretely the eating habits of your fellow diners. Many you will find have the air of ruminants, but it is unlikely, I think, that a café calling itself "The Cud-chewers Rest" would have universal appeal.

The ability to masticate our food thoroughly,



bringing the saliva with its enzyme amylase into contact with our nutrients is important, but it is more vital to ensure that the food particles are bound together and lubricated for their easy passage into the lower depths.

Having said all that, it is interesting to note that before the introduction of the National Health Service into the UK many people existed quite happily with no teeth at all – not every edentulous person could afford to provide themselves with dentures.

Teeth give and maintain in us a pleasing appearance. Facial appearance can be very important to a person's self image and well-being, and even success in society. The social acceptability of a dental relationship depends not only on the arrangement of the teeth but on other features of the face e.g. the nose, lips etc, and in addition on the attitudes of your society.

The third function in which teeth play a role of some importance is speech. Between 6 and 7 months babies of different language groups start to show distinguishable differences in sound usage. Syllables with plosive consonants preceding vowels are made, giving the typical

"dada" etc. Although gratifying to fond parents, they have no meaning. Speech is an acquired skill. (James VI of Scotland of a scientific and enquiring mind conducted an experiment in which he placed a baby with a mute wet-nurse on one of the uninhabited islands in the Firth of Forth for a year or two. When the child was brought back to the mainland if it had possessed feathers it would have passed as a sea-gull.) It is a very complicated process involving the production of basic notes in the larynx, known as phonation, and their modification by changing the shape of the cavities in the mouth, nose and throat, known as articulation. The teeth being part of the oral cavity have a significant role to play in this.

Finally, a brief description of the nerve supply to our teeth is necessary to complete the oral tour.

The face, maxilla and mandible, and the teeth and supporting structures are innervated by the Fifth Cranial Nerves i.e. one for the right side and one for the left. Another more recognisable and descriptive name for this nerve is the Trigeminal. As its name implies it splits into three branches viz the ophthalmic, maxillary and mandibular nerves. The maxillary is purely sensory and supplies the upper part of the face, the upper jaw and its teeth. The mandibular in addition to the sensory supply to the lower part of the face, the mandible and its teeth has a so-called motor component which supplies the muscles of mastication.

Having given you the bare bones of this subject you may be encouraged to get to the root (sorry) of the matter, but do remember the following thoughts. Primitive man had excellent teeth; how else could he have coped with raw flesh and bison bones? Then cooking and agriculture came along and that was that. We have evidence of tooth decay from Bronze Age skulls.

Toothache is as old as history.

After qualifying in 1947, Norman Niven served as a Dental Officer in the Royal Navy. He was a General Practitioner for 8 years before becoming a Regional Dental Officer, and finally a Senior Dental Officer (Orthodontics), in the Ministry of Health. As a parent, he had a long connection with Waldorf Education.

The Working Together of School Doctors and Teachers

Conference report

by LINDA CHURNSIDE

The first Kolisko Teacher/Doctor Conference took place last October in Stuttgart. Several teachers and doctors from Britain were lucky enough to be able to attend, myself among them.

The theme of the conference was *The Working Together of School Doctors and Teachers* with a special emphasis on children with learning and behavioural difficulties, a topic which seems to be becoming more and more important both in Waldorf and in ordinary schools.

At the centre of the conference was the idea of education being very connected with healing. This was strongly expressed in the 'verse' with which we started each day.

Each lecture and working group reflected this in some way so that by the end of the week we had looked at many different aspects, with the aim of finding different ways of building up a picture of an individual child.

Michaela Glöckler gave three lectures on child study from the aspect of describing and treating the polarities of: large-headed and small-headed children; cosmic and earthly children; and 'fantasy-rich' and 'fantasy-poor' children. This seems to me to be one of those areas where the more one learns the more one realises that these are very complicated issues indeed. Certainly this

is an area where the close co-operation of school doctor and teacher is vital.

Wolfgang Schad spoke of *doctors* having to do with the body coming from the past; he characterised the *curative educationalist's* task as working for the future; while the *teacher's* task is in the present, to help incarnation here and now. But in each moment, not just present but also the past and the future are to be found in all of us. So teachers, doctors and curative educationalists must work together, for the whole child.

This co-operation and complementary working echoed through several contributions: and most clearly in the opening lecture by Heinz Zimmermann where it was said that the working together of Michael and Raphael must permeate our work and that we must develop our vessel to receive that which wants to help.

Armin Husemann in his lecture on *The Change of Teeth and the Second Seven-Year Period* spoke about the jaw and the teeth which grow within it as being a picture of the whole 'etheric body' of formative forces, realised in the part. The jaw can reveal the whole plan of the human being with nerve/sense system (incisors), rhythmic system (eye teeth) and metabolic/limb system (molars).



Photo: Tajana Zuboff-Rainey

A smile showing one of those 7/8 year-old gaps; though such gaps do not at all impede either 'break' or the readiness for a nice chat!

In the small child there is no 'middle' in teeth: the nerve/sense system and metabolic/limb system have a direct connection, with sense impressions going straight into the metabolic system and vice versa. In the second seven-year period the middle is established and nerve/sense and metabolic/limb systems are separated. How this comes about in the case of each individual child — the second teeth, especially, bear the hall-mark of the individuality — will enable the teacher to get a picture of how the ego works to create its own working place.

One of the most moving parts of the conference for me was a discussion in the English-speaking working group about how to help *children with learning and behaviour difficulties*. In this realm, Michaela Glöckler emphasised that what is most important is that we *love the children*. It matters less what methods we use. The main condition for these children is to surround them with sympathy.

Those children who make difficulties for the teacher are often insufficiently surrounded with sympathy and feel unhappy because they don't feel recognised in their actual abilities. The effect of the remedial teacher is beneficial because they have the job of loving the children and doing nice things. This is often independent of the method. The atmosphere achieves what is necessary. A provocative but extremely helpful statement! At the same time, it does not preclude research into improved methodology from going forward and being needed.

There were many inspiring lectures and study groups, too many to describe in detail, but in a year or so the lectures will be published and widely available to help us take up work in earnest on these vital issues for the children of the 1990s and beyond.

This report was prepared for 'Child and Man' by Linda Churnside who is a Remedial Teacher at Michael Hall.

Nutrition in Class 7

by DOROTHY SALTER and GORDON PURDY

In the school year 1986/87 my daughter was in Class 7 at the Holywood Rudolf Steiner School and as a culmination of their *Nutrition and Hygiene* main lesson it was decided to prepare and serve a special meal for the parents.

Helen Cremin, the class teacher, was fortunate in being able to enlist the help of Bartjan Brave. He is a friend of the school who has recently opened a French restaurant locally. Bartjan came to the school each morning for the last week of the main lesson and instructed the children in the art of food preparation and serving etiquette.

The class learnt such things as: how to chop onions correctly (for this most members of the class came equipped with swimming goggles!), and how to remove the dirty plates from the table in the correct manner.

The school 'kitchen' fairly buzzed with activity. This was stoically borne by the rest of the staff as the kitchen is in fact the staffroom and has extremely limited facilities for catering — viz an ancient Aga, two sinks and a large table!

However, undaunted by the lack of equipment the preparations for the meal went on and the following menu was decided upon:

Starter:

Crepes stuffed with Spinach and tied with Leeks.

Main course:

Millet with vegetable sauce.

Dessert:

Apple pie with Ice Cream.

Drink:

Cranberry juice with water.

Class 1 whose room lies next to the kitchen, was persuaded to lend their room to Class 7 for the evening so that it could be converted into a restaurant.

The invitations were sent out and accepted and the great day dawned.

The class spent the whole day chopping, cooking, moving desks and chairs out of Class 1 and tables and larger chairs in. The children were divided into three groups for the evening: one group would serve the food in the kitchen, another wash up in the pantry and the third would wait on tables in the restaurant. The latter group had to wear black and white outfits.

Since the class had to be at the school right through to the evening, sufficient food was prepared to provide them with a meal earlier in the evening — however, most declined and instead tucked into Pot Noodles from the corner shop nearby. (How healthy, hygienic and nutritious this was may be left to the imagination for the moment!)

The parents duly arrived and were led to tables in the now transformed Class 1. A humorous mood prevailed, especially when the menu was read (where was the meat and two veg?). The crack, as we say in Ireland, was great. (Crack means to have a good time!)

Food began to arrive and, to the relief of many was not all that bad. Efficient service removed the remains of the first course and the Millet arrived — "Where is my perch?" quipped one parent to the waiter, "If I'm eating bird seed I should be suitably seated." It was all taken in good part. However, there was a noticeable sigh

of relief when the apple pie arrived. This was greeted like a long lost friend and several parents were seen eating with real enthusiasm for the first time that evening.

Thinking that was the end of the food we all sat back but, surprise, surprise: in walked Bartjan with an extremely large cake — it was, that evening, the birthday of two of the parents present. So we all sang *Happy Birthday* twice and tucked into the cake.

It was a wonderful evening and warm thanks were given to the chef, the class and to Helen Cremin.

The evening ended in a manner typical of events at the Holywood school — "Would some parents like to 'volunteer' to stay behind and move the tables and chairs out and desks back in?" The perfect end to the evening!

The children went home exhausted but happy, especially as Helen had told them that they could have a half day next day.

Since then it has become something of a tradition at the school and each year Class 7 parents are treated to a meal prepared and served for them by their children.

Dorothy Salter — who writes as a parent of a child in the 1986/87 Class VII of the Holywood Rudolf Steiner School — also teaches biology, mathematics and chemistry in the Middle and Upper School.

The Clashing Rocks were an early hazard in Jason's journey, and in presenting aspects of Physiology to Class 7 it is all too easy, even for the teacher whose own education has not itself already been formed in the materialist tradition, to be trapped in matter. The 'particular thing' can halt the proper description of the living process of which it is only a part, and the movement of the spirit somehow quickly crystalizes in mechanical technique. Main Lesson books are at risk of becoming records of frozen events, and, for once, beautiful illustration serves less the desired mood than the glorification of intellectual knowledge.

For this reason I am hesitant to isolate one element in this four-week block, in which mood and movement must be so important. At most it should only be the pause of a heart-beat in the exciting journey from the four elements through the life of the plant, through the human digestive and circulatory systems to their outcome as acts of the human will. For good reason the skeleton and the functions of ear and eye are kept back that little longer to Class 8.

The working of the mouth should be considered as a whole, from the point where we take in food and begin its destruction to the moment when we lose consciousness of what is happening in this process. Teeth, tongue and saliva should be considered in movement together, chopping and dissolving and reducing the outer forms to a substance which our internal muscles can deal with; we can contrast the work of these solid and liquid tools and of the amazingly mobile muscle which combines the nature of both. When discussion does focus on the teeth alone, the teacher can move from the recognition of the three different types of teeth we each possess to recall that lack of specialisation, dealt with in Class 4, which distinguishes Man from Animal.

As in so many areas these days, the teacher soon finds that the children are well equipped with terminology they do not really understand, and which can work against the understanding we are trying to foster. Most will have sat in a dentist's chair surrounded by illustrations deliberately designed to attract and distract, and almost as many will have had the working of natural processes halted or 'improved' by a combination of alien minerals and sophisticated technology. It is not surprising if they have come to regard the teeth we have produced ourselves as a rather unsatisfactory step towards something more efficient and less open to trouble, and are ready to offer themselves sooner to the impatience of the technicians than to the contemplation of the Sages. A third of my own class have suffered for some time now the real discomfort of a brace (I have at times wondered whether braces inserted for aesthetic effect are really worth the severe impediment to speech activity in these years), and in discussion it turned out that few had any appreciation for the



need of it. In these circumstances it is a real challenge to a teacher to bring the children back to value their teeth as one of the jewels in, to use Traherne's phrase, this "Treasury of Wonders".

One of the aims of this Main Lesson must be to bring the children to undertake a conscious care for the bodily processes, which to this point in their lives has on the whole been managed on their behalf. Here, teeth can be an illustration most of them can easily appreciate. Children can be made aware of unconscious will at work, of the effects of so much activity and of neglect, and be led from a recognition of illness and its prevention in one area to the need for care in less easily observed processes. Teeth have for the teacher one very useful aspect; loss of the first teeth is still within easy reach of memory and this loss is perhaps the most striking and easily

perceived example of the body's working at the constant replacement of itself. Much of my class's work at this point consisted of discussion, as they brought to consciousness their experience of tooth growth, repair or adjustment. This discussion produced one of the most awakening moments of the Main Lesson: when I asked the children what they remembered of the loss of the first milk tooth, one very solid lad blurted out with a nervous laugh, "I was terrified!" As an instance of both the persistence of physical matter and the impermanence of our hold on it, they could hardly have lighted on a better.

After teaching classics, and after some years as a tutor in the General Arts Programme in the Open University, Gordon Purdy graduated at Emerson College and became a Class Teacher at Michael Hall.

Notes from a Mother's Diary

by SIBYLLE ALEXANDER

Again and again we read in Rudolf Steiner's education papers about the importance of the change of teeth during the second stage of childhood, and the health aspect of those first seven years leading up to the secondary dentition. Why do our teeth matter so much?

Look at a human being smiling: what joy to see healthy, strong teeth; they matter in our appearance, they determine very often the beauty and quality of our speech, and most important, their strength accompanies good eating habits. Parents are sometimes puzzled why a child should not begin reading before the change of teeth is well underway. All energy during the crucial first seven years should go towards building up a healthy body; we should take care not to deflect those energies for, if we do, strength is lost which it may only be possible to regain with difficulties later.

Plenty of movement, fresh air and wholesome food encourage growth and development of the body whilst enforced physical stillness in an airless classroom, school meals of dubious quality, prepared in canteens and kept hot too long, weaken every child subjected to such treatment.

The small baby could be said to have its first major battle with the eruption of the milk or baby teeth and though dates can vary widely, 'new' parents can expect, and be prepared for the central incisors to appear at six months, lateral incisors at eight, the first molars at twelve and canine teeth — significantly the last of all — at eighteen months. Parents would do well to make a note of each child's development and keep a record so that a pattern of the physical constitution emerges.

Soon they will know what is involved in teething: sleepless nights, a screaming baby by day, tender gums to be treated with chamomile teething granules and Weleda mouthwash (Ratanhia) and much patience.

Doctors do not regard teething as an illness and they are right; it is rather the reverse, and yet it does involve suffering.

Grandparents are often very welcome when they take over a watch or push the pram out of earshot to give young mothers a rest.

The advice given in olden times, though hardly practical for most modern families, to dig out violet roots and let the baby chew the white pleasant piece of wood is quite sound and still well worth knowing about. (Any father who wishes to stop smoking may do the same and find how it stops any craving for nicotine!)

Another custom is to place a necklace of amber beads around the teething child, which soothes and sometimes encourages children to stop screaming. Watch out that the string is strong and baby does not swallow individual beads by accident. One large piece of amber on a ribbon is perhaps best.

Very important is the attitude of parents: don't panic but take all reasonable care that you and baby survive this necessary ordeal. A lesson to learn is how very precious these first teeth are; they ensure the future health of the whole body; and the more painful the process, the more likely we are to examine the diet with care.

Wholemeal baby food, Weleda toothpaste and regular inspection of the dental arches all support the baby through this stage. A toothbrush should be bought as soon as there are teeth to clean and this should become a pleasurable experience. The

harsher taste of conventional toothpaste is not to be recommended. When brushing baby's teeth imagine that you have to clean diamonds or jewels: the teeth stand at the top of the hygiene agenda, so that the more care that is taken during the first seven years the more likely the purely physical aspects of the second dentition will be successful.

Observe also the first attempts to speak because many speech defects can today be cured, for example if the tongue is too closely attached to the floor of the mouth lisping may occur. The operation involves simply a snip by the doctor and that should be done before bad habits develop.

When the baby teeth fall out, a child, especially a girl, may feel embarrassed; and perhaps a penny or a crystal under the pillow is not a bad idea to sweeten the loss, but don't buy sweets to celebrate the important arrival of the

permanent teeth, otherwise their permanence may be impaired! A strict rule: sweets only at Christmas, Easter and on Birthdays ensures that the second set does not need to be replaced by a third. Each parent can join the battle against excess use of sugar, even though at times it feels like fighting a whole civilisation. A baby that is given crusts to chew with its first teeth will continue on the road to health and be a credit to the community. And commonsense: never mock or ridicule children when they cope with teething, but don't weep with them either. Rather learn to understand what is involved and support them through the whole process.

Sibylle Alexander has been deeply involved in Rudolf Steiner's approach to education. Her involvement, latterly, has been as a speaker and writer, in which capacities she is known in the UK and in Germany.



The open secret of childhood: "... learn to understand."

Nibbling, Piercing, Grinding

Animal Dentition and Diet

by JANET and DAVID SHARMAN

The human being has many views on teeth. Some find them beautiful enough to use them for adorning themselves; others view them with fear at the thought of them sinking into their flesh; yet others find their shapes and adaptations of particular interest when studying the animal kingdom. Like so much in nature, teeth have an appeal of their own in their beautiful forms and reveal the reality of the forming forces in different animals. They are the hardest and most dense part of the physical body; they line the jaws and are well designed to obtain food of a variety of kinds. The showing of teeth often expresses a sign of aggression and menace, yet in contrast a smile of human friendship can be enhanced by the shining teeth. Could they be the jewels in the crown?

When one considers the animal kingdom, a major challenge is to find a comprehensive picture of the great diversity which presents itself. Order out of chaos can be gained by looking at the major division or *phyla* presented by the great classification of Linnaeus.

Another way is to take the upright, balanced and unspecialised form of man as a starting point and see how the mammals, for instance, represent one-sided developments of a particular feature. In this way dentition and diet make a considerable contribution. 'Man' has a well balanced and unspecialised dentition suitable for an omnivorous diet. His front cutting incisors (4 up and 4 down), canines or 'eye' teeth on either side (4 in all) and eight premolars all appear in the young child as 'the milk dentition'

destined to be exchanged after the seventh year.

In his development, man is marvellously slow! He is born helpless and must gradually learn all his skills, even from the start, in walking, speaking and thinking. Thus he progresses through three seven year periods of development 0-7; 7-14; 14-21 years of age. It is interesting to note that, *at the end of each seven year period*, four new teeth appear in the back of the mouth — these are the true molars never to be replaced. Thus at about 7, 12-14, and 18-21 (wisdom teeth) these molars are added to make up the permanent adult dentition.

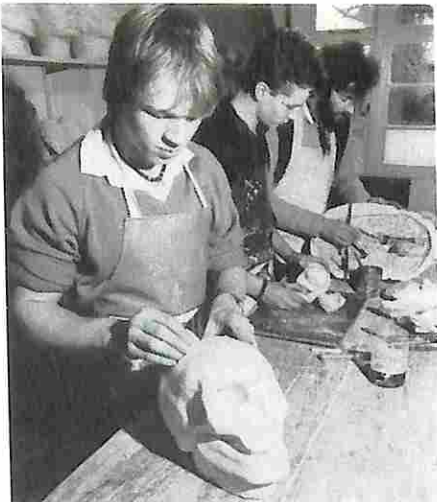
If we look at the human skull, rounded and embryonic in shape with its balanced dentition and compare it with some mammalian skulls, we see how the animal is specialised and locked into its particular nature which equips it wonderfully to cope with its own way of life — it has a specialised dentition for a specialised diet (*see pp.24 & 25*).

Teeth come in three main types — incisors, canines and molars. Each type has its own particular function; the front ones *bite*, the canines *pierce and hold* and the back ones *grind*. This forms a three-foldness which can be elaborated by dividing the animals in the following way (*see diagram on p.17*).

It may be surprising to learn that nearly three quarters of our mammalian species can be pigeon-holed very easily by the specialisation of their dentition. Furthermore, teeth are the heralds of the digestive system that follows, and in each group one type of tooth predominates.

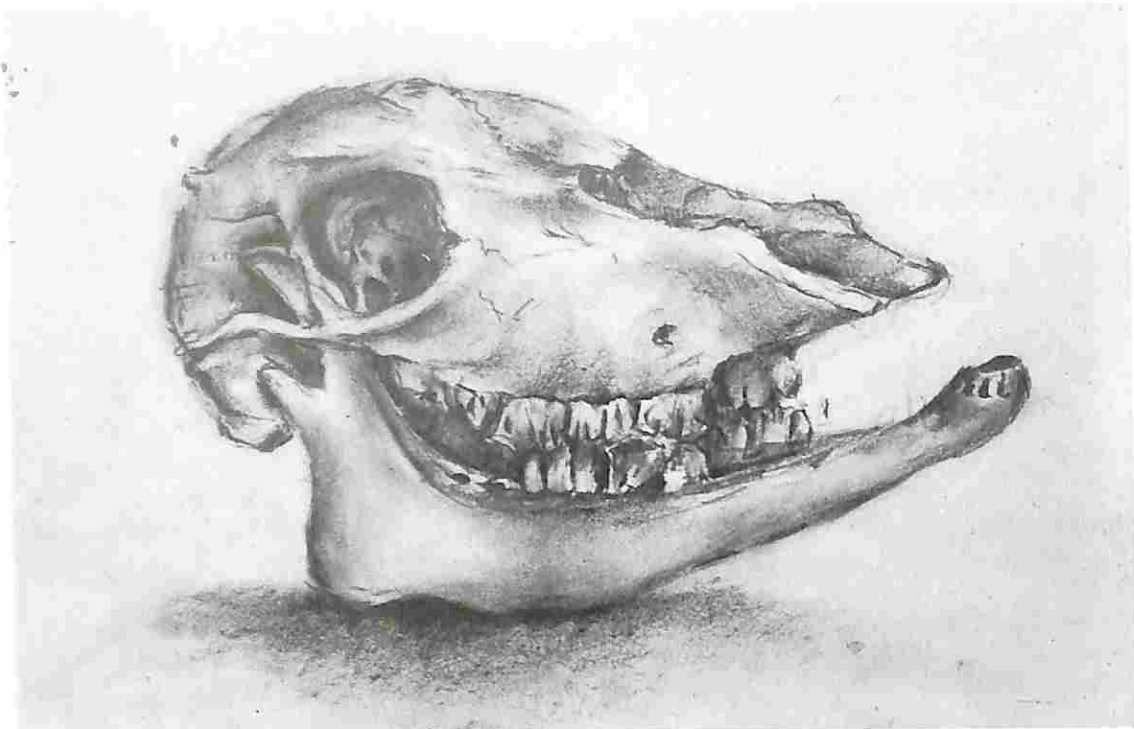
What is seen in balance and harmony in diet, in dentition and life processes in man, becomes separate and brought to single perfection in each group. The *rodents* need foods rich in energy that can be easily digested. These small mammals are always busy nibbling with their dominant incisors and sensing their surroundings, alert for immediate action. They sleep for short spells in order to be wakeful again.

In direct contrast the *herbivores* are generally large with powerful and heavy bodies. They spend most of their time feeding, grazing on vegetation, followed by a long digestive process. Their food is rather poor in nutrients; a main constituent is cellulose which is very hard to digest. Their dominant teeth are the large ridged molars which grind vegetable matter small enough for the digestive process to succeed. Many of these hoofed animals chew their food twice; the second time being the chewing of the cud. It is because of this strong and efficient digestive system that these animals have become so successful (see p.21).



15 year-olds modelling: a hands-on experience of human proportion and disproportion, particularly evident in the region of the jaw.

The *carnivores* represent an intermediate form. The large prominent canines are essential to grasp and kill their prey — they are the hunters of the animal kingdom. Their food, mainly protein, is easily digested and absorbed.



A 16 year-old's drawing in which black and white bring out sharply the characteristics of a sheep's skull. In adolescence, faculties of imagination partly transform into those of precise observation and causal thinking.



A 9 year-old's painting of a badger (see 'carnivore' column of the diagram below). Through art, biological study is deepened, in this case so that animal and habitat are experienced in the same colour mood.

Type of tooth accentuated

Incisor	Canine	Molar	
Rodent	Carnivore	Herbivore	
e.g. Beaver	e.g. Lion, Tiger	e.g. Cow, Deer,	Mammalian Group
Mouse, Rat	Cat, Wolf, Dog	Horse, Camel,	
Squirrel		Moose	
Fats and oils, starches grain and nuts	Protein — hunt other animals	cellulose — graze vegetation	Type of food
Nerve-sense function	Rhythmic function	Metabolic function	Predominant life process

There are one or two interesting anomalies in the mammals: for instance the boar, elephant and hippopotamus are all herbivores, yet all have large canine teeth! Also Wolfgang Schad in his book *Man and Mammals* (1977) mentions an interesting correlation between the growth of canines and antlers. If one examines the primitive South and East Asian deer — the musk deer of the Himalayas and the Chinese water deer, there are no antlers, but instead they possess unusually long upper canine teeth, which hang outside the mouth! In contrast we find red deer and moose with large impressive antlers and canine teeth reduced to short stubs or absent. There is evidence that the root of the canine and the antler connect, which can be clearly seen in the skull of a Muntjac, or rib-faced deer. What does all this mean? Perhaps it is that in these hoofed mammals the antlers and horns are a sign of *surplus metabolism* and possibly the extra large canines in this group might be considered thus.

Looking at the skulls and dentition of some aquatic vertebrates (fish, seal and porpoise) one is struck by the lack of differentiation of the teeth: all are similar and slant inward, possibly

to prevent the escape of their slippery prey! (see p.20).

Turning to consider the origin and development of mammalian teeth, we find that the teeth rudiments are formed in the early embryo from primary germ layers; the outer skin (ectoderm) destined to form the enamel, and the middle layer (mesoderm) destined to form the dentine and pulp cavity. An upside down cup-like structure is formed which grows inside the developing bony jaws. A third material, cement, holds the tooth in place and serves to bind it to neighbouring structures. The central pulp cavity is alive with blood vessels and nerves, and nourishes the tooth until it reaches its final and finished form.

Some animals have teeth that grow continuously; these have a permanently wide open pulp cavity and no roots. This condition is seen in the incisors of the rodent and grinding molars of the herbivores (see pp.24 & 25).

Mammals like man, have two sets of teeth, 'the milk teeth' and the permanent dentition. However, unlike the helpless new born human child, young mammals at birth quickly proceed



The normal dentition of a child aged 7 years: diagram from an Upper School biology main lesson (left).

15 year-olds explore the beauty of the animal kingdom in comparison with the proportions of the human being (page 19).



Photo: Felicia Shanahan

to acquire their physical abilities, evidenced by the young calf or foal which can stand and run within hours, and lambs which gambol and play. This is reflected in the dentition too, when the milk teeth show an immediate and continuous replacement with no time lapse before the adult dentition takes over.

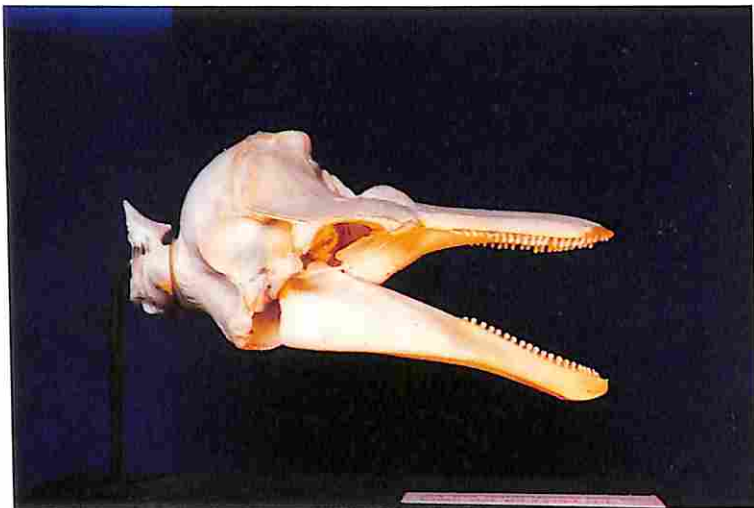
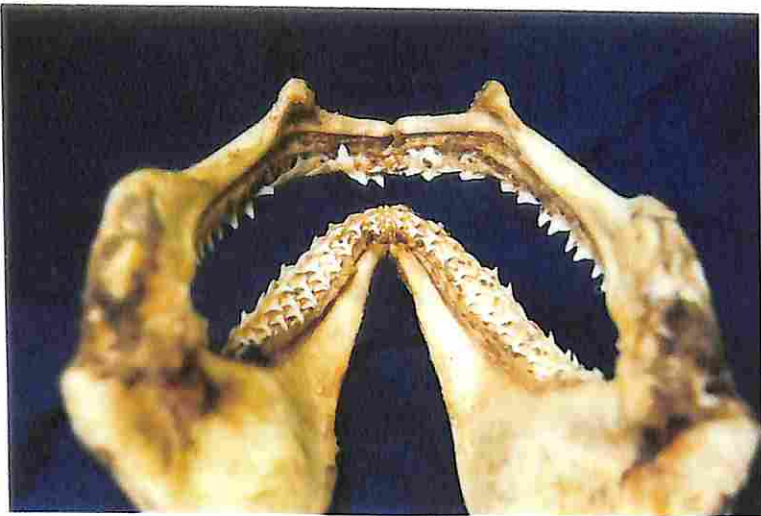
The photograph and diagram show the exposed jaws of a young cow — one and a half years old — with erupting adult dentition (see p.21).

In the series of three photographs of pig skulls, (not shown to scale) neonatal, seven weeks and one and a half years old, we can clearly see how the formative forces quickly and strongly work on the young animal. The young sow within two

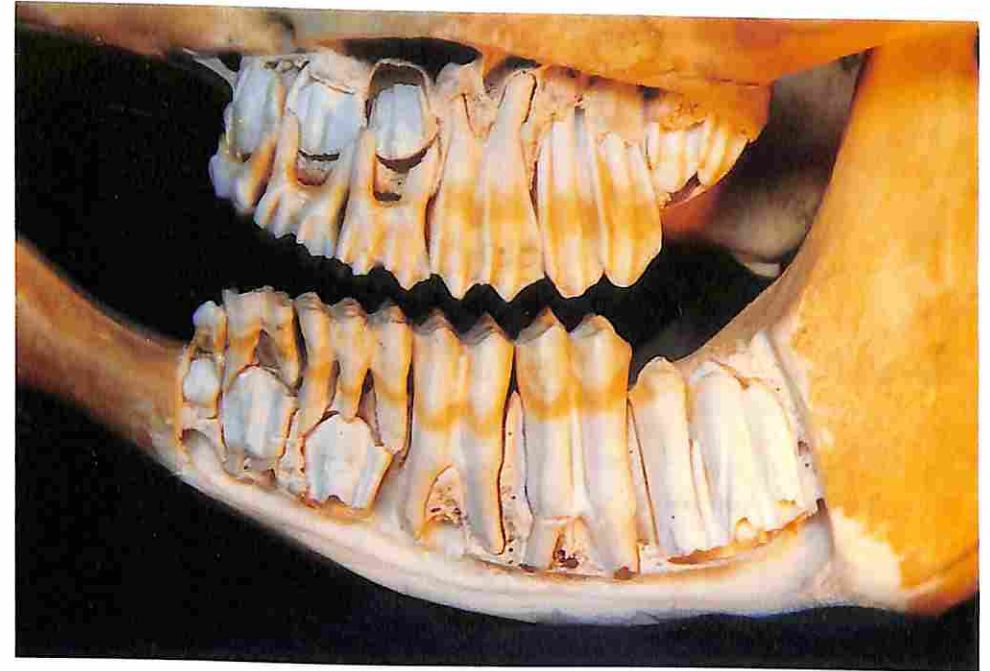
years has completed her development, is mature and capable of reproduction, while the young round skull is lost to a large angular shape (see p.28).

Through the 'incompleteness' of the young human being and through the long time taken in reaching adulthood, there remains time for the ripening of the spirit. This potentially raises the human being's status beyond the reach of the rest of the animal kingdom, an ennoblement which carries with it responsibility.

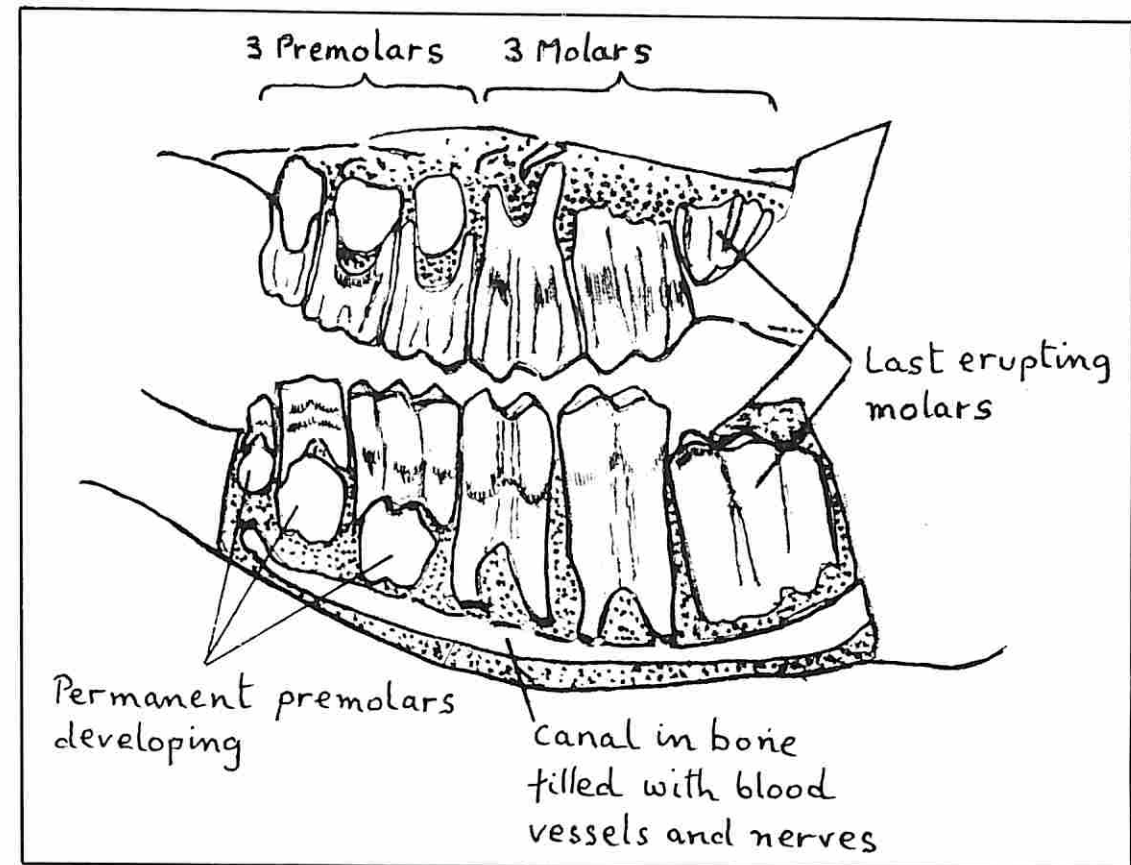
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Three aquatic vertebrates: (see page 18) shark, seal and porpoise (from above downwards).



Photograph and corresponding diagram showing the jaws of a young cow, with molars exposed (see page 19).



The Bear and the Dog

by BRIEN MASTERS
(after Tolstoy)

- | | |
|---|---|
| 1. A peasant and his wife,
When winter winds blew cold,
Sat by the glowing stove
To keep them from the cold,
With their doggie, nose on tail. | 5. With pity in his heart,
He let the dog go free;
Back to his wife he went,
His old friend beneath the tree,
Like a sack of bones, so frail. |
| 2. But hard of heart were they;
His 'useful' years were past,
And food was scarce in dish:
"Old dog you've seen your last,
For your teeth begin to fail." | 6. Till along came furry bear,
His tummy fed and fat:
All winter-long they stayed
Together and did chat;
Then they struck the homeward trail. |
| 3. With a rope around its* neck,
The peasant stepped abroad;
Obedient to the last,
With the man whom he'd adored,
He limped with drooping tail. | 7. By the harvest field they hid
Where the hay was being stacked,
When bear snatched up the babe,
At risk of being thwacked
(The fence he twice did scale). |
| 4. Upon an aspen tree,
The rope he made secure;
The poor dog's throat he jerked,
Till no more could he endure:
And his fate he did bewail . . . | 8. Then the dog with new-found strength,
To the rescue bounded up;
And what a fuss they made,
Like when he was their pup;
And how he wagged his tail. |



*Use of the personal pronouns from here on, pre-supposes the child's familiarity with the story.

School Readiness: The Developmental View

by EARL J. OGLETREE

In this hurry-up society, can anything wait? Apparently not, when it comes to determining the appropriate time your children should begin formal schooling. The majority of schools, internationally, use the traditional criterion of age, divorced from concerns for their developmental needs. Little, if any, consideration is given to the maturational-readiness of the entering child. On the other hand, there are a minority of educational institutions that have taken the time to examine the research on the developmental needs of children and have incorporated it into their psychology of learning and curriculum.

The former type of school embraces a psychometric philosophy/psychology in which certain assumptions are made about the learner. These include such ideas as: 1) a child's thinking is not developmental, but static; 2) his abilities are measurable; 3) learning is automatically transferable; 4) learning is governed by a set of principles (e.g., decoding whole vs. part; intermittent reinforcement, etc.) and 5) knowledge is acquired, detached from the process of acquiring it. Jerome Bruner, a nationally-known educator, summarizes an unsubstantiated psychometric viewpoint that "any subject can be taught effectively in some intellectually honest form to any child at any stage of development."¹ The resulting goal is to produce children who score high in achievement tests.

One sees this reflected in the current testing mania in American public schools, expedited by the national school reform movement, and the tripartite schools in Europe for generations. US teachers are asking themselves, when do we find the time to teach?

Those schools that have adopted a developmental psychology to learning have a different view of the learner: 1) the child has developing mental abilities that unfold in stages, 2) learning is a creative process; 3) the learner is engaged in the process of acquiring knowledge and cognition is not automatic, but a process initiated by the learner. The aim of education is to nurture the learner's development by the creation of a conducive learning environment.

Unfortunately, research on child development and the facts on school readiness, and the adverse effect of early formal schooling, have and are being ignored by educators and policy makers for traditional, political and social reasons. As a consequence, psychometric psychology dominates the thinking of educators, while development psychology is given only lip service. What does research say about the psychometric versus the developmental approach to education? The issue revolves not so much as to entrance age, but the type of education children receive in school, i.e., whether learning instruction is forced, formal and intellectual or whether it is based on their maturational needs and unique styles of learning. David Elkind,



The human skull (above) reveals a threefold balance in the arrangement of molars, eye-teeth and incisors.



Three animal skulls that demonstrate the 'speciality' of each species: cow (opposite, below) as herbivore, with strong molars; dog (below) as carnivore, with protruding canine teeth; and beaver (above) as representative of the rodents, with its magnificently developed incisors (see text on page 18).



professor and a national authority on child study, says:

The miseducation of young children, so prevalent in the United States today (and traditionally so in Europe in their tripartite educational systems in England, France Germany, etc.), ignores the well founded and noncontroversial differences between early childhood education and formal education.²

Studies show that induced cognitive learning before a child is maturationally ready will reduce his learning potential. Keister found that although pre-six year olds made normal progress in reading, it disappeared over the summer months, and they appeared to have a reading deficiency in the later elementary grades.³ A recent meta-analysis of the research by Uphoff and Gilmore substantiates that the damaging consequences of schooling for children who are not developmentally ready may continue throughout their school careers.⁴

Another possible symptom of induced learning is that children are currently being diagnosed and misclassified by teachers and special educators as "Attention Deficit Disorder" (ADD), marked primarily by restlessness, impulsiveness and inattentiveness under the subcategories of hyperactivity and learning disability.⁵ ADD children will soon be classified as handicapped. Although special educators have not related the symptoms of ADD with stress and premature schooling, Elkind and others have diagnosed the origin of ADD with forcing the immature child to: 1) learn narrow categories of intellectual information, 2) be separate from its parents, 3) adapt to an unfamiliar environment — teachers and children, and 4) learn school rules and regulations.⁶ As a result the child is overwhelmed by the many demands made on him. In the preschool years the child sees things globally, not in narrow categories or analytically. It is not until about the seventh year or later that the child begins moving through a series of developmental stages in which he gains a concrete then symbolic understanding of the world and his experiences, according to Jean Piaget.

A substantial body of research shows children should not begin formal academic instruction

until 7, 8 or even 11 years of age. Rowher's investigations demonstrated that formal instruction, containing abstract content, could and should be delayed until the early adolescent years.⁷ Moore and Moore recommended that late starters should skip the first grade and start formal schooling in the second or third grade with their chronological peers.⁸

However, chronological age is not always a reliable index of school readiness. For instance, a child's intersensory development — sight and hearing — is not fully developed until age 8 or later. Before age 7 a child has perceptual difficulties; he often cannot distinguish visually between b and d and q and p. He cannot hear the difference between b and d; and m and n; g and k; s and z, etc.⁹ Anthropometric studies of the physical and motor maturity of first graders showed that unsuccessful pupils had lower maturation levels than their successful peers.¹⁰

Morency and Wepman suggested that children who are not neurophysiologically ready (maturity of the central nervous system — auditorily, visually and who possess intersensory coordination) will not only not do well in a traditional classroom but will probably not catch up to their more mature peers. Full perceptual processing ability may not occur until age 9.¹¹ Visual development, e.g., the ability to decode letters, shapes and words serially, essential to most reading programs, occurs later than auditory development.¹² Most young children learn more effectively through aural as opposed to visual presentation, which doesn't mature until after the third grade.¹³ Academic disabilities, in many cases, are the result of forcing children to learn sensorial-dependent information before they are perceptually ready.

Moore and Moore, in *Better Late Than Early*, developed a holistic index to identify school readiness. Their "Integrated Maturity Index" takes into account: 1) chronological age, accumulation of experiences, 2) cognitive ability, understanding of experiences, 3) acquired knowledge and the use of language, 4) physical development and anthropometric maturity, 5) perceptual discrimination, and 6) a readiness to read, together with other related factors.¹⁴ Others consider a child ready for formal

schooling when the co-ordinated integration of these readiness factors reach their optimum level of maturation; then the child is ready, motivated and less stressed, and less overwhelmed by school than his less mature classmates. This stage is generally not reached until ages 8-10 by most children. A recent analysis of the findings of educators and child development specialists supports the importance of maturity as a key predictor of school readiness. They recommended a transitional-readiness program for immature first graders.¹⁵

Child developmental research suggests that forcing a child to learn a skill or to master a subject before he is maturationally ready is ineffective and inefficient. It takes him longer to learn it, and the learning is less complete. As indicated, formal-instructional preschool programs are not the most propitious way of preparing children for school. A longitudinal study comparing the effects of parental education vs. preschool experience on children's later verbal ability found that although preschool experience was a significant predictor of verbal achievement scores, its power was insignificant when compared with the mother's influence.¹⁶ Even with socially-disadvantaged children, the initial gains of improved intellectual capacity, i.e., higher IQ scores, were not sustained beyond the second grade. Although they did appear to have improved scholastically and reduced the frequency of special education placement. Moore, *et.al.* in *School Can Wait* concluded that the need for academic instruction in the early years "is open to question since no conclusive evidence suggests lasting effects of preschool instruction."¹⁷ Seven and 8 year olds can learn the material with much greater efficiency and far less stress and frustration. Children who begin reading at age 6, one year ahead of their class peers, are often one year behind them in reading achievement at the end of the seventh grade.¹⁸ Not only do later school beginners surpass those who started school at an earlier age, but the latter group seems to have greater emotional and social adjustment problems.¹⁹

A national study of the school success of 300 children who entered school from two to five years later than the required entrance age of six or younger, showed that they had no difficulty

completing elementary school at the same age as the early entrants. Other studies show that late starters quickly catch up and sometimes pass their early and regular starter peers. The former group, according to Moore, "generally excels in behavior, sociability and leadership." Can one infer from this that the number of years spent in school affect children's behavior and attitudes? Earlier international and national studies on pupil achievement found concomitant outcomes that "the earlier children went to school, the more negative their attitudes toward school."²⁰ Chicago suburban primary grade (1-3) teachers report that children who attended an instructional-type preschool and kindergarten were bored, "burned out", "turned-off" by the second or third grade. Also the grade retention rate for immature learners is higher than that of older learners.²¹

Forced learning can cause frustration, anxiety, alienation and loss of interest in learning. The learning is not only inefficient and stressful, but research indicates a resultant lowering of learning capacity.

In *The Hurried Child*, Elkind adds that hurrying children into academics to acknowledge individual differences . . . "before they have the requisite mental capabilities" may cause them to see themselves as failures and worthless. A series of unsuccessful school experiences can lead to an inferiority complex, a lack of control over one's life or environment, "a learned helplessness".²² Pressure on children to learn before they are ready is very stressful. There is what Elkind calls a depletion of "clock energy" — the energy we need for daily living. The "early symptoms of stress associated with clock energy" are fatigue, loss of appetite and decreased efficiency.²³ When pressure and the subsequent anxiety are unremitting, e.g. notable to keeping up with school work or failing, children then use up their reserve of "calendar energy" (energy that is of a fixed quality for physical growth and maintenance of the body, etc.). The resultant psychosomatic ailments can be "headaches, stomachaches, etc." as well as making the children unhappy and depressed.

Rudolf Steiner, founder of the Waldorf school movement, arrived at the same conclusion over seven decades ago:



The development of the pig's skull: neonatal, at seven weeks and the mature sow (not to scale) (see text on page 19).



The second teeth reveal more individuality than do the first. Two versions of the same colour exercise (painted in Class 1, age 6/7 years, at the time of the change of teeth) in which individuality comes strongly to expression.



If we force intellectual powers in the child we arrest growth . . . certain organic processes that tend inwardly to harden the body are brought into play.²⁴
In a later lecture, he added:

If we force intellectual powers in the child we arrest growth, but we liberate the forces of growth if we approach the intellect by the way of art.²⁵

A student of Steiner and a medical doctor stated:

Any disturbance or change in the etheric (energy) forces during the formative years of childhood will have an impact on the emotional and intellectual constitution of the child. The metamorphosis of the etheric (energy) forces from physical development to emotional-cognitive development can be accelerated or retarded. There is a delicate balance between the two functions (physical and mental development) of the etheric (energy) forces.²⁶

This latter concept of energy forces, now being arrived at by Elkind and perhaps other educators, suggests the beginning of and a need for deeper insight into child development. Just as one cannot maintain a garden without understanding the nutritional and sustenance needs of plants and flowers, one cannot help children develop without insight into their developmental needs.

It is truly surprising that our western industrialized society, based on scientific research, technology and expert knowledge, has blatantly ignored the research on child development and education. Nevertheless, child development research is clear as to the limited benefits of formal, induced learning on the achievement, learning and cognitive attainment of preschool and elementary school children. Whatever gains they may accrue are outweighed by the harm done to their self concept, health, emotional and intellectual development.

Therefore, the popular psychometric approach to education, with its intellectual heavy-handedness, will never allow children to develop and blossom naturally. It can only do damage, making children into premature, unhappy adults. Education must begin looking at the dynamic needs of the growing child and the voluminous research undergirding the maturational-

readiness approach to educating children.

Our conventional psychometric approach to education of pouring knowledge into the child and "fitting him into a curriculum" that is foreign to his nature must cease. We must replace it with a developmental approach, one which examines the needs of the child and *how* and *why* he develops as he does. Then what we need is to develop a curriculum and methods compatible with his unfolding and developing stages of growth. Waldorf education appears to have developed an educational program that includes both of these elements.

Earl Ogletree is a professor in the Department of Curriculum and Instruction at Chicago State University, Illinois. He has embraced various aspects of Waldorf Education in his field of research, and is co-authoring a book on Waldorf Education, due to appear later this year.

References

1. Bruner, J. *The Process of Education*, Harvard Press, Cambridge, Mass. 1960.
2. Elkind, D. "An Essential Difference" in *Taking Sides*, ed. Noll, J.M. Duskini Publ. Group 1987. p. 221.
3. Keister, B.V. "Reading Skills Acquired by five years old children," *Elementary School Journal*. Vol. 41, 1941, pp. 587-96.
4. Uphoff, J. K. and Gilmore, J. "Viewpoint 2, Pupil Age at School Entrance — How Many are Ready for Success?" *Young Children*, Vol. 41, No.2, Jan. 1986, pp. 11-16.
5. "School Inattention and Attention Deficit Disorder: A Legal Analysis," Paper presented at the Annual Meeting of the American Educational Research Association, New Orleans, LA. April 21-24, 1988.
6. Elkind, *op. cit.*, p. 219.
7. Rohwer, W. D. "Prime Time for Education: Early Childhood or Adolescence?" *Harvard Education Review*. Vol. 41, 1971, pp. 316-41.
8. Moore R. S. and Moore R. D. "Dangers of Early Schooling," *Harper's Magazine*. Vol. 245, 1972, pp. 58-62.
9. Cole, L. *The Improvement of Reading with Special Reference to Remedial Instruction*, Farrar and Rinehart, N.Y. 1938, pp. 282-84.
10. Simon, M.D. "Body Configuration and School Readiness," *Child Development*, Vol. 30, 1959, pp. 493-512.
11. Morency A. Wepman, J. M. "Early Perceptual Ability and Later School Achievement", *Elementary School Journal*, Vol. 73, 1973, pp. 323-27.
12. Morency, A. "Auditory Modality, Research and Practice," In *Perception and Reading*, ed. Smith, H.K. International Reading Association, Newark, Del. 1968. pp. 17-21.

13. Stanners, R.F. and Soto, D.H. "Developmental changes in the Recognition of Beginning Segments of English Words," *Journal of Education Psychology*, Vol. 58, 1967, pp. 273-77.
14. Moore, R.S. and Moore, D.N. *Better Late Than Early*, Readers Digest Press, N.Y. 1975. and Moore R.S., et.al *School Can Wait*, Brigham Young University Press, Utah 1979. 15. Freisen, D. "Too Much, Too Soon?" *Principal* Vol. 63, No. 4, March 1984, pp. 14-18.
16. Helmich, E. "The Effectiveness of Preschool for Children for Low-Income Families; A Review of the Literature", Illinois State Board of Education, Springfield, Ill. 1985, p. 15.
17. Moore, *School Can Wait, op.cit.*, p. 120.
18. David, H. M., "Don't Push Your School beginners," *Parent's Magazine*, October, 1952, pp. 140, 141; and Carter, L.B., "The Effects of Early School Entrance

- on the Scholastic Achievement of Elementary School Children in Austin Public Schools," *Journal of Educational Research*, October, 1956, pp. 91-103.
19. Moore, *School Can Wait, op.cit.*, p. 120.
20. Rohwer, *op.cit.*, p. 320.
21. *National Assessment of Educational Progress*, Commission of the States, Denver, Colo. 1982, p. 182.
22. Elkind, D., *The Hurried Child*, Addison-Wesley, Reading, Pa. 1981, pp. 153-59.
23. Elkind, *op.cit.*, p. 219.
24. Steiner, Rudolf, *The New Art of Education* (London: Anthroposophical Press, 1928), pp. 79-80.
25. Steiner, R. *The Modern Art of Education*, Rudolf Steiner Press, London, 1972, p. 112.
26. Sieweke, H. *Anthroposophic Medizin*, Philosophisch Anthroposophisches Verlag, Switzerland 1959, pp. 142-44.

Reviews

Christmas Lanterns by Uwe Jacquet. Kits from: Michael Hall, Forest Row, Sussex RH18 5JB.

1936, the year Uwe Jacquet was born, was a dark one for the future destiny of Europe. It was the year the Nazis marched into the Rhineland, thus beginning the inexorable process that led to the Second World War and the devastation of European civilisation.

Uwe Jacquet was swept up in some of these momentous events — he was about to enter Class One in the Dresden Waldorf school when it was closed down by the Nazis, and at the end of the war his family were forced to seek refuge in Western Germany, fleeing the communist advance of the Red Army.

Perhaps these early childhood experiences helped shape Uwe's deep commitment to the importance of the Christmas message, and in particular to the celebration of the Christmas festival as a beacon of hope for mankind.

For many years, Uwe, and his wife Hélène, have carried the impulse of the Oberufer Christmas Plays, directing them with great care, devotion and understanding at Michael Hall School, and, before that, in Paris. But perhaps Uwe is more widely known in the local community and beyond for his beautifully artistic creation of a Christmas lantern that has been a source of joy and wonder to many, both young and old alike.

When Uwe was a boy, his mother began to make him a five-sided lampshade made out of cardboard and tissue paper, decorated with Christmas scenes, but unfortunately she didn't live to complete it. Uwe received the five panels after his mother's death and later made a wooden frame for them for his own children's enjoyment. From this humble and intimate beginning has emerged a flourishing business enterprise.

While working in Paris as a film extra (did anyone know that Uwe appeared in "NOTRE DAME DE PARIS" along with Anthony Quinn who starred as Quasimodo!), Uwe encountered a craft/study group at the Waldorf school led by his future wife's father, Eugene Witta, an architect who had worked with Steiner on the first Goetheanum in Dornach. Uwe began to produce toys for the school's Christmas Fair, and soon found himself teaching in the school itself. Within a short space of time he became one of the founder teachers of the Chatou School in Paris and in 1959 his first Christmas lanterns were produced. They proved a great success and all were sold.

In 1962, significantly at Christmas, Uwe was phoned up by a former colleague now teaching at Michael Hall and invited over with a view to becoming a French teacher. By this time Uwe



Photo: Tajana Zuboff-Rainey

Through the newly-fledged powers of visualisation in the 7/8 year-old, which appear alongside the eruption of the second teeth, impressions of the world are imbibed in a new way.

had left Chatou and was working as a translator for patents — a job he found monotonous and stultifying — and so he took up the offer and in 1963 began his long and distinguished career at the school. In that year he made more lanterns for the school's Christmas Fair, putting to work the whole of his growing family to help with the design, cutting out and assembly of his intricate and time-consuming invention (on average in those days each lantern represented about 15 hours of meticulous work). The 60 lanterns made that year sold out in a matter of hours and Uwe's lanterns were responsible for 50% of the total monies raised by the school fair.

Uwe has always felt very strongly about the importance of the Christmas Fair, seeing it as a 'shop-window' for Waldorf education. He believes that "something of the spirit of the school should be represented at the fair; unusual items should be on sale that talk about the education, that present a message."

In 1987 Uwe decided that he could never make enough lanterns by hand to keep up with the

growing demand, and so he took the decision to have some of the components manufactured for him. Lacking any capital, this proved to be an act of faith on his part given that he had to make a considerable investment and only had as back-up a promise from a sponsor to order 100 lanterns. The gamble paid off, however, and now his aim is to invest more money into the production process and thus reduce the costs even further. He has offered his inspiring product to Waldorf schools in England and abroad to sell at their Christmas Fairs in order to make a profit that goes to support the educational impulse. Current projects include the preparation of a simple brochure to help market the invention more widely, and a production along 'kit-assembly' lines that would actively involve the children in the schools and at home in cutting out the transparencies, thus engaging them in the process in a creative and personal way.

Uwe's enthusiasm for his work never flags. When asked if he could describe or sum up the pleasure and satisfaction he has obtained over the

decades from his single-minded application, he replied that he sees his contribution as "a fight against the commercialised image of Father Christmas" and as "a counterbalance to all those forces that help us forget the true meaning of the Christmas celebration. If you look at the lamp in the darkness, it has a soothing, calming effect and stimulates the imagination; as it begins to turn, something magical begins to happen — I have seen again and again in the eyes of many children the sheer joy as they recognise the angel!"

Thus, it seems fitting to conclude with words spoken by the 'Black King' from the Christmas plays which Uwe knows so well and which may stand as a fitting comment on the significance of his work:

"O Lord, I pray,
Forsake us not,
Lighten our eyes in this great need,
That we die not the death. O lead,
Lead us, Lord, the narrow way
That we stumble not, nor stray,
But walk as ever in thy light."

What can be more heartwarming and strength-bestowing than to help people find and recognise the angel in the darkness of our troubled times?

Tony Jacobs-Brown



Portrait of Michael Faraday (see 'Correspondence', page 39).

BOOKS IN ENGLISH

The Norse Stories and their Significance by Roy Wilkinson.
The Robinswood Press 62pp sh £4.95.

Roy Wilkinson will already be familiar to most Waldorf Teachers in the English speaking world as a provider of practical advice and teaching material in the class teacher years.

In this booklet, one of the key-note experiences of the Class 4 child (the Norse Legends) is presented in compact but comprehensive form as study material for the class teacher or "interested party". Many a class teacher is likely to be grateful for this work, for the Norse Legends in their exuberant vitality unfold in a profusion of names, relationships and events which are, like the snake patterns on the keel of the Oseberg viking ship, at once fascinating and daunting.

Anyone working with these legends could profit from this booklet as a means of quickly calling to mind the adventures of the one-eyed Odin, wise leader of the gods, and his hot-blooded companion Thor as they grapple with the ever-unfolding mischief wrought by the cunning and treacherous Loki, leading to the powerful apocalyptic vision of Ragnarok which still strikes so stirring a note to the modern reader.

The summary accounts of each story are accompanied by Roy Wilkinson's interpretations of the symbolism which bear the mark of his years of work in anthroposophy and teaching in Steiner schools and will be stimulating and helpful to the reader who uses them as a haven for his own work — equally important — on the Legends. There is also a very helpful glossary of names noting the characteristics and tasks of the teeming cast of unpronounceables.

It ought perhaps to be emphasised that this booklet is at its best when used as a study aid and readers would do well to pursue the fuller accounts recommended in the select bibliography, notably Kevin Crossley-Hollands 'The Norse Myths' — one might also perhaps mention H. R. E. Davidson's 'Scandinavian Mythology' published by Hamlyn as a useful source of background knowledge and illustration.

Wilkinson is sure to find an appreciative audience.

W. B. Forward

When The Green Woods Laugh. Songs by Merwin Lewis.
Published by the 'Association for Waldorf Education in London, Ontario'. 28pp sh.

This publication is an enterprising and welcome contribution from the Waldorf Movement in Canada. It is a slim volume consisting of 16 songs and rounds, educationally accommodating in that accompaniments are often optional and many voices are within recorder range. The two-part setting of Blake's *Laughing Song* is a real 'winner'; the three-part setting of Eleanor Farjeon's *Shadows* is an ideal type for the moment when the boys' voices begin to break: the baritone part moves comparatively seldom and is often doubling the alto. The composer has given Eileen Hutchins' *Sir Gawaine and the Loathly Lady* a splendid strain of modal melody — very important for the stage between the pentatonic-like songs for the earlier classes (to which Susan Smith aptly refers in her *Introduction*) and the later diatonic diet. The overall impression is of a style in which the composer has opted for unadorned single-note-per-syllable settings rather than smooth counterpoint. The presentation includes a pleasing cover and clear musical notation, with texts in italics, all executed by Julian Mulock.

On the occasion when he was the Guest Speaker at the conference in Stratford on Avon, Rudolf Steiner was emphatic about drama being unsuitable for the pre-adolescent. The implications of this make a study in themselves. Yet there is a great deal of educational value in the learning and performing of school plays written for younger children. Pelham Moffat (who died in 1976), in his plays for 7-14 year-olds, provided much valuable material in this connection. The texts of these plays were first made available 23 years ago by The Edinburgh Rudolf Steiner School Trust. The present re-print will be welcomed as a useful and well-trying teaching resource. The publishers have wisely given it a "solid" cover: it is not a volume which is likely to gather dust — unless it be the chalk dust of a busy classroom!

How Nature Works — Regenerating Kinship with Planet Earth by Michael J Cohen. Stillpoint Publishing 265pp sb.

This is a volume of enthusiasm, packed to overflowing. The book has a hard-driving steam-hammer theme of human alienation from the living world, dressed as a long series of vignettes. Not for this author the careful development of argument, stepwise progression in logic, or clinical understatement: instead, cascades of appropriate, illustrative, stories; splendidly tendentious juxtapositions; acrobatic skips and jumps amongst scientific data, all drawn together with deep feelings for his life's work. I loved the story of his hike up primordial Davis Gulch and his meeting with . . . No, I can't spoil it . . . read it yourself.

The last third of the book has a faster, surer tempo once the author's idea of "tropic-makers" is deftly introduced. Tropic-making: the re-creation of an idyllic tropical ancestral environment, converting the temperate world into an artificial tropic of "inside living" in houses, offices, cars, trains, aircraft, schools, shops, shopping arcades, cinemas, pubs, concert halls, theatre. It's true: we are hardly ever outside, let alone aware of the natural world. We have civilised it, tamed it, nature-trailed it, White-Cliffs-of-Dover-drive-in-heritage-centred it, theme-parked it, exploited it and polluted it nearly to death.

"As we excessively attack natural systems to create the likes of the tropics, we also excessively attack the nature within us."

Have a look at a large scale map of Western Europe. Countries have been reduced to conurbations and paddocks surrounded by motorways. Britain and the (former) Eastern bloc countries don't look quite the same. We, on this island, wouldn't want it, would we? We will get it though: A1-M1 link; Channel Tunnel to Southampton motorway via the Weald, Tunbridge Wells, Michael Hall, Ashdown Forest, Crawley and probably through the most beautiful part of Southern England from Billingshurst to Winchester, through the Meon Valley.

Why on Earth do we do this? Read the book: there is an answer in there, and a view of a way forward.

D. L. Cram



A visually handicapped child.

To A Different Drumbeat — a practical guide to parenting children with special needs by P. Clarke, H. Kofsky, J. Lauroul. Hawthorn Press. 224pp.

Most of us embark on parenthood with great hopes but little experience; most of us probably find it the most challenging task we have ever undertaken, and that the moments of joy, frustration, delight, pain that we experience with or on behalf of our children slowly change us as adults.

For the parents of handicapped children all these experiences are magnified many times over. As one of the mothers who contributes to this fine book writes: "One is asked to take a challenging and twisting path which scales the peaks of happiness and plunges to valleys of darkness and desperation."

Here are parents who have walked through the valleys of devastating grief, anger, guilt and despair and have come through to the point where they can speak of their experience with a truth and humility that must be a lesson to any of us and offer a real lifeline to any who are learning anew to live with a handicapped child. Not that any of these parents give the impression that all is easy — they admit still to feeling grief and pain, to being caught up in the endless problems, frustrations and sheer physical hard work of daily life, yet one knows that in and through all this they have come to a kind of acceptance, an inner courage and strength, a recognition that beyond all the handicaps (and these children have many) are unique and special beings who have much to teach us.

Each of these mothers writes movingly of how she came to this point — of her reactions at the first discovery of handicap, of the inevitable grief and questioning, of people and conversations that helped and others that did not, of the effect upon their marriages and their friendships. But above all, each points to the children themselves as the real teachers. Each has learned through entering the world of their particular children. They have learned to separate their own expectations and needs from the very different ones of their children and to see the gifts that each individual and special child brings.

This is a book from which faith, hope and love shine out. But it is also a book of sound practical advice. Here are suggestions from personal experience on how to care for a handicapped baby, on feeding and sleep problems, on coping with deafness and visual problems, on providing music, space, colour and warmth, on caring for the sick child, on how to have time for oneself, on dealing with professionals and much more. Finally it faces with the same honesty the question every parent of a handicapped child must ask: "What happens when he or she grows up, when I am no longer here?"

The entire text is thoroughly readable and photographs and drawings give a personal touch. I hope that this book will find its way to every parent, relative or friend of a handicapped child, and to the teachers, doctors and social workers who work with them; but it is a book which any of us could read with benefit.

Jackie Stedall

The Curriculum of the First Waldorf School, assembled by Caroline Von Heydebrand. Steiner Schools Fellowship Publications, 67pp, pb, £.

Caroline Von Heydebrand's *The Curriculum of the First Waldorf School* has been an important standby for teachers in the English speaking world since 1966. A reprint is now available. One who reads it for the nth time will recognise landscapes that have been familiar for many years. But there are still rock-faces that are unclimbed: 12/13 year-olds being advanced enough to be able to compare the style of Brahms and Beethoven (see page 22); there are indications that could make most schools blush like a ripe strawberry (see page 28 etc. on *gardening*); there are statements that do not always come across in full clarity in classroom practice — all five branches of physics *continue* in Class VII (plus mechanics), is a case in point.

The translator's note reminds us that this curriculum is "not regarded as complete", this being doubly reinforced by the quote from Steiner on the back cover: . . . "each one forgets when he is in the class that a school plan has been drawn up and established."

This, of course, is so that real teaching can take place as one of the highest forms of artistic expression. If we have stuffy ideas about a *Waldorf core curriculum* we need to let some fresh air into our creative minds. Yet — and this is a mystery — one can still go on teaching "Ring-games" in Class III gymnastics, "the four rules in arithmetic within a range of 0-24 . . ." (the footnote on page three has escaped the proof-reader's vigilance), and at the other end of the school "the first elements of differential and integral calculus" and so on, in such a way that the lessons come across in a living and truly educational way. Only then has Waldorf education "arrived": only then is this curriculum plan, a seed to be fertilised in each lesson.

The justly famous "Education Towards Freedom" (Lantern Press) reveals a garden of such cultivated seeds. Maybe there would be room for an edited, well illustrated and hugely expanded version of this invaluable compilation of Caroline Von Heydebrand's, or maybe the world "is not big enough" to contain such a book: after all there are some 500 main-lessons per day (not to mention modern languages, mathematics, eurythmy, crafts and so on) that are taught by Waldorf teachers world-wide.

The Renewal of Education Through the Science of the Spirit: 14 lectures by Rudolf Steiner. Steiner Schools Fellowship Publications.

When the national curriculum dictates what happens in the classroom; and when teacher morale, status and pay are at an all-time low, the re-issue of this book is a welcome reminder that teaching need not be drudgery but can be an absorbing creative art. Rudolf Steiner expected Waldorf teachers to be artists, and showed them how. Surely it must fire enthusiasm to be regarded as an artist — one who can creatively transform a subject so that it becomes a joyful, lively and energising experience for teacher and child?

In the introductory lecture Rudolf Steiner points out that in spite of the excellent educational theories of his time, anti-social behaviour was growing. Today the trend has not changed, and seems unlikely to do so when state education is geared to the needs of the market place. Steiner was convinced, as the book shows, that an education founded on the insights of Spiritual Science could re-vitalise teaching by leading it away from materialistic attitudes and towards methods based on knowledge of the child as a being of body, soul and spirit. "Any principle is justified only if it can be applied in practice," he says in lecture 1, and goes ahead to describe in detail how that practice might be achieved in Waldorf schools.

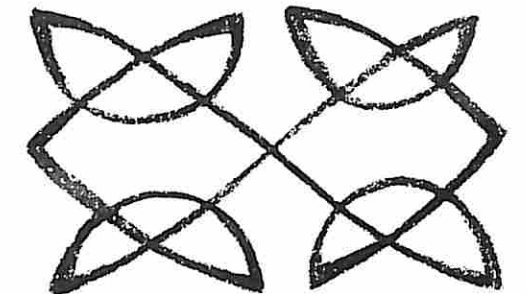
The first 4 lectures deal mostly with basic concepts of the Anthroposophical view of the human being and their application to education. The remaining lectures discuss the presentation at various ages of a range of subjects such as language, drawing, history and geography, as well as related but more general topics such as rhythm (lecture 2) and the uses of synthesis and analysis (lecture 10).

Some topics, such as the polarity of humour and seriousness in lecture 7, and music in lecture 11 seem particularly fresh and stimulating. Entirely modern and green in intention is the recommendation that, in introducing botany, the plant should be related to the zones of the earth, and to the rhythms of seasons and planets, to clarify the intimate inter-reaction of plant and planet.

This is an excellent translation, but English readers may like to note that the emphasis on dialect in lectures 6 and 9 is more relevant in Switzerland than in England, and the remarks on spelling in lecture 11 are applicable to German, but would be an over-simplification if applied to English.

Steiner was reluctant to allow his unrevised lectures to be published. Perhaps the time has come to edit future editions of the education lectures, especially the English translations, so that minor irrelevancies or problems of style do not obscure — especially for newcomers — the timeless, essential value of what Steiner offers.

Rosemary Gebert

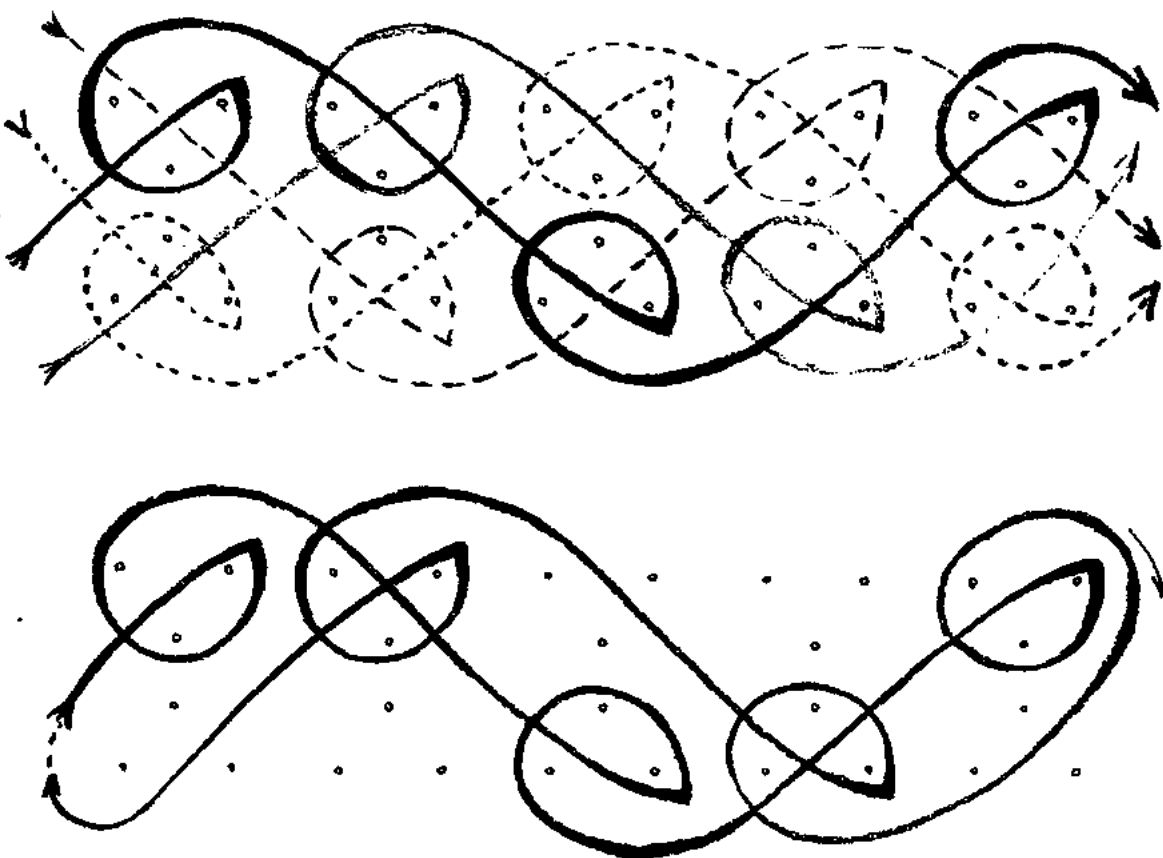


A form-drawing derived from four semi-circles.

The designs on ancient Greek vases, made in centuries following the Doric conquest, display a wealth of geometric form. Indeed the pre-Homeric age is referred to as *proto-geometric*. Gradually figures appear, painted onto the vases by the potters, hinting at a world of realism. Even when the designs blossom into the unsurpassed art of Classical Greece, the subjects painted abound with scenes from the heroic epics and the lives of the Greek Gods. A consciousness is thus revealed which in *content* takes the divine world as part of everyday experience but which in *form* makes a transition from the world of geometric patterns to that of the vigorous forms of the human physical body that are associated with the Greek vases.

But that world which ancient Greek consciousness was able to embrace is lost to the modern mind. Not irretrievably however. Kurtz shows how, by engaging with paper and pencil (or other materials) and through the drawing of patterns/forms, an awakening into lost worlds can be brought about anew.

Hawthorn Press have maintained the high standard of production, achieved in Workbook I, in this second volume in the series. It is well translated. The text takes the drawer/reader through a variety of approaches in which cultures far apart in distance and time can be experienced en route. In the latter part of the book there are stimulating notes on a curriculum of form drawing in Waldorf education and on the use of it in anthroposophical curative education.



Exercise based on the Callixtus knot, of 8th century derivation.

The "Write" Approach Books 1 & 2 by Joen Gladich and Paula Sassi. Published by Handwriting Consultants International, 11481 Caminito Garcia, San Diego, CA 92131, USA.

The goals in these Manuals are:

1. To reach the artistic experience of writing.
2. To lead towards an experience of painting the letters.
3. To reduce tension, create a rhythmic flow and produce writing which is pleasing to the eye.

Much helpful advice is given towards achieving these goals, beginning with one or two fundamentals which are often completely overlooked: e.g. the importance of the height of the desk and seat to the size of the individual child, so that he/she can enjoy sitting comfortably and correctly from the first moment; and the fact that the proper pencil grip is established from the very beginning.

Manual 2 advocates the teaching of cursive writing first instead of printing as there is much more rhythm and flow when the letters are connected; this all aids the release of tension in the child. A few introductory exercises are given and the child is encouraged to be thoroughly active in walking, skipping and running the shapes of the letters before writing them.

The use of these Manuals by teachers and parents could work wonders in that not only will children develop legible and beautiful writing, but teachers and parents, too, might find that their own writing has become transformed for the better!

Irene Ellis

BOOKS IN GERMAN

Der Christus ist der Geist der Erde by Gerhard Wehr (The Christ impulse and the idea of 'Man' in Anthroposophy and in Waldorf Education) Verlag die Pforte. 37pp sh.

Anyone concerned with education, and especially in view of the recent attempts in the UK at a National Curriculum, will be interested in this extremely slim volume which was actually Wehr's manuscript for a radio programme (27/9/89). In his foreword, Wehr, a lecturer at the theological college Rummelsberg near Nuremberg, writes: "It is evident from the echo coming from listeners that many among them were parents of Waldorf School pupils who had become uncertain through misleading publicity (aimed at the schools) by church circles. More and more searching people, disappointed by the churches of the various denominations have turned to anthroposophy with a question like the following: 'How can I come to a deeper understanding of Christ which is based on true insight and will lead me to a corresponding way of life?' The following excursion intends to be an undogmatic initial answer."

The author fulfils this promise in an admirably succinct way by leading the reader stage by stage to the centrally moving idea and experience in Rudolf Steiner's life and therefore in what he is able to bring forth in anthroposophy: Christ's deed on Golgotha, His death and resurrection as the decisive event for mankind and the earth, as the 'turning point of evolution'. From there Wehr proceeds to show that Waldorf education, one of the daughter movements of anthroposophy, is at present the only truly holistic education because of the way in which its method and curriculum from the arts through to the science subjects are informed by this non-denominational picture of Christ as the archetype for humanity, which can be found in every human soul, and as the cosmic spirit of the earth.

Karla Kiniger

Das Aethrische by Ernst Marti. Verlag die Pforte 177pp hb.

Despite its origin, the word 'etheric' has often come to be regarded as a piece of anthroposophical jargon and is, for some people, a stumbling-block. It therefore behoves those who want to refer to the etheric world, in one way or another, to find a language that can speak directly, that can awaken *experience* rather than mere concept, and that can help find a point of departure for the discovery of this world.

Ernst Marti's book is a contribution towards this: in it he puts forward some of his life-long research, gathered together in the last decades of his life. His matter-of-fact language is already encouraging for those wishing to set out on this path of discovery, a path that meanders through several worlds: the world of the elements, the realm of life, mythological consciousness, the plant world, the working of water and all that is fluid, projective geometry (negative space), gravity and its counterforce levity, potentiation in medicine (the principle used in homeopathy and anthroposophical medicine), rhythm and much more besides. The author's manifold approach, the abundance of stimulating diagrams and his literary style all contribute to making the subject more accessible. In the second section of the book, the etherial blue of the dome of heaven is referred to (finding, incidentally, an echo in the linen binding) inspiring a passage which touches the grandeur of the 'Logos' itself (page 106).

Erziehen und Heilen durch Musik by Gerhard Beihart. Verlage Freies Geistesleben. 334pp hb DM58

In our present times, teachers are seeking lesson-resources that are not arbitrary and that are not merely aimed at the level of entertainment. In this respect, music teachers will find much food for thought in this collection. In it, 17 authors write on the educational-therapeutic value of music from various Anthroposophical viewpoints. These include detailed descriptions of exercises for individual children with musical examples, the therapeutic use of tone eurythmy, the creation and use of new musical instruments, the problem of electronic music, an essay on music through the 12 years of schooling and much more besides. The reader will find many points of interest whether at the level of music and its relevance for everyday life, music in school or the therapeutic application of music.

Der Plumpsack geht um! by Rudolf Kishnick and Wil van Haren. 300pp hb DM39 Verlag Freies Geistesleben

One of the most inspiring books written on Waldorf Education is entitled, 'The Recovery of Man in Childhood' by Harwood (who was a member of the first group of teachers who established the education in the English speaking world). The title assumes increasing significance as our escalating technological age ostracises childhood with greater and greater intensity. The present anthology in which the authors describe some 300 children's games is therefore a godsend to those who take seriously the value of movement and social feeling in Childhood. (The ages range from Kindergarten to 13 years.) Music, diagrams, drawings and authors' comments are included, and the publisher has had the foresight to give a binding that will stand up to stern treatment. It doesn't take much to trigger off a child's instinctive impulse to play. It is to be hoped that the right games will once again find something of the pride of place in children's lives that were once accorded them.

Illusion and Manipulation Die Wirkung von Film und Fernsehen auf Individuum und Gesellschaft by Karl Buddemeier Urachlaus 292pp

Karl Buddemeier is professor of Media and visual Communication Studies at the University of Bremen.

In this volume he combines professional knowledge with his anthroposophically gained insights in a detailed investigation aimed at bringing to consciousness the techniques and effects of the Media.

He begins with an historical survey of the development of the Media, showing that it is due to changes in Man's inner life, his whole turn away from the spiritual world (not industrialisation), which has led to the need for new forms of entertainment and distraction.

He shows how this craving has led to the perfection of the production of illusion from the Camera Obscura, via Panoramae, Diorama through to Film and TV.

He includes detailed analysis of several films: the development of newspapers and newscasts; the appearance in 1969, the make up and the justification of Sesame Street at a time when it was still recognised officially that children under 7 should not be exposed to film and TV.

Each development is approached thoroughly and explicitly with:

- (a) Investigation of technological aspects.
- (b) Phenomenological studies of the effects on Man as a physiological, emotional and thinking being.
- (c) The immediate and long term effects on the individual and the cultural-social Sphere.

An example: in a film we are presented with 24 pictures per second, therefore illumination time per second = 24/50 and the remaining 26/50 are spent in darkness during film transportation. If one follows this through it means that in a film of 90 minutes duration 46.8 minutes are spent in darkness.

That we are uncounscious of the above is due to the eye being able to retain an after-image for up to 1/16 sec. Whilst viewing, eye-muscle activity is reduced to nil (well known to ophthalmic surgeons), and the conscious understanding of what is being viewed is also dulled by the very speed by which the viewer is swept from one impression to the next.

He is unable to relate the present to the past and future as is usual in daily life.

In a film a real life action of 30 minutes can be portrayed in less than a minute and during this time the viewer has constantly to readjust emotionally in order to accommodate what he is seeing. This can only lead to a deadening of the life of feeling.

Physiologically we are compelled to unite the passing of picture fragments because of the after-image. Emotionally our need to synthesise sense impression compels us to make a unified whole of unrelated pictures placed on the screen, i.e. those of a house on fire, a sleeping child, a racing fire-engine.

Thinking does not need to be exerted because the film is constructed to provide indications for the understanding of an action before it is portrayed.

In real life we have the possibility of illuminating our feelings with thought, whereas in a film, thinking and willing are both weakened and we are swept from one impression to the next on a wave of intensely provoked feelings without respite. Aesthetic judgement is thus hampered. We are in a world of trance and Duddermeier explores the relationship of this state with hypnosis, touching also post hypnotic suggestion.

Daily weakening of the soul forces can only result in increasing apathy — emotional problems can be pushed aside; world events can be accepted without any effort to penetrate with thinking what is happening.

At the end of the book he enters thoroughly into an investigation of the shadow play (also practised in Java) and its development through the Laterna Magica to the modern Media.

He then discusses, from a spiritual-scientific point of view, the development of materialism and the role played by information in pictures.

By doing so he enables the reader to attain clarity and the insights necessary to deal rightly with what confronts us in the Media, and to which we are so susceptible.

In all it is a stimulating, comprehensive, well-presented book which would be of great value to everyone and especially parents and teachers of Lower and Upper School children.

It can also give confidence born of knowledge in the difficult struggle undertaken by parents who do not want TV for their children.

Rosemary Newman



The root, the gnome and the 'spark of life'.

Zwerg Wurzelfein by Jakob Streit illustrated by Georges Feldmann, Urachhaus, 30pp hb DM 22.

Wurzelfein is the gnome who features in each of these seven short stories. His conversations with the tree-spirits amongst the falling leaves, with the elves who dance in the moonlight, the cheeky blue-tit, the hazel-bush root and with other nature beings make audible, one might say, the pulse of nature's heart. Through his economy of language and the evocative and colourful vocabulary that he has at his finger tips, Jakob Streit brings the intimacy of nature and the workings of her seasonal life into full clarity. These are ideal stories for children, prior to the 'nature stories' which start in Class 1.

Each picture (12 in all including the front cover) has a page to itself, space for the glowing watercolours, so well reproduced, to breathe and bring to birth a wealth of form.

Schau in die Welt. A German Reader for Waldorf Schools edited by Peter Guttenhofer, Freies Geistesleben 143pp 8 coloured pictures hb DM 26.

The present new edition of *Schau in die Welt* is a happy reminder of the book's availability. The four sections of the anthology (concerning the elements, human beings and their work, animal, plant and stone, and the cycle of the year) afford ample scope for a rich and varied collection of stories, legends, verses, riddles, poems and sayings. Some of the type-face reflects the reader's use as being primarily for Classes 2 and 3 in the mother tongue when the need is greatest for such a book. The content, however, includes plenty that is ideal for a first reader in German as a foreign language. The production is excellent and, with the various indices, extremely practical, with an inspiring smattering of coloured pictures, reproduced from paintings from Classes 4 to 7.

Correspondence

Francis Edmunds (30/3/02 to 13/11/89) was known across the world as a teacher-trainer. He was a leading figure in Waldorf education, particularly in North America at the time when Waldorf education began to expand there in the 60s and 70s. The following letter of full-hearted appreciation not only speaks for many: it also gives an unusual glimpse into his manner within the classroom itself.

Mr Edmunds' last contribution to *Child and Man* — he was a rare specialist in spontaneity — was to the issue entitled *Waldorf Education: Is it New?* His article on the main theme testified to his life-long concern that education should be formed from the deepest fount of the teacher's own resources. This carries, ipso facto, much *personal* responsibility: it is not necessarily the 'safe' way. [Ed]



Mountain Meadow Country School, Calpella, California

Dear Editor,

Francis Edmunds last taught a main lesson to a lower school class to my eighth grade in the spring of 1983, at the age of eighty one. It was toward the end of his last California tour, and he was visiting Mountain Meadow, the rural Waldorf school in northern California's beautiful Mendocino County.

I had prepared this last block for this first graduating class of our school carefully. I had located a real skeleton for our physiology block and was excited to show it to them. I remember bringing Mr Edmunds into my classroom that first morning through the office. There I proudly displayed my skeleton. He looked horrified! He hid his face in his hands and said, "Cover that up quickly! What if the children see it; they will think that's what a human being is!"

I was used to watching Mr Edmunds emote: he directed the Shakespeare play I acted in while a student at Emerson. He had this uncanny ability to facially reflect what he internalized from observing acting. I can still see his face as he watched me playing Launcelot Gobbo, vacillating between the devil and my conscience. His face exhibited the actual indecisiveness much more than my acting did!

Francis Edmunds was a passionate man, and he was courageous enough to express his feelings, despite his English heritage. These were always great lessons for me, and I was in no position to stop learning when he expressed disgust at my skeleton.

He had agreed to deliver the first lesson that morning. My class somehow knew they were with someone special. Respectfulness permeated the air as we all anticipated this

lesson. Mr Edmunds began by drawing the Earth as a globe with an oversized human being standing on it, reaching out into space. He then told how we all began life on earth as helpless creatures, every one of us. He continued by describing a picture of threefold man, in a manner perfectly appropriate for my eighth grade. He told this story as though it had the greatest meaning for his life and for ours. My pupils were visibly moved, as was I.

I returned the next morning with a completely refurbished plan for this main lesson block. I was thoroughly inspired by the previous morning, and by that evening's preparation: I was to begin anew, continuing where Mr Edmunds left off.

I was so excited about continuing the story of threefold man! My class arrived that morning enthusiastic about the main lesson; they hardly noticed Mr Edmunds sitting in the back. After I presented what I thought was a well-executed lesson, full of important content, I approached Mr Edmunds to get feedback. Not a word about my "lesson" did he speak; nothing about the content nor about the form. With tears in his eyes, he said softly, "You have such a deep connection with those children".

Francis Edmunds did not try to instruct; he was so imbued with life, so filled with love, that teaching happened in his presence. I feel blessed to have known him.

His spirit continues to inspire me.

Rainbow Rosenbloom

Ardochart, Pitlochry
Scotland

Dear Editor,

We were very excited to receive the brochure about the Michael Faraday City Technology College before Christmas. Partly because it would be such a marvellous breakthrough for Steiner Education in this country and partly because Michael Faraday was a great, great, great grand-uncle to both my husband and me (we are second-cousins!). Our three boys attended the Rudolf Steiner School of Edinburgh and Michael Hall.

This photo (see p.33) was copied from a very impressive pen and ink drawing of Faraday. He died in 1867 so the photo must have been taken around the time of Steiner's birth.

Faraday grew up in the *Glasisite Church*, founded by John Glas, a branch of the Church of Scotland. The Church did not believe in having a paid clergy but laymen took the services. The members were very devoted and did not hold with life insurance etc. They gave a lot of their income to the poor and needy. The Glasite Church (or the Sandemarian Church as it was sometimes called) spread throughout Britain and even to America but it gradually died out this century due to its turning inward away from the world. I myself grew up in the Edinburgh Church which is the last one and which actually had its last service in the original church building on Sunday 19th November 1989. The very few members who are left (about five, all of whom are elderly — my mother is one and she is 79) still gather each Sunday morning in the one remaining elder's house.

Faraday was a very committed member of the Church and derived many of his upright, moral beliefs from it. It seems rather symbolic that, just as the Church which gave him his beliefs should 'die', a college named after him should be proposed!

Patricia A. Chisholm

World List of Waldorf (Rudolf Steiner) Schools

ARGENTINA

Buenos Aires Colegio Incorporado "Paula Alfaro de Sarmiento" Rudolf Steiner Schule, Warnes 1557, 1602 Florida, Peta de Buenos Aires
Buenos Aires Escuela San Miguel Arcángel, José María Moreno 1221, 1607 Villa Adelina Buenos Aires

AUSTRALIA

Association of Rudolf Steiner Schools in Australia, Box 82, PO Round Corner Durai 2158, Participants in Association

Bangalow Cape Byron Rudolf Steiner School, P.O. Box 41, Bangalow N.S.W. 2479

Bowral Eukarima School, Centennial Road, Bowral, N.S.W. 2576

Hazelbrook Blue Mountains Waldorf School, 77 Clearview Parade, Hazelbrook

Manuka Orana School for Rudolf Steiner Education, P.O. Box 492, Manuka Act 2603

Maitland Linwood School for Rudolf Steiner Education, 133 Murphree Road, East Maitland, N.S.W. 2323

Melbourne Melbourne Rudolf Steiner School, 213 Wonga Road, Warranwood, Vic. 3134

Mount Barker Waldorf School for Rudolf Steiner Education, Sims Road, Mount Barker S.A. 5251

Perth Perth Waldorf School, P.O. Box 49, Hamilton Hill, WA 6163

Sydney Glenauw School, 5a Glenlynn Ave., Middle Cove, N.S.W. 2068

Sydney Lorien Novalis School for Rudolf Steiner Education Ltd., 456 Old Northern Road, Durai, N.S.W. 2158

Sydney Lorien Novalis College of Teacher Education, address as above

Thora Chrysalis School for Rudolf Steiner Education, Darkwood Road, Thora, N.S.W. 2492

Yarramundi Aurora-Meander School for Rudolf Steiner Education, Lot 1 Mountain Ave., Yarramundi, N.S.W. 2753

AUSTRIA

Graz Freie Waldorfschule, St. Peter Hauptstraße 182, A-8042 Graz

Innsbruck Freie Waldorfschule Innsbruck, Grafmayerstraße 23, A-6020 Innsbruck

Klagenfurt Rudolf Steiner Schule Klagenfurt, Wilsonstraße 11, A-9020 Klagenfurt

Linz Freie Waldorfschule, Baumbachstraße 11, A-4020 Linz

Salzburg Rudolf Steiner Schule, Bayerhamerstraße 35, A-5020 Salzburg

Wien-Mauer Rudolf Steiner Schule, Endresstraße 100, A-1238 Wien 23

Wien-Pöchlarn Rudolf Steiner Schule, Geymüllergasse 1, A-1180 Wien

BELGIUM

Aalst Michaeli, Herishage 39, 9300 Aalst

Antwerpen De Harelare, Lange Lovenstraat 117, 2018 Antwerpen

Antwerpen Rudolf Steiner School, Transvaalstraat 21 & Prins Albertes 19, 2000 Berchem

Antwerpen Hibernia Rodestraat 33 & Keizerstraat 62, 2000 Antwerpen

Brasschaat Boskapelle 50, 2130 Mariaburg-Brasschaat

Brugge Guido Gezelle School, Hoogstraat 28, 8000 Brugge

Bruxelles (Watermaal-Bosvoorde) Ecole Rudolf Steiner, Avenue Van Bevelaere 96, 1170 Bruxelles

Eupen Waldorfschule, Neudorferstrasse 73, 4730 Eupen

Gent Vrije Rudolf Steiner School, Kasteelaan 54, 9000 Gent

Hasselt Rudolf Steiner School, Luikersteenweg 49, 3500 Hasselt

Leuven De Zonnevrijer, Weidagheidsstraat 74, 3000 Leuven

Lier De Sterredauiders, Matlekstraat 41, 2500 Lier

Turnhout Michaelschool, Steenweg op Oosthoven 27a, 2300 Turnhout

Wilrijk/Antwerpen Rudolf Steiner School Lohangrin, Boomssteenweg 94, 2610 Wilrijk

BRAZIL

Sao Paulo Escola Rudolf Steiner de Sao Paulo, Caixa postal 21 108, CEP 04698 Sao Paulo, Rua Job Lane 900, CEP 04639, Sao Paulo/Brasil

Sao Paulo Colégio Micael, Rua Pocho Alexandrino Soares 68, Jardim Boa Vista (Butantã), 05584 Sao Paulo/Brasil

CANADA

Member of Association of Waldorf Schools of North America

ALBERTA

Calgary Calgary Waldorf School K-6, 1915-36th Ave. S.W., Calgary, AB T2T 2G6

Edmonton Aurora Rudolf Steiner School, 6931-85th Street, Edmonton, AB T6C 3A6

BRITISH COLUMBIA

Duncan Sunrise School, K-7, R.R.2, Duncan, B.C. V9L 1N9

Kaslo Sophia (Waldorf) School, P.O. Box 1270, Kaslo, B.C. V0G 1M0

Kelowna Waldorf School K-6, Box 93, 429 Collier Road, Okanagan Mission, B.C. V0H 1S0

Nelson Nelson Waldorf School K-8, Box 165, Nelson, B.C. V1L 5P9

*Vancouver Vancouver Waldorf School K-12 2725 St. Christophers Road, North Vancouver, B.C. V7K 2B6

Victoria Victoria Waldorf School, 1216 Oxford Street, Victoria, B.C. V8V 2V5

ONTARIO

Cambellville Halton Waldorf School, K-6, 83 Cambellville Rd.E., P.O. Box 184, Cambellville, ONT. L0P 1B0

Kitchener/Waterloo Waldorf Education Interest Group, Contact: Donna Huston 519-884-3192, Kitchener/Waterloo

London, Ont. London Waldorf School K-8, 1697 Trafalgar Street, London, Ontario N5W 1X2

Ottawa Onawa Waldorf School K-8, 290 Nepean Street, Ottawa, Ontario, K1R 5G3

*Toronto Toronto Waldorf School K-12, 9100 Bathurst Street, Box 220 Thornhill, Ontario L3T 3N3

QUEBEC

*Montreal Ecole Rudolf Steiner de Montreal, K-8, 12050 Avenue de Bois de Boulogne, Montreal, P.Q. H2M 2X9

CHILE

Santiago Colegio Rudolf Steiner Jose Tomas Rider 1654 Providencia, Santiago-Chile

Santiago Colegio Rudolf Steiner, Barrio 1953, Providencia, Nunoa, Santiago-Chile

COLOMBIA

Cali Colegio "Luis Horacio Gómez", Carrera 55 No. 11-19 Barrio Santa Anita, Cali

Medellin Colegio Isolda Echavarría, Lte. de Func. No. 000841 de 1985, Medellín

DENMARK

Ålborg Rudolf Steiner Skolen, Tenhøjvej 14, 9220 Ålborg

Aarhus Aarhus Steiner-Skolen i Aarhus Strandvejen 102, 8000 Aarhus C

Aarhus Aarhus Rudolf Steiner-Vestskolen, Helmsingårdvej 32, 8210 Aarhus V

Allerød Rudolf Steiner Skolen i Allerød, Lyngvej 202, 3450 Allerød

Copenhagen Rudolf Steiner-Skolen i Hjørtenspring, Stokholthøjen 26, 2730 Herlev

Copenhagen Vidar Skolen, Brogaardsvej 61, 2820 Gentofte

Fredericia Rudolf Steiner Skolen, Kolding Landevej 7, 7000 Fredericia

Hjærring Rudolf Steiner Skolen, Vester Thorupvej 30, 9600 Hjørring

Kvistgård Rudolf Steiner Skolen, Kvistgård Stationsvej 2A-B, 3490 Kvistgård

Merløse Rudolf Steiner Skolen, Bagmarken 58, 4370 St. Merløse

Odense Odense Steiner-Skolen i Odense, Lindvej 64, 5260 Odense S

Odense Odense Rudolf Steiner Skolen på Blankstedsgård, Blankstedsgårdsvej 133, 5220 Odense SO

Risskov Rudolf Steiner-Skolen i Vejby-Risskov, Skøjtevej 1, 8240 Risskov

Silkeborg Rudolf Steiner-Skolen, Stavangervej 3, 8500 Silkeborg

Skanderborg Rudolf Steiner-Skolen Skanderborg, Grønnedalsvej 10, 8660 Skanderborg

Vejle Johannesskolen, Rudolf Steiner-Skolen i Vejle, Sukkertoppen 4, 7100 Vejle

Vordingborg Rudolf Steiner-Skolen, Ørevvej 2, 4760 Vordingborg

ECUADOR

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FINLAND

Föreningen för Steinerpedagogik ry, Lehtikuusentie 6 Lärkärdsvägen, SF-00270 Helsinki 27

Helsinki Helsingin Rudolf Steiner koulu-Rudolf Steiner skolan i Helsingfors, Lehtikuusentie 6 Lärkärdsvägen, SF-00270 Helsinki/Helsingfors 27

Helsinki Helsingin Seudun uusi Steiner-koulu, Paraistenkatu 3, 00280, Helsinki

Jyväskylä Jyväskylän Rudolf Steiner-koulu, Vapaudenkatu 54, 2. krs., 40100 Jyväskylä (941) 244 249

Karjalohja Karjalohjan vapaa kyläkoulu, Lehtilampi, 09220 Sammatti

Lahti Lahden Rudolf Steiner-koulu, Tuivontie 3, SF-15900 Lahti 90

Oulu Oulun Rudolf Steiner-koulu, Kauppuaseman, 90250 Oulu 25

Tampere Tampereen Rudolf Steiner-koulu, Saksunkankatu 13, SF-33100 Tampere 10

Turku Turku Rudolf Steiner-koulu, Mestarininkatu 2, SF-20810 Turku 81

Vantaa Vantaan Rudolf Steiner-koulu, Migundinkuja 01510 Vantaa 37

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Chatou near Paris Ecole Perceval, 5 Avenue d'Empresnail, 78400 Chatou

Colmar Ecole Mathias Grünewald, 4 rue Herzog, Logelbach-Wintzenheim, 68000 Colmar

Labolssière Ecole Internat Rudolf Steiner, Labolssière-en-Thelle, 60570 Andeville

Pau L'eu Vive 4 Avenue Edouard VII, 64000 Pau

Saint Genis Laval Ecole Rudolf Steiner, 5 Chemin de Sanzy, 69230 Saint Genis Laval (Lyon)

Spint-Memoux Ecole Rudolf Steiner, Château de la Mothe, 03210 Saint-Memoux

Strasbourg Ecole Rudolf Steiner, 2 Chemin Goeb 67000 Strasbourg

Strasbourg Ecole Libre Rudolf Steiner, 67e route des Rumains, 67200 Strasbourg-Koenigshoffen

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Verrières le Buisson Ecole Rudolf Steiner, 62, rue de Paris, Amblains-illies, 91370 Verrières-le-Buisson

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Bad Nauheim Freie Waldorfschule Wetterau, Frankfurter Straße 103, 6350 Bad Nauheim

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Berlin-Dahlem Rudolf Steiner Schule Berlin e.V., Auf dem Grat 3, D-1000 Berlin 33

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Düsseldorf Rudolf Steiner Schule Düsseldorf, Dielenstraße 15, D-4000 Düsseldorf 12

Eckernförde see Rendsburg

Elmhorn see Kiel

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Esslingen Freie Waldorfschule Esslingen, Weilerstraße 90, D-7300 Esslingen

Evinghausen Freie Waldorfschule Evinghausen, D-4550 Brunsche 8 (Evinghausen)

Filderstadt Freie Waldorfschule Aichal-Filderstadt, Schulstr. 13, D-7024 Filderstadt 4 (Plattenhardt)

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Frankfurt Freie Waldorfschule, Friedlebenstraße 52, D-6000 Frankfurt 50 (Eschersheim)

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Freiburg Freie Waldorfschule St. Georgen, Bergstraße 11, D-7800 Freiburg

Gladbeck Freie Waldorfschule Gladbeck, Horsterstraße 82, D-4390 Gladbeck

Göppingen Freie Waldorfschule Filstal, Ahornstraße 41, D-7320 Göppingen-Faundau

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Hamburg-Bergedorf Rudolf Steiner Schule Bergedorf, Am Brink 7, D-2050 Hamburg 80

Hamburg-Bergstedt Rudolf Steiner Schule in den Waldörfern e. V. Hamburg-Bergstedt, Bergstedter Chaussee 203, D-2000 Hamburg 65

Hamburg-Harburg Rudolf Steiner Schule Harburg, Ehestorfer Heuweg 82, D-2104 Hamburg 92

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Kassel Freie Waldorfschule Kassel (einschl. Berufsbildendes Gemeinschaftswerk mit Ausbildung für Facharbeiter und staatl. anerk. Erzieher), Hunrodstraße 17, D-3500 Kassel-Wilhelmshöhe

Kiel Freie Waldorfschule Kiel, Hofholzallee 20, D-2300 Kiel 1

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Mannheim Freie Waldorfschule, Neckarauer Waldweg 131, D-6800 Mannheim 24

Marburg Freie Waldorfschule Marburg, Ockershäuser Allee 14, D-3550 Marburg/Lahn

Mülheim/Ruhr Freie Waldorfschule in Mülheim, Karl-Frost-Straße 13, D-4330 Mülheim/Ruhr 13

München Rudolf Steiner Schule, Leopoldstraße 17, D-8000 München 40

München-Grübenzell Rudolf Steiner Schule München, Schulhaus Grübenzell, Spechtweg 6, D-8038 Grübenzell

München/Daglfing Rudolf Steiner Schule, Zweigschule Daglfing, Max-Probst-Straße 7, D-8000 München 81

Münster Freie Waldorfschule Münster, Laerer Landweg 153-157, D-4440 Münster

Neu-Isenburg Rudolf Steiner Schule Neu-Isenburg, Zeppelinstraße 10, D-6078 Neu-Isenburg

Nürnberg Rudolf Steiner Schule, Steinplattenweg 25, D-8500 Nürnberg

Neuwied Rudolf Steiner Schule Mittelrhein, Freie Waldorfschule in Neuwied, Mittelweg 10, D-5450 Neuwied-Block

Nürtingen Rudolf Steiner Schule, Erlenweg 1, D-7440 Nürtingen

Offenburg Freie Waldorfschule Offenburg, Rheinstraße 3, D-7600 Offenburg

Oldenburg Freie Waldorfschule, Kleinststraße 43, D-2900 Oldenburg

Ottersberg Freie Rudolf Steiner Schule, Am-schot 5, D-3802 Ottersberg 1

Pforzheim Gnettschule - Freie Waldorfschule, Schwarzwaldstraße 66, D-7530 Pforzheim

Remscheid c/o Waldorfschulverein, Bürgerstraße 81, 5630 Remscheid

Rendsburg Freie Waldorfschule, Nobiskrüger Allee 75/77, D-2370 Rendsburg

Rendsburg/Eckernförde Freie Waldorfschule Rendsburg, Zweigschule Eckernförde, Schleswiger Straße 112, D-2330 Eckernförde

Reutlingen Freie Georgenschule, Moltkestraße 29, D-7410 Reutlingen

Saarbrücken Freie Waldorfschule Saarbrücken, Großwaldstraße 2, D-6623 Altenkessel

Schloß Hamborn Rudolf Steiner Schule Land-schulheim Schloß Hamborn, D-4799 Borchers -Schloß Hamborn

Schopfheim Freie Waldorfschule Schopfheim, Steitiner Straße 9, D-7860 Schopfheim

Schwäbisch Gmünd Freie Waldorfschule Schwäbisch Gmünd, Heinrich-Steinle-Weg 1, D-7070 Schwäbisch Gmünd

Schwäbisch Hall Freie Waldorfschule Schwäbisch Hall, Teurerweg 2, D-7170 Schwäbisch Hall

Siegen Rudolf Steiner Schule Siegen, Marienborner Straße 151, D-5900 Siegen 1

Stuttgart Freie Waldorfschule Uhlandschule, Hauptmannstraße 44, D-7000 Stuttgart 1

Stuttgart Freie Waldorfschule am Kräherwald, Rudolf-Steiner-Weg 10, D-7000 Stuttgart 1

Stuttgart Michael Bauer Schule, Freie Waldorfschule mit Förderklassenbereich, Othellostraße 5, 7000 Stuttgart 80

Trier Freie Waldorfschule Trier, Montessorweg 7, D-5500 Trier

Tübingen Tübingen Freie Waldorfschule, Rottmornweg 30, D-7400 Tübingen-Waldhäuser-Ost

Überlingen Freie Waldorfschule am Bodensee, D-7770 Überlingen-Rengoldshausen

Ulm Freie Waldorfschule Ulm und angeschlossene Sonderklassen für Lernbehinderte, Römerstrasse 97, D-7900 Ulm

Villingen-Schwenningen Rudolf Steiner Schule, Schlachseestraße 55, D-7730 VS-Schwenningen

Wahlwies Freie Waldorfschule Wahlwies, D-7768 Stockach 14

Wangen Freie Waldorfschule Wangen, Rudolf-Steiner-Straße 4, D-7988 Wangen i. Allgäu

Wanne-Eickel Hiberniaschule, Holsterhauser Straße 70, Postfach 2849, D-4690 Herne 2

Wattenscheid Widar Schule Wattenscheid, Höntruper Straße 95, 4630 Bachum 6

Wiesbaden Freie Waldorfschule Wiesbaden, Kohnkestraße 43, D-6200 Wiesbaden

Witten Rudolf Steiner Schule Witten, Bitterbecksstraße 2, D-5810 Witten-Heven

Würzburg Freie Wald

LUXEMBOURG
(Grand-Duché) Kindertuin Rue de Treves 154,
 1601S Luxembourg Primarschool Rue Sax,
 Luxembourg Impérisberg

NETHERLANDS

Bond van Vrije Scholen in Nederland Secretariaat
 Hoofdstraat 20, 3972 LA Driebergen
't Hart Upper School Only Kindergarten

Alkmaar Rudolf Steinerschool, Spierwerstraat 1,
 1826 KJ

***Alkmaar** Vrije School Bovenbouw, Luidelsweg
 20A, Postbus 222, 1860 AE BERGEN

Amelo Vrije School Amelo, Biesderweg 6, 7608
 RN

Amere Vrije School, Heerlenstraat 33A, 1324 MC
Alphen A.D. Rijn Vrije School, Loothof 90,
 Postbus 165, 2400 AD

Amersfoort Vrije School, Romeostraat 74, 3816
 SE

Amstelveen Percivalschool, Lindendlaan 317, 1185
 LM

***Amsterdam** Geert Groteschool, Hygieaplein 47,
 1076 RS

Apeldoorn Vrije School, Mornstraat 8, 7312 KC
Arnhem Percivalschool, Woudrichemstraat 141,
 Postbus 30093, 6803 AB

Assen Vrije School, Carsnumstraat 2, 9404 RV
***Bergen** Vrije School, Prins Hendriklaan 58, 1882
 EI

Bergen Vrije School Bovenbouw, van de Veldelaan
 179, 1860 AE Bergen

Bilthoven Rudolf Steinerschool, Weltevreden 6,
 Postbus 332, 3720 AH

Den Bosch Rudolf Steinerschool, Waalstraat 30,
 5218 CK

***Boxmeer** Vrije School, Jeroen Boschstraat 49,
 5831 VV

Breda Rudolf Steinerschool, Minckelersstraat 27,
 4816 AD

Bussum Vrije School Michael, Esther de Boer van
 Rijklaan 22, 1403 GD

Delft Vrije School, De Meesterstraat 2, 2613 XB
Deventer Vrije School, Houtmarkt 6, 7411 CG

Dordrecht Vrije School, Wijnstraat 119, 3311 BV
***Driebergen** Vrije School, Fauwlaan 250, Postbus
 207, 3970 AE

Ede Vrije School, Nachtegaallaan 47A-49, Postbus
 40, 6710 BA

***Eindhoven** Vrije School Brabant, Woenselse-
 straat 316, Postbus 1073, 5602 BB

Eindhoven-Zuid Vrije School, Hadewychlaan 3,
 5643 RT

Emmen De Vrije School Michael, Prinselaan 80,
 7822 CJ Emmen

Gouda Vrije School, Ridder v. Catsweg 256A, 2805
 BC

***Groningen** De Vrije School Bovenbouw,
 Wassenberglaan 26, 9718 L L

***Den Haag** Vrije School, Waalsdorperweg 12,
 2597 JB

Den Helder Vrije School, Reggestraat 38, 1784
 AX, 02230-35755

***Haarlem** Rudolf Steinerschool, Engelandlaan 2,
 2034 NA

Harlem-Noord Vrije School Kennemerland,
 Weltevredenstraat 9, Postbus 2161, 2002 CD

Harderwijk de Valentijnschool, De Ruiterlaan
 19, Steynlaan 122, 3851 BV Ermelo

Helmold Vrije School Peelland, Helmond-selaan
 71, 5702 NM

Hilversum Vrije School, Oude Amersfoortseweg
 198, Postbus 1643, 1200 BP

Hoorn Westrijse Vrije School, Nachtegaal 146,
 1628 DJ

Krimpen A.S. IJssel Krimpener Vrije School,
 Hebbemalaan 2, 2923 NH

Leeuwarden Michaelschool, Emmanuël
 Murandstraat 37, Postbus 1140, 8900 CC

Leiden Rudolf Steinerschool, Cesar Franck straat
 9, 2324 JM

Leiden-Noord Vrije School Mareland, Maresingel
 19, 2316 HA

***Leiden** Vrije School Bovenbouw, Kerkstraat 11,
 2514 KP Den Haag

Maastricht Vrije School, Heugemer Pastoorstraat
 12, Postbus 2026, 6201 CC

Meppel Vrije School, Julianastraat 22, 7941 JC
***Middelburg** Vrije School Zeeland, Willem
 Arondeusstraat 59, 4333 DD

***Nijmegen** Steinerschool, Meyhorst 24-74-76,
 6537 GR

Nijmegen Vrije School 'Oost', Groesbeekseweg
 146, 6525 DN

***Nijmegen** Regionale Bovenbouw, Villa Nova-
 straat 6, 6542 JA

***Oldenzaal** Vrije School, Jacob Catsstraat 2, 7576
 BS

Oosterhout Vrije School, Brabantlaan 7, Postbus
 4010, 4900 CA

Oud Beijerland Vrije School Hoeksche Waard,
 Kortenaarstraat 2, Postbus 1176, 3620 AD

Roermond Vrije School, Midden Limburg,
 Schouwberg 27, 6041 AG Leeuwen Roermond

***Rotterdam** Vrije School, Vredehofweg 30,
 Postbus 4292, 3006 AG

Tiel Johanneschool, Kloosterhof 4, 4003 DH
Tilburg Vrije School, Wilhelmipark 54, 5041
 ED

Uden Vrije School, Bosveld 120, 5403 AG
Utrecht Vrije School, St. Maartensdreef 1, 3564
 FA

Venlo Rudolf Steinerschool, Noord Limburg,
 Zusterstraat 5, 5914 XX VENLO

Voorschoten Rudolf Steiner Kleuterschool,
 Burg de Koolplantsoen 19, 2253 KD

Wageningen Vrije School De Zwaneridder,
 Nolenstraat 3, 6702 CS

Winterswijk Vrije School, Wielewaastraat 2, 7102
 HB

Zaandam Vrije School Zaanstreek, Galjoenstraat
 111B, 1503 AR

Zeist Zeister Vrije School, Socrateslaan 22, 3707
 GL

***Zeist** Stichtse Vrije School, Regional Bovenbouw,
 Socrateslaan 24, 3707 GL

Zoetermeer Vrije School, Schansbos 5-6, 2716
 GV

Zutphen Vrije School 'de IJssel', Henri Dunantweg
 4, 7201 EV

Zutphen Vrije School 'de Berkef', Weerdsdag 14b,
 7206 BR

***Zutphen** Vrije School Bovenbouw, Weerdsdag
 14a, 7206 BR

Zwolle Vrije School, Bachlaan 6-8, 8031 HL

NEW ZEALAND

Auckland Michael Park School K-12, 55 Amy
 Street, Ellerslie, P.O. Box 28-150, Remuera,
 Auckland 5.

Auckland Titirangi Rudolf Steiner School K-6,
 Armour Bay Road, Parau, P.O. Box 60-266,
 Titirangi, Auckland 7.

Christchurch Christchurch Rudolf Steiner School
 K-12, 19 Ombersley Terrace, Opawa, Christchurch
 2.

Dunedin Kotuku School K-2, 95 Norwood Street,
 Normanby, Dunedin.

Hastings Rudolf Steiner School K-12, 415N Nelson
 Street, P.O. Box 888, Hastings.

Wellington Raphael House Rudolf Steiner School
 K-7, 27 Maturi Street, Belmont, Lower Hutt,
 Wellington.

NORWAY

*Steinerskolene i Norge, Secretary: Finn-Einar
 Kellström, Flyveveien 2, 0384 Oslo 3.*

Asker Rudolf Steinerskolen i Asker, Nes terrasse
 45, 1360 Nesbru.

Bergen Rudolf Steiner-Skolen i Bergen, Rieber-
 Mohns vei 15, 5040 Paradis.

Bærum Steinerskolen i Bærum, Grav Gårdsvej 5,
 1342 Jar

Drammen Steinerskolen i Drammen, Tredje ström
 terrasse 13, 3000 Drammen.

Fredrikstad Steinerskolen i Fredrikstad, Nab-
 betorpveien 99, Boks 1188, 1601 Fredrikstad.

Haugesund Steinerskolen i Haugesund, Solvang,
 5500 Haugesund.

Hedmarken Steinerskolen i Hedmarken, Kjønerud
 gård, Boks 100, 2310 Ottestad.

Hurum Rudolf Steinerskolen i Hurum 3483 Kana.

Lillehammer Lillehammer Steinerskole, Bak-
 kegrenda, Sigrund Undsets vei 70, 2600 Lillehammer.

Lørenskog Steinerskolen i Lørenskog, Postboks 13,
 1473 Skarer.

Nesodden Rudolf Steinerskolen på Nesodden,
 Eysteins vei 4B, 1450 Nesoddangen.

Oslo Rudolf Steinerskolen i Oslo, Postboks 25,
 Hovseter, 0705, Oslo 7

Rygge Steinerskolen i Rygge, Boks 130, 1510
 Rygge.

Stavanger Steinerskolen i Stavanger, Nylundsgt. 1,
 4000 Stavanger

Trondheim Steinerskolen i Trondheim, Postboks
 3521, 7001 Trondheim.

Vestfold Steinerskolen i Vestfold, Postboks 10,
 Vestskogen, 3140 Borgheim.

PERU

Lima Collegio Waldorf Lima, Aptdo. 03-0164,
 Salameña, Lima 3.

SOUTH AFRICA

*Southern African Federation of Waldorf Schools -
 Secretariat: Waldorf School, Constantia.*

Cape Town Waldorf School, Spaanschemat River
 Road, Constantia, 7800.

Cape Town Michael Oak Waldorf School, 4
 Marlow Road, 7700 Kenilworth, Cape Town.

Durban Natal Waldorf School, P.O. Box 503,
 Hillcrest 3650.

Johannesburg Michael Mount Waldorf School,
 P.O. Box 67 587, Bryanston, 2021

Pretoria Max Stibbe School, 257 Mooiplas, P.O.
 Box 11384, Brooklyn 0011, Pretoria/Transvaal.

SPAIN

Madrid Escuela Libre Micael Peagogia Rudolf
 Steiner, Carretera de la Coruña km. 22, Pinau de las
 Rozas, Madrid.

SWEDEN

Delsbo Delsbo Waldorfskolan, c/o Wätte, PL 1470,
 S 82060 Delsbo.

Delsbo Rudolf Steinerskolan vid Staf-fångården,
 Furugatan 1, 820 60 Delsbo.

Göteborg Rudolf Steinerskolan, Birkagatan 61, S
 41656 Göteborg.

Järna Örgansskolan, Rudolf Steinerskola i Järna,
 Nibble, S 15300 Järna.

Järna Nibble skolan, Nibble, S 15300 Järna.

Kalmar Stiftelsen Kalmar Waldorfskola, Drottning
 Blankas Väg 10, 393, 52 Kalmar.

Lund Rudolf Steinerskolan i Lund, Harde-berga,
 S 24107 Södra Sandby.

Norrköping Rudolf Steinerskolan i Norrköping,
 Box 748, S 60116 Norrköping.

Örebro Örebro Waldorfskola, Box 140 29, 700 14
 Örebro.

Spånga Ellen Key skolan, Stockholms Norra
 Waldorfskola, Duvbovägen 94, 163 58 Spånga.

Stockholm Kristofferskolan, Box 124, S 16126
 Bromma.

Stockholm Martinskolan, Söders Waldorfskola,
 Munstycksvägen 18, S 123 57 Farsta.

Umeå Waldorfskola, PL 5285, S 90251 Umeå.

SWITZERLAND

Baar Rudolf Steiner-Schule Zug, Asylstrasse 15,
 CH 6340 Baar.



The new kindergarten of 'The Rudolf Steiner School of Edinburgh', Scotland. Architect: Wilfrid Bohm.

Basel Rudolf-Steiner-Schule, Jakobsberger-holzweg
 54, CH 4059 Basel.

Basel Christophorus-Schule, Bühnenfluhstr. 20, CH
 4059 Basel.

Basel Hellenbergsschule, Förderschule, Starenstr.
 41, CH 4059 Basel.

Bern Rudolf-Steiner-Schule Bern, Ittigenstr. 31,
 CH 3063 Ittigen.

Biel Rudolf-Steiner-Schule, Rosenheimweg 1, CH
 2502 Biel

Chur Rudolf-Steiner-Schule Chur, Münzweg 20,
 CH 7000 Chur.

Dornach Rudolf-Steiner-Schule Birseck,
 Wollmattweg 10, CH 4143 Dornach.

St. Gallen Rudolf-Steiner-Schule, Zwinglistr. 25,
 CH 9000 St. Gallen.

Geneva Ecole Rudolf-Steiner, 213 route d'Aire-la-
 Ville, CH 1242 Satigny.

Ins Heimschule 'Schlöfli', CH 3232 Ins/BE.

Kreuzlingen Rudolf-Steiner-Schule, Bahnhof-
 strasse 15, CH 8280 Kreuzlingen.

Lausanne Ecole Rudolf-Steiner, 'La Longeraie',
 CH 1110 Morges.

Lenzburg Rudolf-Steiner-Schule, Aargau, Alte
 Bernstrasse, CH 5503 Schafisheim.

Lugano Scuola Rudolf-Steiner, Carnago, CH 6900
 Origgio.

Pratteln Rudolf-Steiner-Schule, Mayenfels, Schloß
 Mayenfels, CH 4133 Pratteln.

Schaffhausen Rudolf-Steiner-Schule, Vorders-teig
 24, CH 8200 Schaffhausen.

Schuls-Tarasp Bergschule Avrona Rudolf-Steiner-
 Schule, CH 7553 Tarasp bei Scuol, Unterengadin.

Solothurn Rudolf-Steiner-Schule, Solothurn,
 Weissenstemstr. 65-67, CH 4500 Solothurn.

Wetzikon Rudolf-Steiner-Schule, Zürcher
 Oberland, Usterstrasse 141, CH 8623 Wetzikon.

Winterthur Rudolf-Steiner-Schule, Maierstrasse
 15, CH 8406 Winterthur.

Zürich Rudolf-Steiner-Schule, Plattenstrasse 37,
 CH 8032 Zürich.

Zürich Rudolf-Steiner-Schule, Sihlberg 10, CH
 8002 Zürich.

Zug see Baar.

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 Row, East Sussex RH18 5JB. Tel. (0342-82) 2115.*

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*** Playgroup and/or Kindergarten recognised by
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Aberdeen Aberdeen Waldorf School, 111
 Gallowgate, Aberdeen AB1 1BU, Tel. (0224) 646111

Belfast * Hollywood School, 34 Croft Road,
 Holywood, Co. Down, BT34 9OD, Tel. (0232) 42
 80 29

Botton * Botton Village School, Danby, Whitby,
 N. Yorks YO21 2NJ, Tel. (0287) 60871

Brighton Brighton Steiner School, 363 Ditchling
 Road, Brighton, Sussex BN1 6JU, Tel. (0273)
 561086

Bristol * Bristol Waldorf School, Park Place,
 Clifton, Bristol BS8 1JR, Tel. (0272) 260440

Canterbury * Perry Court School, Garlinge Green,
 Chatham, Canterbury, Kent CT4 5RU, Tel. (0227)
 738285

Cheltenham * 79 Hewlett Road, Cheltenham,
 Glos. Tel. (0452) 22475

Cooleenbridge * Cooleenbridge School, Feakle,
 Co. Clare, Eire, Tel. 010 353 61921494

Dublin * Rudolf Steiner School, 28 Maxwell
 Road, Rathmines, Dublin 6.

Dyfed * Nant-y-Cwm Steiner School, Llanycefn,
 Clynderwen, Dyfed, SA66 7QJ, Tel. (09916) 640

Edinburgh * The Rudolf Steiner School of
 Edinburgh, 38 Colinton Road, Edinburgh EH10 5BT,
 Tel. (031) 337-3410

Forest Row * Michael Hall, Kidbrooke Park,
 Forest Row, Sussex RH18 5JB, Tel. (0342-82) 2275

Glasgow * Steiner School, 26 Craigie Street,
 Govanhill, Glasgow G42 8NQ, Tel. (041 424) 0023

Gloucester * Wynstones, Whaddon Green,
 Gloucester GL4 0UF, Tel. (0452) 22475

Hereford Hereford Waldorf School, Much
 Dewchurch, Hereford HR2 8DE, Tel. (0981) 540221

Ilkeston * Michael House School, The Field,
 Shipley, Heanor, Derbyshire DE7 7JH, Tel. (0773)
 718050

Kings Langley * Rudolf Steiner School, Langley
 Hill, Kings Langley, Herts WD4 9HG, Tel. (092-77)
 62505

London * Mulberry Bush Kindergarten, c/o 19
 Jeffreys Place, London NW1 9PP, Tel. (01-485) 9859

London * North London Rudolf Steiner School,
 P.O. Box 280, London N8 7HT, Tel. (01-348) 5050

London * Primrose Nursery, 34 Glenilla Road,
 London NW3 4AP, Tel. (01-722) 3587

London * Waldorf School of South West London,
 12 Balham Park Road, London SW12 8DR, Tel.
 (01-677) 1763

Morayshire * Moray Steiner School, Drumduan,
 Clovenstone Road, Fortres IV36 ORD, Tel. (0309)
 76300.

Oxford * Oxford Waldorf Kindergarten, The Old
 Primary School, Stanton St. John, Oxford OX9 1ET

Plymouth * Plymouth Rudolf Steiner School, c/o
 234 Peverell Park Road, Plymouth PL3 4QF, Tel.
 (0752) 702

Calpella Mountain Meadow Waldorf School K-9, Box 313, Calpella, California CA95418
Cedar Ridge Mariposa Waldorf School K-5, P.O. Box 1210, Cedar Ridge, California CA95924
Emeryville Golden Path School K-12, 1732 Vincente Road, Concord, California CA94519
Emeryville East Bay Waldorf School K-5, 1274 First Street, Emeryville, California CA94608
Fair Oaks Sacramento Waldorf School K-12, 1501 Kanister Road, Fair Oaks, California CA95628
Fair Oaks Rudolf Steiner College (adult education), 9200 Fair Oaks Boulevard, Fair Oaks, California CA95628
Palo Alto Waldorf School of the Peninsula K-6, 7, 2225 Middlefield Road, Palo Alto, California CA94301
Monterey Waldorf School of the Monterey Peninsula K-5, P.O. Box 221087, Carmel, California CA93922
Northridge Highland Hall School K-12, 47100 Superior Street, Northridge, California 91325
Northridge Waldorf Institute of Southern California (adult education), 17100 Superior Street, Northridge, California CA91325
San Diego San Diego Waldorf School K-3, 4, 5050 Mission St., San Diego, California CA92110
San Francisco San Francisco Waldorf School K-8, 2938 Washington Street, San Francisco, California CA94115
San Rafael Maria Waldorf School K-8, 755 Idylberry Road, San Rafael, California CA94903
Santa Barbara Santa Barbara Waldorf School K-4, P.O. Box 50125, Santa Barbara, California CA93150
Santa Cruz Santa Cruz Waldorf School K-8, 2100 Empire Grade, Santa Cruz, California CA95060
Santa Rosa Summerfield Waldorf School of Santa Rosa K-12, 155 Willowdale Road, Santa Rosa, California CA95401

COLORADO
Boulder Shining Mountain School K-7, 8, 987 Locust Avenue, Boulder, Colorado CO80302
Denver Denver Waldorf School K-8, 735 E. Florida, Denver, Colorado CO80210
Denver Pavistal Shedd Kindergarten, 2180 South Madison, Denver, Colorado CO80210
Durango Anitas Valley Waldorf School K-4, 5, P.O. Box 894, Hocker Drive, Durango, Colorado CO81302

DISTRICT OF COLUMBIA
Washington Waldorf School (See listing under Maryland)

FLORIDA
Boca Raton Waldorf School of Boca Raton K, Box 951, Boca Raton, Florida FL33432
Gainesville Waldorf School K-5, 921 S.W. Depot Road, Gainesville, Florida FL32601
Miami South Miami Waldorf School K-4, 5, 7800 Miller Road, Miami, Florida FL33155

GEORGIA
Atlanta The Children's Garden, 2089 Ponce de Leon Avenue, Atlanta, Georgia 30307

HAWAII
Honolulu Honolulu Waldorf School K-8, 350 Ulua Street, Honolulu HI96821
Keeau Malamalama School, SR 13031, Keeau, HI 96749
Mau Haleakala School K-8, Rt. 1, Box 790, Kula, Maui HI96790

ILLINOIS
Chicago Chicago Waldorf School, St. Bonaventure's Church, K-8, 2755 N. Marshfield, Chicago, Illinois IL60614
Chicago Ravenswood Presbyterian Church Presch. K-4, 300 Hermitage, Chicago, Illinois IL60613

MAINE
Blue Hill The Bay School K-6, P.O. Box 269, Blue Hill, Maine ME04614
Freeport Metcownag School, P.O. Box 356, Freeport, Maine ME04032

MARYLAND
Baltimore The Waldorf School of Baltimore K-8, 4701 Yellowwood Ave., Baltimore, Maryland MD21209
Bethesda Washington Waldorf School K-12, 4800 Sangamon Road, Bethesda, Maryland MD20816
Silver Spring Acorn Hill Children's Center K-9, 9500 Brunette Ave., Silver Spring, Maryland MD20901

MASSACHUSETTS
Glooucester Cape Ann School K-3, 628 Washington Street, Gloucester MA01930
Great Barrington Great Barrington Rudolf Steiner School K-8, West Plain Road, R.D. 1, Box 378, Great Barrington, Massachusetts MA01230
Hadley The Waldorf School K-6, 94 Bay Road, Hadley, Massachusetts MA01035
Lexington The Waldorf School K-8, 739 Massachusetts Ave., Lexington, Massachusetts MA02173
Sudbury The Longfellow School K-6, c/o Hammett, 610 Peakham Road, Sudbury, Massachusetts MA01776
Woods Hole Woods Hole School K-3, School Street, Woods Hole MA02543

MICHIGAN
Ann Arbor Rudolf Steiner School of Ann Arbor K-8, 2775, Newport Road, Ann Arbor, Michigan MI48103
Detroit Detroit Waldorf School K-12, 2555 Burns Avenue, Detroit, Michigan MI48214
Southfield Waldorf Kinder House, 25205 Cedar Road, Southfield, Michigan MI48034

MINNESOTA
Minneapolis Waldorf City School, 3114 West 49th Street, Minneapolis MN55410
Minneapolis Minnesota Waldorf School K-6, 7, 1037 Bidwell St., West St. Paul, MN 55118

NEW HAMPSHIRE
Conway White Mountain Waldorf School K, P.O. Box 1069, Conway, New Hampshire NH03818
Keene Monadnock Waldorf School K-7, 8, 98 South Lincoln St., New Hampshire NH03431
Keene Antioch/New England, Roxbury Street, Keen New Hampshire NH03431 (adult education)
Wilton High Mowing School 9-12, Wilton, New Hampshire NH03006
Wilton Pine Hill Waldorf School K-8, Wilton, New Hampshire NH03006

NEW JERSEY
Princeton Princeton Waldorf School K-5, 6, 1062 Cherry Hill Road RD3, Princeton, New Jersey NJ08540

NEW MEXICO
Santa Fe Santa Fe Waldorf School K-7, Rt. 9, Box 50-B3, Santa Fe, New Mexico NM87505

NEW YORK STATE
Chester Teros Children's Center, RD No. 2, 75B, Mountain Road, Chester, New York NY10918
Garden City Waldorf School of Garden City K-12, Cambridge Avenue, Garden City, New York NY11530
Ghent Hawthorne Valley School K-12, R.D. 2, Box 225, Ghent, New York NY12075
Ithaca Waldorf School of the Finger Lakes K-8, 855 Five Mile Drive, Ithaca, New York NY14850
Ithaca Hillside Kindergarten K, 110 East Upland Road, Ithaca, New York NY14850
New Paltz Mountain Laurel School, 304 Route 32 North, New Paltz, NY12561
New York City Rudolf Steiner School K-12, 15 East, 79th Street, New York, New York NY10021

Red Hook The River Valley School, P.O. Box 157, Red Hook, New York NY12571
Saratoga Springs Sprang Hill School K-4, 62-66 York Avenue, Saratoga Springs, New York NY12866
Spring Valley Green Meadow School K-12, Hungry Hollow Road, Spring Valley, New York NY10977
Spring Valley Waldorf Institute, 260 Hungry Hollow Road, Spring Valley, New York NY10977 (adult education)

NORTH CAROLINA
Chapel Hill Emerson Waldorf School, K-7, 8, 6211 New Jerco Road, Chapel Hill, North Carolina 27514

OHIO
Akron Spring Garden School K-7, 8, P.O. Box 3942, Akron, Ohio OH44314
Cincinnati Cincinnati Waldorf School K-4, 2350 Ravine St. Ohio OH45219

OREGON
Eugene Eugene Waldorf School K-8, 1350 McClean Blvd., Eugene, Oregon OR97405
Jacksonville Light Valley Waldorf School K-8, P.O. Box 610, Jacksonville, Oregon OR97530
Portland Portland Waldorf School (K-6), P.O. Box 1312, Portland, Oregon OR97207

PENNSYLVANIA
Kimberlin Kimberlin Waldorf School K-12, West Seven Stars Road, Kimberlin, Pennsylvania PA19442

TEXAS
Austin Austin Waldorf School K-8, 8702 South View Road, Austin, Texas TX78737
Dallas Hearthstone Kindergarten, 5614 Bell Street, Dallas, Texas TX75206

VERMONT
Brattleboro Waldorf Children's Garden K, RD Box 306, Brattleboro, Vermont VT05304
Morrisville Green Mountain School K-6, Box 537, Morrisville, Vermont VT05661
Shelburne Lake Champlain Waldorf School, K, Box 55, Shelburne, Vermont VT05482

VIRGINIA
Charlottesville Crossroads Waldorf School, K-7, 8, P.O. Box 5221, Charlottesville, Virginia VA22905
Floyd Blue Mountain School, Route 3, Box 220, Floyd, Virginia VA24091

WASHINGTON
Bellingham Whatcom Hills Waldorf School, 941 Austin St., Bellingham, Washington WA98221
Eastsound Dolphin Bay School K-8, Route 1, Box 388, Eastsound, Washington WA98245
Gig Harbor Morning Star Waldorf School, P.O. Box 45, Gig Harbor, Washington WA98335
Langley Chinook Waldorf School K-3/4, P.O. Box 469, Clinton, Washington WA98236
Olympia Olympia Waldorf School K-4/5, P.O. Box 2798, Olympia, Washington WA98507
Seattle Seattle Waldorf School K-8, 1142 Lakefield Road, Grafton, N. Seattle, Washington WA98103

WISCONSIN
Brookfield Prairie Hill Waldorf School, K-2, 915 Adelmann Ave., Brookfield WI53005
Mequon Sunnyside School K-4, 1142 Lakefield Road, Grafton, Wisconsin WI53024
Viroqua Pleasant Ridge School K-5, 321 East Decker, Viroqua, Wisconsin WI54665

URUGUAY
Montevideo Colegio Novalis, Metodo Waldorf, Avenida Bolivia 2422, Montevideo.

The Editorial Group would be glad to receive photographs of any of the above schools, preferably showing children as well as school buildings.



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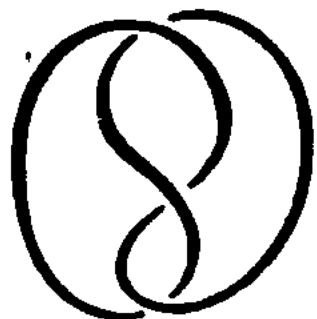
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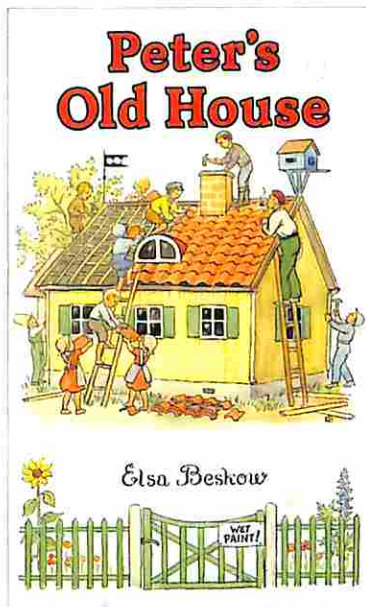
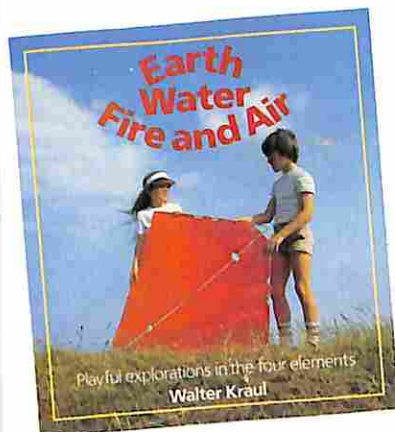
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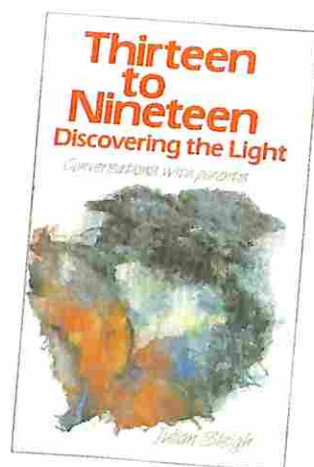
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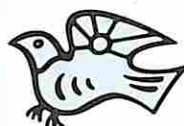
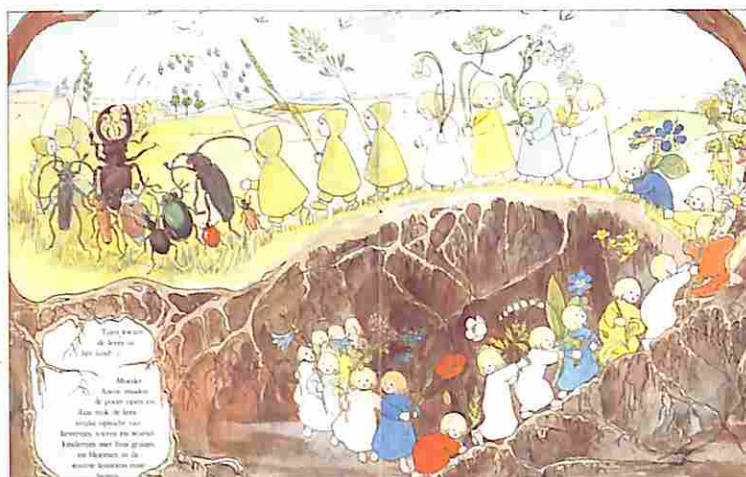
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